INTERDISCIPLINARY MANAGEMENT RESEARCH XII
INTERDISZIPLINÄRE MANAGEMENTFORSCHUNG XII

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Als Herausgeber dieses Bandes hoffen wir, dass diese Reihe auch weiterhin Akademiker und Professionelle dazu bewegen wird, in Forschung und Beruf die höchsten Standards zu beanspruchen, und dass es weiterhin als Ansporn zu weiteren Formen von Zusammenarbeit unter Teilnehmern dieses Projekttes dienen wird.

Dražen Barković, professor emeritus
Prof. Dr. Bodo Runzheimer
It is our pleasure to introduce the book “Interdisciplinary Management Research XII/Interdisziplinäre Managementforschung XII” to you. The first volume appeared in 2005 as a result of co-operation between the Faculty of Economics in Osijek (Croatia) and Pforzheim University (Germany), particularly through the postgraduate programme “Management”. The co-operation between these partnering institutions has been nurtured, amongst else, through annual scientific colloquiums at which interesting topics in various fields of economics and management have been presented and later published in the proceedings. Over the years, the scientific colloquiums have drawn the attention of academic scholars from other Croatian universities, as well as from other countries including Australia, Germany, Hungary, Poland, Romania, Slovenia, Montenegro, Bosnia and Herzegovina, Serbia, India, Ireland, Czech Republic, Israel, Italy, South Africa, Belgium, Switzerland, USA, Slovakia, Denmark, Macedonia, Mexico, Cyprus, and the United Kingdom, each making a contribution in academic and professional discussion about contemporary management issues. Actuality and importance of the issues discussed, the international character of the book in terms of authors and topics, the highest standards of research methodology and continuity in publishing have been recognized by the international academic community, resulting in the book now being indexed in world-known databases such as Web of Science, Thomson ISI, RePEc, EconPapers, and Socionet.

The latest edition, i.e. “Interdisciplinary Management Research XII/Interdisziplinäre Managementforschung XII” encompasses 96 papers written by 211 authors. The success of former editions has echoed beyond the traditionally participative countries and authors and now includes new authors from Taiwan and Tunisia, each providing a valuable contribution to this interdisciplinary management forum.

As editors we hope that this book will continue to encourage academic scholars and professionals to pursue excellence in their work and research, and to provide an incentive for developing various forms of co-operation among all involved in this project.

Dražen Barković, professor emeritus
Prof. Dr. Bodo Runzheimer
Management
BUSINESS INTELLIGENCE AS SUPPORT TO MANAGEMENT AND MANAGEMENT SYSTEM

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Abstract

Today, during the economic crisis and with increasingly unstable market conditions, managers are faced with greater challenges than ever, in terms of allocation of all available resources in order to achieve positive business results of the company. Managers today encounter large amounts of data that do not mean much in business process and do not contribute to the achievement of company strategies and successful company business. This is the reason why managers implement a separate business function or Business Intelligence section in developed countries; to be able to extract, that is to draw the data within and outside the company via various legal methods and publicly revealed data. Business Intelligence not only helps the managers to make a decision based on objective and actual indicators in a given moment, but it also enables them to anticipate, that is, to predict the future events, not only within their own company, but also with the competition, customers and suppliers. Business Intelligence is also useful for managers in terms of familiarizing with the profile of
their buyers because it collects, filters and meticulously analyses the profile, behaviour and habits of the customers. In this way, managers can accurately and punctually recognize the needs of their customers and finally meet the needs of increasingly demanding customers.

**Keywords:** Business Intelligence, managers, information, data, competitive advantage, knowledge

JEL Classification: M1, M15

### 1. INTRODUCTION

Business Intelligence is distinguished as a new and very important business function in the companies, although yet not fully recognized by our managers as a function which enables the decision-making process based on real data and realistic indicators. The amount of data and information that runs within the company from various sources is constantly increasing, and therefore, it is accordingly necessary to introduce systematic monitoring, analyzing and filtering the data within the company in order to enable the company to make the conclusions that can be gained from these data and information. Business Intelligence encompasses legal collection of data via internal resources, publicly available data, investigative reporting, various data bases and similar. This does not refer to the business espionage which is unacceptable and immoral, but it refers to the legal systematic collection of data which serves to achieve the best possible performance of the company, to achieve the business goals of the company as well as to recognize the eventual opportunities and threats facing the company and to facilitate the decision-making processes within the company by the management. In cases of inexistence of the adequate tools which manipulate the larger amount of data in the company, the Board and the management remain deprived of the data and information which might serve as initiator of all activities in the company, actuator of the changes in the company and creator of the company’s success.

### 2. MANAGEMENT AND MANAGEMENT SYSTEM IN COMPANIES

Managers are the ones who manage the work of the organization, as well as all the activities within the organization and all the resources necessary for the work and human resources. The success of the organization depends on their
expertise and their decisions and they are responsible for all business functions in the company. Business Intelligence tool is at their disposal, as it facilitates the decision-making process and decreases incertitude in business.

Managers, along with the coordination with other functions of the company, are the key element in every production system whose main task is to manage all the components of the system. The decisions that they make cover a wide range of activities and are very complex. They have to provide inputs, control the process of transformation and ensure that the outputs are available at the right time on the right place to meet the demand. (Barković; 1999, 18). Managers are faced with a great task of achieving the set organizational goals with the lowest cost and in the best possible way, thus earning profit for the company. Not all managers succeed in this task, which is what differentiates a successful manager form an unsuccessful one. The goal of every manager is satisfactory result of business, including the satisfaction of all customers and employees in the company. In order to enable managers to make the best possible decisions which are based on the facts and the actual situation and not on intuition, Business Intelligence software, department or business function is at their disposal. Using Business Intelligence in the companies, the management system becomes organized, based on the facts and the objective indicators and it is not subjective to the manager’s emotions, while a large amount of data creates a basis for improving the competitive advantage of the company.

2.1. Manager functions and their task in the company

All management functions are equally important and they logically follow one another. Planning is the first and basic management function, and it is followed by organizing, leading and motivating, controlling and managing human resources. Managers in more developed countries and companies worldwide introduce the function of Business Intelligence to their companies. The function is responsible for organized, systematic and continuous collecting, processing and filtrating of data (form internal and external sources), in order to make systematically collected data based conclusions which will be the basis for decision-making by managers.

Regular and good management is the only way to make a man successful, an organization functional and a society effective. (Malik; 2006, 17). Without the management and managers it would be practically impossible to imagine
the existence of any business organization, the functioning of the organization and achieving the specified plans and organizational tasks. Managers are the ones who have to coordinate and allocate all available resources in the company to the satisfaction of their end customers, employees and suppliers, and based on their decisions the company will go in the direction of making profit or loss, that is, satisfaction or dissatisfaction of the customers with the product and the image of the company.

As shown in Table 1, when making decisions managers are faces with an enormous amount of unclassified data and information, while for the efficient decision-making process they actually need facts and conclusions for these data and information. From the large amount of data, the manager will not be able to manage the knowledge which can be generated in the company if the data are systematically and correctly systemized, selected and put in the function of making the right decisions by the managers.

<table>
<thead>
<tr>
<th>You have:</th>
<th>You need:</th>
</tr>
</thead>
<tbody>
<tr>
<td>too much data</td>
<td>relevant information</td>
</tr>
<tr>
<td>too little time</td>
<td>available in the right time</td>
</tr>
<tr>
<td>insufficient knowledge</td>
<td>knowledge directed on the realization of business goal</td>
</tr>
</tbody>
</table>

In other words, a large amount of data does not necessarily understand, by specific automatism, their high quality, value and usefulness in the decision-making processes. (Panian, Klepac; 2003, 29). Managers will find that the data which are classified, filtered and which, in the end, offer certain business conclusion (and that is exactly Business Intelligence) are much more useful in the decision-making process, and as such, the data can be the basis for quality decision making by managers, which will positively reflect the business result of the company.

### 3. BUSINESS INTELLIGENCE AS A SUPPORT TO THE MANAGEMENT SYSTEM

A large number of information and data in the company remains unnoticed by the employees, management and the Board of the company, simply because...
The data are not sorted and classified and therefore cannot be used to improve the quality of managers’ decision-making process. Can managers facilitate the decision-making process and make the decisions objectively, based on the conclusions that are presented via Business Intelligence software or Business Intelligence specific business function or department? They certainly can, if they recognize the advantages of the implementation of the Business Intelligence tools in the companies, which is known worldwide and in companies all over the world as a tool that generates competitive advantage of the company, as a tool that reduces the cost of company’s business, a tool that increases the overall level of knowledge in the company and a tool whose implementation makes the decisions more objective, based on facts and real situation. Business Intelligence directly affects the management system in the companies, because it provides a background for making decisions based on facts and objective indicators. Making decisions is characteristic for managers and unless it is systematic and based on the real state and objective indicators, it takes the company in the unwanted direction. Business Intelligence is a software, a department or, in bigger companies, a business function, which detects problems and suggests their possible solutions. It also creates the background for managers’ decision-making which will enable the recognition of the opportunities and threats from the environment, by defining the problem and its elimination, by systematic managing in the company based on the data that are crucial to the company’s business and eventually by predicting the future events and the activities of the competition.

3.1. What is Business Intelligence in companies?

Business Intelligence is relatively unknown concept to the managers in Croatian companies and in Croatia in general, and it refers to systematic collection and analysis of data, so the strategically important data could be “extracted” from a large data basis. In larger companies Business Intelligence can be organized as a business function, while in the smaller companies it can form a separate department or Business Intelligence software which is implemented in the companies. The activities of Business Intelligence encompass legal collecting of the publically available data, form internal or external sources, and not from business espionage in any way.

The term Business Intelligence appeared for the first time in 1989 by Howard Dresner, the Chief Analyst of the American Gartner Group Inc. who came
to the conclusion that the managers cannot make the decisions based on intuition but that instead, their decisions should be based on facts.

In other words, Business Intelligence is business radar of modern corporations that provides the answer to several basic questions of business: a) what happens in the business environment? b) what is the place and the role of the concrete corporation in the business environment? c) why is there something happening in the business environment d) what will and what is likely to happen in the future? e) what should be done regarding the future scenarios? and f) how should it be done? Precisely because of the importance that it has in the business, Business Intelligence is crucial and irreplaceable instrument in the concepts of managing business subjects. It is the way of business thinking, that is, the integral part of business strategies, business opportunities and modern business culture. (Javorović, Bilandžić; 2007, 333). Implementation of Business Intelligence into companies provides managers the answers to the strategically important questions and possible solutions to the problems, and it enables the prediction of the future changes and possible scenarios, and is therefore of unquestionable importance to the company.

Not all managers are visionaries; there are a few true leaders who are ready to initiate changes. They need to take account of the environment, not only internal, but also external. Managers and lower levels of decision-making are faced with a large amount of unclassified data which cannot be the basis for making quality business decisions. In order to help the managers in the decision-making process, the tool Business Intelligence appears as a software in smaller companies or separate business function or department in bigger companies. According to the numerous authors, the company size is not crucial for implementation of the Business Intelligence tool into companies. Every company, including the small one, needs to gather the data from internal and external environment and act according to the processed data and information so it would be prepared to face with numerous changes that happen on a daily basis in all segments of business and in all decision-making levels.

### 3.2. Possible ways of introducing Business Intelligence into companies

As a tool that helps the managers to detect the important data in order to obtain conclusions about the new business changes, the current situation of the
company and the situation of the competitive companies as well as the intentions of the competitors, Business Intelligence can be organized in the company in several ways. It can be organized as previously mentioned separate business function in the company, which is the case in the big companies that process and store large amounts of data. In smaller companies Business Intelligence can be organized as a department or Business Intelligence software can be implemented in the company. A large number of companies apply Business Intelligence in their business through certain activities, without being aware of it (Image 1). A large number of data and information in the company remains hidden and unprocessed and perhaps precisely these data, which would be processed, filtered and highlighted as important in case of the implementation of Business Intelligence software or department, would contribute to the new strategies making, defining of the new goals, creation of the new knowledge about the competition and about the market onset. Introduction of Business Intelligence software or function in the companies demands specific financial resources, due to the purchase of the Business Intelligence software, but the benefits that arise from the usage Business Intelligence as radar in companies are multiple and they have an effect on the strategically important questions in the company.

Image 1: The ways of introducing Business Intelligence into companies

3.3. The role and the advantages of the implementation of the Business Intelligence business function in companies

Conceptually, Business Intelligence is a business function within the company which gathers data, filters a large amount of unnecessary data and performs data analysis, in order to ultimately make a background for objective decision-making based on a small amount of really necessary data for managers and the
Board of the company. According to the research of the Croatian scientists, Business Intelligence is presented in Croatian companies in very low percentage, only 19%, which is very little. This data suggests that a small number of managers recognized the importance and advantages of software implementation, department or separate Business Intelligence business function. Business Intelligence is a separate business function in larger companies, and in smaller companies Business intelligence is implemented via Business Intelligence software. The size of the company is not important for successful implementation of Business Intelligence, because every company should strive to be informed about business environment. That is, perhaps, more important for the smaller companies than for the larger ones, so they would be able to recognize the possible opportunities or threats that can appear from the environment on time, and also to meet their competitors and anticipate their moves.

The role of the Business Intelligence business function is multiple. As shown on the Image 2, the data in the company are collected from the storage and data basis, in order to select and filter the data with a goal of selection of the most important data that will present the conclusions to the Board of the company and to managers and, in that way, turn them into knowledge that will take the company in the direction of positive business results and quality decision-making by the management.

**Image 2:** Activities of the process of knowledge discovery in data basis as a part of Business Intelligence system

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Business Intelligence encompasses actively creating and using the knowledge rather than passive consumption of information. Business Intelligence is
knowledge transformed into activity. It is primarily oriented towards systematic search for knowledge which is used for achieving organizational goals, and it is based on the principles of publicity and legality. (Pfeifer; 2005, 5). Business Intelligence is not associated to business espionage and the activities of Business Intelligence relate to collection of publically available data.

Business data and information collected by the system of business intelligence are numerous. They are collected by special methods and by using appropriate computer programs, and they come from different sources such as:

- the mass media (newspapers, magazines, radio and television)
- business conversation and information received from business associates and partners, and from other organizations through letters, brochures, information materials, catalogs, etc.
- literature, especially new scientific and professional literature, magazines
- private conversations and business people’s meetings
- scientific and professional meetings
- exchange of experts, specialist visits to other companies
- participation in joint researches and other business projects
- recorded or remembered information from proper activities, inventions and similar
- databases of other business organizations
- independent and networked information systems data
- etc. (Javorović, Bilandžić; 2007, 145, 146)

4. PRESENCE OF BUSINESS INTELLIGENCE IN CROATIA AND THE WORLD

Presence of Business Intelligence is low in Croatian companies. That percentage is much higher in the world, for example, in German companies Business Intelligence as a separate business function is 96% present, in Switzerland and Brazil 91%, in Canada 79%, while according to empirical research by Bilandžić, Čulig and other authors (Figure 1) which was conducted in late 2010 and in the beginning of 2011 in 1,000 largest companies in the Republic of Croatia, the presence of Business Intelligence in the companies that operate in the territory of the Republic of Croatia in the form of a separate business func-
tions is only 19%, while 57% of companies apply some of business intelligence activities. As the authors emphasize, 24% of the 1,000 largest companies which operate in the territory of the Republic of Croatia does not apply any activity in the field of Business Intelligence.

Chart 1: Presence of Business Intelligence in 1,000 largest Croatian companies

![Chart of Business Intelligence in Croatia](http://hrcak.srce.hr/file/126155) ((loaded 02.03.2016.)

In the Republic of Croatia, a small number of scientists and researchers deal with this matter. Courses of Business Intelligence are established in some faculties in Croatia, there is also a small number of conferences on Business Intelligence in Croatia, as well as a certain number of companies that offer Business Intelligence software, but all of that is insufficient to increase the number of companies in Croatia that implement Business Intelligence. Business Intelligence software holds its price and the managers know it. However, they also need to know the numerous advantages offered by Business Intelligence system, as well as the fact that advantages and benefits of the implementation of Business Intelligence into companies exceed the cost of buying the Business Intelligence software, because the role of Business Intelligence in a company is transformation the information into knowledge, objective decision-making by management, improvement of the competitive advantage of the company and reduction of business risks.

Business Intelligence is the result of the information process of creation of useful information and knowledge needed in decision-making process and managing organizational systems. In addition, business intelligence is seen as a process of creation, analysis and distribution of knowledge and information. (Markić; 2014, 279).
As shown in Table 2, numerous universities in the world teach Business Intelligence. Business Intelligence can be applied to every segment in life, it is not limited only to business of a company.

Table 2: Representative Universities Teaching BI

<table>
<thead>
<tr>
<th>University Name</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Technology Sydney, Australia</td>
<td>Two BI courses in its e-Business masters: Business Intelligence 1: Advanced analysis (#22797) and Business Intelligence 2: Advanced planning (#22783).</td>
</tr>
<tr>
<td>Northwestern Polytechnic University, UK</td>
<td>1 course in MBA program</td>
</tr>
<tr>
<td>Tilburg University, Netherlands</td>
<td>1 course</td>
</tr>
<tr>
<td>Claremont Graduate University</td>
<td>Included as half of a course in executive MBA program.</td>
</tr>
<tr>
<td>Univ. of California at Irvine</td>
<td>1 course covering Business Intelligence and Knowledge Management at the graduate and one at the undergraduate level.</td>
</tr>
</tbody>
</table>

Source: https://www.researchgate.net/profile/Solomon_Negash/publication/228765967_Business_intelligence/links/54ada1320cf2213c5fe4159f.pdf (loaded 02.03.2016.)

5. CONCLUSION

The obvious example of Business Intelligence is SEB, Swedish bank, which, based on the collected information, came to the conclusion that the risk of war is too high on the territory of former Yugoslavia, so it withdrew its business form these premises. The same can be applied to companies. Through system analysis and collection of information and data (Business Intelligence), managers of the companies can improve their business, determine the profile of the customer and make decisions that are based on facts. The use of Business Intelligence in the companies will result in transforming of information and data into knowledge so that managers, after filtration of a large number of data and information in business system and outside the business system, can handle the data that are strategically important, and precisely these data generate the knowledge in the companies. Introduction of Business Intelligence into companies is strategically important for the companies, because it enables the decision-making process based on facts, creates and increases the overall level of knowledge in companies, improves the competitive advantage of the company, gives the possibility to predict future events, enables the fulfillment of vision and mission of the company and reduces the risk and incertitude in business. If the owners and the managers of Croatian companies were familiarized with the concept and the advantages of introducing Business Intelligence into business, the number of the companies in Croatia that implement Business Intelligence which can serve
them as a generator of competitive advantage and a background for making the right business decisions would certainly be increased.

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Abstract

Improving the quality in health care institutions is a segment of quality management focused on increasing the ability to meet the requirements. Health care quality meets the needs of users, professional needs and achieves set objectives, and uses the resources in the most efficient manner. Quality assurance requires determining the procedures used, the method of checking within the system and quality control which includes verification of realized procedures set in place to ensure quality. Quality in health care is an example of good practice of adoption and improvement of standards, processes and outcomes. Improving quality requires knowledge and skills with a focus on lifelong learning, adaptation
of patients’ needs and values. The aim of this paper is to present marketing and quality of secondary healthcare services in the City of Vukovar and Croatian Veterans Hospital by applying the SERVQUAL instrument. Research has shown how much importance Croatian veterans attach to dimensions of quality of services and whether there are differences and discrepancies between perceptions and expectations regarding the provision of services at the hospital. The result showed significantly higher scores in expectations in relation to the perception in all dimensions of the SERVQUAL model (Student’s t-test, p <0.001). As expected, the highest score was achieved in the category Reliability, while the lowest was achieved for the category Tangible elements, while in the category of perception the lowest score was achieved for Understanding for the users’, and the highest was achieved for Tangible elements. This paper can encourage hospital management to contemplate future quality measurements in order to identify the parameters of quality with an aim of achieving improvement. Quality is the responsibility of everyone within the organization, poor quality is expensive because of the inefficiency of people within the system.

**Keywords:** service marketing, service quality, secondary health care, SERVQUAL

**JEL Classification:** I12, I15

1. INTRODUCTION

The concept of quality tells us to what extent and for how long the product/service meets the requirements of users. The quality of a product/service is, therefore, the result of two specific activities: product/services design and operating systems that enable the creation of products or services. (Barković, 2009: 185).

The World Health Organization defines quality in health care as a health service that by its nature meets its targets, with the current level of knowledge and resources available to meet the expectations of patients to receive the best possible care with minimal risk to their health and well-being. (WHO, 2006).

Today, in a time of general globalization, great attention is paid to enhancing the quality, customer satisfaction of any product or service and standardization in the work process. Quality in health care is comprised by the standards (of treatment and health care) and indicators (measurable facts). If we achieve a good hospital practices through guidelines (standards) and manage them in
order to maintain and improve them, we can talk about quality in health care. (Ančić et al., 2013).

The authors note that the accreditation is an award for providing quality and safe health care, but is also the most effective method of evaluation work. Accreditation standards are focused on the customer, the end user of health care, covering the areas of work and practice in the hospital system. Accreditation is a voluntary process and provides an opportunity for health care facilities to apply via the public tender and be recognized. (Mittermayer et al., 2010: 425).

Recommendations for improving the quality of health protection and the functioning of the entire health care system include: further development and implementation of quality standards in the business conduct of health facilities, improving information systems as a means of promoting the quality of functioning of the entire system, ensuring sufficient financial resources, investing in prevention, the development of quality indicators and monitoring system and records to enable quick reporting. It is important to recognize and take into account the different dimensions of quality and set realistic expectations and to use them to create a balanced health care system. (Ostojić et al., 2012: 109).

Health policy has three strategic objectives:

• Prolong life: Preventing premature death and thus prolonging the life is the basic task of the health care system.

• Improving the quality of life related to health: Most health problems do not affect mortality, but in different ways affect the quality of life of patients (e.g., pain, reduced mobility, anxiety, impaired functions that are important for normal life and work). The goal of the health policy is to prevent or minimize the loss of quality of life due to health problems.

• Reducing disparities in health and health system: Modern health care system and social relationships causes significant differences among citizens in relation to their ability to exercise their right to health. These differences were not related to the severity of their health problems, but to their health insurance, the spatial coverage of quality health care, individuals’ financial capabilities and their position in the social hierarchy. The aim of the new health policy is to reduce these differences. (Varage, 2012).

There are different approaches to classification levels through which the quality of health care can be evaluated (measured) (Saturno, in 1997.; Council
of Europe in 1977.; Donabedian 1988). Donabedian’s approach (1988) lists the four levels. In the centre (first level) he puts the services and doctors and other providers. The quality is measured from the viewpoint of technical performance and relationship management. Justification of services and skills necessary for its implementation is estimated by comparing best practices. The second level consists of the benefits of the care provided, highlighting the desirable attributes of the environment in which it operates. The third level refers to the implementation of health services in which participate patients and providers. The last, fourth level refers to the medical care provided to the community. It particularly reflects on the social distribution of health services and their quality. (Ostojić et al., 2012).

The author states that: “quality improvement is achieved through a combination of better processes, better approaches / techniques and the efforts of those who create products / services.” (Barković, 2011: 192).

2. HEALTH CARE IN CROATIA

Health care is provided at the primary, secondary and tertiary level for 4,284,889 inhabitants according to 2011 census. Life expectancy in 2014 for both sexes was 77.6 years, 80.5 for women and 74.6 for men. The main objectives of the health policy are not only to extend the life expectancy, but also to improve the quality of life. In addition to further improvement and development of health services, it includes the promotion of healthier lifestyles, reducing or eliminating preventable health risks and improving the quality of life of chronically ill and people with disabilities. The structure of the population, according to 2011 census, shows that the Croatian population is in the progressive aging trend, as the share of inhabitants over 65 has reached 17.7%, while the share of the inhabitants under the age of 14 years has been reduced to 15.2%. (Croatian Institute for Public Health, 2015: 27).

Health care of the population is carried out on the principles of comprehensiveness, continuity, accessibility and integral approach in primary health care, and specialized approach in specialist-consulting and hospital health care. (Health Protection Act, 2008).

The authors note that health care in the Republic of Croatia is funded by Croatian Health Insurance Fund (CHIF), counties and the City of Zagreb and
users. Approximately 80% of health spending is financed via health insurance contributions paid by employers in the amount of 15% of gross salary of the working population. National budget participates with approximately 12% via income from premiums of supplementary health insurance, co-payments and administrative fees. In the last few years approximately 8% of GDP has been allocated for health care in Croatia, and only 16% of health care spending is achieved from private sources. (Barić, Smolić, 2011).

“Health care spending increases in the long run because the economic development causes increased demand of the population for health services - health maintenance is one of the most valuable and most productive forms of personal consumption. Croatia has not in the past decade increased health spending to GDP ratio: overall health spending has stagnated since 2000 at a level of 7.8 percent of GDP. The reason for this is that the health care spending per capita has increased in the same amount as nominal GDP, 2.7 times (from $ 380 in 2000 to $ 1,050 in 2010), while the population decreased slightly (from 4,38 to 4,29 million). The population also declined in the observed period in many other developed economies, but the per capita health spending in them grew significantly faster than nominal GDP, thus, apart from Croatia and Iceland, everywhere else we observe an increase of health spending to GDP ratio”. (Mi- haljek, D., 2014).

Every person has a right to health care and the possibility of achieving the highest possible level of health. The goal of any health system is to improve and enhance the quality of health care. (Ministry of Health, 2015).

3. SERVICE MARKETING

Kotler et al. state that the “act is a service or a deed that one party can offer to another, and it is essentially intangible and does not carry any ownership.” (Kotler et al., 2014).

The characteristics of services are intangibility, inseparability, variability, transience and lack of ownership. (Kotler et al., 2006: 626).

“Marketing experts need to find ways to turn intangibility into tangibles, to increase the productivity of service providers, to increase and standardize the quality of the service provided and to offer services aligned with market demand.” (Kotler et al., 2014: 378).
Pavičić added that the application of marketing systematically affects the successful operations of non-profit organizations and the better achievement of the mission and goals of the organization and better solutions to social problems, and ultimately leads to a better functioning of society as a whole. (Pavičić, 2001).

Narver and Slater define non-profit organization as an organizational culture that most effectively forms the behaviour that is required to create superior value for customers and therefore for continuous superior operations. (Narver, Slater, 1990).

It is significant that the organizations are oriented towards both their employees and customers and ultimately apart from the external marketing, internal and interactive service marketing is required. Satisfactory service interaction between buyer and seller helps ensure a satisfied customer, and it promotes the perception of service quality. Both technical quality and functional quality are estimated, and it is very important to learn interactive marketing skills. (Kotler et al., 2006: 635).

Monitoring customer satisfaction with provided services is of the utmost importance for organization’s success.

While researching customer satisfaction, the author noted that satisfaction is the best predictor of future sales through loyalty and willingness to spread positive word of mouth, and overall customer satisfaction is conditioned by the extent to which expectations are met via received value. (Vranešević, 2001: 488).

While measuring the quality of services in primary care, the authors investigated, theoretically discussed and interpreted the results of applying the SERVQUAL instrument most commonly used to measure the quality of services. The results showed that there is a significant gap between perceptions and expectations of service users and that services need to be improved in all dimensions of quality. (Došen, Ozretić, 2009: 27).

The authors of the SERVQUAL instrument point to the gaps that cause failures in service provision and that a «dynamic model for quality of service is based on the assumption that the perception and expectations of the quality of services change over time.» (Kotler et al., 2014: 374).
4. RESEARCH METHODOLOGY

4.1. RESEARCH OBJECTIVE AND HYPOTHESIS

The goal is to determine the views of users of secondary health care on the quality of services in Vukovar GCH hospital and Croatian Veterans’ Hospital.

The hypothesis set in relation to the objective of the research is that there are significant discrepancies between the given dimensions of quality, perceptions and expectations at the level of secondary health care in Vukovar GCH hospital and Croatian Veterans’ Hospital.

4.2. PARTICIPANTS

Participants were war veterans who use health services of Vukovar GCH hospital and Croatian Veterans’ Hospital. The study included 114 veterans who filled in the anonymous questionnaire. The survey was conducted from October to December 2015.

4.3. INSTRUMENT

The survey instrument used was questionnaire containing demographic information, and SERVQUAL instrument for assessing the quality of services by the users. (Parasuraman et al. 1991) A permission from authors Parasuraman, Zeithaml and Bery has been obtained to use the said instrument. The instrument consists of 22 claims and 5 questions with points. Likert scale of 5 degrees has been used. The collected data were analysed using Statistica 6.0 software package and are presented through tables and figures.

5. RESULTS INTERPRETATION

The study was conducted on 114 veterans, average age 59 years (standard deviation of 11 years). Of them, 101 (88.6%) were men, 104 (91.2%) resided in Vukovar, and according to the level of education 75 (65.8%) of respondents had secondary school qualifications. Only 15 (13.2%) of respondents has been employed. Furthermore, 103 (90.4%) of respondents lived with their families (Table 1).
Customer expectations are significantly higher with regard to the perception in all dimensions of SERVQUAL model (Student t-test, p < 0.001). As expected, the highest grade was achieved for Reliability, and the lowest for the Tangible elements, while for perception the lowest grade was achieved for Understanding for the user, and the highest Tangible elements (Table 2).
Table 2. Average customer grade for expectations and perceptions of the services of hospitals according to SERVQUAL model dimensions (N = 114)

<table>
<thead>
<tr>
<th>SERVQUAL model dimensions</th>
<th>Expectation</th>
<th>Perception</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[Arithmetic mean (SD *)]</td>
<td>[Arithmetic mean (SD *)]</td>
</tr>
<tr>
<td>Tangible elements</td>
<td>4.60 (0.67)</td>
<td>4.21 (0.63)</td>
</tr>
<tr>
<td>Reliability</td>
<td>4.68 (0.62)</td>
<td>4.03 (0.65)</td>
</tr>
<tr>
<td>Responsibility</td>
<td>4.66 (0.67)</td>
<td>4.10 (0.70)</td>
</tr>
<tr>
<td>Safety</td>
<td>4.66 (0.67)</td>
<td>4.12 (0.71)</td>
</tr>
<tr>
<td>Understanding for the user</td>
<td>4.61 (0.70)</td>
<td>4.00 (0.73)</td>
</tr>
</tbody>
</table>

* Standard deviation; † Student t-test

Source: author’s calculations

The subjects had to determine how important is each of the five dimensions (tangible elements, reliability, responsibility, security and understanding for the user) to them when evaluating the quality of services. They have expressed their attitude by distributing 100 points on five dimensions. Dimensions that are considered important received more points, and those that are considered less important received less points. The most important dimension was Tangible elements (23%), and the least important was Understanding for the users (17%) (Figure 1).

Figure 1. The importance of individual dimensions of service quality (SERVQUAL model)

Source: author’s calculations
In all dimensions of quality of service there is a difference between perceptions and expectations (from -0.41 to -0.67), the largest unweighted difference is in dimension Reliability -0.67 (standard deviation 0.59), and the lowest is in the dimension of Tangible elements.

According to results, the Hypothesis is accepted in full.

For weighted differences, the smallest difference is in the dimension of Tangible elements, while the largest difference is in dimension of Reliability.

Tangible elements dimension have the smallest difference (the highest consistency) also with in unweighted and weighted differences, as well as the dimension of Reliability, which has the largest difference (the lowest consistency) in both unweighted and weighted differences (Table 3, Figure 2).

**Table 3.** Unweighted and weighted difference between perceptions and expectations regarding hospital services according to SERVQUAL model dimensions (N = 114)

<table>
<thead>
<tr>
<th>SERVQUAL model dimensions</th>
<th>Unweighted difference</th>
<th>Weighted difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Difference [Arithmetic mean (SD *)]</td>
<td>Min - Max</td>
</tr>
<tr>
<td>Tangible elements</td>
<td>-0.41 (0.21)</td>
<td>-1.75 - 1.75</td>
</tr>
<tr>
<td>Reliability</td>
<td>-0.67 (0.59)</td>
<td>-2.60 - 0.80</td>
</tr>
<tr>
<td>Responsibility</td>
<td>-0.57 (0.49)</td>
<td>-2.25 - 1.50</td>
</tr>
<tr>
<td>Safety</td>
<td>-0.57 (0.50)</td>
<td>-3.25 - 0.75</td>
</tr>
<tr>
<td>Understanding for the user</td>
<td>-0.61 (0.56)</td>
<td>-2.40 - 0.20</td>
</tr>
</tbody>
</table>

* Standard deviation

Source: author’s calculations
6. CONCLUSION

Quality is improving medical procedures by establishing a secure, affordable and quality health care system in order to achieve better efficiency. Standards ensure effectiveness and are aimed at users, and they are and indicators of the means of measuring the performance of the procedures. The standards and indicators will give us the results of the quality of work in the health system. Accepted standards are considered good clinical practices. Via conducted research on a sample of war veterans we have found that there is a gap between perception and expectations regarding the quality of service and customer expectations are significantly higher in comparison to the perception in all dimensions of SERVQUAL model. The results encourage us to reflect on identified elements, so that we improve the quality of services with the aim to enhance customer satisfaction and success of health care organizations.

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IMPLEMENTATION OF PROJECT MANAGEMENT IN ORGANIZING MAJOR-MULTI SPORT EVENTS

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Abstract
The purpose of the research Implementation of project management in organizing major multi-sport events management is to investigate different project and operations management techniques, determine key phases in of the implementation of project and operations management techniques as well as emphasize the importance of different project and operations management tools and techniques in the success of organizing major multi-sport events.

It is important to emphasize that the research is mainly based on the previous project management investigations and experiences as well as on the experience of organizing major multi-sport events. Case study Baku 2015 is based on experience in organizing the event from the Venue Management role perspective and it systematically provides information on how project management tools and techniques were used to set up and deliver successful games.

Key words: project management, operations management, multi-sport events

JEL Classification: L67, H43
1. INTRODUCTION

Project management is the discipline of initiating, planning, executing, controlling, and closing the work of a team to achieve specific goals and meet specific success criteria (Nokes, Sebastian, 2007). There is a lifecycle given to each project. According to Wysocki and Robert (2013) there are 5 basic cycles recognized by each project:

1. initiation
2. planning and design
3. execution and construction
4. monitoring and controlling systems
5. completion and finish point

On the other side operations management refers to the administration of business practices to create the highest level of efficiency possible within an organization. Operations management is concerned with converting materials and labor into goods and services as efficiently as possible to maximize the profit of an organization (Wren, Bedeian, 2009). In comparison to project management operations management would be focused on controlling and monitoring systems while at the same time leading towards the organizational goals.

The purpose of the paper is to investigate the implementation of project management in organizing major multi-sport events and the distinction between project and operations management. In addition, the purpose of the paper is to investigate different project and operations management techniques, determine key phases in the implementation of project and operations management techniques as well as emphasize the importance of different project and operations management tools and techniques in the success of organizing major multi-sport events. Based on the scientific investigations so far and the experience in organizing major multi and one sport events internationally the research will gather key principles in organizing major events and hopefully serve as a tool to the future organizers.

2. PROJECT MANAGEMENT AND ITS IMPLEMENTATION

First step in analyzing project management as a tool in building an event or organization is to define the basic terms.
Project can be defined as a temporary effort undertaken to create a unique product, service, organization or result.

The adjective temporary in definition of project means that it has a defined beginning and end in time, and therefore defined scope and resources to achieve it. Adjective unique define that it is not a routine operation, but a specific set of operations created to accomplish a unique goal.

To define project management it can be used definition of Project Management Institute, Inc. (PMI, 2014) which defines project management as “the application of knowledge, skills, tools and techniques to a broad range of activities in order to meet the requirements of a particular project.”

2.1. ORGANIZATIONAL PROJECT MANAGEMENT METHODOLOGY

The primary challenge of project management is to achieve all of the project goals and constraints. This information is usually described in a user or project manual, which is created at the beginning of the development of desired project.

Organizational project management methodology describes a system of practices, techniques, procedures, and rules used in portfolio, program, and project work to meet requirements and deliver benefits to support the organization’s strategy (Project Management Institute, 2014, 44.str).

Organizational project management methodology implementation consists of identifying existing organization-specific inputs and developing a set of plans and processes to achieve the desired project management methodology state. The inputs of this activity include:

- Understanding the project types that the organization will manage, for example, global, technology, or construction projects. Understanding project types is important to designing a project management methodology that fits the organization’s needs.
- Recognizing the relative size of projects that will be managed. Organizations that only manage small projects may need less sophisticated processes and methods.
- Understanding existing internal and external supporting organizational processes and procedures and other organizational attributes for use as references and call outs from the methodology.
- Compiling historical data on completed programs and projects within the organization that may be excellent sources for good practice templates and forms.
- Documenting project lessons learned to extract good practices to avoid pitfalls.
- Identifying an archive repository to save original versions of existing project management methodology collateral as appropriate (Project Management Institute, 2014, 45.str).

And as a result of this activity include:
- Project management methodology;
- Changes to current policies and procedures and proposed new policies and procedures;
- Project document templates;
- Project roles and responsibilities;
- Updated organizational change management plan, communications management plan, and training plan (Project Management Institute, 2014, 46.str).

2.2. IMPLEMENTATION OF PROJECT MANAGEMENT

The process managing a project from its start to its end can be further divided into six phases:

1. Project conception and initiation – is phase in which an idea for a project is carefully examined and determined. Along this phase, a decision making team tries to identify if the project can be completed in defined time period. After those steps begin the initiation phase which determines the beginning of the project. In this phase, the idea and meaning of the project is explored and elaborated. In addition, decisions are made concerning who is to carry out the project, which party (or parties) will be involved and whether the project has an adequate base of support among those who are involved.

In the initiation phase defined organizing team tries to find answers to the following questions:
- Why this project?
- Is this project feasible?
2. **Project definition and planning** – phase which comes after the project plan (which was developed in the initiation phase) has been approved. In this phase, the requirements that are associated with a project result are specified as clearly as possible. This involves identifying the expectations of all in project involved parties with regard to the project result. During this phase, an assignment for a defined team is to prioritize the project, calculate a budget and schedule, and determine what resources are needed for its implementation.

3. **Design phase** - the list of requirements that is developed in the definition and planning phase can be used to make design choices. In the design phase, one or more designs are developed. Depending on the subject and the goal of the project, the products of the design phase can include dioramas, HTML screen designs, sketches, site trees, flow charts prototypes, UML schemas and photo impressions.

4. **Project launch or execution** – during this phase the project takes its shape. This phase involves the construction of the actual project result. It is during this phase that the project becomes visible to outsiders, to whom it may appear that the project has just begun. The implementation phase is the doing phase, and it is important to maintain the momentum. At the end of the implementation phase, the result is evaluated according to the list of requirements that was created in the definition phase. It is also evaluated according to the designs. Resources’ tasks are distributed and teams are informed of responsibilities. This is a good time to bring up important project related information.

5. **Project performance and control** - project managers will compare project status and progress to the actual plan, as resources perform the scheduled work. During this phase, project managers may need to adjust schedules or do what is necessary to keep the project on track and everything is arranged that is necessary to bring the project to a successful completion. Examples of activities in the follow-up phase include writing handbooks, providing instruction and training for users, setting up a help desk, evaluating the project itself, writing the project report.
6. Project close - after project tasks are completed and it has approved its outcome, an evaluation is necessary to highlight project success and learn from project history. Projects and project management processes vary from industry to industry; however, these are more traditional elements of a project. In the end the goal is typically to offer a product, event, change to existing process or to solve a problem in order to benefit the organization.

3. OPERATIONS MANAGEMENT

Joseph G. Monks defines Operations Management as the process whereby resources, flowing within a defined system, are combined and transformed by a controlled manner to add value in accordance with policies communicated by management.

In any company or organization there are only two aspects of operations: continuous operations and projects.

Operations are permanent endeavors that produce repetitive outputs. Resources are assigned to do the same tasks according to operating procedures and policy. In contrast, projects are temporary and help the business to meet organizational goals and to respond quickly and easily to the external environment. (http://www.leadershipthoughts.com/difference-between-project-management-and-operations-management/).

3.1. SIMILARITIES IN PROJECT AND OPERATIONS MANAGEMENT

Similarities/shared characteristics:

- performed by individuals,
- limited by constrains, including resource constrains,
- planned, executed, monitored and controlled, and
- performed to achieve organizational objectives or strategic plans (PMI, 2014, 22)

Project and operations do meet at various points during the life cycle of a product or service, for example when:

- re-engineering business processes
• developing or changing product and services, and
• Improving operations or product development.
(http://www.leadershipthoughts.com/difference-between-project-management-and-operations-management/).

3.2. DIFFERENCES IN THE IMPLEMENTATION OF PROJECT AND OPERATIONS MANAGEMENT

Project and operations differ primarily in that operations are ongoing and produce repetitive products, services or results. Projects (along with team members and often the opportunity) are temporary and end. Conversely, operations work is ongoing and sustains the organization over time. Operations work does not terminate when its current objectives are met but instead follow new directions to support the organizations strategic plans. (PMI, 2014, 22)

Differences:
• Time - Projects have a definitive start and a definitive finish, operations are continuous
• Task Type - Projects tasks are specific for that for that project and have never been done before, operational tasks are repetitive and cyclical
• Success/Improvement Criteria - Project work success is based on project objectives identified specifically and uniquely for that project, operational work success is based on previous indicators
• Change Type - Projects implement revolutionary change, operations implement evolutionary change
• Team continuity - Project Teams are formed to implement projects and then disbanded once the project is completed, operational Teams are consistent
• Team Composition - Project teams consist of team members from different departments, different skill sets, Operational teams frequently consist of team members with similar technical skill sets. (http://www.bcs.org/upload/pdf/belfast-260612-operations-projmgt.pdf)
4. BAKU 2015 – CASE STUDY

Baku 2015 where the first continental games which was held in Europe. In terms of numbers Games welcomed more than 6000 athletes competing in 253 events and 30 sport disciplines over 17 competition days (12th – 28th June 2015). In regards with the organizing committee, in the first stage of the planning (2 years and 3 months before the Games) the organizing committee consisted of less than 100 workforces growing rapidly in the next 2 years. At the end of the planning period Organizing Committee consisted of 2500 workforce working at the headquarters growing up to 60 000 accredited Games time workforce.

In order to demonstrate the controlled and monitored process of running the planning and Games time period we will guide you through the project and operations management phases the led to the successful delivery of the inaugural European Games.

Initiation - Baku was awarded the right to host the first European Games at the 41st EOC General Assembly in Rome, on 8 December 2012. After winning the bid the country made the first step of initiation by setting up the organizing committee. The Organizing Committee responsible for the inaugural European Games in Baku was established by decree of the President of the Republic of Azerbaijan. The Committee was chaired by the First Lady of Azerbaijan Mehriban Aliyeva. Baku 2015 European Games Operations Committee (BEGOC) was established under the direction of the Chairperson of the Organizing Committee. Azad Rahimov, Minister of Youth and Sport, was appointed the Chief Executive Officer of BEGOC while Simon Clegg was appointed the Chief Operating Officer. The first step operations committee did was taking over the complete responsibility for planning and setting up the operations committee in order to deliver successful games.

Planning and Design – In order to deliver successful games the Organizing Committee decided to outsource the planning of the Games by bringing the International Company with know-how of organizing major multi-sport events to take over the operations committee and set up games planning. One of the reasons for this action was the short period left to organize the Games (3 years, while the usual period to organize Olympic Games is 7 years). After the international company was appointed the operations committee took further steps in planning and designing the games. Six international directors for the crucial planning areas where appointed (Operational Capability and Readiness, Venue
Delivery and Design, Venue Management, Technology, Finance and Sport) in order to set up their teams. Project management was the part of Operational Capability and Readiness and this was the directorate that had to make first steps using project management tools in order to set up the project deliverables and priorities. In regards to project management the organization set up the Milestones, Objective Infrastructural Plan, Master Plan, Key Deliverables, Games Readiness Sessions and Test Events. The other directorate, Venue Management, did one of the major steps in order to set up the planning teams. In fact Venue Management divided the operations committee into 4 Cluster Teams (Cluster represented a city area where a part of the Games Venues were located). This was one of the key steps because it allowed other directorates to appoint workforce representatives for each cluster.

Appendix 1. Venue Master Plan (Internal documentation)

Execution and Construction - In the meantime other directorates, e.g. Broadcast, Communications, Marketing etc. where set up in order to cover other key areas of the Games planning. The cluster division of the Games worked properly while each team was led by the Venue Management representatives and tracked/monitored and controlled by the Operational and Capability team and their previously mentioned project management tools that where set up. In terms of the management Venue management directorate took over the operations management role and the leadership role in each of the cluster teams. A big step towards games delivery was made by the Venue Delivery and Design team as key infrastructural plans were made and key works on the venues as
well as venue designs where defined. In the later stage of the Execution and Construction, Cluster teams, as workforce was rapidly growing, where divided into Venue Teams again led by the representatives of the Venue Management Team. It is important to emphasize that each team consisted of more than 20 Functional Area Representatives.

Monitoring and controlling systems – at this stage, both Venue Management and Operational and also capability directorate monitored and controlled the systems that where set up. In terms of Venue management, readiness sessions as well as the Test events had to be delivered that where planned by the Operational Capability and Readiness Directorate. Also, the milestones and the master plan where the key mechanisms in order to control the operations committee readiness. The next major step for the Games was the transition from headquarters to the Venues. The transition had to be smooth, controlled and organized as well as incorporated with external stakeholders such as Venue Owners. At this stage Games workforce was at the process of growing from 2500 to 60 000 accredited workforce.

Appendix 2. Games Time Operating Structure (Internal Documentation)

Completion and finish point – Opening Ceremony on 12th June 2015 appointed the start of this stage. The Games where led with the process already defined by the Operations Committee and with the support of 10 000 volun-
teers. After 17 competition days the games finished with the Closing Ceremony on 28th June 2015. This meant the end of the Games for 95% of the workforce but 5% where kept in order to finish the process, which included financial and games reports to the key stakeholders: The state of Azerbaijan and the European Olympic Committees.

CONCLUSION

The primary challenge of project management is to achieve all of the project goals and constraints. Organizational project management methodology implementation consists of identifying existing organization-specific inputs and developing a set of plans and processes to achieve the desired project management methodology state.

The purpose of the research Implementation of project management in organizing major multi-sport events was to investigate different project and operations management techniques, determine key phases in of the implementation of project and operations management techniques as well as emphasize the importance of different project and operations management tools and techniques in the success of organizing major multi-sport events. In order to provide relevant information both theoretical scientific researches and practical experience in organizing major multi-sport events have been used and demonstrated through Baku 2015 case study.

LITERATURE

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PROJECT MANAGEMENT WITH REFERENCE TO THE SIMPLIFIED COSTS CALCULATING METHODS OF PROJECT ACTIVITIES

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Abstract

European structural and investment funds can significantly contribute to the development of the Croatian economy. For the application of European structural and investment funds – ESI funds are of great importance to users with strategic documents which they can use for implementation of their projects. Project management represents the backbone of the overall process for the implementation of EU funds. An important part of the preparation of a project is a budget which has a detailed analysis of costs by the planned activities in a project. It also means that the budget of a project is a link between the planning, implementation and control of project activities. Therefore within the framework of ESI Funds is provided a possibility that the eligible costs are financed using the simplified method of cost accounting and not only on the basis of actual cost. Goal of the research is to determine the views of users of non-refundable grants from European structural and investment funds on the method of project management and methods of calculating the costs of the project activities.

Keywords: ESI funds, project management, simplified costs calculating methods

JEL Classification: L67, H43
1. INTRODUCTION

European Funds as financial instruments support the implementation of certain EU policies in Member States and in this way enable the realization of non-refundable grant to their users. For the implementation of EU funds in Republic of Croatia an appropriate institutional framework is required, as well as certain strategic documents which facilitate the process of preparation and implementation of project activities. With the presentation of strategic guidelines and the main features for managing the project activities, the work shows an overview of simplified costs calculating methods as well as the most common irregularities during their application.

2. STRATEGIC GUIDELINES FOR REALIZATION OF GRANTS FROM THE ESI FUNDS

European funds are conceived as financial instruments that support the implementation of certain EU policies in Member States. One of the most important policy is the Cohesion Policy, for which the European Union has allocated 376 billion euros from its budget during the financial period from 2014 to 2020, while in the financial period from 2007 to 2013 have been allocated 347 billion euros for the same purpose (EU funds; 2012). In the financial period from 2014 to 2020 the term European structural and investment funds (ESI funds) was first introduced and has unified EU funds. European structural and investment funds encompass ERDF – European Regional Development Fund, ESF – European Social Fund, CF – Cohesion Fund, EAFRD – Agricultural Fund for Rural Development and EMFF – European Maritime and Fisheries Fund (Bešlić et al; 2014, 16).

Fundamental strategic documents are defined during the process of defining the national development objectives, priority areas for investments and financial allocations. The most important strategic documents resulting from the ESI Funds are: the Europe 2020 Strategy, The Partnership Agreement, Common Strategic Framework, National Reform Programme and the Operational Programmes. Within the framework of Europe 2020 Strategy, the European Commission has presented the seven major initiatives to accelerate progress which include Union of innovations, increase in the efficiency of educational systems and facilitation of entry of young people on the labor market, digital program
for Europe, resource-efficient Europe, industrial policy for the globalization era, program for new skills and jobs and European platform against poverty. One of the major strategic documents is the The Partnership Agreement that has emerged from the objectives of the Strategy EUROPE 2020 where an EU Member State plans investments from European funds for the financial period from 2014 to 2020. During the preparation of the Partnership Agreement for the Republic of Croatia, six strategic areas have been determined: competitiveness, green life, connectivity, employability, poverty and public services (Maletić et al; 2016, 12-19). Within these areas potential beneficiaries can, by applying to the published tenders, seek to withdraw non-refundable grant in order to improve their business.

The aim of the Common Strategic Framework is to facilitate sectoral and territorial coordination of EU intervention within the framework of ESI Funds and coordination with other relevant policies and instruments of the Union. On the basis of aforementioned strategic documents each member state makes operational program documents that in specific sectoral areas define the key measures for the achievement of priorities identified in the Partnership Agreement. Republic of Croatia has adopted a number of operational programs (Table 1) in order to implement investments from the ESI Funds (Maletić et al; 2016, 17-20).

Table 1. Operational programs of Croatia

<table>
<thead>
<tr>
<th>Operational Programs</th>
<th>ESI FUND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operational program: Competitiveness and cohesion 2014.-2020.</td>
<td>The European Regional Development Fund and the Cohesion Fund</td>
</tr>
<tr>
<td>Rural Development Program 2014.-2020.</td>
<td>Agricultural Fund for Rural Development</td>
</tr>
<tr>
<td>Operational program for Maritime Affairs and Fisheries 2014.-2020.</td>
<td>European Maritime and Fisheries Fund</td>
</tr>
</tbody>
</table>


Projects of the European Commission should in part be in accordance with national development policies (including poverty reduction strategies), EU development policy and the strategy of the European Commission for the beneficiary country, programs of governments (eg. in the health, education, criminal law) and / or development priorities and programs of non-state participants.
In order for potential beneficiaries to get the most financial benefits from ESI Funds, they should be informed about all activities concerning realization of funding from funds, but they also have to manage project well because these skills are the backbone of the overall process for the implementation of the EU funds to an institution, company or beneficiary.

All EU funds available to applicants from the Republic of Croatia may be of great help and importance as a new source of financing for the projects of applicants: Local and regional governments, associations, cooperatives, foundations, public entities and others. EU funds can be used to build or rebuild infrastructure, improve agricultural production, strengthen entrepreneurship, improve education, culture, social and gender equality, strengthen tourism and international cooperation (Bešlić et al; 2014, 90-91). Development projects of the EU may differ in their objectives, scope and scale; and thus smaller projects can involve modest financial resources and last for several months, while large projects can be worth millions of euros and last a year or longer. The way in which projects will be prepared and implemented from various European funds and programs of the EU is determined in the Guidelines for Project Cycle Management. The basis of successful implementation of each project is good preparation, involvement of all relevant stakeholders such as users (coordinators), project partners, the relevant authority and various subcontractors and associates. Project management stems from the management of activities, people management, process management and management of financial flows (Maletić et al; 2016, 296-351). Project includes a series of activities aimed at meeting the needs of users in a given period of time and requires the participation of various stakeholders in order to create a unique product and / or service (Project Management Institute; 2016, 67).

Project management includes primarily distribution of information (reporting), communication management, change management and risk management (Omazić & Baljkas; 2005, 254-260). Professional discipline of project management must have rigorous standards and guidelines in order to define the work of staff that manages projects. The quality of the project implies meeting the requirements agreed upon for the project (Skenderović & Dunović; 2008, 2). Structure of roles of project management is defined as a result of the construc-

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1 More on the Guidelines for Project Cycle Management is available at: https://razvoj.gov.hr/User-DocsImages//arhiva/Publikacije//Smjernice_za_.pdf; (20.02.2016.)
tion of a database (Bezak & Nahod; 2011, 37). Available tools for managing project activities certainly make implementation of the project easier. In every project an indispensable step is the preparation and drafting of project budget with the aim of comprehensive elaboration of costs for all planned activities.

### 3. ASSESSMENT, BUDGETING AND COSTS CONTROL OF PROJECT ACTIVITIES

In order to be fully able to implement all project activities, it is necessary to elaborate a detailed project budget that represents a link between the planning, implementation and control of project activities themselves. Since all transactions are recorded in accounting of project beneficiaries it is necessary to have a timely informed and educated person in charge of finances and accounting. For each project activity it is necessary to establish the necessary financial resources and define the costs and time frame of the eligible costs arising from these activities. Even though categories of costs vary depending on the individual tender, practice has shown that the most common cost categories are human resources (personnel costs), travel, capital investment, services and administrative (utility) costs (Bešlić et al; 2014, 90-93). A prerequisite for a simpler and better implementation of all project activities is a well structured project budget, and that means, among other things: knowledge of how the funds will be spent, how the control of their spending will be carried out and for what purpose.

The value of a project does not determine the actual level of work that is required to carry out project activities in full even though the budgeting of costs is indispensable measure of project management (Meredith & Mantel; 2012, 286). All costs associated with the project must be transparent and must be easily identifiable at any time regardless of whether they are created by separate instances of the project costs, or as is the case with budget users by applying budgetary classifications (Bešlić et al; 2014, 124). Considering that costs management includes cost estimates, their budgeting and ultimately cost control, the cost management occurs at different execution phases of the project.

#### 3.1. Simplified methods of displaying and calculating costs

As part of the ESI funds is a possibility that the eligible costs are financed by using simplified costs, and not just on the basis of actual costs. The term simplifi-
Simplified costs means the use of funding by applying a fixed rate, standard size of unit costs and fixed sums (EU, European Commission, ESI, 2015,7). Simplified costs are used only in cases when it comes to non-refundable grants for which support does not exceed 50,000 euro2, and when the project is implemented exclusively by public procurement then simplified costs should not be used unless the user is fully overseeing, managing and implementing the project3.

Method of calculating the costs that were actually incurred has formerly led to numerous problems such as losing parts of earmarked funds despite having achieved the objectives of the project thus an alternative way to manage costs was sought. In recent times simplified representation of costs is enabled because of the complexity of the project management which is usually defined in the tender documents during project application, and this is especially important for small grant beneficiaries. Based on a simplified presentation of costs, three types of simplified methods of cost accounting have been developed (Simplified cost methods):

1. Method of calculating the flat rate (Flat rate),
2. Standard scales of unit costs,
3. Method of pre-determined amount of cost (Lump sum) (Bešlić et al.; 2014, 139-140).

Each of these methods must be verifiable and calculation must be realistic.

Flat rate calculation of indirect costs refers to the possibility that after the correct amount of direct costs is defined a certain percentage of eligible cost up to a maximum of 25% is recognised (Maletić et al.; 2016, 405). Use of this feature requires a clear delimitation of costs. Specifics of using this method for calculating costs are defined, it is possible to without any justification by the governing body of the project, direct personnel costs can be used to calculate all other eligible project costs using the fixed rates of up to 40%4. Standard scales of unit costs refers to a method by which a determined standard unit cost is multiplied by the number of units, usually with the number of participants (Maletić et al.; 2016, 407). Eligible costs are calculated on the basis of quantified activities, funds invested or based on the process and / or are calculated on

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2 EU, Regulation on common provisions no.1304., čl.14., 2013.
3 EU, Regulation on common provisions no.1303., čl.67., 2013.
the basis of outcomes that include achievements or results. Possibility of determining the standard cost can be applied to all types of projects. It is important to note that in the calculation of personnel costs by applying unit costs per hour, for calculation is taken the standard annual working time of 1720 hours. (EU, European Commission, ESI, 2015, 18-19). **Possibility of determining the total cost** of a fixed amount refers to the pre-determined amount necessary to achieve the objectives and results of the project. With this method the limit of application relates to projects whose value is a maximum of 100,000 euros of public support, which implies funding from the ESI Funds increased by the appropriate national public funding (Maletić et al.; 2016, 408).

By applying the simplified method for calculation of the eligible costs, multiple uses were achieved at all levels of management bodies, intermediate bodies up to the users of grant themselves. It has enabled easier communication with potential beneficiaries, payments are carried out quicker, supporting documentation for proving the costs was reduced and the percentage of errors within each activity was greatly reduced (Bešlić et al.; 2014, 137-148). More and more research is devoted to costs and challenges of their management and as a result tools are developing that enable more transparent and easier cost management and project activities (Project Management Institute, 2016., p.106.) User experience of non-refundable grants and projects which have met with simplified methods of cost accounting have confirmed that the use of such methods greatly disburdens the users.

### 3.2. Project activities cost control

The success of each project depends not only on its completion in foreseen time frame but significantly depends on cost management and their control. By accepting the new method of calculating eligible costs, there has been a change in the control procedures and revision of projects.

By systematic and above all logical archiving of documents with the correct accounting monitoring of all activities in a particular project is necessary to ensure connection of all project costs and in this way enable revising of costs incurred in accordance with measurable objectives of the project (Bešlić et al.; 2014, 123).
If simplified costs are applied then the control that is carried out by the European Commission and national authorities will be carried out in a way to verify the calculation of costs starting from the method of calculation instead of supporting financial documents and will conduct revision in terms of regularity and legality, and actual costs in the categories of expenditure will not be checked. During the revision reasons for choosing your particular method of simplified cost accounting will not be examined, instead the focus of revision is on facts whether are various conditions related to the established fixed rates, standard-sized unit costs or fixed amounts are fulfilled. (EU, European Commission, ESI, 2015, 31-32). Unambiguous categorization of costs on which the fixed rate is based upon is of great importance for success of project management. The purpose of control is to verify whether all of necessary conditions for reimbursement of expenses set out in the project activities have been accomplished. However, using the new practice of calculating project costs irregularities were detected in each of the simplified method of costs accounting which is shown in the Table 2.

**Table 2.** Most common irregularities in the application of simplified methods of cost accounting

4. RESEARCH METHODOLOGY

Primary research for this study was conducted on a sample of 34 non-refundable grant beneficiaries within the ESI Funds based on information provided by regional development agencies as well as grant beneficiaries which did not use the services of regional development agencies in Croatia. The objective of this study was to determine the views of grants beneficiaries from European structural and investment funds on the method of project management and methods of calculating costs for project activities. The survey instrument was a questionnaire with 10 questions consisting of closed questions with multiple choices and combined type questions with predetermined multiple choices. Likert scale was used as well with a total of 8 claims for measuring attitudes of grant beneficiaries of ESI funds on the method of project management and cost of project activities and a mean value was calculated for each response. The survey was conducted by sending the questionnaire via e-mail and by contacting the respondents by telephone. The survey was conducted during late February and early March of 2016.

5. RESEARCH RESULTS

Socio-demographic characteristics of grants beneficiaries from the European structural and investment funds who responded to the questionnaire showed that 64.5% of beneficiaries are women, mostly between the ages of 25 and 34 (52.9%). According to the level of education all respondents in the surveyed sample have completed higher education (undergraduate, graduate or post-graduate level). According to the regional position of the respondents who answered the questionnaire, beneficiaries are most numerous from the Vukovar-Srijem County (23.5%), followed by Zagreb and Brod-Posavina County with 17.6% each while 11.8% are from Međimurje County. In the Sibenik-Knin County, Osijek-Baranja County, Virovitica-Podravina County, Bjelovar-Bilogora County and the City of Zagreb have a little less than 6% of grants beneficiaries from the ESI Funds. Respondents from other counties did not respond to the questionnaire.

In 52.9% of cases the value of projects amounted up to 100,000 euros, and in 17.6% of cases the value of projects was greater than 1,000,000 euros. Also, slightly more than 50% of respondents have said that they have had great help from regional development agencies or some similar institution during the ap-
plication and implementation of the project. It is significant that 70.6% of respondents have attended some form of education in project management.

During the implementation of project activities, respondents have invested the most effort in cost and supply management, then in human resource management and time management, and the least effort was invested in communication management, project risk management and quality management. Considering that the respondents was given the possibility of answering question with multiple answers, the results are shown in Chart 1.

**Chart 1. Representation of project activities management**

![Chart 1](chart1.png)

Source: Author research

Even 58.82% of respondents fully agree that insufficient education of project team members complicates project business, while 11.76% of respondents do not agree with this statement. Average value to this statement was 4.17.

As much as 70.58% of respondents fully agree that communication facilitates information exchange system in the implementation of project activities. Average value of answers to a question that frequent changes in project activities complicate management of the project is 4.05, which means that the majority of respondents agreed with the statement. Participants neither agree nor disagree with the statement that the project includes all relevant persons responsible for financial management of the project considering that the average value of their answers is 3.41. To the statement that all costs related to the project can be easily identified and checked 47.05% of respondents fully agrees, and with the statement that for each cost category there is documented accompanying documentation 52.94% of respondents fully agrees. Average value of answers to the statement that the timely delivery of requested documentation simplifies cost management of the project is 4.00 which means that most of respondents agree. Only 5.88% of respondents do not agree with the statement that it is sometimes
necessary to reallocate resources in order to better manage costs while the majority of respondents agree with this statement.

When asked which method of calculating costs respondents applied for project implementation, 41.3% of respondents said that the applied method was of actually incurred costs, 23.5% of respondents said they are not familiar with the method of calculating costs while the least used method is of standard scales of unit costs, only 5.9%. Method of calculating the flat rate was used by 17.6% of respondents, and method of pre-determined amount of cost (Lump sum) was used by 11.7% of respondents. The share of individual methods of cost accounting is shown in Chart 2.

**Chart 2. Methods of cost accounting in projects**

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actually incurred costs</td>
<td>41.3%</td>
</tr>
<tr>
<td>Flat rate method</td>
<td>23.5%</td>
</tr>
<tr>
<td>Standard scales of unit costs method</td>
<td>17.6%</td>
</tr>
<tr>
<td>Pre-determined amount of cost method</td>
<td>11.7%</td>
</tr>
</tbody>
</table>

Research has shown that there are still a large number of users which do not use a simplified method of calculating costs because they have not been introduced to it, but also due to the fact that they have withdrawn funds in a period when actually incurred costs method was used.

### 6. CONCLUSION

By defining the project budget it is necessary to ensure the best possible estimate of the project costs as well as the maximum of eligible costs. It is also of great importance to meet the condition of profitability of the project so that the project budget is greater than the total cost of the project, which requires sufficient knowledge concerning the processes of cost management. Managing project activities, and thus cost management, is of great importance for the implementation of the project. By applying the simplified method of calculating costs easier communication with potential beneficiaries was achieved, faster verification of the declared costs, easier understanding of prescribed rules related to the
admissibility of the project costs, and with it easier and quicker reporting of the calculated project costs. Consequently, application of simplified cost accounting methods allows routing of excess capacity to a better implementation of the project activities. It is necessary to ensure unambiguous and clear definition of the cost categories or categories of eligible costs. On the basis of research a conclusion was reached that among other things the majority of respondents have invested the most effort in the process of cost management during the implementation of project activities. Also a large number of respondents was not familiar with the possible methods of calculating costs of the project activities. Therefore, in the foreseeable future it is necessary to continue educating potential grant beneficiaries, not only about ways of applying for projects but also on the processes of cost management as well as the newer methods of calculating costs of the project activities.

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THE EFFECT OF PROCUREMENT PROCESS OPTIMISATION ON COMPANY PERFORMANCE

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Abstract

Due to constantly increasing market competition, companies need to optimise their business operations in order to be able to thrive or maintain their market position. There is a wide range of possibilities for companies to boost their competitiveness and business efficiency, i.e. to generate revenue.

Modern-day business operation is significantly different from traditional business operation. All organisations consist of business processes, regardless of their different views thereon. Business processes are important because they affect the visible factors such as sales, revenue, and profit. Furthermore, they also affect productivity, error rates, process cycle, reliability level, process costs, customer satisfaction, as well as supplier relationship.

The world’s largest companies owe their success to the use of the process approach and optimised procurement activities. Combining the two can help create a system in which every employee participates in creating and sharing added value for the users of the process, and facilitates dealing with customer requirements.

The long-term success of a company depends largely on the quality of business process management in all segments of its operations. Business process management, in particular the management of the procurement process, enhances
the competitiveness and innovation capabilities of a company and allows it to respond to changing market conditions in a faster and more flexible way.

**Keywords:** optimisation, process, process approach, procurement

JEL Classification: H57, C61

1. **INTRODUCTION**

Due to increased market competition, companies need to optimise their businesses in order to make progress or maintain their market position. Companies are constantly being offered different options to help them boost their competitiveness and business efficiency, and generate revenue. Companies have access to different business models, business strategies, human resources, information technology, and management methods, placing at the same time emphasis on the optimisation of procurement activities and directing attention to a business process approach as an opportunity for additional business savings and creation of optimal business processes.

Optimisation of the procurement process is inevitable in all businesses regardless of the company size because it has a significant impact on business results. The procurement process creates value for its customers and affects the way a company makes profit.

The main objective of this paper is to investigate analytically the process approach, process orientation and process optimisation with a focus on the review of procurement process optimisation as a strategic function of the company. In this research, we tried to verify the justifiability of process orientation, procurement process optimisation and the influence of the process approach and process maturity on improving procurement activities - determining the impact of the measures for optimising the purchasing process on procurement performance.

2. **PROCESS APPROACH**

There is no single universally accepted definition of processes and attitudes related to the use of the term ‘process’, as well as process related terms. Many authors define business processes in different ways. Harrington\(^1\) defines a business process as any activity or group of activities that takes an input, adds value

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to it, and provides an output to an internal or external customer. According to him, organisational resources are utilised in business processes to achieve planned results. Value-added is the term used to describe the difference between the cost of inputs and the value or price of outputs. In nonprofit organisations, the value of outputs is their value to society; the greater the value-added, the greater the effectiveness of these operations. In for-profit organisations, the value of outputs is measured by the prices that customers are willing to pay for those goods or services. Firms use the money generated by value-added for research and development, investment in new facilities and equipment, worker salaries, and profits. Consequently, the greater the value-added, the greater the amount of funds available for these purposes. Value can also be psychological, as in branding.

Business process hierarchy is expressed in key business processes that permeate throughout the whole organisation. A business process is a collection of interrelated work tasks initiated in response to an event that achieves a specific result for the customer (in that process).

The fundamental characteristics of business processes are as follows:

- every process has its purpose,
- every process has its owner,
- every process has a beginning and an end,
- elements entering the process are called inputs, those leaving it are called outputs,
- the process is composed of sequentially feasible activities,
- process performance is measured easily on the basis of process inputs and outputs,
- in order to survive, the process should have known internal and/or external customers and suppliers, and
- process improvement is inevitable.

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When studying and implementing the process approach, the emphasis should be laid upon key business processes. The tendency of all business processes should be optimisation, but it does not necessarily mean that all business processes should be redesigned. It is not important only to improve business processes but to place emphasis on value creation processes.

The starting point for establishing process approach performance is to compare one’s own process with the same or a similar process of some other company, and then to draw benefits from this comparison. Business process improvement is only possible by means of indicators.

3. PROCUREMENT

Procurement refers to a function and an activity of a company and other business systems, which takes care of the supply of materials, equipment, services and energy necessary to achieve the objectives of the business system. Procurement can be defined in a narrow and a broad sense.

Procurement is used in a narrow sense to define operational tasks in the process of obtaining the objects of procurement. These are tasks that need to be performed on a daily basis in order to timely define the needs and requirements of the business system supply for the objects of procurement of appropriate quality, in the amount required, at appropriate prices, under suitable terms and conditions, to a certain place and with the appropriate service.

Procurement in a broader sense includes the strategic tasks that the effects and profit of the business system depend on.

In the modern business world, procurement has several objectives of equal importance. These objectives that will be treated as more important depend on the market situation. For this reason, the objectives must be weighted.

General objectives of modern procurement are as follows: adequate functional quality of goods and service, the best price, cost-effective quantity, timeliness, most favourable sources, high-quality service delivery with the maximum

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protection of the environment and natural resources, the lowest risk, the lowest cost, and a good relationship with suppliers\(^7\).

4. PROCUREMENT PROCESS OPTIMISATION

Changes in the market have an impact not only on customer behaviour, but also on economic operators. Economic operators are forced to follow or adapt their business processes to new situations in order to remain competitive in the market.

Optimisation within Nexe Grupa d.d. began in 2008 when the first signs of recession were seen in the construction sector and it became difficult to collect receivables from customers which led to insolvency of Nexe Grupa d.d. Procurement identified the aforementioned problem as a failure to meet obligations towards suppliers within the framework of terms and conditions. The existing operating model was not effective and viable in the new market conditions. For the purpose of optimising business process management, Nexe Grupa d.d. hired a consulting firm to find a solution in the new conditions. The consulting firm proposed business process optimisation which also involved the procurement process. The adoption of the business process optimisation proposal has led to savings and improved business processes.

Due to numerous acquisitions and various business activities of organisations within Nexe Grupa d.d. it was necessary to optimise and standardise the procurement process.

The challenges of implementing the optimal procurement strategy were as follows:

- the current decentralised procurement system with less central coordination,
- several attempts to establish central coordination were not fully successful,
- significant synergy losses due to a high degree of overlapping source categories among companies,
- bad reputation of procurement in the company as a whole,
- lack of transparency related to costs and control tools,

• relevant procurement costs across the whole company (i.e., Nexe Grupa d.d.),
• poor coordination and control of procurement processes,
• vaguely defined roles of procurement officers in individual business units of the whole company (i.e., Nexe Grupa d.d.), and
• insufficient and uneven training of human resources in procurement.

Great improvement of organisation, processes and perception was expected as the overall goal, which would result in the new organisation and the possibility of enhanced savings.

By taking a look at the scope of procurement in Nexe Grupa d.d., it is evident that the value of procured goods, services and material was worth HRK 614.8 million and the snapshot of the company’s state of affairs conducted by the consulting firm A.T. Kearny gave an initial assessment of the possibilities for saving HRK 20.3 million by implementing the strategic procurement process.8

After producing a snapshot of the procurement process, a strategy was developed containing measures to optimise the procurement process (Figure 1).

Figure 1. Analysis of Nexe Grupa d.d. procurement process by applying the strategy diamond model (Source: Nexe Grupa d.d.)

Implementation of the strategic procurement process

Implementation of the procurement optimisation plan was divided into 3 phases/steps. The term “phase” would imply a clear definition of a procurement

group. Each phase has a project structure or layout and a disciplined and structured approach, and covers 1/3 of the scope of procurement.

The criteria used to define procurement groups in the phases were as follows:

- the saving potential of a procurement group,
- implementation complexity of a group as a strategic unit, and
- a specific situation, i.e., environmental conditions in relation with Nexe Grupa d.d.

A proposal for the distribution of procurement groups shows which product is planned for which implementation phase (Figure 2).

![Figure 2. A proposal for the distribution of procurement groups (Source: Nexe Grupa d.d. database - Procurement optimisation project)](image)

The main activities of the implementation of strategic procurement in Nexe Grupa d.d. are as follows: structuring procurement groups (ABC analysis, portfolio analysis), structuring current suppliers (ABC analysis, portfolio analysis), strategy and tactics definition, analysis of supply market dynamics, analysis of market and internal possibilities for procurement groups, identification of all current, known, and new suppliers, Request for Information (RFI) – a request for cooperation, offer inquiry, selection of suppliers based on bid analysis and negotiations, implementation decision, implementation of centralisation, con-
tract and purchase order, introduction of procurement control and reporting, introduction of standard tools, workshops and training sessions.

Significant results were obtained by implementing procurement optimisation measures of the first phase, i.e., savings of 5.08%. The highest savings were achieved by optimising the procurement of transport services which resulted in improved monitoring of round trip routes, combined transport, breaking down the cost of transport into the part related to the price of fuel and the fixed part of the price. Despite energy management measures implemented by the introduction of a new supplier, a saving on the purchase of gas and electricity is less than planned. It can be noticed that the smallest savings were achieved with engobe and frits due to poor bargaining power in relation to suppliers.

**Table 1. Results of procurement process optimisation implementation, Phase 1**

<table>
<thead>
<tr>
<th>Procurement group</th>
<th>Annual procurement (in HRK)</th>
<th>Average savings (in HRK)</th>
<th>Average savings achieved %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>66,535,222</td>
<td>6,704,625</td>
<td>10.08%</td>
</tr>
<tr>
<td>Gas</td>
<td>69,717,772</td>
<td>1,314,774</td>
<td>1.89%</td>
</tr>
<tr>
<td>Electric energy</td>
<td>41,607,056</td>
<td>823,141</td>
<td>1.98%</td>
</tr>
<tr>
<td>Pallets</td>
<td>7,856,710</td>
<td>538,665</td>
<td>6.86%</td>
</tr>
<tr>
<td>Paper packaging</td>
<td>7,722,910</td>
<td>634,400</td>
<td>8.21%</td>
</tr>
<tr>
<td>PVC</td>
<td>5,321,674</td>
<td>100,700</td>
<td>1.89%</td>
</tr>
<tr>
<td>Gypsum</td>
<td>10,061,019</td>
<td>420,000</td>
<td>4.17%</td>
</tr>
<tr>
<td>Engobe and frit</td>
<td>15,297,762</td>
<td>200,000</td>
<td>1.31%</td>
</tr>
<tr>
<td>Production materials</td>
<td>2,874,385</td>
<td>200,000</td>
<td>6.96%</td>
</tr>
<tr>
<td>Investments</td>
<td>30,000,000</td>
<td>2,124,962</td>
<td>7.08%</td>
</tr>
<tr>
<td><strong>Total savings, Phase I</strong></td>
<td><strong>256,994,510</strong></td>
<td><strong>13,061,267</strong></td>
<td><strong>5.08%</strong></td>
</tr>
</tbody>
</table>

*Source: Nexe Grupa d.d. database*

The implementation of procurement optimisation measures of the second phase resulted in the savings of 10.46%, i.e., HRK 9,181,231. The best result was achieved by optimising the procurement of coal - even 18.85%, thanks to global procurement, consumption control under energy management by using alternatives in the form of petroleum coke, i.e., partial substitution of coal by petroleum coke. Minimum savings were achieved with spare parts due to different specifications of certain groups of materials and territorial barriers.
Table 2. Results of procurement process optimisation implementation, Phase 2

<table>
<thead>
<tr>
<th>Procurement group</th>
<th>Annual procurement (in HRK)</th>
<th>Average savings (in HRK)</th>
<th>Average savings achieved %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate</td>
<td>20,247,389</td>
<td>1,196,814</td>
<td>5.91%</td>
</tr>
<tr>
<td>Coal</td>
<td>38,043,630</td>
<td>7,171,331</td>
<td>18.85%</td>
</tr>
<tr>
<td>Spare parts</td>
<td>17,953,099</td>
<td>238,000</td>
<td>1.33%</td>
</tr>
<tr>
<td>Refractory bricks</td>
<td>5,758,983</td>
<td>485,086</td>
<td>8.42%</td>
</tr>
<tr>
<td>Marketing</td>
<td>3,140,800</td>
<td>50,000</td>
<td>1.59%</td>
</tr>
<tr>
<td>Hardware</td>
<td>2,643,761</td>
<td>40,000</td>
<td>1.52%</td>
</tr>
<tr>
<td><strong>Total savings, Phase II</strong></td>
<td><strong>87,787,662</strong></td>
<td><strong>9,181,231</strong></td>
<td><strong>7.12%</strong></td>
</tr>
</tbody>
</table>

Source: Nexe Grupa d.d. database

The implementation of third-phase procurement optimisation measures by introducing new suppliers, multi-year contracting, consolidating the scope of procurement, increasing purchases, separating transportation costs from the costs of materials, adapting the specification of procurement process optimisation, resulted in the savings of 2.61% compared to the scope of procurement. The biggest savings are achieved with the purchase of slag, and due to the high bargaining power of suppliers, the lowest savings are recorded in relation to bitumen.

Table 3. Results of procurement process optimisation implementation, Phase 3

<table>
<thead>
<tr>
<th>Procurement group</th>
<th>Annual procurement (in HRK)</th>
<th>Average savings (in HRK)</th>
<th>Average savings achieved %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slag</td>
<td>16,697,403</td>
<td>781,438</td>
<td>4.60%</td>
</tr>
<tr>
<td>Oil and mazut (fuel oil)</td>
<td>12,287,389</td>
<td>150,000</td>
<td>1.20%</td>
</tr>
<tr>
<td>Oil and lubricants</td>
<td>4,962,047</td>
<td>50,000</td>
<td>1.00%</td>
</tr>
<tr>
<td>Bitumen</td>
<td>3,116,977</td>
<td>30,000</td>
<td>0.95%</td>
</tr>
<tr>
<td>Clay for ceramics</td>
<td>2,177,420</td>
<td>13,212</td>
<td>0.61%</td>
</tr>
<tr>
<td><strong>Total savings, Phase III</strong></td>
<td><strong>39,241,236</strong></td>
<td><strong>1,024,650</strong></td>
<td><strong>2.61%</strong></td>
</tr>
<tr>
<td><strong>Overall savings</strong></td>
<td><strong>384,023,408</strong></td>
<td><strong>23,267,148</strong></td>
<td><strong>6.06%</strong></td>
</tr>
</tbody>
</table>

Source: Nexe Grupa d.d. database

Optimisation of the procurement process in all three phases generated savings of HRK 23 million or 6.06% of the planned scope of procurement.
After analysing the results achieved by optimising the procurement process for the purpose of continuous process improvement, a procurement performance measurement model is designed. The model is based on a procurement strategy aimed at achieving savings, and it consists of the following perspectives or views: a financial perspective, suppliers, internal processes and employees. Each of these factors has its sub-processes that are individually evaluated. Each sub-process has a weighted impact on strategic evaluation of the procurement process.

Figure 3. A strategy map assessing procurement performance in Nexe Grupa d.d. (Source: Nexe Grupa d.d. database)
A strategy map for procurement performance measurement in Nexe Grupa d.d. in 2014 shows that the highest performance level was achieved in the sector referring to cooperation with suppliers with an average score of 4.31. The worst scores with an average score of 3.35 were recorded for internal processes, where there is a tendency to improve the evaluation model assessing suppliers as this evaluation is done only once a year. Sub-processes that were assessed the worst are the possibility of employee promotion and evaluation of suppliers, where there is significant room for improvement.

5. **THE IMPACT OF THE PROCESS APPROACH ON PROCUREMENT PERFORMANCE**

Empirical research was conducted to determine the impact of the process approach on improving procurement activities. Data were collected by conducting an online questionnaire.

The questionnaire was primarily sent to 24 business units of Nexe Grupa d.d., and then to its business partners. The questionnaire was sent randomly to 750 companies, i.e., people in leadership positions in those companies (CEOs or directors) under the assumption that they will fill up or forward the questionnaire to persons who are best qualified to fill this questionnaire up.

The questionnaire consisted of two main groups of questions - the first group related to business process management, whereas the second group related to the performance of procurement activities.

All Nexe Grupa d.d. business units completed the questionnaire - the response rate was 100%, while 120 questionnaires were collected from business partners - the response rate was 16%.

Regression and correlation analysis were used to establish the existence of the links between the process approach and the performance of procurement activities. Regression is used to establish the connection between the two observed variables, i.e., bond strength, and correlation is used to indicate direction of the relationship. The process approach is an independent variable, and the performance of procurement activities is a dependent variable. Both observed variables are complex. The process approach consists of the process view, process jobs, management and process measurement, and the performance of procurement activities consists of financial indicators, supplier relationships, employee
related indicators and indicators of customer satisfaction. The influence on the sub-categories was analysed to establish the connection between the observed variables.

As the regression coefficient $R$ for all dependent variables is about 0.3, for the process approach it is 0.432, it can be said that there is a strong link between the observed variables, i.e., performance indicators strongly affect the level of the process approach. The coefficient of determination $R^2$ shows how a change in the independent variable affects the dependent variable. In the process approach, it is 0.186, which means that a change in the performance of procurement activities by 1 affects the process approach by 18.6%. The most important category of the performance of procurement activities that affects the process approach is represented by employees. There is a positive correlation ($r = 0.413$, $p < 0.04$, $n = 110$), i.e., an increase in the process approach increases the performance of procurement activities through data oriented towards employees.

**Table 4.** The most important criteria of performance indicators in determining the process approach

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent variables with the strongest and the weakest link</th>
<th>Pearson correlation coefficient</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max.</td>
<td>Employee indicators</td>
<td>0.413*</td>
<td>0.432</td>
<td>0.186</td>
<td>$p &lt; 0.004$</td>
</tr>
<tr>
<td>Min.</td>
<td>Financial indicators</td>
<td>0.231</td>
<td>0.186</td>
<td>$p &lt; 0.836$</td>
<td></td>
</tr>
<tr>
<td>Process view</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max.</td>
<td>Employee indicators</td>
<td>0.400*</td>
<td>0.420</td>
<td>0.176</td>
<td>$p &lt; 0.659$</td>
</tr>
<tr>
<td>Min.</td>
<td>Financial indicators</td>
<td>0.175</td>
<td>0.176</td>
<td>$p &lt; 0.357$</td>
<td></td>
</tr>
<tr>
<td>Process jobs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max.</td>
<td>Employee indicators</td>
<td>0.283</td>
<td>0.305</td>
<td>0.093</td>
<td>$p &lt; 0.083$</td>
</tr>
<tr>
<td>Min.</td>
<td>Indicators of age</td>
<td>0.178</td>
<td>0.093</td>
<td>$p &lt; 0.577$</td>
<td></td>
</tr>
<tr>
<td>Management and process measurement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max.</td>
<td>Employee indicators</td>
<td>0.302*</td>
<td>0.350</td>
<td>0.123</td>
<td>$p &lt; 0.047$</td>
</tr>
<tr>
<td>Min.</td>
<td>Financial indicators</td>
<td>0.195</td>
<td>0.123</td>
<td>$p &lt; 0.742$</td>
<td></td>
</tr>
</tbody>
</table>

* Correlation at a significance level $p<0.05$

*Source:* The authors
On the basis of analysis, research results indicate the existence of the relationship between the process approach and procurement activities that contributes to successful performance of the entire organisation.

6. CONCLUSION

Global changes that are taking place on a daily basis gave birth to the process approach to business as well as running of individual business processes. This method of business operation enables its greater efficiency. As a consequence of the aforementioned, available resources are used optimally, which in turn contributes to a competitive advantage of a company.

The world’s largest companies may attribute their business success to the use of the process approach and procurement activities. The application of the process approach and optimisation of procurement activities we can create a system in which each employee becomes involved in creating and sharing of value-added for all users in the process, which in turn leads to faster and better resolution of customer requests. Business process management, in particular the procurement process, improves the competitiveness and innovativeness and contributes to faster and more flexible responses of a company to changing market conditions.

LITERATURE:
FUNCTIONAL DIMENSION OF KNOWLEDGE IN THE INFORMATION AGE WITH REFERENCE TO ANCIENT PARADIGM OF KNOWLEDGE

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Abstract

The authors examined the benefits of the information age in terms of availability and expansion of concrete and useful knowledge in relation to the closed system of education in ancient Greece. Knowledge in the information age, shows certain weakness because it loses sight of the synthetic approach to problems, philosophical and theoretical foundations from which are specific science and exact knowledge origined and directed rather towards the technical, positivist, pragmatic and practical terms of knowledge without a reference to the ethical and human side of science. Such an attitude is crystallized when one bears in mind that, in relation to the ancient Aristotelian division of knowledge, modern contents of knowledge focused on the goals of production and consumer civilization and the attainment of practical skills toward which is shaped the knowledge, organized and transformed according to the needs of the global society.
However, the European dimension of contemporary education provides a systematic approach to the existing knowledge and moves towards a knowledge society guided by the educational standards of the European Union.

The paper critically analyze and compare various forms of knowledge in the information and antique age. It also review its educational and humanistic goal of improving the quality of human life and the rationalization of knowledge, which allows the penetration in the new knowledge useful to man.

**Keywords:** information age, education, antique, consumption, rationalization of knowledge

JEL Classification: D81, D83

**INTRODUCTION**

In the first part of paper we will show that ancient time of Greek, where begin and arise many sciences, represented closed form of education, even if it had universally type of educations in the relation to the information age, which characteristic openness and quickly expansions of knowledge. From this two different paradigms of education arises and two different meaning of knowledge.

The main hypothesis of the paper assumes that the knowledge in the information age shows almost the economic ground of science (instead pure theoretical), which means that is accent on the practical purpose of knowledge which lead by tendency of production and consumption. The economic terms as production and consumption we understand not only as production of stuff, but in this paper is reflected as criteria for making difference between knowledge as pure theoretical and such science which produce new concept for practical life and give knowledge which became consumable (useful).

**Relation between ancient forms of education and the Information Age**

The ancient model of knowledge is primarily philosophical based, since the birth of the rational and scientific view of the world (die Weltanschauung) owes the birth of philosophy in ancient Greece (776-323 BCE), from where derive other sciences disciplines. The grounding the new disciplines conditioned the way of further education, especially high education which shows universal ten-
dency in education, because includes variety of human knowledge as knowledge of philosophy, geometry, logic, mathematics, physics, medicine, rhetoric, ethics, economics, politics and others. According to Nietzsche’s interpretation, scientific optimism is born with Socrates, philosopher which use dialectical method in investigation and makes conceptual examination of things as type of rationalistic approach (the tendency to come to the conclusion about general characteristic of some phenomenon, such as beauty itself, justice itself). This approach during the history of knowledge in mankind become the notation for the theoretical ideal type of man, defined in general term as a scientist, which is opposed to an intuitive type of man, man of art and or man of everyday life, which for explanation of some thing use metaphor, images, public opinion or belief (as type of subjective knowledge). Socrates, however, the primarily purpose of knowledge see in objective knowledge which show tendency in reaching eternal and general true. Philosopher Plato give insight in the rational foundation of knowledge, because in the real knowledge is situated the logos (of things) which we can interpreted as a reason for the cause, so the knowledge is defined as knowledge when explaining reason of some things (see: Deretić; 2008: 92) or phenomenon.

Similar teachings we can find in Aristotle’s philosophy which defined science (episteme) as system of concepts, which is firmly structured and logically arranged. Aristotle said that “if there is possible where evidence does not know why a thing exists, then there is no scientific value.” (Aristotle; 1970: 272). True knowledge is determined as a intellect (el. nous) knowledge, as knowledge of the causes of certain things (for example, cause of some diseases), and such people which know the reasons is different from those who have only the experience of a phenomenon.

The sense of knowledge and the essence of education (paideia) in atique is focused on the activity of human thought, intellectual skills and the development of intellect resources. In that sense Heidegger interpreted Plato’s reception of education as one that “transforms the mind and the soul itself in its entirety” (Heidegger; 1995:27), not only as the pursuit of practical skills. The people of antiquity bears an eagerness for knowledge and Aristotle describes that this is an original impulse in man, which is manifested through several stages of knowledge (senses, memory, skill, science, wisdom). According to Fink, “it is a single ascending road and its various levels of paideia, which will be at the end the preparation for human life” (Fink; 1985:38-40). Education (el. paideia) is a
type of self-exploration, self-questioning, aimed at encouraging the virtues of souls, i.e. to acquire virtue (el. arete) that are recognized by the polis.

The ancient ideals of education they were not unique to all of the nations of that time. Sparta, for example, does not require liberal education, but knowledge is directed towards the pursuing of military training and martial virtues. “And the difference from the militaristic Spartan hero, Athenian ideal was well rounded, free-educated individual who is active in politics, military defense, and the general community. Opposing Athens its rival Sparta, speaker Pericles (490-429 BCE) said that addressing the Athenians literature, art and philosophy has not weakened their courage, but it formed them as free individuals living in a free country.”(Ornstein,” et.al “; 2016, 59). So while the school with the Athenians in the first place emphasizes the intellectual aspect of education, the aristocratic model of education like in Sparta (which sets the focus to the creation of an efficient man who cherishes the virtues of physical endurance and strength, possess social skills, good taste, i.e. possess immutable and congratulates the beliefs by which he has important mission in their society but neglects the development of intellectual abilities) ranged from forming warriors and knights to the nobility (see: Đurić; 1995: 20).

However, in relation to the modern world in antiquity we can see a number of weaknesses in the educational process. In ancient Greece, education is considered a privilege only the wealthy young man, but it is a closed system of education, which was only available to chosen. “In theory, education in ancient Greece was accessible to every child, but in practice, only rich families were in able to educate their children.”(Hynson; 2008: 16). Serbia and other countries, the obligation and the right to education is defined by the law, according to which all have equal right and access to education without discrimination on grounds of sex, social, cultural, ethnic, religious or other affiliation, place of residence, or domicile, financial or health condition, difficulties and disturbances in development and disability, as well as on other grounds.

Education in ancient Greek took place at home and private schools, but excluded slaves, while female children only gained some part of education (as reading, writing, singing and other skills which was necessary for household works). Education was beginning with 7 and lasted up to 14 years, while further education continued only for some boys (who had their mentors). Higher education for the richest young men took place through different philosophical schools most
notably Plato’s Academy and Aristotle’s Lyceum. However, the ancient time of Greek (which exist to the end of government of A. Makedonsky), regardless of the problems they have encountered, the idea of the education is a highly raised (Uzelac; 2013: 19), and the ancient ideal of scientific value and knowledge directed the development of the entire European civilization. Big power of knowledge is affirmed later by the statement of the English philosopher Francis Bacon - knowledge is power. New century, after the dark period of the Middle Ages in which all teachings were subordinate to theology, will back to people faith in science, especially in its power to master nature and adapt it to human needs.

In relation to the ancient form of closed schools but universal education, contemporary age favoured the knowledge in its specialized form, which affirmed through information technologies as one of the important stages of development of human civilization (see: Banjanin; 2003: 214) in technical sense. The way of educations especially is modifying by computer literacy which became usable in many areas of the life. Informatization in the modern age contributes to “the expansion of sources of education and faster, more efficient coming to relevant information, as the basis of the share, wider and more intensive education” (Soleša; 2007: 294), and enables the consumption of knowledge without time and space limitations. Through the information technology for the modern man are provided conditions for easily and simply access to the funds of knowledge (through electronic libraries, e-books sites, even education through the system of distance learning). According to research carried out by developed countries, which implement distance education “were observed and benefits compared to traditional teaching” (Mandić; 2003; 63-64) such as time savings, the development of independence in students skills and enhance of learning activities, engaging the best experts in the particular field. Such practice is implemented in some private Faculties in Serbia, too, as for example in University Business Academy in Novi Sad.

However, modern education in general show, from the other side, some weakness, especially in the case when specialized knowledge not have contact with the spiritual heritage of antiquity and previous stages, and do not show spiritual aspect of creation, which is a phenomenon that occurs with reducing education in the technical mastery, with “process of spread of technology to the planet and life of the individual.” All existence in such course get new basis, so “there can exist only what enters into a new world of technical ratio.” (Jaspers; 1987: 94). But this ratio (mind) in today science is not only a factor of
man's utilities, because knowledge does not any more deal with the opportunities which he gets from nature, but he produce and transforms from it artificial environment with consequences that threaten the natural flow of things. Therefore, we can see the two aspects of the world spread of technology and new way of application of knowledge, whose negative unhuman side is evidence through existing environmental problems.

So unlike the ancient high evaluation of knowledge and its glorification, we have the situation of competition for its implementation that will change human consciousness in a certain direction as for example direction toward making business from knowledge. Looking in this way, in the contemporary models of knowledge no more exist need for the metaphysical and philosophical basis of knowledge and from which arise the negative consequences. It manifested as superficiality, converting knowledge in the form of information, insufficient development of critical consciousness, neutralizing of analytical skills, creativity and loss of ideas of unity (whole), which is noted and thinker Jaspers in the essays *The idea of the university*. Knowledge yet in the 19th century is looking for its positivistic and pragmatic sense and has value only if is a knowledge of facts. Science is acceptable if follow the principle of verification and usefulness, which indicates the positivist spirit of science.

A information society 20th and 21st century, which is called the age of knowledge, many authors problematize according to its concept of knowledge as information because the “symbiosis heads and computers, the difference between knowledge and information is fading,” and then overlook the fact “that information is not knowledge, but only the way in which knowledge becomes transferable, that information is just a form of communication, but not (independent) form of knowledge” (Mittelstrass; 2010:20), or the way in which it manages knowledge. True knowledge, actually belongs to the experts, so it is necessary to distinguish between knowledge based in the expertise and produce the further knowledge and make new truths about reality from the knowledge which we only receive, accept and further transfer from non-expert source.

**THE ANCIENT MODEL IN THE EUROPEAN IDEA OF EDUCATION**

Ancient tendency of universal knowledge in the modern age to a certain extent, however, adopted the project of the Bologna education system, which
has an international dimension, and it shows through a systematic approach to knowledge and education ideal of man as free individuals and citizens. Despite the procedures intended for formal education, Klemenovic states that the EU sets and necessary education for human rights. Intentions to this type of education are encouraged, first from the non-formal education - through the activity of non-governmental organizations, humanitarian and peace organizations (Klemenović; 2007: 166). In this way, the company is directed towards adopting the values of knowledge that ensure a harmonious life in a civil society, which is based on respect for human rights and freedom, which is one of the models of humanist and civic education which was present in ancient Greece. Such knowledge is managed in the direction of the civic awareness development. Application of the standards of the European Convention on Human Rights, in particular the requirement in domestic law and practice for the sake of whose realization is carried out training for solicitors, judges, prosecutors, lawyers. This project was started in Serbia in 2002 as well, but it is noticeable that the strategy for the development of human rights education and education for democratic citizenship is already established in the school education through the introduction of the teaching of Civic Education, which aims to prepare the implementation of democratic life in community.

THE HIERARCHY OF KNOWLEDGE IN RELATION TO THE ARISTOTELIAN DIVISION OF SCIENCES AND ECONOMIC FOUNDATIONS OF MODERN SCIENTIFIC VALUE

Aristotle’s division of sciences suggests that knowledge appears or as observation, acting or creating (Aristotle, 1985: 150), where it performs three different types of knowledge, which corresponds to the three ways of life, as well as specific virtues of man. Theoretical knowledge and science (metaphysics, physics, mathematics) are directed to a life dedicated to the contemplative activity and promote knowledge like knowledge itself, which does not tend to any benefits. The greatest of them is metaphysics, which seeks to discover the first principles of being, i.e. being in totality (das Sein), not only individual areas of being as well as other sciences. In the domain of practical philosophy are disciplines such as politics, ethics and economics, and they contribute to the development of skills governance, the household, and allow man to
actively participate in public affairs, state affairs and decision-making. Aristotle speaks of the productive knowledge as third form of knowledge (creating as craft), which aims to meet the basic human needs through production, trade, crafts, medical skills, art, rhetoric and others, which contribute to the welfare of the greatest number of people and enjoyment. The way of life outcomes from this kind of knowledge and skills Aristotle called production-consumer, which strives to offer adequate material conditions of life and its prosperity. According to Aristotle, this is a specific domain of knowledge that requires technical and creative skills, so as to form the outer material, by its endowment, according to its taste and its deft, its already acquired knowledge, experience and talent. Aristotle did not bring his research to an end, because all of sciences in their base have the component of creative, innovative. But Aristotle's ideas about three type of knowledges opened a modern angle in sciences: 1) ways of understanding knowledge capacity accordingly, whether they are in the information age focused on the theoretical, practical or productive level 2) the production purpose of new knowledge.

In modern times, science has the highest value if it is practical, and that means if its creative function refers to some form of additional production to meet certain needs (including the global civilization needs) so that it produces a good, usable, relevant to improving human practice and managing new social changes. Starting from this conclusion, in the modern age the main knowledge purpose can be interpreted as encouraging consumer-produce civilization and spirit, and in this direction knowledge management function is viewed. According to the Aristotelian division, such a course entitled productive sciences which are directed only on one aspect of reality (human needs). Such efforts are now guided by and large US companies to impose the creation of global needs, the function of which are subordinated and science - the function of man as a consumer and the consumer. However, the term producer-consumer, which is inherited from Aristotelian heritage, but also from the economic terminology primarily Marx’s Capital. Specifically, this constellation is not only the meaning that applies only to the material as production content, and then on the edge as a means of consumption which serves only satisfying material needs. Because knowledge (which is formed in the modern age) can be interpreted in the connotation of knowledge production and its consumption, and only knowledge interpreted under the heading capital. This means that the knowledge expected to be consumed in terms of its further circulation. To that extent, the
epistemological level of science brings in a dependent relationship with the principle of economy and capitalist theory, which indicates the economic basis of modern scientific value. This aspect also confirms and explains why modern sciences do not have on their assumption the metaphysical spirit of exploration, but their reality is determined according to the economy, i.e. pragmatism and usability. It is just how much knowledge can be used and have the character of a man and his practical life. Sanders Peirce in the wake of the American philosopher and psychologist William James introduced to the criterion of “correctness knowledge of its practical value or utility.” (Pers; 1984: 59) We interpret this aspect as a basis of knowledge economy, which had been in circulation if they serve a practical purpose. Therefore, the productive knowledge base is one that builds on the economy, and only such direct knowledge of the educational process in determining what will be defined as the knowledge and the goal is not to acquire knowledge for the sake of knowledge itself, but also to improve the practical and material reality.

On the basis of Aristotle’s division of knowledge and comparing the different perspectives of evaluation of knowledge in the information age, we can conclude that the reverse evaluation perspective in the hierarchy of knowledge through the following table:

1. Axiological see the hierarchy of knowledge, developed on the basis Aristotle’s paradigm

<table>
<thead>
<tr>
<th>Ancient Greece</th>
<th>Information Age - the modern world</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Theoretical knowledge - purpose: achievement wisdom (sophia) as the highest model of knowledge of the world</td>
<td>1. Productive knowledge - production and consumption in wider sense</td>
</tr>
<tr>
<td>2. Practical knowledge - purpose: intelligent activity in practice and public life</td>
<td>2. The practical operation of Knowledge as a management and decision-making</td>
</tr>
<tr>
<td>3. Productive knowledge - purpose: production and consumption in narrow sense</td>
<td>3. Theoretical knowledge - wisdom as spiritualism</td>
</tr>
</tbody>
</table>

(Table projected by Valentina Čizmar)

We note that in the modern age the knowledge directed towards the aspirations of the consumer society to adopt the ideals of American civilization,

1 Marx argues that “the utility of a thing makes that a use value” (Marx, 1978: 44), and thing also has an exchange value. Similarly is with the knowledge in the modern age, because knowledge is also the use-value, and is realized through the process of exchange, but for whose achievement required a specific form of work - intellectual skills.
and to the knowledge that, according to Aristotle’s division fall into the lowest-ranked order of knowledge. However, we can not all knowledge to look in that direction, but on the other hand, we can talk about the economic basis of modern science. Namely, this means that economic production has its own sense of form and in terms of production as well as production of new knowledge and science, as well as to be applicable to exert influence over man (no more over nature), for changing his habits, thoughts, feelings, desire and ultimately a necessity. One of these new needs in the modern world is the system of education through modern technologies.

CONCLUSION

The approach to knowledge in the information age dominated by the principle of rationalization, which eliminate redundant forms and contents of knowledge, that leads to mystification, superstition, and not to pragmatism. Such intentions toward Gadamer is particularly evident in the tendency to be set based on the rational and social life (Gadamer; 2000: 150) and to take off the taboos of the former authority. However, one can point out the problem to the technical development of civilization goes hand in hand with the development of socio-political education and awareness, but the man is still in the epoch when is torn to apply what sets sciences and resist new systems of knowledge.

However different knowledge throughout history show a common way - humanizing human survival, the road to prosperity and happiness for a greater number of people. However, there are the individual sciences that do not contribute to genuine human progress (for example, the invention of the atomic bomb), and therefore every science should raise the question of responsibility for human life. Therefore, the need arises for the introduction of meta-science, i.e. science planning for dealing with these issues and to control the direction of sciences in achieving their goal of every humanistic knowledge.

REFERNECES

POSSIBILITIES OF BUSINESS INFORMATION SYSTEM BASED ON A UNIFIED ACCOUNTING PLAN

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Abstract

Information systems in business are primarily based on monitoring the financial and accounting operations. In Republic of Croatia, business entities are obliged to base its financial performance on double-entry bookkeeping.

The unified general chart of accounts which obliges entrepreneurs to use unified charts for the purpose of recording of accounting changes is defined by Accounting Act NN 78/15 and NN 134/15.

The authors of this paper are going to show the current record of accounting changes and changes brought by the new law. Furthermore, the authors will demonstrate the ability to capture accounting changes through information and communication technologies and the possibilities for future implementation and collaboration, i.e. integration of information systems.

The assumption is that a unified general chart of accounts will enable easier processing of reports and will contribute to simpler collaboration among businesses entities and reduce the need for consecutive data writing.
 Keywords: Finance, unified account plan, information systems, Company

JEL Classification: D8, M4

INTRODUCTION

The tendency of the Croatia is to create a stable economy in order to create competitive advantages in the global market. One of the efforts is to simplify the business. New Law on the Unified Chart of Accounts aims to facilitate keeping the books and enable easier control of financial resources for internal and external users of accounting information. Business Information Systems are based on accounting information and the ability of collection, processing and transmission the information.

The assumption is that the implementation of a unified chart of accounts accelerates business, and it makes it easy to access and transfer information between businesses and between businesses and components of the finance ministry.

In the following chapters the authors have analyzed the laws of the Republic of Croatian and EU directives related to accounting and their impact on businesses. Furthermore, the authors have demonstrated the possibilities of the business information system and eventually gave the model and a mathematical expression for the transfer of information between businesses and between business entities and components Ministry of Finance.

ACCOUNTING

Due to the adjustment of all the EU Member States, as well as the Croatian, that in their national accounting systems incorporate the provisions of a new accounting directive 2013/34 / EC, the Accounting Act is amended.

Unified framework chart of accounts includes classes and group accounts and synthetic accounts that are used for recording of accounting changes, including their numerical and letter codes and off-balance sheet accounts, all of which must be arranged in accordance with the requirements applicable to the preparation of financial statements. Committee on accounting standards report delivers and amends the Unified framework chart of accounts by its decision and publishes it in the „Narodne Novine“. (Low of Accounting, NN78/15)
Novelties that come with the application of the new law are as follows: introducing new accounting concept - public interest entities, which include companies established under the regulations of Croatia, whose securities are listed on the capital market of any Member State of the EU, then all credit institutions and institutions for electronic money, insurance companies, leasing companies, investment management and pension funds, and other public interest entities as decided by of the Croatian Government. According to the Explanatory Memorandum to the Act, there are 540 public interest entities in Croatia. They introduced the extended obligations in connection with financial reporting and they are obligated to be involved in the annual report and the report on the Corporate Governance Code. The report should provide basic information about the corporate governance code which the entrepreneur is required to apply and the Codex rules which are not mandatory but they are voluntarily applied, and if deviate from mandatory rules, the entrepreneur should indicate which ones the reasons for deviations. (http://www.adacta.hr/news-center/novi-zakon-o-racunovodstvu-i-kontni-plan-od-2016)

The new law introduces a new classification of entrepreneur (with the current, there is a new category of micro enterprises); prescribes the mandatory content of accounting documents; abolishes the obligation of signing bills; stipulates the chart of accounts; extends the time limits of accounting documents and business records; changes in the appliance of accounting standards; introduces a greater number of signatories of annual financial statements; prescribes the new definition of the parent company when compiling the consolidated financial statements; it is only one that edits statutory audits; a new report on payments to the public sector; prescribes time limit of four months from the last day of the business year for submission of annual financial statements for the purpose of public disclosure.

The new law expands the content of the financial statements of some entrepreneurs, changes the deadlines of their submission to the Financial Agency and creates the legal presumption for the introduction of compulsory licensing of accountants.

For the practical application of the new Law on accounting great importance has the proper application of the chart of accounts. According to the Accounting Act, chart of accounts should include classes and group accounts and synthetic accounts, and for users only remains to create analytical accounts of the intro-
duction of more detailed numerical designation in accordance with the needs of their business, but maintaining the prescribed framework. In „Narodne Novine“ no. 78/15 was published the Ordinance on mandatory opinions, update applications, statistical reports and tax settlement, which brings the introduction of a new form. Form OPZ STAT-1 - Report on due but unpaid receivables - payers of value added tax must supply the form for the purpose of tax statistics 4 times during the financial year. The report is required to give details of customers which are invoiced but was not charged within the legal or agreed period. Due to changes in the Accounting Act, in the coming months can be expected changes of related ordinances and regulations such as the Ordinance on the structure and content of annual financial statements, the Croatian Financial Reporting Standards, etc.

The new law regulates much more detailed the scope of accounting arrangements, manner of book-keeping and conditions which must be met by the documents on which the data are entered in the books. Business books can still be kept in electronic or in paper form, a document based on which data entries must be made in way that undoubtedly and truthfully testifies to the business event. All bookkeeping documents must be signed by the person who is responsible for this, in addition to the account. The account does not have to be signed if it is made according to tax regulations, but must include the name and surname of the person responsible for the preparation of account. Entrepreneurs shall ensure that accounting documentation is accurate, complete, verifiable, understandable and protected from damage and change. He is obliged to designate a person responsible for the control of authenticity of documents before entering the data in the books, and such person shall be obliged to check the correctness and completeness of any instrument. (http://liderpress.hr/tvrtke-i-trzista/poslovna-scena/poduzetnici-vise-nece-moci-slobodno-kreirati-kontni-plan/)

The new law seeks to achieve unification of the report which would reduce time for data entry and minimize the possibility of errors.

**BUSINESS INFORMATION SYSTEM (ANDREJA)**

The information system is a system that collects, stores, processes, preserves, delivers data and information relevant to the organization and society. The data is simple fallow isolated fact that thought has meaning, while the information is the result of the analysis and organization of data in a way that gives the
foreground to the recipient. The objective of the information system is to support the execution of business processes, decision support and management, while the task of the information system to provide data and information necessary for the execution of business processes and provides the information and knowledge necessary for decision-making and business management. (Stojanović, 2014)

Information systems can create value in different ways: information system can improve products or services by increasing quality, reducing costs and adding the desired shape, can increase the efficiency of the automatic execution of repetitive actions where timely execution significantly influences the efficiency, can improve the management process by ensuring the availability of timely and reliable information, facilitate planning, control and evaluation business activities, reducing uncertainty in decision-making, and improving the quality of decision-making.

Business information system is used in daily records of business event, and data storage, increasing the subsequent processing of the data and their use in analysis, and reporting of external and internal users of business information. Since different forms of organization condition the different structure and development of the business information system, in various forms of organizations there are business systems whose complexity is different. Business system (company) can be divided into three subsystems: executive - performing business processes, management - business management and information system. (Stojanović, 2014)

Business organization in today’s business environment, taking into consideration the importance of information for a successful business, or survival, intensely communicates with internal and external entities. Because the business information is invaluable, business-information system occupies an important role in recording, storing, and reporting of business events arising in the business organization and the environment.

Measures of performance and the results of operations business owners are productivity, efficiency and profitability. Productivity, efficiency and cost-effectiveness can be expressed in physical or natural units, as well as in the financial or monetary units. (http://www.progressive.com.hr/component/content/article/62-kolumne/5527trino-pozicioniranje.html)
Various factors from the micro and macro environment are affecting business enterprise. The micro-environment represents those entities with which the company has a particular relation or direct relationship. Micro environment includes consumers, then suppliers, and several types of intermediaries. Intermediaries are agents involved in the process of creation, development and delivery of value of the target market. What distinguishes the micro-environment of the macro-environment is precisely the possibility of a more active approach and the direct and indirect impact on the company’s activity participants in the micro-environment. In accordance with the, the micro-environment is therefore referred to as a controlled environment. The macro-environment consists of competition and various types of groups that jointly affect the company’s business. It is clear that the company can, but often cannot achieve a certain effect. Figure 1 shows micro and macro environment of

**Figure 1. micro and macro environment**

![Diagram of micro and macro environment](https://cnx.org/contents/_yBkSAz4@4/Operations-management-The-input)

In this case, authors discuss about the environment in which some extent is possible and which companies have to adapt. The way to adapt the company to the micro and macro environmental influences can be seen in the model.
BUSINESS INFORMATION SYSTEM BASED ON A UNIFIED ACCOUNTING PLAN

Business Information Systems are based on a system of monitoring the financial books of individual businesses. In general chart of accounts makes a business entity holding the defined rules. Charts of Accounts, as well as the books are used to internal and external users to see the financial status of the business entity. Currently, every business entity defines its own chart of accounts and for him synthetic and analytical accounts. In case of transfer of information, another business entity or the Finance Ministry had to transform the information in order to reach the required information. Such a system can be represented by the following figure.

Figure 2: The scheme of exchange of information based on the current law on Charts of Accounts.

Taking a look at the diagram in Figure 2 it can be seen that during each download of information it was necessary to make a certain transformation in order to use information, individual accounts needed to be adapted to different businesses as well as supervision over finances, or the components of the Ministry of Finance.

On the basis of Figure 2 simple query term can be formed;

\[ O = I \times T \]

Where “O” is an output, “I” an input, and “T” transformation.

In order of the information to came from one subject to another, and furthermore, and so to define number of subjects “n” it was required to make several transformations in which the information itself adapted to each particular.

The resulting expression:
\[ O_n = ( ( ( I_n \ast T_n ) \ast \ldots \ast T_2 ) \ast T_1 ) \]

Furthermore:

\[ O_n = \prod_{t=1}^{n} ( I_t \ast T_t ) \ast \prod_{t=2}^{n-1} T_t \]

The time to obtain valid information and timely response is increasing. In this way business is slower, and the audit last significantly longer.

By applying the laws of the Unified Chart of Accounts the unified accounts for businesses, as well as analytical and synthetic accounts would be unified. In this case number of information transformations would be reduced, and in some cases, even unnecessary. Output of one business entity would then become the input of the next subject.

On Figure 3 schematic model of information system based on the law of the Unified Chart of Accounts is presented.

**Figure 3:** The scheme of information exchange on the basis of the Law on the Unified Chart of Accounts

The model shows that there is no particular information transformation, they are transmitted to the principle that output one business entity becomes the input of another business entity. Also single business entity legible information's are components of the Ministry of Finance. Audits could be carried out more quickly, without further transformation, and the irregularities could be more easily detected and corrected.

From the scheme expression can be obtained:

\[ O = I \]

Furthermore:

\[ O_1 = I_2 = \ldots = I_n \]

The transformation would be needed in those moments when changes of matter or energy are happening, or when the service is provided or production.
Based on the law on the unified chart of accounts process of collecting, processing and providing information within the business information system can be automated. The system may further comprise a component which will oversee the financial statements, provide supervisory of components for finance ministry or businesses that are mutually binding.

CONCLUSION

To achieve onwards and maintain competitive advantage requires constant optimization of business processes. With the adoption of the Law on accounting and unified chart of accounts is intended to accelerate business and facilitate collecting and processing of information transfer.

In this paper, the authors explained the key parts of the laws and European Union directives related to the unified chart of accounts. They also listed the micro and macro environment of enterprises and key components and the role of the Business Information System.

By applying the above and based on the information itself, two models of transmission information are given. One model shows a system in which each business entity has its own chart of accounts. Each information provided that way, another business entity or a component of the Ministry of Finance must transform and the process is prolonged. Such system is described by mathematical expression. The second model relies on accounting law where it applies a unified chart of accounts. Based on the assumption that then the information’s are situated in the same forms with business entities, it is not necessary to make further adjustments, or transformations. The model also displays the mathematical expression that shows that then provided information’s become information’s which can be collected without further transformation. Based on the above and displayed mathematical expressions can be concluded that the process of information transfer decreases, while the business processes are accelerating.

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MODERN MARKETING TOOLS IN THE FUNCTION OF TOURISM DEVELOPMENT IN THE REPUBLIC OF CROATIA

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Abstract

Tourism industry is one of the most efficient economic activities in the world which creates the high levels of added value and directly or indirectly affects other economic and cultural activities. Using effective marketing tools is an important factor that could further improve and develop the tourism industry. This paper is focused modern marketing tools that can be used in tourism, in order to increase the promotion of sales, and therefore production and growth in trade. Implementation of modern marketing tools is very cost-effective both in financial terms, i.e. economic viability and in terms of effective and efficient actions towards the targeted groups. Nowadays there is a tendency online or so-called E-marketers since its implementation in daily life is very simple. Year after year, confirming the fact that it was E-marketing and targeting is necessary for the presentation of the most promising national wealth and resources. Presentation of the country, mores, products and services to targeted groups should become a priority strategy of Croatian economy.

Keywords: Modern marketing tools, promotion, trade, marketing, e-marketing, targeting

JEL Classification: Z3, Z33
1. INTRODUCTION

Tourism is undoubtedly the strongest global “industry” and for many countries it represents a significant export product, as well as an employment generator. Furthermore, tourism includes a wide combination of phenomena and relationships which occur during a tourist travel and in its realization; it influences various aspects of life – from economic to cultural, social etc. Numerous research results from the scientific literature indicate that economic growth and development can be further improved when strategically important destinations and attractions are developed through strategic planning, as well as enhancing the uniqueness of the destination or attraction with high quality interpretation, positioning and marketing.

This paper focuses on modern marketing tools which should be used in order to promote tourism as an important economic activity. Implementation of modern marketing tools is very cost-effective both in financial terms, i.e. economic viability and in terms of effective and efficient actions towards the targeted groups. Contemporary tendency is to market goods and services online, i.e. there is increased number of so-called e-marketers since its implementation in daily life is very simple.

2. ECONOMIC IMPORTANCE OF TOURISM

Tourism has become one of the largest industries and one of the fastest growing economic sectors worldwide. Many countries see tourism as a main instrument for regional development, since it stimulates new economic activities and has both direct and indirect economic and social benefits to the economy and society as a whole. Tourism may have a positive economic impact on the balance of payments, on employment, on gross income and production, but it may also have negative effects, particularly on the environment (Freytag & Vietze, 2013). The economic benefits of the tourism have been intensively researched theoretically and empirically by academic scholars (see for example (Frechtling, 1994, Crompton, 1993, Po & Huang, 2008, Sequeria & Nunes, 2010, Zaei & Zaei 2013). For example, Nissan, Galindo & Mendez (2010) had conducted a study which has indicated the main variables affecting tourism activity and showed a feedback effect between income and tourism. Their findings have indicated that tourism not only supplies necessary funds to finance firms’ activities, but also stimulates the local firms’ productivity and
creates new job opportunities that increase the country’s welfare. Lee & Chang (2008) had applied the new heterogeneous panel co-integration technique to re-investigate the long run co-movements and casual relationships between tourism development and economic growth for OECD and non OECD countries. One of findings that came out of this study has been that there is greater impact of tourism on GDP on non-OECD countries than in OECD countries and when the variable is tourism receipts, that the SUB-Sahara African countries have experienced the greatest impact. Interesting were their findings on the effects of effective exchange rates on economic growth. The ability of the national economy to capitalize on the (direct and indirect) benefits from tourism depends on country’s availability of investment to develop the necessary infrastructure and on its ability to supply the needs of tourists. Importance of the marketing is particularly related to later. Namely, using effective marketing tools and parameters is significant factor that could improve and develop the tourism industry as well as to attract tourist which make tourism such effective ‘development tool’ (see for example Pender, 1991, Holloway, 1995, Mahakan, 2001).

3. TOURISTIC SECTOR OF CROATIA

With the Mediterranean climate and long and well developed Adriatic coastline with more than 11 island, the Republic of Croatia has been quite popular tourist destination. According to EUROSTAT data, residents from EU Member States made more than 7.2 million trips to Croatia in 2012, accounting for 70.4 million tourism nights and EUR 3.5 billion of tourism expenditure (Eurostat, 2015). Tourism industries in Croatia recorded a total turnover in 2011 of EUR 4.2 billion corresponding to 5.4 % of the total turnover of the non-financial business economy in Croatia. This is just below the 5.8 % share for the EU-28 as a whole. Accommodation and food service activities represented 56 % of the tourism industries’ turnover (compared with 35 % for the EU-28), and accounted for 75 % of the over 120 000 persons employed in tourism industries. Even such selected statistics provide a good argument that the tourism as an economic activity has been extremely important for the Croatian national economy. Even tough Croatia is recognized as a tourist destination among foreign tourists, still it is important to continue to improve marketing efforts in order to increase the economic benefits of tourism. Namely, it is essential to adopt and implement a tourism strategy and modern marketing tools in order
to develop touristic sector which will create added value to all those who engage in the tourism trade.

The most important tourism potential in Croatia is the Adriatic Sea. The unique characteristics of the seawater (crystal clear and clean) and coastline (length and indentation – approximately 1800 km. long, relatively sparsely inhabited coastline with over 1000 islands of which only 66 are inhabited) together with a mild climate, have long been recognized and used as the main comparative advantages of Croatian tourism. However, Croatia has much more potential for developing various forms of tourism attractions that does not solely depend upon the Adriatic Sea. Continental Croatia, from a tourism point of view, still remains insufficiently and/or inefficiently utilized, even though there is no lack of potential tourist attractions there. For example, there are many towns which have a rich and interesting history and architecture; shrines; thermal water springs with healing properties; rivers; ski resorts with regional significance; old memorial and scenic roads; vineyard drives; national parks, and other protected areas. To provide for a more dynamic development of tourism in continental areas, it is necessary to put in place an adequate tourism infrastructure but even more so the more proactive marketing activities that will draw attention of tourist to experience something else than sun and the sea in Croatia.

Even tough tourism in Croatia represents one of the most significant industry sector according to mentioned economic indicators, one can notice a room for improvement when it comes to using modern marketing tools in the function of (further) tourism development.

4. MARKETING ACTIVITIES IN THE FUNCTION OF TOURISM DEVELOPMENT

The most common definition of marketing in tourism states that it is a process that can best meet both customer needs and maximization of the profit of the company providing tourism services. Tocquer and Zins (1987) define tourism marketing as a process in which the structure of tourism demand is anticipated and satisfied by the design of a product (service), physical distribution, establishment of the exchange value (price), communication between the tourism organization and its market, for the best interest of the company and consumers (Tocquer & Zins (1987: 40). Such expanded definition pro-
vides an additional aspect, offering a broader image of marketing activities the approach of the marketing mix, reported to the anticipation and fulfilment of tourism needs. “The needs and desires of consumers are changing and there is no doubt that consumers are more demanding than they were five or more years. Research has shown that consumers want: personal offer, i.e. consumers are increasingly looking for a combination of products and services tailored to their specific needs and desires, for example, in the car - “built-to-order car”; high quality and value for which they are willing to pay. The perceived quality of the following features: reliability, ease of maintenance, ease of use, familiarity and trust in the brand products and low price. They are also looking for caring and efficient customer service through a representative treatment of consumers, at the same time. Furthermore, consumers expressed less loyalty to the manufacturers. For today’s consumers is not significant to the product presentation, brand or store catered to their needs in the past, but to serve their needs today” (Ružić, 2007: 269). Marketing contribution to the tourism potential manifests mainly in the form of its specialized form, as tourism marketing which rely on promotional and communication mix.

4.1. PROMOTIONAL OR COMMUNICATION MIX

McCarthy (1998) defines the marketing communications mix as the specific mix of advertising, personal selling, sales promotion, public relations, and direct marketing, a company uses to pursue its advertising and marketing objectives. Kotler (2006) suggests that the promotional and communication mix include following:

- **Economic propaganda** - any form of any presentation and promotion of ideas, goods or services paid by certain sponsor, and non-personal;
- **Improving sales** - as a short-term incentives that lead to the purchase or sale of products or services;
- **Publicity** - as the stimulation of demand for a product, a service or a business unit - which is not personal - placing significant market news through the press or to provide suitable presentation mediation radio, television or other forms that are not paid by sponsor);
- **Personal selling** - as an oral presentation to the target sales through interviews with one or more potential customers.
Communication processes are unfolding on several levels and is extremely important to their pre-define them. A classic of definitions of the process of communication can be summarized as the establishment of: who - communicator, what - communication message, i.e. transfer, who - involved in it, channels (media), and the effects of exercise, i.e. feedback (Ružić, 2007: 284)

There are many systematic actions that contribute to successful communication strategy. However, one can identify a global framework comprising of stages logically derived from one another and which enable communication activity to lead towards a desired result (Ružić, 2007: 268):

• define the market segment where we want to make a propaganda message,
• define the objectives of information in relation to the segment selected in demand,
• formulate information,
• determine the cost of information,
• determine the allocation of the budget between the various methods and media,
• determine the scope of information in the distribution channel,
• determine the criteria for controlling and measuring the results of the action.

Partial implementation of marketing activities i.e. usually only part of them, the set objectives are not achieved, which in most cases were not previously defined but should be implemented during the implementation of activities. By failing to goals that are often not passed on a rational basis and objective viewpoints, the same team or individuals who have spent activities often completely give up on implementation, and continues with the irrational use of resources by implementing results obtained inefficient and ineffective implementation of marketing activities. Quality by applying marketing activities generate the enormous potential that only should be used, and with the previous example often fails.

4.2. MARKETING TOOLS

Marketing was originally developed in connection with the sale of physical products, but today is one of most dominant trends in many parts of the world just extraordinary growth of the service sector or product with little physical content or without them. Catering and tourism are important parts of
the growing service sector. The growth of the service sector requires additional research on techniques to provide services and special applications of marketing in certain service industries. There are many tools that facilitate the implementation of marketing tools, and one of the most important is certainly the Internet. Internet as such, should really be studied as a separate platform and not as a tool but it also states in this role. There are countless opportunities that the Internet offers operators who offer their services, products or accommodation, but also for tourists who want to come and visit them.

Today, when you build a fully market economy, the success of the business depends entirely on how the business policy of the company based on market orientation, and decisions are made based on the application demand. The key to success of business entities in the consistent application of the marketing. The main task of marketing is maximum satisfy consumers and thus make a profit. Marketing in entrepreneurial Micro and Macro System of simultaneously provides means and ways of achieving economic goals, which will be discussed below (Ružić, 2007: 55).

Depending on the type of services, products, etc., which is offered in tourism, it is necessary according to previous research to establish the best forms of marketing activities and tools to be applied. It has been concluded, as for any entity, environment, target audience, etc., need to use specially designed tools, in order to get the most accurate information and that the right information from the entity that provides the service is sent exactly to the persons or groups to whom the same marketing activities were intended. The foregoing is defined as targeting and what has proved to be very effective and efficient.

Targeting as activity in marketing activities also need to be taken very seriously. Targeting means efficiently spend resources intended for research, advertising etc. The most frequent application of targeting is in advertising and applying the same can achieve large savings, but more importantly we can reach the “real” consumer i.e. the customer. In these activities, information about customers, such as place of residence, age, sex, marital status and many other are combined into one place, in the so-called database. It is important to note that, to collect the same data consumers must give their consent as this is recently largely abused and thus violates consumer privacy.

There are numerous tools that simplify the use of data collected from consumers and also their implementation in the process of targeting (see in more
One of the most important tools is Google AdWords. Targeting potential consumers, i.e. the customer based on their previous online searches, data that they voluntarily provided to agencies, hotels, web sites, and others may be informed about the offer which is based on all mentioned before and he might be interested in. So the consumer gets satisfied because he is getting timely information about the destination, hotels and other that he is interested in, and this way he is also being deprived of a number of unnecessary information about destinations and deals that do not interest him much. The company that invests in advertising achieves greater efficiency and leads to more efficient spending of dwindling resources.

The previously mentioned Google’s AdWords, in many ways simplifies targeting, advertising, etc., and in combination with many other Google’s and other tools, forming a tool kit, without which it is almost impossible to conduct business in tourism related activities. The vast majority of tools that are used extensively in most cases are free of charge, which further facilitates the decision on the application thereof.

The tools are free in terms of compensation for use, which is free of charge but Google and other companies that offer similar tools recognize the value of information and information they come across on the basis of its users, i.e., entities and tools used. In this way, those in the later stages of the implementation of AdWords and other tools generate large incomes to the satisfaction of all parties involved. The importance of AdWords evidenced by numerous large companies that implement it, a number of companies dealing exclusively AdWords campaigns and managing them for others, many training programs are organized in order to involve the largest possible number of users to use the same tools.

A number of complicated and incomprehensible algorithms implemented in the same tools allow easy coming to exactly the information which the user searched on the search engine. This is one of the biggest benefits of AdWords campaigns, profiling and treatment of results. The user is otherwise very often “lost at sea” of information that he is receiving, in this case, everyone loses, and in this way he is pleased together with advertiser. As much as mention tools were easy to use, their volume and the above mentioned algorithms make it difficult to use in some stage, i.e. in a way they profiled users. In fact, virtually anyone can use AdWords and other Google tools that we take for example, but the main difference is that not everyone can use the same tools as efficiently and effectively so.
Regardless of the amount of funds invested in a campaign, that does not mean that the campaign will yield the desired goals and results, on the contrary, you can spend large sums on campaign and if you do not know what to do and how, there is a big chance for failure, which later usually leads to a standstill using the same tools. It is often the case of withdrawal of the application of marketing tools, has been mentioned several times in the paper, including here, if insufficiently informed, not professional, not educated people themselves start to the implementation, there is a great chance for failure. As with other activities in daily life, it is necessary to educate, train hard and results will follow.

online advertising and tools

It is widely known and has been proven in various studies that searching the web and web sites via mobile devices becomes our everyday life. “The Web, with its multimedia capabilities is very convenient way of catering and tourism promotion, and electronic forms are very simple and effective way of communicating the customer and a supplier of catering and tourism services, regardless of whether it is a travel agency, a private owner, hotel, restaurant or tourist communities. Understandably, web presentations for the purpose of catering and tourist companies will have some particularities” (Ružić, 2007: 308).

Tourists and consumers are searching on the spot (in the hotel, at the agency, on the beach etc.) the web, compare and looking for useful information. That is why it is necessary to adjust the web sites for search on mobile and other devices i.e. make them responsive. This means that the page adjusts „by itself“ for the device from which is accessed to it. Whether it is a laptop, tablet, mobile device, etc.. If the web site of the subject is not responsive, there is a great danger that the consumer, i.e., the customer simply give up of further searches, and later to give up from the visit / purchase and other things. The navigation of the web should be simple and intuitive. The researchers of web market, Internet marketing and promotion particularly say this is achieved through five steps: (i) getting people to a Web site; (ii) keeping people at the Web site; (iii) getting people back to the Website once they’ve left; (iv) closing the deal and (v) aftermarket service and service of goods - Working the Back - End (Ružić, 2007: 311).

The consumers’ time has become a very important and valuable for him and therefore he doesn’t want to lose it unnecessarily. If it’s expected from him to adapt to web page, most likely is that he will not do this and that he will give up their original intentions.
Some important elements that commercial web site should have are following (Ružić, 2007: 308):

- **easy page use** - pages should be designed so that readers spend as little as possible time to explore ways in which to move through them. The text must be concise, well-written and effective. Multimedia content - photos, sounds and videos - should be clearly marked. If we want readers to review them, they need to know that multimedia are contained in the pages providing information on their size, format and quality of itself;

- **the message should be clear** - given the fact that the WWW is international, it is necessary to use direct and clear English (and Croatian) and express themselves in simple terms.

- **information should be fresh** - it is necessary to modify the content of the site as often as possible because the World Wide Web dynamic environment. But also it is necessary to bear in mind the target audience segment (readers) which we refer the contents page.

- **highlight the most important information** - information that the company puts on the network must be precise, accurate and clear.

The above mentioned, once again demonstrates and proves that the findings of the prior few years back and even decades are applicable today, and also show changes of trends and the direction.

A variety of applications for mobile devices, Android, iOS and other platforms are working to maximum facilitate the end users i.e. all consumers, from the initial search, reservations, purchasing up to search attractions, restaurants and other attractions at the place of visit. Lately, the news has become the integration of multiple services into one, also with a view to facilitating the process of the final consumer. Unifying implemented in the sense that the implementation of maps (Google maps) on the web page, in the application, adding various “event alert” in applications, which are combined with GPS and sharing, check-ins etc., and which allows user himself and consumer to get a great insight about many information, plus extra benefit for the advertiser who is receiving useful data from the user.

“The functions of the website of a company, in addition to previously described transaction can be: promotion of the company and / or product / event; advertising products / events; creating a corporate image; improvement of sales
(for example, division of electronic coupons) and contacts with customers, especially after-sales communication (Ružić, 2007: 312).

These are just some examples of the use of marketing activities in tourism and economic activity associated with them and some of the tools used and to be used in combination to the end product or service getting closer to the consumer. Every trader to its internal organizational structure adapts to the conditions in which it operates and the type (area) of its activities. The basic goal setting and the design of work organization in companies generally consists in achieving optimal organizational model that will be a function of a defined medium and long term goals of the company. There is a need to meet the criteria of business performance and market position of the company. It should be emphasized that the organizational structure the catering company, and within that process and organizational formation of marketing as a business function that catering company should continuously focus on the market, should be understood as the result of dynamic appreciation of existing and anticipating future needs of a particular economic operator in the market (Ružić, 2007: 362).

5. CONCLUDING REMARKS

There is a highly competitive (business) world out there and in order to survive one need to use marketing techniques and tools. What theory predicts, the real business practice proves – companies (as well as industries or sectors) usually emanate from the inability to use marketing potential to the fullest. Marketing tools are very useful in promoting and developing country’s tourism industry. The aim of marketing is not only to identify but also to anticipate the needs of tourists, to observe and predict trends in tourism and then to achieve organizational goals by producing effective marketing strategy.

The Republic of Croatia recognizes the importance of tourism as a powerful economic sector in terms of direct and indirect economic and non-economic benefits. However, in order to continue to develop touristic sector, i.e. touristic industry much more efforts should be invested in the use of modern marketing tools.

Strategic marketing planning should be promoted on all levels involving various stakeholders in Croatian tourism industry. In addition, one should start using modern marketing tools to promote much more of Croatian touristic
potential than the classical „sun and sea". Lifestyle tourism, cycle-tourism, religious tourism and the like should become a new focus in the marketing efforts invested by policy decision makers. A country with so much natural beauty, history and other potential needs professional people using professional marketing tools, techniques and parameters to help Croatia fight in the highly competitive global touristic arena.

LITERATURE

QUALITY FACTORS OF HIGH EDUCATIONAL SERVICES AT PRIVATE EDUCATIONAL INSTITUTIONS

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Abstract

This paper aims to show how and how much, the use of marketing activities in private educational institutions in Croatia, in the field of higher education, can affect customer satisfaction services, primarily student satisfaction, and how student satisfaction affects the creation of the overall positive climate and atmosphere which follows the process of providing educational services. The aim of the research is to determine the level of student satisfaction with services at private higher education institutions. The instrument used was a designed structured questionnaire. A total of 648 students participated in the research, 408 from private, i.e. 240 students from public faculties. Market oriented private educational institutions executed significant differentiation in terms of service, striving to improve educational services and enrich them with various additional activities and services in order to influence user / student satisfaction. Such behaviour of private educational institutions is the most frequent reason for the competitive success. Insisting on the quality of education does not make...
The degree / level of student satisfaction will be an indicator of quality. Combined with interpersonal relationship network it might be a factor for the effective differentiation and positioning on increasingly competitive educational services market.

**Keywords:** education, higher educational services quality, marketing, marketing orientation, interaction connectedness, student satisfaction.

**JEL Classification:** A2, L15

### 1. INTRODUCTION

With the advent of increasing number of private educational institutions at all levels of education in the Republic of Croatia, if educational programs are executed in accordance with the programs of the so-called public faculties (which are approved by the Ministry of Science, Education and Sport) there is also a different approach to users of educational services (students), teaching, and marketing. This paper aims to show how and how much, the use of marketing activities in private educational institutions in Croatia, in the field of higher education, can affect customer satisfaction services, primarily student satisfaction, and how student satisfaction affects the creation of the overall positive climate and atmosphere which follows the process of providing educational services. The aim of the research is to determine the level of student satisfaction with educational services at private higher education institutions in the Republic of Croatia in order to make appropriate recommendations for marketing management of private higher education institutions. The opinions of users / students is a key factor in the success of private educational institutions.

Research instrument was a structured questionnaire. The “Questionnaire” was made in the Google document created for drafting survey questionnaires and the testing was conducted via social network Facebook in a way that the administrator of certain public and private colleges published the questionnaire on their web-site. The questionnaire consists of three sets of questions, such as issues relating to student – faculty, student – teacher, student – student relationships. During statistical data processing, similar answers, were assigned to the same group, the so-called coding which created three main groups, whose results will be displayed in the results section of the research - i.e. the results for interactive connections, perceptions of quality and satisfaction will be presented in a form of a table.
2. NECESSITY OF ACHIEVING EDUCATIONAL SERVICES QUALITY

The benefits of education for the individual (and society) are far reaching. All efforts towards improving the quality of that education are moving the boundaries of human knowledge and are the basis of human progress. It educates and empowers the nation for an era dominated by knowledge. Therefore, the phrase “knowledge society” is often used and it points to the role of knowledge as the most important modern resource. It gives to the users of educational services a sense of personal and intellectual achievement. The availability and quality of education is an indicator of the level of social inclusion, society’s development, positioning, competitiveness, prosperity etc. In a world dominated by competition and rapid changes, the role of education in workforce training (at all levels), in stimulating innovation, supporting competitiveness and enriching life quality is dominant. In Croatia, with the emergence of private schools and institutions at all levels of education, the advent of competition, people started thinking about the educational service marketing and the quality of the same through the present antagonism and prejudices regarding the quality of educational services in the private and public (national) institutions in the field of higher education. (Adapted from: Jurković Majić, 2007: 33-38).

Applications that have happened in the last two decades in the Republic of Croatia are significant, and here we list some of the most important ones:

- the establishment of private educational institutions,
- implementation and perspectives of the Bologna Declaration
- positioning of Croatian educational institutions in the educational market of the European Union.

The establishment of the first private institution in the area of educational services that used intense marketing communication to impose themselves on the users and to successfully position themselves in the market resulted in recognition that marketing employment for both public and private educational institutions is a necessity. In addition to the challenges of global economic competition and the need to transform the economy, Croatia had faced with the requirements to meet the criteria for membership in the EU. The accession into the EU placed further requirements for the Republic of Croatia in the construction of the education system which will ensure training of employable workforce in EU market labour market. All of that additionally highlighted the importance of
education, especially higher education and its quality. Higher education quality and clear indicators of quality are the basis of positioning on the European educational market. The challenges faced by higher education and Croatian higher education institutions are great. It is believed that based on the tradition of Croatian education, positive application and quality outreach undertaken in the process of adjustment to European standards, and with regard of professional ability and professionalism of educational service providers, educational institutions in the Republic of Croatia can adequately respond to the challenges of the modern labour market. Marketing business concept will surely make a contribution, especially in the context of quality and customer satisfaction.

### 2.2. Higher Education Quality

Quality, due to strong competition and increasing consumer demands, has become a fundamental factor in the survival in the market, not only of individual activities and organizations, but overall economies. Quality awareness and commitment to quality is a guarantee of survival. Quality is something that is constantly being built, improved and developed. Quality is the degree to which certain products and services meet people’s needs, i.e. the totality of features and characteristics of products and services that underpin their ability to meet certain desires or expectations. (Funda 2011: 172) One of the obligations that the Republic of Croatia assumed by signing the Bologna Declaration was “to promote European cooperation in quality assurance in order to develop comparable criteria and methodologies”. Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) support, among others, the following principles: (Ivković, 2009: 20)

1. interest of students, employers and society in general for quality higher education,
2. importance of autonomy of higher education institutions which have the primary responsibility for quality and its assurance,
3. the need for external quality assurance has to meet the purpose, i.e., the realization of their goals,
4. quality of academic programs needs to be developed and improved in favour of students and other beneficiaries of higher education,
5. there needs to be a successful and effective organizational structure that provides academic programs,
6. transparency and the use of external expertise are important in quality assurance processes.

So, higher education institutions are responsible to all stakeholders in higher education: students who invest a part of their life in their education, parents who make sacrifices to provide them with education and potential employers. In order for an educational institution to be effective, all its segments must work together. In order to maintain and improve the image of the institution it is necessary to strive towards overall quality. Evans (1995: 140) lists three basic elements that educational institutions must adopt in overall quality approach, and those are: culture, commitment and communication. The achieved level of quality has a tendency of continuous growth since customers, as well as users, eventually demand greater value. For example, in the field of education, programs and plans have to be changed in accordance with the changing demands of the society and labour market needs.

3. SEGMENTATION OF EDUCATIONAL SERVICES MARKET

The process of educational market segmentation should be seen as a “compromise between the mass marketing, which presupposes that all can be treated equally, and the assumption that each person should receive a certain marketing effort.” (Kotler et al.; 2006: 391) With the advent of private educational institutions at the beginning of the 90's in the Republic of Croatia allowed segmentation to private and public (state owned) educational institutions. There are various target groups that are addressed by educational institutions. The target groups of educational services users are: users (students), their parents and family, employees, the public, institutions and entities interested in the admission (employment) of educated individuals, local as well as broader social community. These user groups differ in many areas such as: needs, desires, previously acquired knowledge, attitudes, financial opportunities etc. Still prevailing criteria in segmentation of educational market in the Republic of Croatia is the criterion of public and private higher education institutions. It is a big challenge because private educational institutions faced problems of perception, attitudes and prejudices related to the quality of education in private institutions. This division becomes even clearer when analysed over the so-called term of free use of educational services (at the expense of state budget), and educational services
paid by the user/student. “This division has led to a preponderance of the rational over the emotional motives in the choices made by educational service users. For users’ sake, we hope that competition in educational services market will impose the quality of education as the main motive and the basic competitive advantage.” (Jurković Majić, 2007: 57).

3.1. Positioning of Higher Education Institutions in the Republic of Croatia

When writing his “The Wealth of Nations”, Adam Smith believed that only material goods add value to the national capital with the help of a strong hand, the invisible hand of the economy. Today this hand becomes even more elusive, and contribution to that are ideas and knowledge/learning. They are intangible, we cannot touch them or see them, but they surely exist. A paradigm of economy was applied – we have switched from economy driven by tangible products and goods to economy driven by intangible ideas, concepts, abstracts, knowledge. “(Bogdanović, 2007: 17) A large number of studies indicate that education is one of the most respected symbols of Croatia. Citizens of the Republic of Croatia expect a lot of education, believing it to be one of the key resources and solutions for difficult economic situation, but despite high expectations, the fact is that investments in education are still fairly low. The emergence of private educational institutions in the Republic of Croatia has imposed the need of intensifying communication with users to all educational institutions at all levels of education, but also the necessity of repositioning. The term positioning of public educational institutions in the Republic of Croatia also includes the space which, compared to private educational institutions, they wish to occupy in the minds of their service users, i.e. in minds of students, their parents/families, and community in general. In connection with the above, later in this paper we will indicate positioning strategy of public institutions through differential advantage in comparison to private institutions.” “The basic outcomes in positioning all services are price and quality. For years there is a stereotype regarding the quality of education services. It was considered that the quality of service was a category which is a priori present, but the emergence of private institutions allowed certain comparisons and distinctions which can be confirmed in practice. For example, improved quality of high school service or improved vocational education quality is revalued through better placement in entrance exams for further education or vocational education quality is revalued in the
labour market. These are the two key variables that can be used for monitoring and analysing the quality of service.” (Jurković Majić, 2007: 61) We believe that the analysis of the quality of higher education services is an important external indicator of employment opportunity quality, i.e. the time that elapses from finishing education to finding employment. Likewise, a considerable external indication of the quality is the opportunity of continuing education at the same institution or other educational institutions.

Price, as a second service characteristic, in positioning higher education services is a characteristic which allows state owned higher education institutions to position themselves via the known term of “free education”, unlike private higher educational institutions that charge for their services. “Since they are specific activities, it is not possible to list all combinations of price and quality, but the principle consideration is that the combination of high prices and low quality is unsustainable in the long run, since it represents the delusion of users. Also, because of importance of the activity for general prosperity of the society, regardless of competitive advantage of public institutions, we believe that higher quality of education will become and remain the postulate, i.e. that competitive advantage within educational system should not be sought in the service concept itself within operative strategy. (Jurković Majić, Prlić 2007: 91).

4. RESEARCH ON HIGHER EDUCATION SERVICE USER SATISFACTION

A total of 648 students participated in the research, 408 from private, i.e. 240 students from public faculties. The sample is appropriate, it belongs in the samples based on the intent and because of its size (number of respondents) it can be considered appropriate for this type of research and the results obtained can be considered indicative. Contribution to this questionnaire was given by respondents - students from public universities which are listed below, according to their numbers, from highest to the lowest number of respondents from public university: Faculty of Economics in Zagreb (n 83); Faculty of Economics in Osijek (n 70); Faculty of Electrical Engineering and Computing in Zagreb (n 24); Faculty of Economics in Split (n 18); Faculty of Humanities and Social Studies in Zagreb (n 10); Teacher Education Faculty (n 5); Faculty of Law in Zagreb (n 4); Faculty of Agriculture in Zagreb (n 4); Faculty of Medicine in Zagreb (N 4); Faculty of Political Sciences (n 4); Food-Biotechnology Faculty in
Zagreb (n 4); Croatian Studies (n 2); The Faculty of Philosophy of the Society of Jesus (n 2); Civil Engineering Faculty in Zagreb (n 2); Faculty of Mechanical Engineering and Naval Architecture in Zagreb (n 2); Faculty of Education and Rehabilitation in Zagreb (n 1); Faculty of Physical Education in Zagreb (n 1). Regarding private institutions, students from the following institutions gave their contribution to this research and are listed according to the number of respondents, from the largest to the lowest: University of Applied Sciences “Baltazar” Zaprešić (n 336); Libertas Business School (n 41); School of Economics and Management in Zagreb (n 23), University of Applied Sciences VERN in Zagreb (n 8). Below we can see Table 1 containing sets of questions regarding interaction consecutiveness that shows a collective average rating of for private and public universities. We can observe that private institutions feature more regular communication with students, and that they are better informed of all developments compared to students from public universities. On the other hand, students from public institutions spent more time socializing together than students from private institutions. Other determinants of interaction consecutiveness are almost equal on both private and public institutions.

Table 1: Interaction consecutiveness - consolidated average score, average score for public and average score for private institutions

<table>
<thead>
<tr>
<th>Question - Interaction consecutiveness</th>
<th>Consolidated average score</th>
<th>Average score Public</th>
<th>Average score Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Communication with students is regular</td>
<td>3.74</td>
<td>3.42</td>
<td>4.06</td>
</tr>
<tr>
<td>2. Students are informed about all developments at the institution</td>
<td>3.55</td>
<td>3.17</td>
<td>3.93</td>
</tr>
<tr>
<td>3. Professors regularly respond to students’ inquiries</td>
<td>4.165</td>
<td>4.01</td>
<td>4.32</td>
</tr>
<tr>
<td>4. Relations between the students are good</td>
<td>4.225</td>
<td>4.2</td>
<td>4.25</td>
</tr>
<tr>
<td>5. Students display mutual understanding</td>
<td>4.115</td>
<td>4.1</td>
<td>4.13</td>
</tr>
<tr>
<td>6. I often borrow lecture notes from my colleagues</td>
<td>3.575</td>
<td>3.61</td>
<td>3.54</td>
</tr>
<tr>
<td>7. We study and prepare for exams together</td>
<td>3.31</td>
<td>3.24</td>
<td>3.38</td>
</tr>
<tr>
<td>8. I often attend classes because of my colleagues</td>
<td>3.465</td>
<td>3.47</td>
<td>3.46</td>
</tr>
<tr>
<td>9. I interact with my colleagues in my private time</td>
<td>4.455</td>
<td>4.91</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: Table drafted by the authors

Table 2 shows that 13 of 14 items in the questionnaire related to the perception of the quality display higher score for private institutions than public ones. Better average score for private institutions is seen in all respects of perception claims, while public institutions display better score, except in question 1, i.e. the evaluation of quality recognition of mother institution by students.
### Table 2: The perception of quality - consolidated average score, average score for public and average score for private institutions

<table>
<thead>
<tr>
<th>Question - Perception of quality</th>
<th>Consolidated average score</th>
<th>Average score Public</th>
<th>Average score Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My faculty is known as a quality one</td>
<td>3.715</td>
<td>3.81</td>
<td>3.62</td>
</tr>
<tr>
<td>2. This faculty will provide me with a quality education</td>
<td>3.76</td>
<td>3.68</td>
<td>3.84</td>
</tr>
<tr>
<td>3. When I graduate I will quickly find employment</td>
<td>2.96</td>
<td>2.82</td>
<td>3.1</td>
</tr>
<tr>
<td>4. Curriculum is modern and harmonized with the labour market</td>
<td>3.525</td>
<td>3.17</td>
<td>3.88</td>
</tr>
<tr>
<td>5. Faculty features modern forms teaching</td>
<td>3.83</td>
<td>3.5</td>
<td>4.16</td>
</tr>
<tr>
<td>6. Students are encouraged to work regularly</td>
<td>3.57</td>
<td>3.35</td>
<td>3.79</td>
</tr>
<tr>
<td>7. Lectures and instructions are clear</td>
<td>3.655</td>
<td>3.22</td>
<td>3.91</td>
</tr>
<tr>
<td>8. The classes are well organized</td>
<td>3.565</td>
<td>3.1</td>
<td>3.83</td>
</tr>
<tr>
<td>9. We work in small groups</td>
<td>3.31</td>
<td>2.79</td>
<td>3.83</td>
</tr>
<tr>
<td>10. I am not bored during lectures</td>
<td>2.885</td>
<td>3.19</td>
<td>2.58</td>
</tr>
<tr>
<td>11. Professors encourage student independence and creativity</td>
<td>3.125</td>
<td>2.86</td>
<td>3.39</td>
</tr>
<tr>
<td>12. Professors treat all students equally</td>
<td>3.36</td>
<td>3.2</td>
<td>3.52</td>
</tr>
<tr>
<td>13. Professors are recognized experts in their fields</td>
<td>4.045</td>
<td>4.03</td>
<td>4.06</td>
</tr>
<tr>
<td>14. Professors use technical tools</td>
<td>4.05</td>
<td>3.91</td>
<td>4.19</td>
</tr>
</tbody>
</table>

*Source: Table drafted by the authors*

In Table 3 on average score is dominant in almost all respects in private institutions compared to public ones, with the most significant difference in statement 3, i.e. student satisfaction with the quality of facilities.

### Table 3. Satisfaction - consolidated average score, average score for public and average score for private institutions

<table>
<thead>
<tr>
<th>Question - Satisfaction</th>
<th>Consolidated average score</th>
<th>Average score Public</th>
<th>Average score Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am satisfied with my choice of educational institution</td>
<td>4.075</td>
<td>3.91</td>
<td>4.24</td>
</tr>
<tr>
<td>2. I regularly attend lectures</td>
<td>3.975</td>
<td>3.75</td>
<td>4.2</td>
</tr>
<tr>
<td>3. I am satisfied with institution’s facilities</td>
<td>4.025</td>
<td>3.59</td>
<td>4.46</td>
</tr>
<tr>
<td>4. I can say I am a satisfied student at this institution</td>
<td>3.85</td>
<td>3.58</td>
<td>4.12</td>
</tr>
<tr>
<td>5. I can say I am a satisfied student at this institution</td>
<td>3.73</td>
<td>3.48</td>
<td>3.98</td>
</tr>
<tr>
<td>6. I satisfied with communication with my colleagues</td>
<td>4.27</td>
<td>4.25</td>
<td>4.29</td>
</tr>
<tr>
<td>7. I am satisfied with my relationships with my colleagues</td>
<td>4.435</td>
<td>4.51</td>
<td>4.36</td>
</tr>
</tbody>
</table>

*Source: Table drafted by the authors*
4. CONCLUSION

The quality of educational services is the main source of competitiveness and if the perception is greater than or equal to expectations, we can say that the result is students’ satisfaction. To increase the quality of services provided at private institutions, we recommend continuous strengthening of relationship between professors and students through regular communication and cooperation with each other in a way that professors with their innovative lectures and clear instructions motivate and encourage independence and creativity in students and to work in small groups where they can give the same attention to all students. Another recommendation is constant maintenance and investment in the physical environment of the institution, and by that we mean the introduction of modern technologies, gym equipment, improving teaching aids and systems for distance learning. We also recommend repeating this research each year in order to monitor and compare the results, and accordingly take certain corrective measures in order to sensitize the public as much as possible and to dispel prejudices against private educational institutions. Limitations of the research: when testing the perception of the quality we need to ask how much is it related to the number of students with factors that are selected to represent quality. Certainly in the interpretation other factors of perception of quality should be taken into account, which are numerous. One of the most important determinants of quality is employability and time elapsed until the first employment after graduation which was not tested. Furthermore, as a limitation, we can mention those participants who do not study social sciences, but natural and technical sciences. Results of this paper can serve as guidelines for further improvement of the quality of higher educational services through marketing orientation, both at private as well as at public educational institutions in the Republic of Croatia.

REFERENCES


ACCESS TO STRATEGIC RESOURCES THROUGH THE RELATIONAL NETWORK OF THE CONTRACTOR AND INNOVATION OF TUNISIAN SMES

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Abstract
Our paper is devoted to analyze the mediating effects of the access to strategic resources between the relational network of contractors and innovation in the specific case of Tunisian SMEs. The originality of this approach lies in the effort to show that the detention of a relational network is not synonymous with real access to strategic resources and the realization of benefits in terms of innovation. This finding is particularly important for SMEs which lack the means to profit from their own relational fabrics.

Keywords: Access to strategic resources, knowledge, innovation, relational network, Tunisia.

JEL Classification: L2, L26

1. INTRODUCTION
The resources are assimilated as the cornerstones of the existence and growth of a business (George, 2005 and Penrose, 1959). For Denieuil (1992),
SMEs have a social value that results from the variety of knowledge, support and personal relationships of the contractor. The success of the latter, therefore, depends on his capital relationships and ability to move within a relational network of customers, suppliers, administrative guarantees, etc.

In general, external resources are very useful for the development of new products to increase market share and improve business performance. Access to these resources is likely to facilitate the identification and exploitation of opportunities available in the productive environment and the prediction of unexpected risks (Yli-Renko and colleagues, 2000). These opportunities are particularly must important for SMEs compared to large businesses due to its fragility and vulnerability and the lack of resources (financial, human, experience ...). Therefore, the primary concern which these SMEs face, is to get the resources needed to ensure their survival and to be more efficient.

Moreover, given the lack of resources to pursue their innovation, SMEs are required, actually more than another time, to benefit from their relational networks thanks to an effective access to the strategic resources.

Therefore, the objective of our paper is to analyze the mediating effects of the access to strategic resources between the relational network of contractors and their innovation in the specific case of Tunisian SMEs.

2. THE EFFECT OF ACCESS TO STRATEGIC RESOURCES ON INNOVATION

One feature that seems recurrent in studies on innovation in a SME context is that their resources are usually limited (Keogh and Evans, 1998; Major and Cordey-Hayes, 2003; OECD, 2005; Rothwell and Zegveld, 1982, Storey, 1994). SMEs may be disadvantaged in their pursuit of innovation by the lack of resources (Julien and Carrier, 2002) and the optimizing of its use becomes a necessity (Wolff and Pett, 2006, 270). This may explain why the efficiency of the R & D department of SME may be higher than for large firms (Acs and Audretsch, 1991; Vossen, 1998). However, their lack of resources can also lead them to limit their involvement in risky activities, such as R & D (Carmel and Nicholson, 2005, Hoffman and al, 1998.). Innovation systems, as Lundvall (1985) proposes, are an essential attribute attention to interactive learning that is conditioned by non-price relationships, such as energy, confidence and loyalty.
In addition, the effective transfer of knowledge requires mechanisms to coordinate the interaction of complementary pieces of knowledge.

In this regard, social relationships accelerate the pace of learning and are potential sources of innovation and dynamicity (Asheim et al., 2011; Asheim and Isaksen, 2005; Iammarino and McCann, 2005; Malmberg and Maskell, 2006). In addition, the daily interaction between stakeholders can ensure a rich and diverse social networking. Indeed, the face-to-face ensures that both interaction partners put efforts in a common project and prevents them from engaging in free-riding behavior, which would undermine the incentive and interactive learning in the future (Storper and Venables, 2004). In this way, trust and engagement is gradually established in the process of social interaction and enhances the learning dynamics.

Therefore, the ability to innovate of the company is based on the exploitation of its innovative skills. The latter are leveraging a set of codified and institutionalized knowledge as well as a pool of experiences formalized to reach a sufficient level of knowledge in the judgment (decision) of innovation to produce (Dubuisson and Kabla, 1999). Innovative skills are deeply rooted and diffused in the organization, which makes them difficult to imitate. They offer more potential to be extensively exploited since they are at the level of the organization and not only at the level of individuals in the organization (Prahalad and Hamel, 1990).

2.1. Effect of access to strategic information on innovation

Many contributions have showed the positive effect of the use of these external sources of information. Julien and al. (2004) observe the beneficial effect on innovation of links to actors rather distanced from the everyday activity of SMEs (universities, government agencies, etc.) compared with those with whom it interacts more regularly (suppliers, customers, partners, etc.). From his side, Watson (2007) showed that the characteristics of the leader of the network had a positive impact on the survival and growth of the company.

In fact, innovation depends on the learning process, but also on the past decisions in the accumulation of knowledge (Cohendet, 2003). In this regard, the organization follows a specific technological trajectory. Indeed, the firm is restricted in its exploration by the limited rationality of the members of the organization. Unable to process all the information, they are forced to use routines and procedures to explore their environment (Cohendet 1995). Accord-
ing to an evolutionary perspective, organizations first accumulate knowledge and experiences that promote generation of innovations (Cohen and Levinthal, 1990). Then, they develop routines and structures that crystallize organizational knowledge that are advanced over time to better exploit the knowledge acquired. The routines and structures are difficult to modify. Faced with a changing environment, the slow adjustment routines and structures becomes a source of organizational inertia and stiffness. Thus, organizations lose the ability to assimilate and exploit new knowledge pools. Technological exploration becomes more local and closer to what the organization already knows (Mitra, 2000). The organization pursues a technological trajectory which can increasingly narrow it away from the requirements of the environment. In this case, the organization gradually loses its competitive flexibility (Sorensen and Stuart, 2000).

As innovation and routines that support it are based on knowledge, it becomes essential for the firm to focus on the creation and assimilation of knowledge. But, the process of creating knowledge must feed rich information to counter exploration which can make knowledge increasingly localized. In practice, the results of the survey conducted by Julien Guihur and Morin (2003) on SMEs of the Quebec indicate that there are many limits to technical progress and access to qualified staff. These difficulties are mainly related to the need to use the rich information to innovate.

Daft and Lengel (1986) define wealth of information as its ability to change the understanding of state within a time interval. They consider that communication is rich when it allows, quickly, the clarification of ambiguous situations or spend beyond different perspectives. The information used is not as rich as it takes longer to reduce ambiguity or that it does not go over the differences of perspectives. The potential that it has to learn a communication gives it its wealth of information (Daft and Lengel, 1986). According to Julien (2005), rich information is a rich source of various signals used as raw material for new knowledge. The managerial problem is related to the process of innovation needs to be supplied with new knowledge and thus, to be supplied with rich information to continue contributing to the flexibility and competitive distinction of the organization.

However, Daft and Lengel (1986) believe that some media or communication channels are richer than others depending on their ability to convey the rich information able to reduce ambiguity in new knowledge. A rich medium facilitates immediate reactions and simultaneously maintains a large number of signals,
uses many communication channels, allows a focus on the person (personalization) and retains language diversity (and Wiginton Daft, 1979). Moreover, cross study achieved by Carlson (1995) reveals that the wealth of information of electronic medium as perceived by users is based on their experience with both the communication channel and the interlocutor, and experience to communicate in the involved organizational context. In addition, the wealth of information collected is comparatively less affected by the subject of communication and social influence felt by the interlocutor. As for the longitudinal study, the author emphasized that the wealth of information of the electronic medium as perceived by the user is positively articulated with the experience of the latter with the communication channel, experience with interlocutor and social influence.

Hence, the structural features facilitate the use of media usually considered rich, interactive reports promoting, personal and often face-to-face to share subjective views towards a common interpretation. Such rich structural mechanisms include group meetings, liaison activities (boundary spanning) with individuals serving as information gateways between departments and finally, direct contact between members of the organization (Daft and Lengel, 1986). Some uses of electronic communication channels may also be assimilated as carriers of rich information (Carlson, 1995; Ngwenyama and Lee, 1997). Besides the structural means, the organization can also access to rich information through training of members of the organization, recruiting members with increased expertise, complementary or new, or the acquisition of new resources (Wickert and Hershel, 2001; Julien and Carrier, 2002).

Thus, innovation is the fruit of a collective effort, which frequently goes beyond the simple framework of the organization (Amable, 2003). In fact, the synergy between the different stakeholders, organization of links established between them, and their environments are critical to absorb information and turn it into a source of knowledge (Julien, 2005).

The innovation activity is also an often interactive and collective turbulent process for the dismantling, the construction and the association of ideas (Callon, 1995). Therefore, innovation is reduced to a recombination of knowledge and expertise to create new resources and skills used by individuals or organizations. Knowledge is the base and the starting point for innovation. But, knowledge is created and organized by the message flow, signals, from which we can draw meaning and learn something (Nonaka, 1994). The potential to learn in a communication gives the latter its wealth of information.
The wealth of information, as a rich source of various signals, used as raw material to new knowledge (Julien, 2005). On the basis of available knowledge pool, the creation of knowledge through learning and accumulation of knowledge influences the organization’s ability to innovate through the accumulation of knowledge and absorption of rich information.

2.2. The effect of access to financial resources on innovation

Access to financial resources is one of the first obstacles faced by contractors in the creation of their company. Given the efforts in research and development to generate significant profitability, innovative SMEs have, in fact, more often, serious funding problems than other “traditional businesses” (Albert et al, 1994; Moreau, 2005). We note that the information asymmetry and the presence of intangible assets are, also, the two main causes of the problem of financing of the innovative company. This pushes financial institutions, including banks, to maintain a cautious position by rationing the volume of credit to small innovative structures, or, by making it more expensive for them.

The financial dimension of export performance makes reference to both internal determinants, through financial and external determinants, because of external financial barriers hindering the export development. The export requires specific financial needs. Indeed, although some requirements are common to domestic activity and international activity, others are linked only to the international activity of the company. They create a need for additional funding. Another category of emerging financial needs of the export activity and its development consists of the costs they will generate, which increase the need for working capital and it must be minimized.

Venture-capital or, more generally, the capital investment is a financing method particularly well adapted to the emergence and development of innovative start-ups. As defined by the FPEA (the French Private Equity Association), the mission of the venture-capital is to take a stake in small and medium sized unlisted companies. This financing method, thus, appears as an essential lever for the revitalization of the business fabric of our economies (Glachant and al., 2008). Indeed, although it accounts for a paltry share of the total capital raised to finance innovation, venture-capital plays a crucial role in the economic sphere and can even present itself as a catalyst for innovation and particularly for radical innovation.
If the mechanism of financial funding promotes the launch of new innovative firms, especially its originality is that it is strongly attached to an objective of growth and enhancement of the financed company. Indeed, venture-capital companies mobilize their expertise (financial, managerial, technical, ...) in order to add value to their portfolio. Nevertheless, the ultimate goal of venture-capital companies is to pay via capital gains realized on the resale of their holdings in the company.

2.3. **The effect of social support on innovation**

Our fundamental theoretical hypothesis concerning the concept of innovative environment, namely the social and economic environment of a developed region during by following path dependence (David, 2001)), is that all innovative environments are the product of interactions between companies, institutions and labor (different categories of proximity). Such interactions are exclusively the result of mutual synergies (networks, partnerships, etc.) between the various local actors (public or private) taking part in the economic and industrial development. As an illustration, we can refer to different types of cooperation between companies and research laboratories. To this end, the launch of new entrepreneurial activity is a priori moderated by socioeconomic context, industrial and scientific environment, and the genesis of innovations.

2.4. **The effect of knowledge transfer on innovation**

According to Tesfaye (1997) and Fayolle (1999), innovative contractors in the technological field target their investment projects in the sectors in which they have a thorough knowledge about the markets and technologies adopted and the industry in question (B.H. Tarek, 2014), the wide of competence and the past experience with the product and the technology used (Gasse, 2002).

Moreover, innovation capacity of the company is strongly determined by the ability of the contractor to operate his innovative skills. These latter, are developed, thanks to a set of codified and institutionalized knowledge, and a non-transferable basis of experience to acquire sufficient knowledge and this, in order to decide the innovation to produce (Dubuisson and Kabla, 1999). Innovative skills are radically integrated and shared within the organization, which makes them difficult to imitate.
The analysis of innovation is not realized on the side of the resources involved or results obtained. The problem is related to activities necessary for this innovation to succeed (what is now), especially in terms of knowledge, expertise, experience and skills to innovate (Cohendet and Munier 2009). Based on this idea, we can formulate the following hypothesis: The relational network of the contractor affects positively and significantly the innovation by facilitating access to strategic resources.

Hence, we try to test the mediation of the access to strategic resources in the relationship between relational network and innovation.

3. METHODOLOGY, RESULTS AND DISCUSSION

Before presenting the results of the confirmatory analysis, we want to clarify the conditions for its implementation. The majority of variables cannot be considered normal or pseudo-normal. This is the reason that the use of Bootstrap procedure with 100 replications of the sampling and the method of Maximum Likelihood (ML) has been selected for the parameter estimates. We try in what follows to test the mediation of the variable related to the absorption capacity between relational network and entrepreneurial orientation. We expose below the necessary calculation steps in order to identify the mediating effect and the strength of this indirect effect will be tested through the complete model. The technique of structural equations, as recommended by Keny and Baron (1986) were used among all possibilities of analysis of causal effects. Several indices will be mobilized to assess the validity, quality and relevance of a measurement model. The use of confirmatory factor analysis with adjustment function (ML) is sensitive to the violation of the assumption of normality of the different multi-dimensional relational network.

However, we preferred to use a bootstrap procedure to ensure the validity of results. As for the validity of relations, two types of service must be assessed. Statistical significance is assessed through “t-student” tests on correlations. The practical significance is assessed by the value of R-square. Given this wealth of information, the use of indices to compare the suitability of several models between them (NFI, NNFI, CAIC, GFI, AGFI) and an index associated with a confidence interval (RMSEA). In consequence, we retain the indicators according to their availability in STATISTICA 5.1.
All data collected by a questionnaire were subjected to a number of statistical analyzes with the aim to discover, describe and understand the process of access to external resources. However, the information provided by the questionnaire was not all directly usable as is. They were submitted to a preparatory work to make them operational for statistical processing. Preparing data includes a number of steps which are intended to transmit the questionnaires variable file on which will be considered complete statistical processing. Two main phases can then be distinguished: the verification of questionnaire” and “codification of answers.

This systematic work has shown that the successful questionnaire is completed legibly. Only a very few cases involved minor anomalies. It was essentially a few unintentional oversights responses to an item, generating few missing values. Thus, there was no removal of relevant questionnaires.

The questions were related to innovation adopted by SMEs (including their industry, specializing in the IT sector, characteristics of the innovation model to follow, innovation typology and the minimum values of innovation);

To investigate the dimensionality of the variable related to innovation, a first factor analysis using SPSS 17 software, the vari-max rotation method with Kaiser normalization was chosen because of various scales are not supposed to be independent. Before the analysis, we first checked whether the conditions for the factorization of the variables were observed. Measuring KMO is of the order of 0.617. This value is satisfactory for the exploratory phase. The statistical picture of the anti-correlation matrix is satisfactory.

After filtering, our sample consists of 140 Tunisian SMEs. To study the dimensionality of the entrepreneurial orientation, a first factor analysis with SPSS 17 software, the vari-max rotation method with Kaiser normalization were selected because of the various scales are not assumed to be independent. Before the analysis, we first checked whether the conditions for the factorization of the variables were observed. Measuring KMO is of the order of 0.617. This value is satisfactory for the exploratory phase. The statistical picture of the anti-correlation matrix is satisfactory. The Bartlett sphericity test is also significant to the threshold of 0.001. This analysis has reduced the number of items from 34 to 28 (total outstanding items) which justify the use of a second factor analysis. The items related to innovation are exposed in the following table.
The first factor related to innovation is interested in different types of organizational innovation (product, process, and marketing) that can be implemented to develop the new production methods, a new idea, and thus, to give a dynamic entrepreneurial and latent capacity in both forms: technological form and behavioral form. From 6 items we have valued, innovative capacity of the contractor based mainly on the exploitation of his innovative skills and his experiences with the product and technology used and therefore, to have a good knowledge of markets, technologies or industry.

Furthermore, in order to measure the relational network of the entrepreneur, we opted for five key variables, namely: The scale of network, the density of network, the structural holes, the nature of social ties, and attribute of alters.

In what follows, we want to explore the relative influence of all components of personal and relational network on access to strategic resources by referring to a structure analysis based on the ML function. The values shown in the tables below are those of the bootstrap (100 replications of the same sample size).

**Table 1: Items of the variable related to innovation**

<table>
<thead>
<tr>
<th>Items</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Sector of company</td>
<td>Innovation</td>
</tr>
<tr>
<td>- Specialty In the IT sector</td>
<td></td>
</tr>
<tr>
<td>- The Model to follow in the innovation system</td>
<td></td>
</tr>
<tr>
<td>- Product type according to the degree of innovation</td>
<td></td>
</tr>
<tr>
<td>- Conductor and project monitoring</td>
<td></td>
</tr>
<tr>
<td>- The Minimum values of innovation</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2: Validation of the determinants of variable related to access to strategic resources using indexes**

<table>
<thead>
<tr>
<th>Index</th>
<th>Value (ML function)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGFI&lt;sup&gt;1&lt;/sup&gt;</td>
<td>0.994</td>
</tr>
<tr>
<td>GFI&lt;sup&gt;2&lt;/sup&gt;</td>
<td>0.649</td>
</tr>
<tr>
<td>RFI&lt;sup&gt;3&lt;/sup&gt;</td>
<td>0.774</td>
</tr>
<tr>
<td>TLI&lt;sup&gt;4&lt;/sup&gt;</td>
<td>0.654</td>
</tr>
<tr>
<td>CAIC&lt;sup&gt;5&lt;/sup&gt;</td>
<td>0.974</td>
</tr>
<tr>
<td>RMSEA&lt;sup&gt;6&lt;/sup&gt;</td>
<td>0.077[0.067 0.087]</td>
</tr>
</tbody>
</table>

<sup>1</sup> Adjusted GFI.

<sup>2</sup> Goodness of-fit index.

<sup>3</sup> Index related to the adequacy of Bollen.

<sup>4</sup> Turker Lewis index.

<sup>5</sup> CAIC of Bozdogan(1987).

<sup>6</sup> RMSEA de Steiger and Lind (root-mean-square error of approximation, 1980).
The results of the estimate indicate statistically significant and positive relationship between the different dimensions of relational network and access to strategic resource, except for the attribute of alters (a non-significant negative correlation between the two variables). The practical correlation between measurements obtained between relational network and access to resources is acceptable ($R^2 = 0.49$). The adjusted indexes are satisfactory or are close to the recommended standards.

The significant relationship between relational network and innovation suggests that the formation of entrepreneurial opportunities occur by the wealth of information acquired through social ties and new contacts. Another significant relationship between innovation and relational network reveals that the entrepreneurial opportunity is based on how learning and knowledge accumulation influence the innovative contractors to exploit its innovative skills.

The significance of this relationship suggests the existence of the mediating role of the variable access to strategic resources in the relationship between relational network and innovation. We will further explore this possibility.

### Table 3: Validation of the determinants of access to strategic resource

<table>
<thead>
<tr>
<th>Statistical significance</th>
<th>Practical significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scale of network → Access to strategic resources</strong>&lt;br&gt;Correlation :0.233 ($t=2.18$)**&lt;br&gt;After Bootstrap :0.228 ($s=0.022$)</td>
<td>$R^2= 0.477$&lt;br&gt;After bootstrap =0.491</td>
</tr>
<tr>
<td><strong>Density of network → Access to strategic resources</strong>&lt;br&gt;Correlation :0.63 ($t=3.18$)**&lt;br&gt;After Bootstrap :0.61 ($s=0.007$)</td>
<td></td>
</tr>
<tr>
<td><strong>Structural holes → Access to strategic resources</strong>&lt;br&gt;Correlation :0.036 ($t=5.18$)**&lt;br&gt;After Bootstrap :0.031 ($s=0.034$)</td>
<td></td>
</tr>
<tr>
<td><strong>Nature of social ties → Access to strategic resources</strong>&lt;br&gt;Correlation :0.014 ($t=1.74$)**&lt;br&gt;Après Bootstrap :0.012 ($s=0.054$)</td>
<td></td>
</tr>
<tr>
<td><strong>Attribute of alters → Access to strategic resources</strong>&lt;br&gt;Correlation :-0.44 ($t=1.22$)&lt;br&gt;After Bootstrap :0.42 ($s=0.032$)</td>
<td></td>
</tr>
</tbody>
</table>

Threshold of significance: ***(1%), ** (5%), no stars (not significant)

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7 Statistical significance was evaluated through tests “t” conducted on the correlations.

8 The practical significance appreciated by the value of $R^2$
Before commenting these results, we want to ensure that the relationship between the components of personal and relational network and innovation is mediated by the access to strategic resources. To do this, three values must be calculated successively to conclude that the access to strategic resource has a total mediation. We resume below each of the three steps necessary to calculate and present the findings later to stretch. The table highlights the value and significance of correlations between measurements of the relational network (Xi) and the variable related to access to strategic resources (M), the correlation between Xi and innovation (Y) as well as correlations between X and Y when the mediation M is controlled.

ML fitting feature was used later to use a bootstrap procedure has controlled the violation of the assumption of the normality of variables and the stability of the results.

**Table 4: Correlation between relational network components and access to strategic resources**

<table>
<thead>
<tr>
<th>Item</th>
<th>X_i→Access to strategic resources</th>
<th>X_i→Innovation</th>
<th>X_i→Innovation (M controlled)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density of network</td>
<td>Correlation: 0.324 (t=4.12)</td>
<td>Correlation: 0.274 (t=4.04)</td>
<td>Correlation: 0.032 (t=0.78)</td>
</tr>
<tr>
<td></td>
<td>Bootstrap: 0.328 (s=0.04)</td>
<td>Bootstrap: 0.281 (s=0.03)</td>
<td>Bootstrap: 0.041 (s=0.014)</td>
</tr>
<tr>
<td></td>
<td>R²=0.18</td>
<td>R²=0.16</td>
<td></td>
</tr>
<tr>
<td>Scale of network</td>
<td>Correlation: 0.454 (t=2.18)</td>
<td>Correlation: 0.255 (t=5.14)</td>
<td>Correlation: 0.088 (t=1.22)</td>
</tr>
<tr>
<td></td>
<td>Bootstrap: 0.462 (s=0.04)</td>
<td>Bootstrap: 0.265 (s=0.032)</td>
<td>Bootstrap: 0.079 (s=0.025)</td>
</tr>
<tr>
<td></td>
<td>R²=0.084</td>
<td>R²=0.144</td>
<td></td>
</tr>
<tr>
<td>Structural holes</td>
<td>Correlation: 0.412 (t=7.12)</td>
<td>Correlation: 0.478 (t=7.22)</td>
<td>Correlation: 0.191 (t=1.84)</td>
</tr>
<tr>
<td></td>
<td>Bootstrap: 0.399 (s=0.04)</td>
<td>Bootstrap: 0.412 (s=0.018)</td>
<td>Bootstrap: 0.145 (s=0.032)</td>
</tr>
<tr>
<td></td>
<td>R²=0.24</td>
<td>R²=0.23</td>
<td></td>
</tr>
<tr>
<td>Nature of social</td>
<td>Correlation: 0.255 (t=1.89)</td>
<td>Correlation: 0.311 (t=2.19)</td>
<td>Correlation: 0.07 (t=0.84)</td>
</tr>
<tr>
<td>ties</td>
<td>Bootstrap: 0.251 (s=0.018)</td>
<td>Bootstrap: 0.354 (s=0.04)</td>
<td>Bootstrap: 0.09 (s=0.04)</td>
</tr>
<tr>
<td></td>
<td>R²=0.31</td>
<td>R²=0.19</td>
<td></td>
</tr>
<tr>
<td>Attribute of</td>
<td>Correlation: 0.155 (t=1.67)</td>
<td>Correlation: 0.245 (t=1.89)</td>
<td>Correlation: 0.125 (t=2.15)</td>
</tr>
<tr>
<td>alters</td>
<td>Bootstrap: 0.184 (s=0.02)</td>
<td>Bootstrap: 0.213 (s=0.03)</td>
<td>Bootstrap: 0.214 (s=0.014)</td>
</tr>
<tr>
<td></td>
<td>R²=0.21</td>
<td>R²=0.31</td>
<td></td>
</tr>
</tbody>
</table>

Regarding the mediating effect of the access to strategic resources, the results show that the relationship between measures of personal and relational network (Xi) and access to strategic resources (M) are significant, and that relations be-
tween X and Y are also significant at the threshold of 1% and 5%, respectively. The other relations between X and Y when M is controlled are not significant for the Xi formulated by network density, scale of network and the nature of the Social ties. These results support those of Basanar and al. (2003) and confirm the existence of a local network and the importance of informational and financial knowledge facing many blockages to develop a better understanding of future needs, and therefore, more innovative business opportunities. From the study on a sample of contractors, Mina and Smith (1983) point out that the effect of these social ties on entrepreneurial opportunities should not overestimates this monotonic relationship if the information is vigilant, but rather the recognition of a market opportunity.

4. CONCLUDING REMARKS

Based on our results of estimates, we highlight the importance to guide SMEs to the strategic resources, information sources and to be vigilant in this vocation. At this level, appear as incentives, the fact to develop new contacts and it is very important that strategic resources play an intermediary role by collecting, filtering and analyzing rich information in order to make easy decision taking related to innovation and therefore, to manage the competitive advantages.

Indeed, we conclude the evidence of a partial mediation in the relationship between personal and relational network and innovation by the variable access to the strategic resources. Therefore, this relational network of the contractor acts indirectly on innovation through its effect on access to strategic resources. This result has confirmed partly organizational modeling.

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ICT SECURITY RISK ASSESSMENT IN HIGHER EDUCATION INSTITUTIONS

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Abstract

Increased usage of ICT in higher education institutions leads to a greater need for protection against the risk of abuse that may be the result of accidental and/or malicious vandalism from inside or outside of the institution.

In this paper, an analytical approach was used to elaborate on the potential use of the OCTAVE Allegro method in higher education institutions. Most previous research indicates the possibility and benefits of using this method when assessing risk in the operation of business organizations.

Considering the specific activities of higher education institutions and their organization, research has shown the adequacy of implementing this method which has evolved over more than fifteen years of being present and used in practice.

Keywords: ICT, risk, the OCTAVE method, higher education institutions

JEL Classification: D8, I2
1. INTRODUCTION

In higher education institutions, as well as in other business organizations today, great importance is given to risk assessment, but in terms of workplace risk assessment (Occupational Health and Safety Act, 2014) establishing the level of efforts, risks and hazards in the sense of occupational injuries and diseases, and other diseases that can potentially arise in job-related situations in a company and can also be caused by disturbances in the work process.

Not much attention is paid in practice to the security of information systems the operation of higher education institutions increasingly relies on, although significant consequences for the operation of the institution might arise due to abuse that may result from accidental or intentional errors in the internal environment of the institution or from the external environment through vandalism to the system.

The approach of higher education institutions to this issue is characterized by partial solutions focused on specific parts of the information system, but not the system as a whole.

Given that the security of the entire system is always proportional to the security of its weakest link, there is a need for a reliable system of safety management within higher education institutions that would contribute to the successful execution of business tasks, but also guarantee reliability from a number of various aspects as the information system of higher education institutions is part of the information system at the national level.

Today, the IT infrastructure has an increasing role in the operational work of higher education institutions in terms of communications and information services, while data archiving has become just a way of using that system. In this way, the problem of security risk is on the increase and its management is gaining importance in the process of protecting information resources and business processes. It can be said that security risk management represents the foundation of building a secure and reliable IT infrastructure.

We are increasingly becoming aware of the fact that the term 'risk management' implies the process of risk identification, risk assessment and taking specific risk-reduction measures, but also that without systematic planning and analysis it is difficult to develop and implement an effective and secure information system.
Identification of critical parts of the system and the associated security risks is a process that allows better and more cost-effective decision-making related to the promotion and improvement of security.

This paper analyzes the security risk management process by using the OCTAVE Allegro method that has evaluated over the last fifteen years through three stages - from the OCTAVE (Operationally Critical Threat, Asset and Vulnerability Evaluation) method, through the OCTAVE S method to the OCTAVE Allegro method.

Its features and approach to the means of implementing the security risk management process as well as previous research studies indicate the possibility of including it into the operation of higher education institutions for the purpose of improving the security when using the information and communications system.

This method is a framework aimed at helping the understanding of the risks related to the security of information systems and their daily use by all employees at the institution they work at. The purpose of this method is to help organizations (Caralli, R. et al., 2007a, 1):

- develop qualitative risk evaluation criteria that describe the organization's operational risk tolerances,
- identify assets that are important to the mission of the organization,
- identify vulnerabilities and threats to those assets,
- determine and evaluate the potential consequences to the organization if threats are realized, and
- initiate corrective actions to mitigate risks and create practice-based protection strategy.

This paper contributes to the development of an effective security risk management program when using ICT in the operation of higher education institutions. The goal of the paper was to provide practical guidance necessary to assess and mitigate ICT-related security risks in the operation of higher education institutions that use the same IT system today and the same services under the auspices of the University and the Ministry of Science, Education and Sports of the Republic Croatia.

Each constituent unit of the University works in a specific way, so that the results of this research also suggest appropriate use of the OCTAVE Allegro
method in terms of possibilities to adapt a risk management strategy to their own needs by upgrading or limiting procedures required by a general method in its approach.

The purpose of risk management is to enable organizations (companies) to fulfil their business tasks successfully by using a more secure IT system in terms of storage, the development or delivery or organizational information, allowing the leadership to develop a good risk management strategy and justify expenditures that are part of the IT budget.

2. EVOLUTION AND PROCEDURES OF THE OCTAVE METHOD

In 1999, the Software Engineering Institute (SEI) at Carnegie Mellon University (Ellucian, 2015) published the conceptual framework that formed the basis of the OCTAVE approach. These concepts were first formalized into the OCTAVE Criteria released in 2001, and later that year as the OCTAVE method, which is primarily focused on larger organizations with a multi-layered organizational structure and that was able to use the tool for vulnerability assessment and interpret its results.

Figure 1 The OCTAVE Criteria Support Multiple Implementations

OCTAVE is a self-directed methodology with three to eight steps followed by a defined process and adaption to the organization in which risk assessment is conducted and which is focused on organizational and technological assets.
The OCTAVE methodology was designed for organizations with more than 300 employees (Caralli et al., 2007a, p. 2). The application of this method required participants with greater knowledge of IS risk management and necessitated considerable time and effort to conduct a successful assessment. The OCTAVE process is a three-phase process with a dedicated preparation phase: Preparation is done when the organization decides to start with the risk assessment and forms an interdisciplinary team. Phase 1 aims to identify and build threat profiles, while the goal of Phase 2 is to identify and analyze infrastructure vulnerabilities. A security strategy and plans to address threats are developed in Phase 3.

OCTAVE-S was developed subsequently as a framework for small organizations (up to 100 employees) with a flat or simple hierarchical structure, in which the ICT infrastructure is relatively simple. OCTAVE-S is a self-directed evaluation of security threats that comprises three phases with five processes similar to the phases of OCTAVE. Phase 1 consists of building a threat profile and includes Process S1, i.e., Identify Organizational Information, and Process S2, i.e., Create Threat Profiles. Phase 2 Identification of Infrastructure Vulnerabilities consists of Process S3, i.e., Examine Computing Infrastructure in Relation to Critical Assets. Phase 3 comprises the development of security strategies and plans and includes Process S4, i.e., Identify and Analyze Threats, and Process S5, i.e., Develop Protection Strategy and Mitigation Plans.
A new form of the OCTAVE Allegro method was described in detail in 2007 by Caralli et al. and the report was released by the Software Engineering Institute at Carnegie Mellon University. The document provides an overview of the methodology with detailed instructions on how to perform OCTAVE Allegro-based risk assessment as well as standardized documents for performing an effective risk assessment.

Figure 3 OCTAVE Allegro Roadmap

OCTAVE Allegro has already been accepted as a method in both the scientific community and the IS risk management industry such as the health care system. Unlike previous methods, this method is characterized by less time and resources and it does not require extensive experience in the fields of IS security or risk management (Caralli et al., 2007).

Table 1 OCTAVE Allegro Step 1: Establish Risk Measurement Criteria. Impact Area Example

<table>
<thead>
<tr>
<th>Impact Area</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legal penalty, data privacy violation</td>
<td>Less than 5% cost of typical yearly revenue.</td>
<td>5% to 10% cost of typical yearly revenue.</td>
<td>More than 10% cost of typical yearly revenue.</td>
</tr>
</tbody>
</table>

Source: Brunenschwiler, C. (2013)

OCTAVE Allegro comprises eight steps organized in four distinct areas of activity; Phase 1: Establish Drivers consists of Step 1 that establishes risk measurement criteria, which is essential to defining potential risks that threaten
the organization such as reputation and customer confidence (in the context of higher education - student confidence), finance, productivity, health and safety, fines and legal penalties and user assessment of threats.

**Table 2: OCTAVE Allegro Step 2: Develop Information Asset Profile. Critical Information Asset Example**

<table>
<thead>
<tr>
<th>Information Asset</th>
<th>Rationale for Selection</th>
<th>Description</th>
<th>Owner</th>
<th>Confidentiality</th>
<th>Integrity</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key material</td>
<td>Leakage will allow access to meter device.</td>
<td>Refers to all secrets stored in the meter device.</td>
<td>Device manufacturer and meter mgmt. personnel</td>
<td>Key material must be kept secret.</td>
<td>Only the utility shall be granted to update and revert key material.</td>
<td>Key material must be available for meter mgmt. personnel.</td>
</tr>
</tbody>
</table>

*Source: Brunswiler, C. (2013)*

Phase 2: Profile Assets consists of Step 2, in which a profile of the critical information asset is created (inventory, description, ownership, security requirements with regard to confidentiality, integrity, availability and other), as well as the list of people with regard to their role or responsibility in the organization.

**Table 3: OCTAVE Allegro Step 3: Identify Information Asset Containers. Container Examples**

<table>
<thead>
<tr>
<th>Container</th>
<th>Description</th>
<th>Owner</th>
<th>Type</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meter</td>
<td>Holds various assets. E.g. key material</td>
<td>Metering company</td>
<td>Internal</td>
<td>Technical</td>
</tr>
<tr>
<td>Monthly paper invoice</td>
<td>Consumption data on monthly invoice</td>
<td>Utility, Consumer</td>
<td>External</td>
<td>Physical</td>
</tr>
<tr>
<td>Service technician</td>
<td>Knows the initial secret of meters</td>
<td>Service company</td>
<td>External</td>
<td>People</td>
</tr>
</tbody>
</table>

*Source: Brunswiler, C. (2013)*

In Step 3, an information asset is identified with respect to internal and external risks through containers where information assets are stored as technical, physical and people with regard to the role or responsibility in the organization.

**Table 4: OCTAVE Allegro Step 4: Identify Areas of Concern. Area of Concern Example**

<table>
<thead>
<tr>
<th>Area of Concern</th>
<th>Actor</th>
<th>Means</th>
<th>Motive</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate link encryption could allow to access metering values.</td>
<td>Investigative Journalists</td>
<td>Put a tap on the link</td>
<td>gain information on energy use</td>
<td>Disclosure</td>
</tr>
</tbody>
</table>

*Source: Brunswiler, C. (2013)*

Phase 3: Identify Threats consists of Step 4 in which areas of concern are identified. In this step, it is necessary to use brainstorming to define and list possible conditions and situations that might jeopardize the information asset.
Figure 4: OCTAVE Allegro “Human Actors Using Technical Means” Tree


In Step 5, threat scenarios are considered and represented in the form of a threat tree, as shown in Figure 4, for human actors using technical means, human actors using physical access, technical problems and other problems such as power supply, telecommunications, third-party problems and natural disasters. Threat scenarios threats arise from interest areas which should also be visible in the threat trees.

Table 5: OCTAVE Allegro Step 6: Identify Risks. Risk Example


Phase 4: Identify and Mitigate Risk comprises three steps (6-8). In Step 6, a threat scenario is described once all threats and consequences for the organization are identified. In this step, risk can be calculated by the following expression:

\[ \text{Threat (condition) + Influence (consequence) = Risk} \]

\[ [\text{Steps 4 and 5}] + [\text{Step 6}] = \text{Risk} \]
Table 6: OCTAVE Allegro Step 7: Analyze Risk. Example Risk Score Calculation

<table>
<thead>
<tr>
<th>Impact Area</th>
<th>Rank</th>
<th>Impact</th>
<th>Value</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fines/Legal Penalties</td>
<td>5</td>
<td>High</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>Reputation</td>
<td>4</td>
<td>High</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Safety and Health</td>
<td>3</td>
<td>Medium</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Productivity</td>
<td>2</td>
<td>Medium</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Financial</td>
<td>1</td>
<td>Low</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total Risk Score</td>
<td></td>
<td></td>
<td></td>
<td>38</td>
</tr>
</tbody>
</table>


Step 7 refers to risk analysis in which we qualitatively measure the extent to which the organization is impacted by a threat to an information asset. Given the need to mitigate risks, it is necessary to assign values to threats or to compute a risk score.

Table 7: OCTAVE Allegro Step 8: Select Mitigation Approach. Mitigation Strategy Example

<table>
<thead>
<tr>
<th>Container</th>
<th>Control</th>
<th>Residual Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAN link</td>
<td>Implement encryption to avoid disclosure of metering values</td>
<td>Weak encryption; issues with the key schedule or derivation or wrong implementation could lead to disclosure</td>
</tr>
</tbody>
</table>


In Step 8: Mitigation Approach, it is necessary to identify as precisely as possible those risks that have the greatest impact on an information asset. The decisions to accept, mitigate or defer a risk are extremely important. This step includes individuals who are well acquainted with the organization and involved in the risk assessment and risk mitigation activities for complexity reasons, such as e.g. IT personnel and higher education institution management.

3. ENVIRONMENTAL IMPACT ON THE IMPLEMENTATION AND USE OF THE OCTAVE ALLEGRO METHOD IN HIGHER EDUCATION INSTITUTIONS

The operation of higher education institutions is increasingly dependent on the exchange of sensitive information and data via the Internet, which makes
them subject to daily attacks and vandalism from the environment, both internal and external. The primary goal of ensuring information security is to protect the information from destruction and unauthorized access by non-authorized persons. Publication, modification or denial are the three primary mechanisms used by malicious individuals or groups. (Mirković, 2015, p. 322)

Increased exposure to the risks of using IT systems and information under its umbrella for illicit purposes leads us to the need for greater protection.

It is difficult to protect something so big and important if the work is left to a small group of people (the IT sector) or individuals in the organization who have become more aware of the need for protection than other participants in business processes.

For this reason, it is necessary to create a framework within which the orientations will be defined as guidelines for each employee at a higher education institution on how to deal with the protection of the received information relevant to their current and future work in the organization.

**Figure 5.** IT protection from intentional abuse

![Figure 5](image)

*Source: The authors*

The focus of the current protection of systems used by higher education institutions related to IT is the protection from intentional abuse from the external environment of an organization, while the need for the protection from intentional or unintentional misuse of IT systems by individuals within the organization is currently being ignored.
3.1. Internal environment

Although IT system security is predominantly focused on technical factors, it has been increasingly recognized that organizational culture, organizational structure, and human factors play an important role in the protection of information resources as an intangible asset in determining the daily work of not only the organization in general but also higher education institutions. When it comes to the operation of institutions, employees themselves may intentionally or unintentionally endanger information security. According to previous research studies, increased awareness of employees with respect to the importance of protecting the information they have access to indicates that the incidence of accidental security breaches of the system the organization is dependent on has been reduced. Organizational culture is found to be very important in any higher education institution, especially informal behavior that inevitably differs from one University constituent to another, and is conditional upon the values and relationships nurtured by both the management and employees. A formally defined organizational culture that includes written documents is almost non-existent in these types of organizations, thus an informal aspect is extremely important here as it shows the way in which the present-day work is done and the way employees communicate with each other and exchange critical business information.

A solid internal control system is the strongest defense against fraud scams. It should be designed and implemented as a proportional response to the risks identified during risk assessment activities. However, organizations should also work on the establishment of appropriate structures and culture that will discourage possible fraudulent actions (Fraud Risk, 2014, p. 11).

According to previous research studies, the relationship between organizational culture and information security culture is divided into the following three types (Lim et al., 2009, p. 93):

Type 1: Information security culture is separated from organizational culture,
Type 2: Information security culture is a subculture of organizational culture, and
Type 3: Information security culture is entirely part of organizational culture.

Based upon characteristics of these types, we may draw a conclusion that under the current approach to information security culture, higher education
institutions have characteristics of Type 1 and Type 2, i.e., they can be placed into high to medium risk categories when it comes to potential threats referring to malfunctioning at work and irresponsible individuals in the organization towards the value of data stored by using the IT system allowing their use on a daily basis to support the quality of their everyday work. Information risk protection relies on active participation of a small group of employees, and it is closely related to the employees responsible for the IT sector. Employees are informed about the necessity of proper conduct related to individual protection from possible vandalism against the information system, but they are not able to undertake continuous education in that field. Lack of finance is singled out as the major reason although the governing bodies are aware of the need for investment in information security.

3.2. External environment

Using outsourced IT support and decentralized responsibility for the protection of data and organizations taking care of a particular type of data constitute a high risk of possible inappropriate access to data from the external environment.

Universities in the Republic of Croatia and all of their constituent units use ISVU (the Information System of Higher Education Institutions) to store their data. The University Computing Centre (SRCE), which is headquartered in Zagreb, takes care of ISVU, provides software support and enables its regular functioning on a daily basis for which the Ministry of Science, Education and Sports provides funding and monitors the operation of the system.1

In addition to that system, in their daily work higher education institutions use online learning systems, e.g., Loomen2, a system that contains digital teaching materials, testing materials, and all notices to students.

Also, within some universities, individual constituent units use systems that are the result of their own programming efforts. An example of this system is Mrkve3 whose basic utility is a record of employees and data related to their activities, i.e., it represents a register adapted for higher education institutions,

1 http://www.isvu.hr/javno/hr/index.shtml
2 https://loomen.carnet.hr/index.php?ni=4
3 http://www.etfos.unios.hr/fakultet/zavodi-fakulteta/zavod-za-programsko-inzenjerstvo/projekti#anc
which contains all necessary data about employees that are legally prescribed, specific information related to the teachers at the University as e.g. the number of days until the expiry of employment contract, or the number of days until the end of the election to the scientific title, scientific-educational and educational title. In addition, a link with a digital timetable was established which enables teachers to enter their reports of the lectures given as part of controlling related to tasks higher education institution employees have successfully fulfilled.

What increases risk exposure from the external environment of organizations using these systems is using the same key to login to all systems - AAI@EduHR electronic identity. The same holds for e-citizens and e-directory, systems which are accessible to the general population that is not related to higher education institutions. At the same time, control over their security is not centralized and closely tied to any one of the aforementioned institutions. This can also be reflected in the risk assessment performed by an authorized assessor, and a comparison with other credentials can be seen in Table 8.

**Table 8. Authorized assessor risk**

![List of trusted religious groups](image.png)

4. POSSIBLE OBSTACLES TO THE IMPLEMENTATION OF THE OCTAVE ALLEGRO METHOD IN HIGHER EDUCATION INSTITUTIONS

During the implementation of the OCTAVE Allegro method, what has to be taken into account all the time are the challenges that may appear due to the specific organization and work of faculties as constituent units of the University. Every organization needs to be aware of its own risks at work and thus develop a protection plan tailored to its needs.

**Figure 6.** Risk Management Process within the Organizational Context

![Risk Management Process within the Organizational Context](image)


A specific problem may arise in relation to too many obligations and duties imposed upon all teaching staff, and due to continuous control of scientific and educational activity, keeping their job depends on the quality of meeting these obligations.

Teaching staff is often overloaded with a large number of students to whom, in addition to teaching, they should provide other forms of cooperation outside the classroom to enable them to acquire the necessary knowledge and pass individual courses. In addition, they are obliged to be acquainted with scientific research in specific areas, but also to take part in research by writing scientific papers or participating in research projects. It should be stressed that often certain members of teaching staff perform more duties at the same time that are related to management of higher education institutions, various committees, etc.
Table 9. Job description and specific duties of a university professor

<table>
<thead>
<tr>
<th>Work Position</th>
<th>Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Full professor in tenure</td>
<td>• Teaching and science research</td>
</tr>
<tr>
<td>• Full professor</td>
<td>• Head of department</td>
</tr>
<tr>
<td>• Associate professor</td>
<td>• Post-graduate program manager</td>
</tr>
<tr>
<td>• Assistant professor</td>
<td>• Mentor and assistant supervisor</td>
</tr>
<tr>
<td>• Student mentor on master thesis</td>
<td>• Assistant guiding</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Tasks</th>
<th>Tasks</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Course preparation</td>
<td>• Attending Faculty meetings</td>
<td>• Course organization</td>
<td>• Assistant guiding</td>
</tr>
<tr>
<td>• Course leading</td>
<td>• Information and department work organization</td>
<td>• Course quality surveying</td>
<td>Student mentoring</td>
</tr>
<tr>
<td>• Examinations and grading</td>
<td>• Attending the department meetings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Paper writing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


All this results in the fact that teaching staff has no regular business hours, which makes coordination necessary for training of all IT system users at higher education institution more difficult. It should also be emphasized that data is fetched from the IT structure through desktop or laptop computers at different locations, which may result in even greater risk of possible vandalism in relation to IT system protection.

IT department employees often complain that at higher education institutions employees are generally not interested in IT-related training, which causes a problem with motivation of not only teaching but also non-teaching staff to engage in such programs covering a longer period of time.

The training process should therefore be tailored to the specific needs of higher education institutions, but some steps should also be taken to prepare staff, organizational culture, and IT organizational structure before implementing the OCTAVE Allegro method in a particular institution.

We should also bear in mind that in order to maintain and protect data, higher education institutions use outsourcing IT companies whose work is sponsored by a higher authority, i.e., the Ministry of Science, Education and Sports, and therefore they need to be vertically involved in this process and in synergy with them, individual higher education institutions can successfully implement procedures and processes of the OCTAVE Allegro method.
4.1. Financial aspects of the OCTAVE Allegro method

Each protection against risk requires significant financial resources that we believe are unnecessary in everyday life as long as our security is not compromised and as long as we do not feel any direct consequences of intentional or unintentional destruction of values important to us. Non-profit institutions that are dependent on the financing of state bodies particularly have a problem with obtaining certain financial assets that are not intended for direct and immediate work. What makes such systems inert in terms of changes and fulfilling the need for new financial expenditures is their size, and the need for a harmonized and unified mode of operation.

The introduction of this methodology would cause the need to change certain organizational structures, but not necessarily to hire new employees who would be responsible for the implementation of the OCTAVE Allegro method, but also continuous self-evaluation.

Figure 7 Information Security Risk Evaluation within an Information Security Risk Management Process

An OCTAVE Allegro “approach should lend itself more readily to institutionalization. One way that this can be achieved is by reducing the required levels of knowledge and training necessary for performing effective risk assessment. Minimizing the amount of risk management and information technology knowledge required effectively increases the pool of personnel who can participate in the assessment process with little investment in training and mentoring. Reduced knowledge and training requirements not only lower overhead costs
CONCLUSION

The paper presents an analysis of the current situation regarding the security of using ICT in higher education institutions. A pragmatic approach presents both advantages and disadvantages of using ICT in higher education institutions in the Republic of Croatia.

Many utilities of introducing the OCTAVE Allegro method in such system were noticed during our research, regardless of the obstacles imposed in daily work. What is crucial in this method is its ease of implementation, which does not necessarily require hiring new employees or additional IT infrastructure resources, hence no higher expenses.

Using this framework, in the long run higher education institutions will make improvements in the protection against the risk of abuse, which may be the result of vandalism from inside or outside of the institution, but it will also help them understand, control and plan future projects related to ICT security.

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MANAGEMENT OF THE OPERATIONS AND RESOURCES IN THE PROCESS OF RAISING CAPITAL BY ISSUING SHARES ON THE CAPITAL MARKET IN THE REPUBLIC OF CROATIA

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Abstract

Raising capital through public offer is one of the alternative ways of funding companies’ needs in relation to one of the most used ways of funding – the one financed by the banks. Bank financing in the emerging markets is usually considered to be safer, faster, easier and more cost-effective in comparison to financing through capital markets. However, experiences from the developed western capital markets show just the opposite. Besides the historical aspect of the Croatian financial system centralised around banks, one of the reasons of the lack of the companies’ orientation towards the capital market as a place of alternative funding sources is insufficient knowledge of all aspects of raising capital through public offer.

Directing companies and investment projects to the capital market as a place of alternative sources of financing is one of the pillars of the mid-term priorities of the European Commission, determined in its Action plan for Capital Markets Union (as of September 2015). This Action Plan is the framework

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1 Andreja Hašček is an employee of the Croatian Financial Services Supervisory Agency. The views expressed in this paper are those of the author and do not necessarily reflect the views of the Croatian Financial Services Supervisory Agency.
and the main tool to be used for creating conditions (including removing barriers) for achieving a true single capital market across all 28 member states of the European Union.

This thesis presents the organisation of operations and management of resources in the process of raising capital by issuing shares on the capital market in the Republic of Croatia. It also tries to identify spots of possible savings (time, costs, actions, manpower) and removal of possible barriers for the company and recommends feasible improvements in the process, with the aim of ensuring conditions for more efficient management of that process and for removal (or easing) of possible constraints for financing through capital market.

Keywords: resources management, financing on capital market, public offer, prospectus, Capital Market Union

JEL Classification: P33, R53

1. INSTEAD OF AN INTRODUCTION – CAPITAL MARKETS UNION: FOCUS ON BUILDING AND BOOSTING THE EUROPEAN SINGLE CAPITAL MARKET

On 30 September 2015, the European Commission launched the Capital Markets Union Action Plan² (hereinafter: CMU) which sets out a framework for a string of activities that are to be implemented on the European Union level, which will lead to creation of preconditions (and removal of barriers) for a single capital market within all 28 member states, and which should result in an increase and diversification of all possible sources of funding required for long-term investment projects. This is planned to be achieved by making it easier to access all those sources of financing which are alternative to financing by banks, and which originate from the open and transparent capital market. This would ensure meeting of needs for financing of those companies which have problems in financing their business, SMEs and start-ups, as well as for other investment projects traditionally funded by banks. The final goal of CMU in relation to these seekers of funding is to ensure the prerequisites which would enable them to raise the required funds on the capital market as easy as large companies.

The main reason for these activities intended for SMEs can be found among consequences of the financial crisis and its effect on the stability and trust in the financial markets in general, as well as on the actions of banks when they serve as a source of financing – interest rates on loans are still high, the conditions for (repeated) approval of loans have become significantly stricter, whereas the total amount of the available and offered funds have reduced, there is almost no tendency of banks to finance risky and uncertain investment projects; all this is mirrored in a substantial decrease in crediting possibilities, on one side, and a substantial increase of costs of the available crediting, on the other. Such circumstances have the highest negative effect on the European SMEs, since they receive more than 75% of their finance from banks (CMU; 2015, 9). Considering the fact that the financing of growth has been recognized as the worst segment of the European financial system (CMU; 2015, 10), the need to ensure easy access to funding by means of capital market gets additional weight.

CMU recognises the importance of SMEs in development of the national (as well as of the European) economy by putting an emphasis on identifying barriers that are impeding financing SMEs by capital markets and by listing specific measures for the removal of such barriers. The key barrier that has been recognised (and considered a barrier that all other barriers arise from) is the information barrier, meaning that SMEs, potential investors and other participants on the capital market do not know about each other, i.e. that SMEs are not visible on the financial market and thus not recognised as potential objects of investment. Therefore, CMU concludes that it is necessary to make SMEs aware of the possibilities and advantages of raising funds through the capital markets (e.g. by conducting consultations and giving recommendations as to the capital market funding), to ensure that SMEs are recognised and transparent enough with regard to the potential investors so that they could make informed decisions on investment (e.g. by setting up a network that would include both SMEs and potential investors), to reduce costs of public offerings (e.g. by simplifying the requirements referring to the content of prospectus), to reduce the costs of admission to trading (e.g. by reducing listing fees) and to provide liquidity of shares (e.g. by setting up a dedicated market platforms for fast-growing SMEs) (CMU; 2015, 10-16).
2. **FINANCING THROUGH THE CAPITAL MARKET – THE ROLE AND SIGNIFICANCE FOR THE DEVELOPMENT OF THE CROATIAN CAPITAL MARKET**

A developed capital market contributes to the competitive strength of the national economy, since only the developed capital market provides access to new capital resources for financing of companies’ business activities. This especially stands out in period of instability of the international financial conditions, since the lack of capital required for a company’s operations is reflected on the overall company performance (Barković; 2011; 12).

The Croatian capital market is a part of the global capital market. Above all, this means that it has all the required infrastructure and that it is based on the same principles as any other developed capital market. However, in comparison to the developed capital markets, the Croatian capital market lacks precisely what makes a foundation of such developed markets – liquidity. On one hand, the lack of liquidity makes the Croatian capital market unattractive (the right word for this would actually be – risky) to investors, since the reduced liquidity limits the possibilities of withdrawal from the market at any moment, and on the other, it makes it insufficiently recognised as a source of financing by SMEs that are traditionally oriented to self-financing or additional financing by the banks. Such capital market will not be able to meet its other task and to offer to SMEs (and all other participants) lower cost of financing.

CMU gives an initial framework and a direction in which the national capital markets should move in order to provide the actual support to the national economy, and thereby, the overall economy of the European Union. Therefore, it is not surprising that CMU is SME-oriented and that it puts emphasis on provision of various alternative forms of funding for SME-s.

When a company is deciding if it will finance its activities by a bank loan or on a capital market, it takes into consideration the usual advantages and disadvantages of each type of funding. The advantage of bank loans is that the procedure is rather short and involves only two parties – the company and the bank, which enables the company to negotiate better credit terms, which eventually affects the cost of borrowing. The main disadvantage is, as already said, that in today’s circumstances, the availability of loans is restricted, and if the loans are available, they are available for limited purposes only. In such cases, a mortgage
is used as the usual bank debt instrument, secured by the collateral of specified real estate property of the company or its owners. On the other hand, raising funds on the capital market lasts longer, involves a large number of potential investors, which substantially restricts the company's position with regard to negotiating the financing terms, and requires conducting of the public offer in a regulated procedure. All this together generates much higher costs in comparison to financing through banks. These higher costs are usually being marginalised in the total value of the large issues, but still, this will not be the case with SMEs. Nevertheless, the advantages of this type of financing are as follows: the public offer provides better funding terms, it does not include mortgage or liens against property, it entails a broader investor base, secures recognisability of the company on the capital market and liquidity of the company's shares, which is the first prerequisite for financing on this capital market; that is, finalisation of the initiated and development of new investment projects. The fact that all costs of the public offer are fully covered from the total amount of the funds raised must definitely be taken into consideration, as well as the fact that there is no incurring of new costs referring to the public offer (as it would be the case when it comes to loan borrowing and payment of interest rates). Therefore, in all cases when a company has enough time for raising funds, issuing of securities through public offer is perceived as a much better source of funds.
offer, the issuer is obliged to prepare a prospectus, the content of the prospectus will not be elaborated in detail, after the public offer has been successfully completed the newly issued shares will be admitted to trading on the regulated market (stock exchange). Moreover, since the issuing of shares by a public offer will be conducted on the capital market, both the issuer and the investors will be subject to regulatory requirements which regulate the capital market and actions of the capital market participants3.

3.1. Processes and participants in issuing shares by a public offer

In the process of issuing shares, as with any other business task, it is advisable to appoint the project team and to define the required experts and their responsibilities. Since this thesis puts emphasis on SMEs, it later identifies the engagement of experts of such profiles who can ensure minimum spending of time and resources, with an optimum engagement of all other participants in the process who will carry out their new tasks along with their regular job.

Besides the project sponsor (the owner or the management) who is responsible for the entire project and who makes strategic decisions and supervises the entire process, the most important person in the operating sense is the project manager who is responsible for all activities as well as coordination of all participants in the process, and who, therefore, must be dedicated to details to the maximum. The minimum requirement for each project team is the engagement of a finance expert, sales manager and a marketing expert (public relations expert, if necessary). It is required to have a legal expert at disposal at all times.

The appointed project team, along with the sponsor’s supervision, needs to be capable of conducting all activities required for issuing of shares by a public offer, as follows hereafter.

The process of conducting a public offer of shares can roughly be divided into two parts: the part in which the public offer is actually conducted (this is the regulatory part of the process and is regulated by the capital markets legislation) and the part which precedes the regulatory part of the public offer in which the options of the possible method of financing are considered.

The successful public offer is preceded by many activities which start in the earliest phase prior to adoption of the decision on shares issuing. These activities include market research and analysis of the potential demand for the issuer’s shares, preparation and distribution of various marketing materials and presentations aiming at attracting as many potential investors as possible, and regular communication with them. Publishing of various publications and media releases raises awareness of the issuer’s potentials. If SME decides to carry out the procedure of issuing shares by a public offer all by itself using the project approach, besides the technical part of the preparation of the public offer and coordination with the regulatory and other bodies, the issuer needs to prepare and implement a communication plan which refers to all participants in this process, especially investors. The communication plan should be prepared as early as possible. As a matter of fact, considering relatively short period planned for conducting the public offer, the well-planned and implemented communication with the stakeholders is as valuable as drawing up of the prospectus and its approval.

Preparing a prospectus is a focal point in the procedure of issuing shares by a public offer. The prospectus (a document which includes several hundreds of pages) contains all information on the issuer, issuer’s assets and obligations, profit and loss, financial status, risks to which the issuer is exposed in dealing business, business environment risks, the management and supervisory board, development possibilities, projects which are to be financed by funds raised in the public offer as well as information about shares and rights in relation to shares. The process of collecting, analysing, processing and preparing information on the issuer’s business operations as well as other information which make a constituent part of the prospectus requires engagement of resources on all company levels. In the prospectus, the issuer should provide all information to the investors (both current and potential) about itself and its business operations, based on which the investors could make the informed investment deci-
sions. This will eventually affect the (in)sufficiency of the capital raised, that is, the success of the public offer. Precisely this fact points out the importance of preparing the prospectus in the public offering process.

Besides drawing up the prospectus, as the central and key element in the public offering process, the company which raises capital though public offer will enter into various relationships with various participants on the capital market (institutional investors, issue agents, legal advisors, depositaries, regulated markets, supervisory authority) in order to ensure, on one side, that the process of raising capital through the public offer is organised and conducted in accordance with the specified terms and conditions as fast as possible and with as little resources (financial, human, time), and on the other, that the public offering process is successfully finished, that is, that the sufficient funds for financing of the company’s planned projects are raised by the public offer.

After the prospectus has been prepared, it is submitted to the capital market competent authority – Croatian Financial Services Supervisory Agency (hereinafter: Hanfa). It is not possible to conduct the public offer of securities in the Republic of Croatia without the approval of the prospectus by Hanfa (except in cases of the stipulated exceptions). However, it is important to mention here, that, in its process of approval of the prospectus, Hanfa does not verify the validity and accuracy of data contained in the prospectus, but it only verifies if prospectus includes all the required information based on which the investors make their informed investment decisions.

The public offer of shares is conducted on the basis of the approved prospectus: a public call for subscription and payment of shares is published, communication with investors and interested public is continuously carried out, subscription of shares is conducted (when they are subscribing for shares, the investors give their offer for purchase of a specific number of shares), the final price in the public offer – the price at which the shares will be sold to the investors is determined (the final prices is determined depending on the investors’ offers received at the moment of subscribing for shares), allotment of shares (distribution of a precise number of shares to a specific investor) is carried out and payment for the allotted shares is made. The public offering procedure is considered finished, after the shares have been paid for.

After the payments have been made (that is, the funds raised) the increase of the share capital is entered in the relevant register of the competent commer-
cial court and then in the depository operated by the Central Depository and Clearing Company (hereinafter: SKDD). As the last step, the issuer’s shares are admitted to trading on the regulated market (Zagreb Stock Exchange). Admission of shares on the regulated market should provide for the liquidity of the issuer’s shares required by the investors.

The Gantt chart 1 presents the indicative plan of activities conducted in the procedure of issuing shares by the public offer.

**Gantt chart 1:** The sequence and duration of activities in the public offering process

![Gantt chart](image)

*Source:* the author

As previously mentioned, the issuer can carry out all the above-described activities by itself and to the extent possible, or the issuer can engage capital market experts (issue agents) specialised in organising and conducting the public offer and having required knowledge, human resources and other necessary infrastructure. In this case, the issuer must take care of the total costs of the public offering process, that is, the issuer must consider the advantages of the expert engagement and costs which the engagement of experts necessarily generates in comparison to the total value of the public offer.

### 3.2. Time dimension of issuing shares by a public offer

The longer the period of raising the required capital, the later the project planned for financing by raised funds will start to produce cash flow which increases the issuer’s value and the value of the issuer’s shares on the capital market (Orsag; 2002; 21). Therefore, conducting the public offer in as short period as possible is as important as the total amount of money raised by that public offer. In this way, less profitable projects which can raise the required funds in
a short period of time can become more attractive in comparison to the more profitable projects which last excessively long and which result in a postponed cash flow and profit increase (Orsag; 2002; 21-23).

Table 1 presents the duration of the process of issuing of shares by the public offers conducted on the basis of the prospectuses approved by Hanfa in 2014 and 2015.

**Table 1:** Time schedule of issuing shares by the public offers conducted on the basis of the prospectuses approved by Hanfa in 2014 and 2015

<table>
<thead>
<tr>
<th>Event Description</th>
<th>2014</th>
<th>2015</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decision of the General Assembly</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
</tr>
<tr>
<td>Request to Hanfa for the approval of the prospectus</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
</tr>
<tr>
<td>Acceptance of the prospectus</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
</tr>
<tr>
<td>Posting the increased share capital in the event register</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
</tr>
<tr>
<td>Posting the increase of the shares central into BZPD</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
</tr>
<tr>
<td>Acceptance for listing of the shares in Zagreb BZPD Exchange</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
</tr>
<tr>
<td>Acceptance of the Index of the shares</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
</tr>
<tr>
<td>The first trading day</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
<td>01.01.2014</td>
<td>01.01.2015</td>
</tr>
</tbody>
</table>

Table 1 shows that the process of issuing shares by the public offer (starting from the **official** decision on carrying out such process by the company’s general assembly ending with the admission of newly issued shares on the regulated market) lasts between 1.5 and 6 months, depending primarily on the number of rounds in which the subscription and payment are made and the response of investors. This time schedule is more than acceptable, especially taking into account the fact that after the public offer is conducted and shares are admitted to trading on the regulated market, the issuer’s liquidity is secured for a medium-term period (sometimes even for a longer-term), without any additional cost in relation to that process whatsoever.

However, it has to be mentioned here that the presented time schedule does not include information on the time spent on the activities which had to be performed before the approval of the prospectus (and most probably even before the decision on the increase of the share capital adopted by the general

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5 In 2015, Hanfa approved 3 public offering and listing of shares prospectuses (as well as 12 other prospectuses) and in 2014, Hanfa approved 2 prospectuses of shares listing (and 5 other prospectuses), further information available at [http://www.hanfa.hr/HR/nav/239/popis-odobrenih-prospekata.html](http://www.hanfa.hr/HR/nav/239/popis-odobrenih-prospekata.html)
assembly) – analysis of the level of interest of the investors on the capital market for investing in the particular issuer through the public offer of shares and preparation of the prospectus as the key document, without which the public offer is not possible. Since these are the crucial activities for the success of the public offering, it is assumed that sufficient time is left for their successful execution which must be taken into consideration when deciding on the overall time schedule and duration of the public offering process.

It must be observed that the regulatory proceedings (before Hanfa, court register, SKDD, Zagreb Stock Exchange) last reasonably short (thus, generating the lowest cost, as explained in the following chapter), which is definitely a positive signal to the issuers that are deciding on the use of alternative funding sources on capital market as well as the method of financing of the company’s business.

3.3. Costs of issuing shares by a public offer

The process of issuing shares by the public offer accumulates certain costs to which the issuer is exposed; whereas the certain costs are inevitable because they are based in the legislative framework regulating the capital market (cost of Hanfa, SKDD and Zagreb Stock Exchange), the incurrence of other costs depends on the activities and services required by the issuer from particular experts and professionals as support to the relevant public offer (issue agents, financial and legal experts, auditors, consultants for specific areas, etc.). Therefore, the possibility of cost reduction must be sought in this second group of costs. Taking additionally into consideration the fact that these other costs usually depend on the total amount of funds raised by the relevant public offer and that they are covered from that total amount raised, their impact on the total cost is more than evident.
Table 2: Breakdown of costs of issuing shares by a public offers conducted on the basis of the prospectuses approved by Hanfa in 2014 and 2015

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Hanfa (prospectus)</td>
<td>20,000.00</td>
<td>20,000.00</td>
<td>20,000.00</td>
<td>20,000.00</td>
<td>20,000.00</td>
</tr>
<tr>
<td>2 SKDD (share capital increase)</td>
<td>4,000.00</td>
<td>4,000.00</td>
<td>4,000.00</td>
<td>4,000.00</td>
<td>4,000.00</td>
</tr>
<tr>
<td>3 Hanfa (book-entry registration to individual account)*</td>
<td>55,000.00</td>
<td>55,000.00</td>
<td>55,000.00</td>
<td>55,000.00</td>
<td>55,000.00</td>
</tr>
<tr>
<td>4 Zagreb Stock Exchange (admitting to trading)</td>
<td>10,000.00</td>
<td>10,000.00</td>
<td>10,000.00</td>
<td>10,000.00</td>
<td>10,000.00</td>
</tr>
<tr>
<td>5 TOTAL REGULATORY COST (1+2+3+4)</td>
<td>219,000.00</td>
<td>219,000.00</td>
<td>219,000.00</td>
<td>219,000.00</td>
<td>219,000.00</td>
</tr>
<tr>
<td>6 Other cost</td>
<td>3,780.00</td>
<td>3,780.00</td>
<td>3,780.00</td>
<td>3,780.00</td>
<td>3,780.00</td>
</tr>
<tr>
<td>7 TOTAL COST** (5+6)</td>
<td>222,780.00</td>
<td>222,780.00</td>
<td>222,780.00</td>
<td>222,780.00</td>
<td>222,780.00</td>
</tr>
<tr>
<td>8 % of regulatory cost in the total cost (5/7)</td>
<td>9.24%</td>
<td>9.24%</td>
<td>9.24%</td>
<td>9.24%</td>
<td>9.24%</td>
</tr>
<tr>
<td>9 % of other cost in the total cost (6/7)</td>
<td>1.70%</td>
<td>1.70%</td>
<td>1.70%</td>
<td>1.70%</td>
<td>1.70%</td>
</tr>
<tr>
<td>10 TOTAL VALUE OF THE ISSUE</td>
<td>218,000,000.00</td>
<td>218,000,000.00</td>
<td>218,000,000.00</td>
<td>218,000,000.00</td>
<td>218,000,000.00</td>
</tr>
<tr>
<td>11 % of the total cost in the total value of the issue (9/10)</td>
<td>0.04%</td>
<td>0.04%</td>
<td>0.04%</td>
<td>0.04%</td>
<td>0.04%</td>
</tr>
</tbody>
</table>

* the amount calculated based on the assumed 5,000 shareholders to whose individual accounts the book-entry registration of newly issued shares is done

** the issuer’s assessment, prospectus data; note: the issuers does not have the equal types of services agreed with its agents

Source: Hanfa, SKDD, Zagreb Stock Exchange; authors’ calculation

Out of the overall costs which incur to the issuer in the process of issuing shares by the public offer, available, or more precisely, identified are only those costs which represent fees that the issuer must pay to Hanfa\(^6\) (for the approval of the prospectus for issuing and listing shares), SKDD\(^7\) (for the execution of the corporate actions referring to the increase of the share capital and issuing of new shares) and Zagreb Stock Exchange\(^8\) (for the approval of admission of shares to trading on a specific segment of the regulated market which it operates).

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\(^6\) The administrative tax of HRK 2,000.00 (paid into the national budget) and a HRK 30,000 fee (paid to Hanfa) which is paid for the approval of the single prospectus, issuing, offering and listing of securities and approval of the main prospectus in accordance with the Capital Market Act are stipulated by Article 4 paragraph 2 of the Ordinance on the Type and Amount of Fees and Administrative Taxes of the Croatian Financial Services Supervisory Agency.

\(^7\) Pursuant to the Price List of SKDD, the fee for registration of the share capital increase amounts to HRK 4,000, and the fee for the book-entry registration of the newly issued shares to the shareholder accounts amounts to HRK 10.50 per account. The Price List also sets out the fees for other SKDD services which the issuer may be obliged to pay depending on the circumstances of each individual case. The Price List of SKDD is approved by Hanfa in accordance with Article 522 of the Capital Market Act.

\(^8\) Pursuant to Article 9 of the Exchange Service Price List of the Zagreb Stock Exchange, the payable for listing shares on the Regular Market amounts to HRK 35,000.00, for listing shares on the Official Market it is calculated as 0.065% of the nominal value of all listed shares and cannot be lower than HRK 75,000 or higher than HRK 150,000.00 and for listing shares on the Prime Market, the fee is calculated as 0.08% of the nominal value of all listed shares and cannot be lower than HRK 80,000 or higher than HRK 160,000. The Exchange Service Price List of the Zagreb Stock Exchange is approved by Hanfa, in accordance with Article 295 of the Capital Market Act.
By analysing data on this inevitable costs, and starting from the assumption that the issuer’s shares are being admitted to trading on the Official market as a middle segment of the regulated market, it has been determined that the maximum cost of issuing shares by the public offer, which the issuer cannot avoid, ranges from HRK 196,000.00 to HRK 250,000. The lowest calculated amount does not include the cost of the book-entry registration to individual accounts, and as for the highest calculated amount, it was optimistically assumed that 5,000 shareholders acquired new shares by the public offer.

From the perspective of SMEs this costs will be lower by 70% for the two reasons: firstly, starting from the assumption that the shares of these issuers were not previously admitted to trading on the regulated market, it is very likely that the issuer would opt for the admission to trading into the lowest segment of the regulated market with the lowest admission costs, secondly, such issuers usually have smaller number of shareholders increasing up to maximum several hundreds of shareholders, which necessarily means lower SKDD cost in the part referring to the book-entry registration to individual accounts. In this case the total cost of the public offer which an SME cannot avoid amounts to HRK 73,000.

The information on other costs, either total or individual, which the issuer can have in the process of issuing shares by the public offer when engaging experts for support to the public offering process (issue agents, financial and legal advisors, auditors, consultants for specific segments, etc.) are not available. However, since the prospectuses specify the total estimated costs of the public offer, by deducting the identified costs (i.e. the inevitable costs, as previously described) from the total estimated costs, we get a rough amount of other costs (see Table 2).

The analysis of the prospectus data referring to the estimated total costs in comparison to the identified costs shows that the other costs (those which can be avoided or significantly reduced) make between 89% and 97% of total costs. Therefore, it is justified to raise a question if it is possible for the issuer to affect the reduction of these other costs in the total costs and how, in cases when in the process of issuing shares by the public offer the issuer necessarily engages services of different agents and consultants whose activities generate these other costs.

Furthermore, even though the prospectuses specify that the other costs would finally be determined depending on the total funds raised by the public
offer, the prospectuses do not show how this correlation is determined. It can be assumed that a specific portion of these costs is agreed as a fixed amount and refers to the provided services and preformed activities which do not depend on the success of the conducted public offer.

Since the data on the other costs and methods of their specification other than the previously specified data are not identified, this thesis cannot offer the issuer any solution for reduction of these other costs if the issuer opts for the engagement of experts for specific areas, except for successful negotiations with the relevant service provider. Nevertheless, it can be concluded by analysing the available data that the share of total costs in the total value of public offer reduces significantly with the success of the public offer (from ca 5% to ca 0.8%). Since the other costs make between 89% and 97% of the total costs, it is clear that the success of the public offer reduces the share of these other costs. The issuer should definitely take this into consideration when engaging agents and other experts.

3.4. **Communication in the process of issuing shares by a public offer**

The success of the process of issuing shares by the public offer depends on the successful communication between the issuer (primarily the management board) and all participants in this process. Such communication includes communication within the issuer’s organisation (with the issuer’s employees) as well as communication outside the issuer’s organisation (with all other persons outside the issuer) (Lamza-Maronić and Glavaš; 2008; 18).

The internal communication in the public offering process aims at recognition and engagement of those organisational units and employees that are the most capable of preparing and conducting the public offer in as short period as possible. This implies a two-way communication between the management board, project managers and all employees participating in the collection, processing and preparation of data required for drawing up the prospectus, as well as those employees who will be responsible for monitoring and conducting of the public offer, regardless if the public offer is to be conducted by the issuer itself or by the issue agent.
The external communication in the public offering process has two aspects: the first aspect includes direct communication between the issuer and investors, capital market regulator, stock exchange, depository, banks at which the subscription and payment for shares will be carried out as well as other interested parties, whereas the second aspect includes the communication between the issuer and the engaged agents and other experts who will, on behalf of the issuer, communicate with all participants in the public offering process outside the issuer. Since the communication with the investors (especially potential ones) is crucial for the success of the public offer (not only before the prospectus is prepared, but also during the subscription and payment), if such communication is the responsibility of a public offering agent instead of the issuer, it is of the utmost importance that the issuer chooses the agent who is able to provide the required investor structure at the lowest costs.

3.5. Responsibility for the process of issuing shares a the public offer

The end responsibility for the issuing of shares by the public offer is on the issuer’s management board. Such responsibility of managing a process is undisputed, since the core task of the management board of any company is the responsible management of the company’s business (Companies Act, Article 240). When the process of issuing shares by the public offer is viewed from the aspect of its core purpose – providing sufficient and effective resources of funding for the issuer, which makes a constituent part of the issuer’s business management, it is clear why the end responsibility for the successful management of this process lies on the issuer’s management board.

Besides the responsibility of the issuer’s management board for the management of the overall public offering process, the legislation also stipulates a particular responsibility in relation to the prospectus, more precisely, the responsibility for the accuracy and completeness of the information contained in the prospectus referring to the persons who prepared it. This responsibility is assigned to the following parties: a) the issuer and the management board and supervisory board members, b) the offeror (agent) or the person who has applied for the admission of shares to trading, if such persons are different than the issuer, c) the guarantor with regard to the issuing, where applicable and d) persons who assume liability for the accuracy and completeness of the informa-
tion contained in the prospectus, or parts of the prospectus, and as s responsibility for the damage caused to an investor by incomplete or inaccurate information. The persons liable for the accuracy and completeness of the prospectus must be specified in the prospectus, including declarations made by each of the persons responsible, that, to the best of their knowledge, the information contained in the prospectus are in conformity with the actual facts, and that the facts that might affect the authenticity and completeness of the prospectus are not omitted (Capital Market Act; Article 359).

4. CONCLUSION

The Croatian capital market has all the regulatory and institutional mechanisms required for conducting public offers by the companies. Moreover, the Croatian capital market has more than twenty years of experience of conducting public offers of shares and debt securities. However, the main characteristic of this long-term experience is the fact that the majority of these public offers were conducted by large companies, either in the form of the initial public offering (IPO) or secondary public offering (SPO), or they were conducted by the Republic of Croatia in the process of selling of its major holdings from its portfolio, and the fact that the number of these conducted public offers is rather small in comparison to the corresponding capital markets. These facts point out to one of the major problems of the Croatian capital market: the lack of public offers generally, and above all, the lack of public offers of SMEs’ shares.

On the other hand, it can be said that SMEs need the capital market as a place of their alternative funding resources, especially in time of the unstable financial conditions and conditions of the limited bank loans that we have to cope with in the last couple of years since the beginning of the global financial crisis.

Why then the Zagreb Stock Exchange does not have more public offerings in general and why there are no SME public offerings at all? As it has been mentioned in the introduction, the lack of SMEs on the capital market is not only the characteristic of the Croatian market. This issue has also been recognised on the European Union level, with the measures proposed within the CMU in this regard.
The reason for this thesis is to contribute to these activities initiated in the European Union by describing the advantages and disadvantages of one of the possible methods of fund raising on the capital market – issuing of shares by the public offer. The aim is to present this process to the potential issuer, explain basic activities, procedures and participants and to indicate the key points where it is possible to make the process more efficient and cost-effective. The SMEs aspect was chosen on purpose (leaving out explanations of a whole range of activities performed by agents and underwriters in large public offers conducted by large companies) to show that bank loans are sometimes neither the only, nor the best option, in terms of costs, for capital raising required for financing of projects and business operations, and that the public offers of shares can be conducted even in cases of SMEs looking for the capital market funding resources.

There is definitely space for the good-quality SMEs on the Croatian capital market, Zagreb Stock Exchange in particular. SMEs only need to be “pushed” a little bit in this direction.

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MANAGEMENT OF CULTURAL RESOURCES IN MEĐIMURJE COUNTY

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Abstract

Culture has always been one of the main motives of tourist movements, thus cultural tourism plays a significant role in most of the tourist destinations that have the resources for its development. Development of cultural tourism is based on tangible and intangible cultural heritage and cultural events for tourism promotion.

In Međimurje there are many resources for the development of cultural tourism, however, analysis of past development shows that they have not been sufficiently put into the function of tourism. By putting the tangible and intangible cultural heritage in function of tourism, i.e. linking activities of culture and tourism, Međimurje gains great potential to become a competitive destination for cultural tourism in continental Croatia.

Working on the development and promotion of cultural tourism, it is necessary to take into account sustainable development, which means that tourism should not lead to the destruction of cultural property, but must contribute to the protection and preservation of tangible and intangible cultural heritage, as only preserved and quality product of cultural tourism can to be competitive in the tourism market. Cultural tourism in Međimurje can be controlled on the basis of compatible principles of sustainable development: environmental, socio-cultural, technological and economic principles that should be incorporated into all development plans of the County.

Keywords: cultural resources, cultural tourism, management, sustainable development

JEL Classification: Z1, Z19
1. INTRODUCTION

Changes in society caused by technological progress and economic development affect the changes in various segments of human life including the changes related to vacationing and use of free time, which leads to changes in the tourism development of mass tourism toward tourism of specific interests, among which over time cultural tourism increasingly has a more important role. Destinations, which build their identity on cultural tourism should have cultural attractions in the form of tangible and intangible cultural heritage that would be a strong enough motive for attracting tourists. In addition to culture as the main motive of tourist movement, destinations must also offer other tourist infrastructure, because culture itself is not sufficient to meet the needs of potential tourists.

Međimurje as a tourist destination has continuously worked in the last ten years to create tourism infrastructure and to define new tourism products, but tangible and intangible cultural heritage of the area as well as many cultural events are still not strong enough motive of attraction for a significant influx of tourists. Therefore, it is necessary to further encourage investment in the development of this form of tourism so that the supply of cultural tourism would complement existing tourist destinations (cycling, food and drink, wellness, sport and recreation, etc.). The development of cultural tourism in Međimurje can be controlled on the basis of principles of sustainable development: environmental, socio-cultural, technological and economic principles that should be incorporated into all development plans of the County for the purpose of sustainability of cultural resources as a basis for development of cultural tourism and meeting the needs of present but also future generations.

2. EFFECTS OF THE DEVELOPMENT OF CULTURAL TOURISM

For the development of tourism in general, as well as for the development of any specific form of tourism certain investments are required. By investing in tourism development, the state and other investors generally invest in the construction of major tourist facilities and capacities, because they are the highest earners. Culture is still not seen as an economic category. Development of cultural tourism takes a lot of investment in culture and cultural programs so that they give certain financial results. The state usually provides direct subsidies to individual cultural institutions that are not perceived as a direct investment in
cultural tourism. For these reasons and efforts for cultural tourism of specific destinations realize the highest possible economic impacts, it often leads to excessive exploitation of cultural resources and the discontent of the local population. Guided by the idea of ever increasing financial gain, local governments often do not think about the consequences that excessive attendance has on the quality and preservation of certain sites and cultural attractions.

It is necessary to take into account the upper limit of visits to cultural resources in order to prevent their destruction, so that they remain intact for other generations. Excessive visits to a certain destinations may have harmful effects on intangible cultural heritage, and the local population as holders of this heritage. The negative effects of tourism on the local population is mainly perceived through the expansion of the negative impact of tourists on the language, culture, religion and customs of the local population. Destruction of cultural heritage and disruption of traditional life of the community is the result of linking culture and tourism, which has resulted in the development of cultural tourism, led by the idea of earnings to achieve positive economic effects. When we analyze the cultural tourism ie. the connection of tourism activity with culture, we can conclude that these are not the only links but that tourism is also linked with other activities; education, ecology, health, sports, etc., and it is this connection with various tourism activities that contributes to sustainable tourism.

Responsible and sustainable development of tourism implies the development of tourism that meets the needs of present tourists, tourist destinations and all stakeholders in the tourism industry, while preserving and increasing the potential for the use of tourism resources in the future, without compromising the ability of future generations to meet their own needs. Responsible and sustainable tourism development implies the right to tourism and the freedom of tourist movements, meeting the economic, social and aesthetic needs, while maintaining the characteristics of the natural and social environment and cultural heritage (Jelinčić, 2008; 38). In order to achieve sustainability of cultural tourism in a manner as stated in the previous definition, all the activities and individuals involved in cultural tourism should have an equal role. Following the previous thesis Bartoluci states that the protection of social and cultural values in a tourist destination cannot only be the task of tourism but also of the whole society (Bartoluci, 2013; 136). By controlling the activities of tourists and analysis of the potential of certain sites and not imposing tourism on the local community, and the inclusion of local people in the presentation of the site,
many of the negative effects of tourism on the tangible and intangible cultural heritage can be reduced, which would greatly contribute to the sustainability of cultural tourism destinations. Tourism should not be the cause of the destruction of cultural property, it has to contribute to the protection and preservation of tangible and intangible cultural heritage, because only preserved and quality product of cultural tourism can be competitive in the tourism market.

In addition to these negative effects of cultural tourism development is necessary to mention the positive ones, which, addition to the preservation of tangible and intangible cultural heritage, can be seen in economic indicators. With the development of cultural tourism, the local population is included in its presentation (folklore, souvenir production, customs) and thereby contributes to the preservation of tradition and culture. Local authorities encouraged by desire for commercialization of cultural heritage, in order to achieve certain economic effects, make significant investments in conservation and maintenance in order to generate the highest possible revenue. Thus, the economic effects are one of the main reasons for the introduction of cultural tourism into a specific destination. Understanding of culture has changed greatly and a growing number of tourists are motivated by culture of tourist movement. Development of cultural tourism is largely facilitated by the fact that entire Croatia has its rich cultural heritage and traditions preserved, which is a resource for creating unique and authentic products of cultural tourism. Any such interesting and attractive resource will attract visitors to the destination, which will bring revenues to the local community. For a certain destination of cultural tourism to survive in an increasingly demanding tourist market, which is defined by cultural tourists with high level of education and high purchasing power, must work continuously to preserve cultural heritage, improve the offer of additional activities, and most importantly to preserve the uniqueness and originality of the tourism product.

3. SWOT ANALYSIS OF CULTURAL TOURISM OF MEĐIMURJE

With increasing interest in specific forms of tourism and the increase in demand for destinations in which culture, history and traditions are an integral part of the tourism product, Međimurje gets a chance to develop cultural tourism based on the rich history, tangible and intangible cultural heritage and preserved customs and traditions.
For the development of cultural tourism in Međimurje County there is a range of strengths and opportunities, but it is necessary to examine the weaknesses and threats in order to find solutions for their removal, which is in the SWOT analysis of cultural tourism of Međimurje.

**Table 1. SWOT analysis of cultural tourism of Međimurje**

<table>
<thead>
<tr>
<th>STRENGTHS:</th>
<th>WEAKNESSES:</th>
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<tbody>
<tr>
<td>- rich history (known aristocratic family)</td>
<td>- insufficient use of cultural and historical heritage for tourism purposes</td>
</tr>
<tr>
<td>- rich in tangible and intangible cultural heritage</td>
<td>- small market share in total tourist offer</td>
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<tr>
<td>- preserved customs and traditions</td>
<td>- insufficient investment in preserving the traditional architecture</td>
</tr>
<tr>
<td>- traditional crafts</td>
<td>- insufficient investment in development of cultural tourism at all levels — cities, municipalities, counties, ministries</td>
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<tr>
<td>- traditional architecture</td>
<td>- insufficient flow of information about the tourist offer</td>
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<tr>
<td>- events for tourism promotion</td>
<td>- insufficient investment in marketing and promotion</td>
</tr>
<tr>
<td>- authentic cuisine</td>
<td>- insufficient recognition of Međimurje as a tourist destination</td>
</tr>
<tr>
<td>- no seasonality</td>
<td>- lack of professional and educated staff</td>
</tr>
<tr>
<td>- geographical location (near Zagreb, Slovenia, Austria, Hungary)</td>
<td>- lack of education of the local population about the positive effects of tourism</td>
</tr>
<tr>
<td>- the flow of foreign tourists on their way to the sea (border crossing Goričan, Tinovec, M. Središće)</td>
<td></td>
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<tr>
<td>- opportunities in excursion tourism</td>
<td></td>
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<tr>
<td>- many additional facilities; sporting, entertainment and so on</td>
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<tr>
<th>OPPORTUNITIES</th>
<th>THREATS</th>
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<tbody>
<tr>
<td>- EU funds for the development of new tourism products</td>
<td>- insufficient use of EU funds for the development of cultural tourism</td>
</tr>
<tr>
<td>- Cooperation with neighboring countries in EU projects</td>
<td>- de-linking of offers of cultural tourism with other destinations in mainland Croatia</td>
</tr>
<tr>
<td>- Attracting new tourists by entering the EU</td>
<td>- more competitive and recognizable offer of cultural tourism in other parts of Croatia (Croatian coast)</td>
</tr>
<tr>
<td>- An increase in interest in specific forms of tourism</td>
<td>- the competitiveness of the cultural tourism of neighboring countries (Slovenia, Austria, Hungary)</td>
</tr>
<tr>
<td>- Specialization and branding of products</td>
<td>- the resistance of the local population towards tourism development</td>
</tr>
<tr>
<td>- Enhancing the diversification of supply</td>
<td>- negative impacts of tourists on autochthonous culture</td>
</tr>
<tr>
<td>- Positioning of Međimurje on the market as a recognizable tourist destination</td>
<td></td>
</tr>
<tr>
<td>- cultural offerings of Međimurje with offers of other continental destinations</td>
<td></td>
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<tr>
<td>- Encouraging the development of receptive tourist agencies</td>
<td></td>
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<tr>
<td>- Marketing and sales of local traditional products</td>
<td></td>
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<tr>
<td>- Lower prices</td>
<td></td>
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<tr>
<td>- Promotion of cultural events</td>
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In addition to the thermal springs, beautiful scenery, protected natural heritage ... Međimurje has a number of resources for the development of cultural tourism, which would greatly complement the existing offer and make Međimurje a desirable and competitive destination in continental Croatia. The need and desire of an increasing number of people to spend their time and take advantage of their trip to get to know the cultural and historical values of a particular destination and gaining new experiences and knowledge leading to the development of cultural tourism, a term that has many definitions of various experts in the field of tourism. It is not only a trip to the past but also the introduction to the contemporary life of a city or tourist area, a visit to a cultural event, a theater performance and so on. (Vukonić, Čavlek, 2001;186). One common definition of cultural tourism states that cultural tourism means the movement of people caused by the cultural attractions outside their place of residence with the intention of gathering new information and experiences to satisfy their cultural needs (Richards, 1999;17). Cultural tourism is often referred to as heritage tourism, because its development is based on the resources of cultural heritage and in many destinations it is cultural tourism that is the mechanism for economic recovery and preservation of cultural heritage (Jelinčić, 2008;54).

Heritage of Međimurje with rich and interesting history related to its former rulers, especially the family Zrinski, preserved tangible and intangible cultural heritage and numerous cultural events have excellent prospects for attracting tourists to the destination and the development of cultural tourism and heritage tourism. Heritage tourism is important for several reasons: it has a positive economic and social impact, builds and emphasizes identity, helping to preserve the cultural heritage, where culture is used as an instrument of harmonization and understanding among people, supports culture and helps renew tourism (Jelinčić, 2010;39). Analysis of the previous development of cultural tourism in Međimurje County shows that there is still not enough done for the cultural heritage to be put in the function of tourism. Tangible cultural heritage is largely preserved but not for tourists, while the preserved customs and traditions as well as many cultural events generally only content for the local population. Local governments do not have a strong enough financial capacity to maintain the
tangible cultural heritage for the development of cultural tourism (Old Town in Čakovec, castle of Counts Feštetić in Pribislavec, castles and manors in upper Međimurje, religious heritage, traditional buildings...), while the local population is not sufficiently conscious of the positive impacts of the development of cultural tourism on intangible cultural heritage in terms of preserving it for younger generations and achieving economic effects caused by tourism. Numerous cultural events have still not sufficiently taken hold to be the motive for the arrival of tourists to a destination but generally attract only the local population. As weakness in the development of cultural tourism, there is lack of professional personnel for tourism and insufficient involvement of travel agencies in the creation of cultural tourism and to the domestic tourism market and the markets of neighboring countries, with the great advantage gives a favorable geographic position.

Possibilities for the development of cultural tourism in Međimurje County are great, but it needs the joint efforts of public and private sector in terms of financial investment, connectivity and creating offers and promotion of Međimurje as unique, attractive and competitive destination for cultural tourism (Herman, 2014; 57-60).

4. MANAGING CULTURAL RESOURCES IN MEĐIMURJE

With increased interest in specific forms of tourism and the increase in demand for destinations in which culture, history and traditions are integral parts of the tourism product, Međimurje gets a chance to develop cultural tourism based on the rich history, tangible and intangible cultural heritage and preserved customs and traditions. As already mentioned, the development of cultural tourism in Međimurje can be managed on the basis of harmonized principles of sustainable development. Sustainable development of cultural tourism, which is manifested in these domains: ecological, socio-cultural, technological and economic, aims to satisfy all the needs of tourists and on a long-term scale to maintain the quality of resources and thereby enable future generations to the original characteristics of cultural resources to continue to develop cultural tourism. Responsible and sustainable development of tourism implies the development of tourism that meets the needs of present tourists, tourist destinations and all stakeholders in the tourism industry, while preserving and increasing the
potential for the use of tourism resources in the future, without compromising the ability of future generations to meet their own needs (Jelinčić, 2008; 38). The problem of sustainable development of cultural tourism is a global problem because it does not affect only a particular country, region or continent but the whole world must be guided by the principles of sustainable development in developing cultural tourism in a particular destination.

Međimurje county in its Development Strategy for the period of 2011 to 2013 and the Regional Operational Program for the period of 2006 to 2013 established specific needs in the field of cultural tourism in the form of increasing the supply of the tourism products, design events related to cultural heritage and identity of the county and investments in the preservation of the traditional architecture (Regional Operational Program, 2006; 53-54.). Investment in the preservation of traditional architecture actually means compliance with the basic principles of sustainable development of cultural tourism in order to preserve the traditional architecture as an important resource for the development of cultural tourism, technological development of this resource in order to achieve economic effects but also certain socio-cultural values. The main document of the overall development of the Međimurje County “Međimurje County Development Strategy of 2011 to 2013” with strategic objectives of strengthening human resources and improving the quality of life as one of the priority lists preservation, development and promotion of culture as a measure to achieve this priority. The Strategy states the following: raising awareness about the importance of heritage and culture, reviving cultural and historical content, the preservation of intangible cultural heritage, development of new media culture and contemporary art (Development strategy, 2011; 102). By implementing these measures in order to preserve, develop and promote the culture, and to develop cultural tourism in Međimurje County, it is necessary to adhere to the principles of sustainable development, because all human activities affect sustainable development. It is the people in different roles and activities that are the key factor of sustainable development in tourism. Tourists with their behavior directly influence the sustainability of cultural resources while the local population has a very important role in the sustainability of tourist destinations, mainly in terms of preservation and transmission of intangible cultural heritage and protection of the heritage from the negative impacts of tourists. Employees in the tourism industry, businesses and public services, but also related businesses, also have a direct or indirect impact on the viability of cultural tourism. Therefore, as Bartoluci states,
protection of social and cultural values in a tourist destination can not only be the task of tourism but also of the whole society (Bartoluci, 2013; 136).

In the context of the development of cultural tourism, sustainable tourism focuses on three key questions such as: control of the tourist experience, which results in the control of activities of tourists, considering the tourist potential of the site, and the management plan of the existing cultural and tourist sites and not imposing tourism on the local community (Jelinčić, 2008; 38-39.). Considering the aforementioned, we conclude that the control of activities of tourists and analysis of the potential of certain sites and not imposing tourism on the local community, more involvement of local population in the presentation of the site, could reduce many of the negative effects of tourism on the tangible and intangible cultural heritage, which would greatly contribute to the sustainability of cultural tourism in Međimurje County. Responsible and sustainable tourism development implies the right to tourism and the freedom of tourist movements, meeting the economic, social and aesthetic needs, while maintaining the characteristics of the natural and social environment and cultural heritage (Jelinčić, 2008; 38). Tourism should not be the cause of the destruction of cultural property but it has to contribute to the preservation of cultural heritage. According to the Strategy for protection, conservation and sustainable economic use of the cultural heritage of the Republic of Croatia for the period of 2011 - 2015 the problem is the lack of management models of cultural heritage, which is the reason that there isn't systematic maintenance and use of this unevenness use of architectural heritage; while in the coastal regions recorded excessive use of certain parts of historic buildings, as well as other cultural heritage, in northern Croatia, the utilization is still too small (Strategy, 2011; 8-11). To make this change, and to develop cultural tourism, Međimurje must provide additional investment and utilize resources in a better way to use tangible and intangible cultural heritage to promote tourism. The Međimurje County Tourist Board can play a major role in these efforts, whose main task, as a management organization of the destination can be defined as a business activity that connects and coordinates the work of different businesses and other entities in the design and implementation of the tourism product for optimal quality, competitiveness, sustainability and achieving the best economic effects on the tourist market (Bartoluci, 2013; 166). Tourist Board manages the destination and plays a key role in promoting the development of tourism and shaping the cultural tourism and the promotion of Međimurje as an attractive and desirable tourist destina-
tion. It is precisely destination management in tourism that has the task of continuous introduction of innovative processes in shaping the tourism product, including the identification and selection of potential opportunities in order to realize the expected benefits (Bartoluci, Čavlek and Associates, 2007; 40). However, the expected benefits of tourism, ie. the effects of cultural tourism development in the area of a particular destination can not be evaluated only on the basis of economic indicators. Precisely the interaction of culture and tourism encourages investment in the preservation of heritage and contributes to the creation of identity destinations. One of the goals of Međimurje, which will be included in the *Development strategy of Međimurje County by 2020*, is the preservation of cultural heritage for the development of cultural tourism in Međimurje County. The costs of preserving cultural heritage are great, but the use of cultural property for tourism purposes of investment return that must be guided by the principles of sustainable management of cultural tourism, as commercialization of cultural heritage would not bring more harm than good.

5. CONCLUSION

Međimurje County has numerous resources for the development of cultural tourism, based on its rich history and importance of the Zrinski family, preserved material cultural heritage, sacral heritage, traditional architectural heritage, rich intangible heritage, preserved customs and traditions as well as numerous cultural events, however these resources are still inadequately placed in the function of tourism. The joint involvement of public and private sectors and all stakeholders in the field of culture as well as the field of tourism must be connected to culture and tourism and thus develop cultural tourism, as one of the specific forms of tourism, which in recent years has become more and more attractive and popular in the tourist market and for which there are numerous resources in the Međimurje County.

By Managing the development of cultural tourism, it is possible to keep the principles of sustainable development; environmental, socio-cultural, technological and economic principles, with the aim of satisfying the needs of tourists, achieving economic effects but also preservation of cultural resources for the purpose of further development of cultural tourism and meeting the needs of future generations. The principles of sustainable development of cultural tourism in part include development plans and strategy development of Međimurje
County until 2013, but it must be included as well as additional details and in the development documents of the County for the next period. The principles of sustainable development of cultural tourism will certainly be the main determinants of the Master Plan, which is under construction, as is the development of cultural tourism as one of the priorities when it comes to the overall development of tourism in Međimurje County. Development of cultural tourism will greatly complement the existing tourism offer (wellness, food and drink, cycling, sports and recreational tourism, rural tourism) and position Međimurje on the tourist market as a unique, attractive and competitive tourist destination. For the tourist product to be unique, attractive and most importantly competitive it has to have high quality and be preserved which is particularly important in cultural tourism, therefore it is of great importance to cultural tourism to manage the basic principles of sustainable development.

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Abstract

The cultural and creative industry is currently in the phase of institutionalisation – both in the Republic of Croatia and in most countries of the European Union. Institutional framework of cultural and creative industry will affect the economic relations of each of the components of the creative industry, including the visual content industry. One of the products of the visual content industry is certainly digital stock photography.

In the last decade, digital stock photography has grown into a global business with a total turnover of around USD 2.4 billion in 2015, with a tendency for further growth at an annual rate of about 7%.\(^1\) The central part of this paper reflects upon socially responsible creativity of global business with a special emphasis on the visual content industry. Stock photography is considered as a specific case of the global business concept in the segment of the visual content industry. In doing so, the emphasis is placed on the role of stock photography

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in the phenomenon of corporate social responsibility. As the visual code has become the dominant communication code, the question of corporate social responsibility (CSR) arises in relation to all digital stock photography content. The synergistic role of all stakeholders in the market of commercial stock photography is emphasized, who, through their market communication, act as promoters of CSR. Therefore, the concept of CSR in cultural and creative industries, whose products also include stock photography, can be viewed and analysed in the context of a wider concept – socially responsible creativity.

**Keywords:** corporate social responsibility (CSR), stock photography, cultural and creative industries (CCI), socially responsible creativity, socially responsible entrepreneurship, SWOT analysis, visual content industry, entrepreneurial behaviour

**JEL Classification:** A1, A13

1. **CULTURAL AND CREATIVE INDUSTRIES (CCI)**

Culture shapes identity, aspirations and relations towards others and the world. The CCI concept was first presented by Adorno and Horkheimer (1944) and it encompasses all those activities that define and interpret culture through production, distribution and consumption of mutually interpenetrated cultural goods.

According to EC\(^2\) data, CCI in the modern economy contributes to economic growth, employment, innovation and social cohesion. In 2015, CCI accounts for about 4.5% of European GDP and employs approximately 3.8% of the EU workforce (8.5 million people). Also, European CCI is more resilient to economic difficulties than other sectors and contributes to innovation, skills development and urban regeneration, positively impacting other sectors. Creative sectors adapt more easily to the digital age and globalisation, and new international markets, opportunities and users are created.

Accordingly, the EU is implementing various programmes that encourage growth and employment in European cinematography, art and creative industries. So the EU allocated EUR 1.46 billion for the period from 2014 to 2020

through the Creative Europe programme. By such allocation of funds, the EU expresses the intent to:

• Preserve and promote cultural and linguistic diversity of Europe and its cultural wealth,
• Contribute to the goal of achieving smart, sustainable and inclusive economic growth in the EU,
• Help the artistic and creative sector to adapt to the digital age and globalisation,
• Open new international opportunities and markets and expand audiences,
• Promote economic development.

The Creative Europe programme publishes calls for proposals through which it finances the work of artists, cultural professionals and organisations in the performing and other arts, advertising, film, TV, music, interdisciplinary arts, heritage and the video game industry.

1.1 CCI in Croatia

According to the study of the Croatian cluster of competitiveness of creative and cultural industries\(^3\), the CCI sector in the Republic of Croatia consists of sub-sectors, one of which is photography. The sub-sectors of CCI in Croatia are shown in Table 1.

Table 1 Sub-sectors of CCI in Croatia

| 1. Museums, libraries and heritage |
| 2. Art |
| 3. Music and performing arts |
| 4. Film |
| 5. Photography |
| 6. Electronic media |
| 7. Computer programmes, games and new media |
| 8. Crafts (artistic and traditional craftsmanship) |
| 9. Architecture |
| 10. Publishing |
| 11. Design |
| 12. Advertising and marketing communications |

Source: Croatian cluster of competitiveness of creative and cultural industries (2015)

According to the Croatian Bureau of Statistics and Zenlab\textsuperscript{4} data, it is estimated that in 2012 the gross value added of the sector (public and private CCI sector) was HRK 6.3 billion, which is 2.3\% of Croatian GDP. In Croatia there are 42,212 people employed in CCI (3.0\% of the total workforce) + 82,092 employees in creative occupations outside CCI, totalling 124,304 employees in the creative economy. The trend of employment in CCI is positive and there is an increase in the share of CCI in total employment from 2.8\% (2009) to 3.0\% (2013). Photography has a 0.9\% share of GVA\textsuperscript{5} in the total share of GVA of CCI in Croatia, while share of employment in the photography sector in relation to the total CCI is only 0.2\%. There is a total of 501 registered business entities dealing with photography in Croatia.

Furthermore, according to Zenlab’s reports, characteristics of the business sector of CCI in Croatia (2009-2013) are:

> • Prevailing fragmentation of the business sector: CCI has 10,233 business entities, which represents 5.7\% of the total number of business entities in the Republic of Croatia (legal entities, crafts, self-employed individuals),
> • Above-average proportion of the self-employed (19.9\% in CCI versus Croatian average of 12.3\%),
> • Dominated by micro enterprises (83.9\%),
> • Most companies are privately owned – 99.3\%,
> • CCI on average have only 4.3 employees per company, as opposed to the Croatian average of 8.1 employees per company. Although all 12 sub-sectors have a large number of common characteristics, each sub-sector is distinguished by certain peculiarities. In the remainder of the paper, the peculiarities of stock photography as one of the products of the Photography sub-sector will be explained.

### 1.2. Visual content industry

The term “Visual content industry” was mentioned for the first time by Getty images\textsuperscript{6} CEO Klein at the 1998 EXPO\textsuperscript{7}. He explains: „In the future demand

\textsuperscript{4} Entrepreneurs’ financial statements from 2009 to 2013 (Zenlab) http://www.poslovna.hr/lite/zenlab/1297798/subjekti.aspx  
\textsuperscript{5} GVA – Gross Value Added (Accessed 20. 3. 2016)  
\textsuperscript{6} Getty Images, Inc. is an American stock photo agency, based in Seattle, Washington, United States.   
\textsuperscript{7} Content in the 21st Century, Photo Expo East ’98, 31/10/98) - Expo is the largest photography and imaging show in North America, attended by over 21,000 professional photographers, photography
for visual content of all kinds will increase, for two reasons: we are all becoming more visually literate; technology is creating distribution mechanisms that demand more images – which in turn are making people more visually literate“.

According to Klein, tendencies of the visual content industry are:
1. The creation and circulation of valuable and relevant symbolic goods – „The images”
2. Its centrifugal, ‘imperialistic’ trajectory: its dispersal of increasing numbers of products to more and more consumers across the world, to larger and more lucrative markets.
3. The dismantling of the technical boundaries between previously distinct media (photography, painting and drawing, film, video) and their convergence and mutual convertibility.

Frosh (2002) states „Potent cocktail of economic, technological and cultural forces has placed photographic archives at the centre of a new global business: the visual content industry.” Furthermore, Frosh concludes „Quietly but implacably, powerful transnational corporations are gaining power over our visual world. A ‘global, visual content industry’ increasingly controls images supplied to advertisers, marketers and designers, yet so far the process has, paradoxically, evaded the public eye.”

Stock photography (SP) is one of the products of the visual content industry. This specific product of the visual content industry is the subject of study in this paper.

2. STOCK PHOTOGRAPHY (SP)

Stock photography derives from the word „stock“ and implies the sale/rent of an already existing photograph, which was not taken according to the customer’s order. Stock photography as an independent industry has emerged in the 70s of the last century and is based on the sale of the copyright to reproduce photographs. There are three stakeholders in the SP market:
1. Photographers as creators of visual content
2. Stock photo agencies, which are intermediaries between photographers and buyers

enthusiasts, filmmakers, students and educators from around the world.
3. Buyers (editors of journals, books, magazines, graphic and web designers, bloggers...).

According to Frosh (2001: 3) „Stock photography is a global business that manufactures, promotes and distributes photographic images primarily for use in marketing promotions, packaging design, corporate communications and advertising.“ As in all other business concepts, the existence of producers and buyers of a certain product, implies defining a market and market relations where supply meets demand. Glückler & Panitz (2013: 3), define the stock image market „As the business of licensing pre-produced visual/audio-visual content for specific uses.“ Still images (photos) account for 94 per cent of total image stock, while moving images (video footage) and other images represent 3 per cent.

According to Kalazić, Horvat and Mijoč (2015: 189-190), „Production and distribution of stock photographs is one of the derivatives of the digital age in which business in the domain of production of photographs is expanded to their distribution to users of websites and/or digital communication channels."

Symbiosis of photography as a means of communication and network space – as communication space, allows business association of these communication subjects and their new perspective in the digital age. Digital technology therefore significantly affects the formation, expansion and accessibility of SP.

Before the appearance of the stock photography phenomenon, customers had to order a specific photograph that was recorded according to their request, which resulted in long delivery periods. Today’s buyers’ demands are focused on the availability of photographs and their readiness for immediate application after buyer has identified them as a desirable/acceptable solution in their creative project. It follows that the purpose of the digital stock photography business lies primarily in the clients’ ability to search, select and, immediately after payment, own the copyright to the desired photograph. It is understood hereby that the desired photograph was recorded in advance, processed and stored in a stock photo agency database.

Using semantic rules, buyer will request visual content (stock photography) through the agency’s search engine. Buyer will define the desired visual content by using keywords, required dominant colours, names of wanted authors. The latest technology allows users to upload a photograph, based on which software algorithm searches for similar photographs by motive, tonality and composition of the image. The growth in supply of high-quality visual content on the market
resulted in a decline in their price. The interest of producers of visual content for trading in visual stock products lies in the possibility of multiple trading with the same content. In such competitive market conditions where the same content is sold multiple times to different buyers, sellers of stock visual content are forced to successfully define the keywords. In other words, besides the technical and aesthetic value of stock digital photographs, it is important for their successful market mediation that their concept or idea is semantically defined in the best possible way.

Kalazić, Horvat and Mijoč (2015) conclude that SP by its purpose is primarily a commercial product, and the more „artistic“ it is, it is less likely that it will be accepted by the market in transactional terms. They also state that „Internet is becoming a bridge for photography, which allows it to cross into a new dimension, thus expanding its production and sales capacities.“

Despite the negative effects that accompany the transition of photography in its process of transformation into a mass-produced good (plagiarism, unoriginality,...), SP is able to encourage a specific economic activity and ultimately generate revenue for numerous industries that stand in the background of the „photography-product“.

3. CORPORATE SOCIAL RESPONSIBILITY (CSR)

In market competition, marketing plays a key role in communicating with buyers and consumers, and communication with the help of visual content has proven to be effective and strategically efficient. Photographs in marketing systematically affect consumer awareness, influence decisions and creation of habits. In addition to photographs used by marketing, other visual contents available for public viewing (such as, for example, stock digital photographs) have the capacity to encourage to a specific action and thus generate revenue for industries that stand in the background of the „photography-product“.

The concept of corporate social responsibility (CSR) relates to voluntary self-regulation introduced by the companies themselves so as to enhance certain segments of their business, concerning the workforce, environmental protection or human rights issues. The attitude towards CSR has been changing throughout history.
According to Bakker, Groenewegen and Hond (2005) CSR can be classified in the following 4 historical contexts:

**Table 2 Four historical contexts of CSR**

| 1. Gestation and innovation | 1960 |
| 2. Development and expansion | 1972-1979 |
| 3. Institutionalisation | 1980-1987 |

*Source: Adapted according to Bakker, Groenewegen and Hond (2005)*

In an article addressing the question of what businessmen owed society, Davis (1967) asserted, “The substance of social responsibility arises from concern for the ethical consequences of one’s acts as they might affect the interests of others.” “Social responsibility moves one large step further by emphasizing institutional actions and their effect on the whole social system. Social responsibility, therefore, broadens a person’s view to the total social system.”

Friedman (1970) sublimated his minimalistic doctrine of CSR in the phrase *The Social Responsibility of Business Is to Increase Its Profits*.

According to Carroll (1983:608), “Corporate social responsibility involves the conduct of a business so that it is economically profitable, law abiding, ethical and socially supportive. To be socially responsible then means that profitability and obedience to the law are foremost conditions when discussing the firm’s ethics and the extent to which it supports the society in which it exists with contributions of money, time and talent”.

In article “The pyramid of corporate social responsibility“, Carroll (1991) hierarchically structures the importance of all four elements that are the components of CSR:

**Figure 1 “The pyramid of corporate social responsibility“**

*Source: Adapted according to Carroll (1991)*
In the pyramid of corporate social responsibility each level of the pyramid has certain properties:

1. Economic responsibility is primary – a company exists to make a profit. Only when a company meets this most important requirement, it will be able to meet the others.

2. Legal responsibility – every company must respect the rule of the law.

3. Ethical responsibility – behaviour in accordance with the ethical standards of CSR

4. Philanthropic responsibility – on top of the pyramid is the company’s obligation to be a responsible legal entity that contributes to the betterment of people and the community in which it operates.

Today, CSR has evolved to such an extent that states have experienced a kind of a transformation of state sovereignty, becoming just a service for key firms in their territories. Companies have become institutions that define principles, implementation and realisation of the fundamental tasks of the state (the common good, all forms of security, protection, well-being, freedom, rights, etc.). This is possible because of the economic strength of companies, which often exceeds the strength of states on whose territory they are located.

It can be said that CSR is an obligation of all the companies, and the objective is to (by increasing profits) increase the positive impact of their operations on the society and the environment as a whole, and reduce the negative impact at the same time.

Every business entity is in some way connected with the other entities in the market, as well as with customers. Customers today have great power, which slowly grows in accordance with the increase of their awareness of the fact. Therefore, companies have no choice but to be socially responsible, because otherwise they will lose the market position they have been acquiring for years. The ultimate goal of a business does not always and necessarily have to be to increase the profits.
4. SWOT ANALYSIS OF SOCIAL RESPONSIBILITY IN DIGITAL STOCK PHOTO INDUSTRY

In order to analyse social responsibility in the global business of digital stock photography, the status of CSR in the stock photography industry has to be determined first. Given that this is a business concept that has been present only since recently, SWOT analysis will be used to explore it. The aim of SWOT analysis presented in Table 3 is to explore the status of CSR in the SP industry, that is, the relationships between CSR and stakeholders in the digital stock photo industry.

Table 3 SWOT analysis of CSR in digital stock photo industry

<table>
<thead>
<tr>
<th>Positive Factors</th>
<th>Negative Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STRENGTHS</strong></td>
<td><strong>WEAKNESSES</strong></td>
</tr>
<tr>
<td>• Visual language of communication</td>
<td>• Uniformity</td>
</tr>
<tr>
<td>• Political correctness and „censorship“</td>
<td>• (Self) plagiarism</td>
</tr>
<tr>
<td>• Gender equality in work</td>
<td>• SP is harder to sell if it is artistic</td>
</tr>
<tr>
<td>• Formula of success = talent + work</td>
<td>• Semantic web has limitations :</td>
</tr>
<tr>
<td>• Photographs get the role of shares</td>
<td>○ search only by keywords makes it difficult:</td>
</tr>
<tr>
<td>• Model Release and Property Release</td>
<td>○ to reach all the advertised content</td>
</tr>
<tr>
<td>• Offer of free content</td>
<td>○ discriminates certain SP</td>
</tr>
<tr>
<td>• Market is global – there are no borders</td>
<td></td>
</tr>
<tr>
<td>• Global uniformity of product prices and royalties</td>
<td></td>
</tr>
<tr>
<td>• SP as a fully ecological product</td>
<td></td>
</tr>
<tr>
<td>• Revenue from ads</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Positive Factors</th>
<th>Negative Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPPORTUNITIES</strong></td>
<td><strong>THREATS</strong></td>
</tr>
<tr>
<td>• Promotion of CSR through SP</td>
<td>• Unclear distinction between professional and amateur products (a large number of amateurs involved in the business)</td>
</tr>
<tr>
<td>• Incentive for lifelong learning</td>
<td>• Taking high-quality photographs is becoming a matter of general culture (everyone has the equipment and „knows how to photograph“)</td>
</tr>
<tr>
<td>• Promotion of entrepreneurial behaviour</td>
<td>• Availability of top-quality cameras on mobile phones</td>
</tr>
<tr>
<td>• Promotion of local culture and customs</td>
<td>• Citizen photojournalism</td>
</tr>
<tr>
<td>• Removing cultural barriers</td>
<td></td>
</tr>
<tr>
<td>• Searching photographs by uploaded file</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors
SWOT analysis involves a breakdown of the positive and negative elements. This paper will primarily analyse the positive elements of CSR in the SP industry. They are analysed below in the order listed in Table 3.

**Visual language of communication**

The digital age has imposed the visual language as the most common language of communication. The reason for this is that visual language is globally understandable and is not subject to educational, linguistic or other barriers. Stock photography is culturally globally acceptable because it conveys the same visual messages throughout the world. Thus, according to research, 46% of marketers say photography is critical to their current marketing and storytelling strategies, while, according to Bullas, content with relevant images gets 94% more views than content without relevant images, Facebook posts with images see 2.3X more engagement than those without images.

**Political correctness and „censorship“**

The allowed stock content is strictly controlled by reviewers, there is no possibility for abuse, humiliation or discrimination on any grounds. Contents that are not allowed to be uploaded to all stock agencies include: offensive content such as explicit nudes, drugs, people in offensive positions, racism.

**Rule of copyright**

The terms Model Release and Property Release are fully regulated in the SP industry. SP is very well regulated by laws which respect the privacy of persons and property, as well as the right to legal photographing and exploitation.

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8 46% of marketers say photography is critical to their current marketing and storytelling strategies, source: http://www.cmocouncil.org/images/uploads/297.pdf (Accessed 20. 3. 2016)


10 The task of an image reviewer is to evaluate the photos on the following criteria: Overall quality, Commercial aptness, Technical implementation, Conformity to acceptable standards of the company


12 Release is an agreement between the photographer and the person (model) who is photographed (or the owner of the property you are photographing) signed with the participation of a witness. This document guarantees right to publish and sell photos avoiding risks and possible claims of the model or owner of the property. http://www.stockphotosecrets.com/news-stock-photographers/7-best-apps-model-release.html
of public and private property for commercial purposes, all for the benefit of the community. All photographers who shoot models or private property for the purposes of subsequent sale of these images need special documents to protect themselves from possible troubles. Such documents are called Photo Releases. Specialised Release applications are a technical innovation that allow photographers to easily and quickly create valid legal documents, which must be in the pdf format, including digital signatures: Photographer/ Model/ Witness. There are over 15 applications for portable devices that can help photographers to organize their work with Releases.14

The issue of copyright for the use of photographs themselves is particularly regulated, where, according to Pastrovich (2015)15 the two most common types of licences in SP are:

a) **Royalty free** – A one-off fee is paid to the photographer by the image-buyer, but the photographer is free to sell that image multiple times to different buyers as much as he or she wants. Essentially, this is also known as “unrestricted” content. The price for the image is often dependent on the image size (high- or low-resolution). The buyer gets no exclusivity to the image and the photographer might not know when, for what, and for how long the image is used for.

b) **Rights managed** - The buyer pays a licensing fee in order to be able to use the image. That licensing fee is based on usage. For example: location, type of media, length of time the photo will be used, etc. The buyer can also opt to pay for exclusive rights and there can be restrictions that apply based on all of the above factors.

**Gender equality**

The equality of authors by status and earnings is guaranteed in the SP industry. Agencies and customers are in fact most often not interested in the identity of the photographer, and SP is often done under a pseudonym.

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13 Portable Document Format (short: PDF) is a document file format created by the company Adobe Systems in 1993. It is used to present two-dimensional documents regardless of the device and print resolution.


Equality of earnings

The same price per sold stock photograph is guaranteed throughout the world, regardless of the country the author is located in. This is especially motivating for photographers from less developed countries, because it ensures a much higher standard than if the same income was paid in a highly developed country. According to Hatirnaz (2014), 3.5% of photographers earn more than USD 10,000 per month, 14.5% earn between USD 2,001 and 10,000 per month, 10% earn from USD 1,001 to 2,000 per month, 18.25% earn from USD 501 to 1000, and 53.75% earn less than USD 500 per month.

Business success

Business success depends entirely on the talent and work of individuals and their market determination. Business opportunities are available to both professionals and amateurs, and they are valorised through the demand for the advertised photographs. According to data obtained in the study on SP by Hatirnaz (2014), 95% of stock photographers has not completed any specialised training for SP, while 52% has no formal photographic education.

Lifelong learning

Stock photography actively encourages lifelong learning about new technologies. Photography as a digital product has undergone a revolution in all technological stages of the production process: from the process of recording, digital post-production, to the distribution of content through digital networks. The only thing that the old and the “new” photography share is the name. Analogue photography has been retired for some ten years, while its renewed digital version is continuously being developed.

For this reason, professional and amateur stock photographers are forced to continuously acquire new knowledge. One of those is the knowledge of the English language. A total of 168 image suppliers were selling images internationally: 76 suppliers are located in English-speaking countries and 92 in other countries. While 74 per cent of the agencies in non-English-speaking countries offer their content also in English, only 10 per cent of Anglophone agencies offer additional languages to their customers. This finding according to Glückler and Panitz (2013b) demonstrates that English certainly is the lingua franca of the stock image industry and that the US and UK markets represent a significant share of the global business.
**“Green” technology**

SP creates a minimal amount of harmful by-products, it does not devastate natural material resources, because mostly people or existing situations and conditions are being captured. As a product in the digital age, stock photography is a completely immaterial, intellectual category. Besides the stock photography being itself virtual, it’s distribution and sale are also virtual.

**SP as shares**

Photographs that an agency has included in its collection remain there as long as there is interest in them, which allows creatives to take a break while “photographs-shares” are still selling, and earnings are coming in even after the photographer retires. Only 50 years after the photographer’s death copyrights expire and the photographs become a public good, but all the while the heirs can collect revenue from the sale of the same as copyrights are hereditary.

**Free stock photographs**

Free stock photographs can be downloaded and used under precisely specified conditions. These are mainly photographs for which permission is given for non-commercial use, and the socially responsible effect is that economically and socially vulnerable categories of society have free access to SP content on some websites. Getty Images, one of the largest photo services, has decided to allow free embedding of their photographs via embed code, without a watermark, provided that the photographs are used for non-commercial purposes. There are some web portals whose sole purpose is to share free SP, such as, e.g. www.freeimages.com.

**Promotion of CSR through SP**

Corporate social responsibility is experiencing continuous promotion on the websites of stock agencies. Table 4 presents a selection of 10 stock agencies that have been identified through a semantic search of the internet using “corporate social responsibility” as the search keyword. The total number of stock

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photographs offered by an agency was put in relation with the total number of photographs in the CSR category. Agencies were then ranked according to the percentage of photographs with CSR motive. The Istockphoto agency has the most favourable ratio, which is 15 times higher than that of the Dreamstime agency. At the bottom of the table is the Freeimages agency, which does not have a single advertised CSR photograph. This is an agency that offers completely free downloads of stock photographs.

**Table 4** Percentage of stock photographs in the CSR category in relation to total agency portfolio

<table>
<thead>
<tr>
<th>No</th>
<th>Agency name</th>
<th>Total number of photographs in the CSR category</th>
<th>Total number of stock photographs offered by the agency</th>
<th>% of stock photographs in the CSR category in relation to the agency’s portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Istockphoto</td>
<td>839</td>
<td>1,213,336</td>
<td>0.06914</td>
</tr>
<tr>
<td>2</td>
<td>Gettyimages</td>
<td>1909</td>
<td>8,293,156</td>
<td>0.02301</td>
</tr>
<tr>
<td>3</td>
<td>Depositphotos</td>
<td>2813</td>
<td>35,302,683</td>
<td>0.00796</td>
</tr>
<tr>
<td>4</td>
<td>123RF</td>
<td>3758</td>
<td>53,740,142</td>
<td>0.00699</td>
</tr>
<tr>
<td>5</td>
<td>Canstockphoto</td>
<td>1502</td>
<td>26,039,405</td>
<td>0.00576</td>
</tr>
<tr>
<td>6</td>
<td>Bigstockphoto</td>
<td>1704</td>
<td>17,854,321</td>
<td>0.00954</td>
</tr>
<tr>
<td>7</td>
<td>Shutterstock</td>
<td>2804</td>
<td>79,639,393</td>
<td>0.00352</td>
</tr>
<tr>
<td>8</td>
<td>Fotolia</td>
<td>1150</td>
<td>38,398,540</td>
<td>0.00299</td>
</tr>
<tr>
<td>9</td>
<td>Dreamstime</td>
<td>655</td>
<td>41,775,216</td>
<td>0.00156</td>
</tr>
<tr>
<td>10</td>
<td>Freeimages</td>
<td>0</td>
<td>388,088</td>
<td>0.00</td>
</tr>
</tbody>
</table>

*Source: Agency web pages, situation on 15.02.2016*17, authors’ calculation

**Volunteer photographers**

Volunteers’ photographs mainly record events in the local community (festivals, contests, celebrations of local jubilees, religious celebrations...). Volunteer photographers grant their contents to local organisations for the benefit of the community, and exceptionally successful photographs are eventually offered in the market. This is particularly pronounced in novice photographers who are working on their affirmation, gaining first experiences and creating their first portfolio.

17 Number of stock photos offered in a company’s data gallery fluctuate on a daily basis due to the addition of new photos.
SP encourages entrepreneurial behaviour

Photographers do their work with passion and the money is not in the first place for them. Being a photographer is the new “rockstar” in an online, visual culture. Creativity and innovation are essential for doing this job.

Although, according to Hatirnaz (2014), a large proportion of the submitted photographs are not accepted by agencies, which is cited by photographers as one of the main problems in the business, they persistently continue to capture images. 20% of stock photographers have said that 30-80% of their uploaded photographs are rejected.

Every stock photographer faces the usual entrepreneurial risks:

1. Risk of demand – photographers capture images at their own risk, drawing on their own material, creative and time resources, not knowing whether they will be able to monetise the recorded content. Thus Pickerell (2010) introduced a new concept in photography, which he called „speculative shooting“.

2. Technological risk – considering the rapid technological development, it is necessary to continuously invest in new equipment, which becomes obsolete or breaks down, which is associated with new expenses.

3. Financial risk – relates primarily to the capital that is invested by photographers in recording and processing equipment, as well as in their education.

4. Emotional risk – loneliness, preoccupation with work, but also the danger of the option that the photographer „will fail to master the material“ and adopt new knowledge that is developing very rapidly.

SP is cost effective for customers

Digital stock photographs are cost effective for customers because SP agencies typically set the starting price of stock photographs very low (starting from USD 0.15 to USD 10). With such a pricing strategy, agencies strive to encourage customers to buy as many images as possible, which is positive for the development of the economy in general. Hatirnaz (2014) states that as many as 90% of customers prefer purchasing SP due to very low prices. Furthermore, 58% of stock photographers believe that the prices are going to continue to fall in the

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future due to the growing supply of new visual content. Also, as many as 72% of respondents believe that “Microstock\(^{19}\) photography provides more money to the client than it does to the photographer.” The reason for success of stock photographers lies in the Royalty free license, which allows the same copyrighted work to be sold countless times.

**Cultural and tourism promotion**

Stock photography market is global and it spreads all over the (digital) world. Such a global business helps cultural and tourism promotion of the less affirmed small countries, such as Croatia, and makes them desirable tourist destinations. According to Hatirnaz (2014), 47.25% of stock photographers are predominantly engaged in shooting in the categories of tourism and vacation.

Besides the positive elements, SP industry also has certain weaknesses. The negative elements of CSR in the SP industry are analysed below, as listed in Table 3.

**Emergence of “citizen photojournalism”**

“There is a growing reliance on images produced by citizens (citizen photojournalism) by media outlets and publishers. Traditional photojournalism is also facing competition from the citizen photojournalist” (Quart, 2008). Taking a good photograph today has become almost a part of elementary literacy, such as, for example, using the Microsoft Word.

“Amateur snappers” armed with camera phones at newsworthy events are able to email digital imagery to newspapers and television stations.” (Evans, 2007: 32)

Hence, due to different positions and interests, there is a certain rivalry among the stock photography stakeholders: professional photographers, whom, according to Hatirnaz (2014) there are 56% in the microstock business, feel a threat from amateur photographers who have an initial competitive advantage, due to low fixed operating costs.

\(^{19}\) http://www.microstockphotography.com/ : “Microstock Photography is one of the common names given to the low priced royalty free stock photo industry.” (Accessed 20. 3. 2016)
Dominant role of stock agencies

Agencies have great bargaining power and are therefore in the position to dictate terms: wanting better and cheaper photographs they are constantly tightening the quality criteria and therefore their reviewers are refusing a large number of photographs, and the acceptance rate20 is becoming lower. At the same time, agencies are lowering the prices for end customers and reducing the percentage that is paid to photographers. The result of such market domination of stock agencies is the weakening of the author position of stock photographers, which results in an outflow of stock photographers, that is, a large portion of stock photographers is forced to take on some other additional jobs. Such a market makes it difficult to do business even for the best stock photographers. Back in 2010, Pickerell predicted that the increase in the number of photographs in circulation significantly reduces the likelihood that any of those images, regardless of how good or creative they are, will be sold eventually.21

Self-imposed limitation of creativity

“More than 50% of stock photographers prefers working on bestselling picture categories.” Hatirnaz (2014).

In order to ensure a successful sale in advance, photographers carefully study the best selling categories of photographs, so that they would be more successful. This fact inevitably leads to appearance of uniformity, that is, plagiarism, and even self-plagiarism.

6. DISCUSSION

The digital age has enabled new forms of connecting demands for corporate social responsibility and production / sales of global products such as, for example, stock photography. Corporate social responsibility is one of the imperatives of modern entrepreneurial management that can be summarised in brief in the following requirements:

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20 Number of images accepted for sale in comparison to the images uploaded to an agency; rates depend on strictness of the agency and can range from below 50% (usually for beginners) to above 90% (for experienced contributors).

a) Affirmative attitude towards environmental issues  
b) Encouraging lifelong learning, art and culture in the community  
c) Contribution to addressing general human, social rights and the overall betterment of the community

Consequently, the question arises to what extent it is possible for a business entity to reconcile demands for socially responsible operations and at the same time make a profit in the market? With the aim to answer the question, a SWOT analysis of CSR in the SP industry was conducted in the paper. It was found that most of the processes of the global SP business are in accordance with the rules of good CSR practice, and that it even surpasses them in some of the requirements.

The greatest strength of CSR assisted by stock photography derives from the specific internal characteristics of stock photography and examples in which content of stock photographs visually promotes CSR in stock agency’s galleries.

Weaknesses and dangers are present, but for the time being not to the extent that would jeopardize the positive trends in the SP industry. For example, the phenomenon of the appearance of “citizen photojournalism” is open for new research and setting up new relations between CSR and the SP industry.

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http://europa.eu/pol/pdf/flipbook/hr/culture_audiovisual_hr.pdf [accessed 01 February 2016].
http://www.jeffbullas.com/2012/05/28/6-powerful-reasons-why-you-should-include-images-in-your-marketing-infographic/ [accessed 04 February 2016].

INNOVATIVE STRATEGIES AND COMPANY DEVELOPMENT IN CONDITIONS OF CRISIS MANAGEMENT

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Abstract

When it comes to regular or crisis management, every company has clear stability criteria, specific objectives and activities that have to be met, and is primarily focused on achieving growth and continuous organizational development. Impacts of internal and external environment are variables that are difficult to recognize and therefore it is necessary to further analyze the functions of companies’ development, especially in terms of crisis management. Crisis management is a form of enterprise management in the specific market conditions. In this case we have survival of enterprises in the economic crisis on the global market. Organogram of the company, weather it is large, medium or small, can be a barrier in achieving the growth and development if the company, in its life cycle, does not have defined strategic framework or an idea of what it wants to be. The market is overflowing with similar companies and in every industry there are companies that have a certain competitive advantage that can determine final position and presence of the company on the market. Crisis management is management that has to absorb, in the short period of time, difficulties and threats inside and outside the company, where strategic concepts can lead to the failure or development of the companies. This paper explores
some innovative strategies, such are disruptive innovations and organizational ambidexterity, with questioning of validity of those strategies in relation to the company development and effects on the crisis management.

**Keywords:** development and growth, crisis management, strategy, disruptive innovation, organizational ambidexterity.

JEL Classification: H12, C41

1. INTRODUCTION

Is the size and hierarchy of large companies a burden that pulls companies to the bottom in this changing and technologically driven environment? What “mammoths” can do to survive? Which approach and strategies should they take? This paper combines examples of businesses and strategies as the basis for definition of business models, with aim to analyze modern concepts that could give ideas for successful survival and development of companies. It is necessary to remember the market - how it was a few years ago, and how it is today. Few years ago big and significant “players” were Nokia, Saab or Levi’s. It is interesting to compare them with their current positions on the market and to companies such as Apple, Tesla or Zara. Company size on market nowadays is simply not guarantee for survival, especially in times of crisis (now). Suggestions of innovative strategies, such as disruptive innovations and concept of organizational ambidexterity, in terms of crisis management, represents strategic concepts with innovative character. Disruptive innovations are hardly possible in successful companies as they are focused on the exploitation of existing products that are still successful in the market and on their evolution rather than innovation. The problem is that R&D and marketing departments are largely oriented on meeting the needs of customers through market research. Can we expect that a statistically significant number of respondents in 2005, during the CATI or other surveys (ordered by Nokia for example), declared that they will need mobile device, with less than 1 cm thickness, touch screen and virtual keyboard, that could be used as a personal computer and, at the same time, as phone, camera, video camera, music player, gaming platform, navigation? Even people, statistically classified as a pulsating value (eng. Outlier), did not propose similar device. As support to this thesis, there are a few interesting facts regarding the development of smart phones:
• In 1996 Nokia presented its first clamshell Nokia 9000 Communicator to combine a PDA (Personal Digital Assistant) and digital mobile phone

• In 2003 BlackBerry unveiled its most successful generation of smartphones that become the main culprit for “addiction” (in America known as “CrackBerry”)

• In 2006 Apple sold 3.3 million devices, BlackBerry 11.77 million and Nokia sold 77.68 million devices

• In 2014 Apple sold 191.43 million devices, BlackBerry 7.91 million, while Nokia sold its mobile phone business to Microsoft to stop the further losses.

On the other hand, organizational ambidexterity is a strategic concept whose successful implementation falls under the responsibility of General Manager (CEO—Chief Executive Officer). The concept of ambidexterity as critical thinking implies that the company is observed according to stages of the life cycle or after top-performance phase.

2. COMPANY AND STRATEGY IN CONDITIONS OF CRISIS

Company and strategy are terms that, within and outside of the environment, have specific presumptions of the role and activities of the company, mostly through interdependence and connectivity. The company is an open system, strongly and is inseparably incorporated into the complex network of social relations that create value that drives our civilization (Tipurić; 2014, 15). On the other hand, the strategy is a generic term used in all aspects of life, usually indicating attempts to create a better (competitive) positions in competitive environment (e.g. in politics, sports and so on). In the case of strategy and companies, business strategy represents a game plan used by management with goal to: increase business; gain market positions; attract and gain customers; to compete successfully; to keep operations oriented on achieving the desired goals (Thompson et al; 2008, 3). Company strategy is usually defined by managers that, in order to improve the position and prospects of companies, are trying to provide answers to the following questions: where is company in specific moment, where is it going and how it can get somewhere. The fundamental answers to these questions are base for selection of companies’ strategy that will
strive for distinction and recognition of its product or service and seek for development of competitive uniqueness and abilities in the market. It is also necessary to dismiss the myths when observing commercially successful strategies which are often presented with retrospective rationalization where managers are portrayed as visionaries and superhuman. In order to determine company strategy it is necessary to analyze financial reports, but it is primarily important to analyze the business model of the company. The business model of the company explains the economic logic of the model that will deliver to the customer’s value for the price and the cost and that will produce an acceptable profitability. (Thompson et al;2008,11). The business model of the company is focused on the sustainability of operations and companies. Sustainability, especially in long-term companies, proves and confirms that company has a successful and profitable business model. However, this thesis is valid for a period up to this point, so the role of crisis management has multiple effects on businesses, both regarding the business model and strategic guidelines. If managers and management, when analyzing companies, analyze their own actions and their own thinking than the answer on the question - where is company right now - can be found. Adizes Institute (Adizes Associates;2003, 12) lists the differences between successful and unsuccessful managers and organizations concluding that successful “will find adequate solutions to key problems and effectively implement them”. In crisis conditions market principles are different and companies and managers react differently, regardless of success and failure of absorption. As source of excellence of successful organizations, Stacey mentioned that behavior is key feature and necessary precondition for success. Success is achieved when a group of people work together in unison in order to adjust to their environment and when they strongly share the same values and vision of the future (Stacey;1997,18). On the other hand, unsuccessful are faced with a couple of unfavorable activities, as they are: avoiding to face the problems, solving wrong problems, creating bad decisions or implementing good solutions inefficiently. There is no consensus with economic theorists and active management, in terms of the causes of the crisis. Opinion that the crisis can occur only in times of recession is illusory and it is not the basis of interpretation of the crisis. The crisis can also occur in the time of economic development and positive economic trends as it is related to the specific subject and can occur in all periods and stages of development. Theoretically, there are four stages in the development of the crisis (Krystek;1981,14) a potential crisis, latent crisis, acute-transcended crisis and acute-insurmountable crisis. Still there is no empirical evidence of a
mathematical principle regarding the crisis of the company despite numerous attempts to systemize connection of the different stages of the crisis and various indicators and factors.

3. DISRUPTIVE INNOVATIONS

The term “disruptive innovation” was created in 1995 by Harvard professor Clayton Christensen, and elaborated in more detail in the book “The Innovators Dilemma”. Book shows that disruptive innovation is an innovation that has the power to change the market of a certain product or service from the ground and potentially throw industry-leading companies out of the market. For companies, to successfully participate in the market, they have to continually develop more types of innovations for existing and future customers (O’Reilly & Tushman; 2004,4). There are following types of innovation: incremental innovation - minor improvements to existing products and operations, architectural innovation - technological and process improvements that lead to fundamental change of the components or parts of the business and discontinuous innovation - radical improvements that, in long term, can modify the base for industry competition. Disruptive innovation can severely harm companies that are focused on their customers, especially if company implements a disruptive technology that combines more types of innovation processes and considerations. Chart 1 shows the strength of disruptive technology compared to conventional businesses performances

Chart 1: Disruptive technology compared to complexity

With regard to the origin and timing of so called breakthrough innovations, they (Chesbrough&Teece;1996,89) can be autonomous and systematic. Autonomous innovation can be developed independently of other innovations, and they occur spontaneously. Systematic innovations arise from complementary innovations and require integration. Identification of one of these types is the basis for the selection and organization of teams and units. Within the research (O’Reilly&Tushman;2004,6) it was established that for the breakthrough innovation of companies there are four different organizational designs that can be further developed and that can affect the final definition of innovation. Namely: functional design, teams without support, cross-functional teams and ambidexter organizations.

**Picture 1:** Functional design

![Functional Design Diagram](image)


For companies with a functional design, project teams integrate into existing organizational and management structure and are only in 25% of cases successful with the attempts of breakthrough innovations.

**Picture 2:** Teams without support

![Teams Without Support Diagram](image)


Teams without support are placed aside of defined organizational and management structure, and usually they do not have the support. In line with lack of support they have no chance for success.
Cross-functional teams

Unlike teams without support, cross-functional teams operate within the organizational hierarchy, but outside the existing management structure, and as above, they have no chance for success in innovations.

4. AMBIDEXTER ORGANISATIONS

Ambidexterity primarily represents the person and ability of person (ambidexter) to equally successfully use left or right hand when carrying out specific actions. The term “ambidexterity of organization” is a relatively old concept dating back to the 1970. Ambidexterity of organization is the ability of simultaneous use of existing capabilities and exploration of new features. In the context of successful breakthrough innovation, this scheme can have a significant positive impact on design of company strategy in the crisis conditions.

Picture 3: Cross-functional teams


Picture 4: Ambidexter organizations

In a dynamic market environment companies operate in the “red ocean” (Chan Kim & Mauborgne; 2007, 17), with merciless battles on existing markets, where the need to adapt and to develop new products has become a question of survival even for very successful companies that use ambidexterity as “prima inter pares” of survival. 21st century is predominantly oriented on innovation process since consumers continually insist on development of new products/services that have to be radically different from already existing products and services. Today the value of an organization primarily stems from the ability to change and to adapt. The biggest challenge is the adaptation of traditional companies that can successfully, with existing resources and capacities, respond to these demands. The world is rapidly changing in line with growing technology advances and expansion of communication channels. It can be concluded that many traditional industries were established due to changes in technology, but also due to the changes in business models. The concept of ambidextrous organizations arises from the difference between exploitation and exploration, which essentially represents the orientation on tradition (emphasis on core-business) and innovation. Part of the business that deals with exploitation or exploration is primarily focused on profitability, costs and efficient operational improvement through a formal top-down structure. Innovations are incremental and refer to the improvement of existing products, models and processes. On the other hand, exploitation and exploration of the business is focused on experimental innovation and it is most similar to entrepreneurial organizations. The actions of the company have to be flexible, risky and have to aspire to the rapid growth, where management depends on adoption of the proposed vision, image and engagement. From the above mentioned, company units oriented on the exploitation or exploration differ substantially according to the following activities (Tushman et al.; 2011, 3): strategic plans, key tasks, competence, structure, control and rewards, organizational culture and leadership roles. Ambidextrous organizations establish project teams as structurally independent units integrated into existing management hierarchy. Each of them has its own process, structures and defined organizational culture. Ambidextrous organizations necessarily needs ambidexter high-level executive managers and teams that have ability to understand and are sensitive on the needs of various business requirements and models. Since ambidexterity means reducing costs and encouraging innovation, managers that successfully balance between these two sides are extremely rare and valuable. At all hierarchical levels of the company cohesion among all employees is necessary, as well as the tendency to accept ambidexter mindset.
In case of unsuccessful ambidexter organization the main responsibility falls under the CEO (Chief Executive Officer). Exploitation and exploration units have to report to the CEO, otherwise exploitation as more superior division, will take advantage of its position as a key factor of stability in order to neutralize exploration division.

5. CONCLUSION

Companies often in their life cycle and in times of crisis do not have strategic and innovative frameworks ready. The life cycle, conceptually (stages of creation, growth, maturity and decline) attempts to explain the cycles of the companies from their establishment to their decline, or from birth to death. It is believed that in the correlation of growth and age, size and duration of the companies are not crucial components. More important is interrelationship between the components which includes flexibility and the ability to control the process. In case of young company, flexible component is highlighted, but degree of control is very low. As companies are getting old, this correlations are changing – flexibility is decreasing and control is increasing. At different stages of life cycle companies go through transformation (from small to medium but also to large companies). In conditions of the crisis companies can transform radically. Change in phases and in transitions between phases can lead to the problems that can enable further development of the company. Because of this, it is extremely important to know the concept of companies’ life-cycle. Innovative strategies are key components that can contribute to positive solutions in time of the crisis. Management sometime has to use radical solutions since in times of crisis there is no common solutions. Disruptive innovation is a tool that can greatly change the foundations of the local market. Ambidexterity is the concept that can, with its gambling approach and in case of a positive outcome, bring the company into a leading position. Overall, proposed strategy introduce rearrangement of business activities within the hierarchy of the company and possibility for the companies to quickly and dynamically react to enhance their position in the market and industry.
Literature

COMPARATIVE ANALYSIS OF PROJECT MANAGEMENT MATURITY MODELS

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Abstract

The term project management has been used since the 1950s, but it was only at the end of the 20th century that it became a separate discipline and that this special form of management became recognisable. Since then organisations have recognized project management as a tool to achieve strategic competitive advantage in an increasingly competitive business environment. By implementing project management practices, organisations have reached a certain level of project management maturity, i.e. project management has become more mature. In this context, models which analyse different project management maturity indicators have been developed. These models also serve as a tool to assess the level of project management maturity and to identify the areas for improvement. Therefore, this paper will focus on the need for project management and a comparative analysis of some of the existing project management maturity models will be conducted.
Keywords: project management, project, project management maturity models, organisation, comparative analysis

JEL Classification: L67, H43

1 INTRODUCTION

Nowadays, project management is recognised as a tool for efficient project implementation allowing organisations to realise their strategies thus achieving competitive advantage. Throughout its history project management has seen several phases before it evolved into a profession as we know it today, which is becoming increasingly recognisable. Even though today's organisations use a variety of project management methods, tools and processes enhancing their projects' performance, many projects still fail or their implementation is not efficient enough. Project management maturity suggests the degree to which an organisation has developed and implemented good project management practices. In this context project management maturity models have been developed assessing the project's level of development and positioning the organisation at a certain level. Project management maturity levels are differentiated not only by different models, but also by the dimensions they assess.

This paper focuses on the need for project management in organisations, defines the extent to which it is developed in organisations and compares three selected project management maturity models (currently the most recognisable and the most widely used in business): Capability Maturity Model Integration, IPMA Delta and Organisational Project Management Maturity Model.

2 NEED FOR PROJECT MANAGEMENT IN ORGANISATIONS

Today's business is characterised by ever increasing competitiveness, due to which organisations have to continuously face new challenges as well as take into consideration the changes occurring in their environment. In order for each business system to become competitive, it is necessary to devise an appropriate strategy, which will be realised by efficient project implementation (Hauc, 2007:10). The interest in project management derives from increasing recognition of the project as an adjustable, flexible and predictable form of busi-
ness organisation (Hauc, Vrečko, Barilović, 2011:1040). Organisations which were first to introduce project management as a profession operated primarily in engineering industries, such as civil engineering, petrochemical engineering, mining as well as manufacturing, management and research (Lock, 2013:15).

Nowadays, the importance of project management as a special form of management, which is used to achieve a set of business objectives, strategies and tasks within a defined time frame and budget, is increasingly emphasised (Omazić and Baljkas, 2005:15, Hauc, 2007:23). In its early development, project management was considered a tool for planning at operational levels, which is why it was not considered as important by top management and was seen only as a reason for decentralising authority and delegating decision-making. After the year 2000, project management started to develop as a discipline, became recognisable and began being perceived as a process which: reduces operating expenses by completing several tasks in less time with fewer resources and without disrupting quality; leads to increased profitability; provides better control over the changes in scope; increases the company’s efficiency through improved business practices; develops a more intimate relationship with clients; provides a structured process of efficient problem solving; benefits all projects in any industry; enhances the quality of products and services; mitigates most problems related to authority and power; enables making decisions which are in the company’s best interest; delivers solutions to clients and improves business operation (Kerzner, 2001).

3 DEFINITION OF PROJECT MANAGEMENT MATURITY

Generally speaking, maturity can be defined as a state in which full, natural or maximal development is achieved. If this concept is applied to an organisation, it represents the organisation’s perfect ability to achieve its goals. Subsequently, project maturity would represent the ability of an organisation to perfectly handle its projects. Maturity models offer a frame of reference with defined levels of competences, according to which the situation can be objectively assessed (Hilson, 2003: 299). An example of full maturity of any organisation is not likely to be found in reality, so we can only speak about maturity degrees (Andersen and Jessen, 2002: 457), which are used for measuring and characterising the maturity of the entire project management system (Grau, 2011: ...
The concept of maturity, i.e. degrees of maturity suggests that moving to the next level involves some development, which occurs in a certain period of time. On the other hand, some authors do not accept such a stepwise approach to maturity and they present it in a cobweb diagram in order to allow more differentiated descriptions of required competences for carrying out specific processes in a project-oriented organisation (Andersen and Jessen, 2002: 459). Dooley et al. (2001: 25) claim that maturity is a degree to which a process is explicitly defined, successful, measured, controlled and efficient.

The level of project management maturity represents acceptance of good project management practices in an organisation and suggests that combining project management competences and achieving project maturity increases project success and, subsequently, the success of the entire organisation (Vlahov, 2014: 7). In recent years the research base is increasing as well, supporting the relationship between a high maturity level and enhanced organisational efficiency (Grant, 2006: 59). Kerzner (2009: 928) says that concepts of project management maturity and excellence are often wrongly seen as identical. This is definitely not true according to the definition of maturity, which says that project management maturity represents the implementation of standardised methodology and accompanying processes that are very likely to succeed repeatedly. On the other hand, an organisation’s excellence in project management involves creating an environment where there is continuity of successful projects and where success is measured by the satisfaction of both sides (organisation and project). Mere use of project management in the course of time does not necessarily lead to excellence, but may rather result in repeating mistakes.

4 COMPARATIVE ANALYSIS OF SELECTED PROJECT MANAGEMENT MATURITY MODELS

In the period between 1986 and 2013 (Vlahov, 2014: 89) 26 models for the assessment of project management maturity in an organisation were developed. Twelve of them have been widely recognised and used being successful even outside the organisation where they originated while not being derived from the existing model. These models are as follows (Vlahov, 2014: 53): Capability Maturity model (CMM) i Capability Maturity Model Integration (CMMI), European Foundation for Quality Management (EFQM) Excellence and Project Excellence Model, IPMA Delta, Maturity Increments IN Controlled Environment.
(MINCE), Maturity Model in the Project Oriented Company, Organizational Project Management Maturity Model (OPM3), Portfolio, Programme, Project Management Maturity Model (P3M3), PRINCE 2 Projects in Controlled Environment (P2MM) model, Project Management Maturity Model (PMMM) and The Berkeley Process Maturity (PM)2 Model. The CMMI, IPMA Delta and OPM3 models will be compared in detail, as they differ the most among available models in their approach to maturity assessment of an organisation (in terms of dimensions they assess and the definition of maturity degrees).

Capability Maturity Model Integration was developed in 2002 in the Software Engineering Institute as the successor of the Capability Maturity Model for measuring the maturity of process advancement in the development of products and services. It embraces the best practices related to the development and maintenance of the product’s life cycle activities, so it is defined as a set of characteristics describing an efficient process (Capability Maturity Model Integration (CMMI) Version 1.2. Overview, 2003). The purpose of this model is to collect best practices as a framework for organising and prioritising activities and supporting the co-ordination of multi-disciplined activities necessary to successfully develop a product as well as to align the process improvement objectives with organisational business objectives. Maturity levels in the CMMI model are the following: Initial, Managed, Defined, Quantitatively managed and Optimising. Apart from the first level, each subsequent level consists of process areas that jointly ensure the management and predictability of organisational processes thus creating the basis for the next phase. The advantages of CMMI-based processes are manifold, some of them being the following: improved allocation and planning of the budget, improved time cycle, productivity, quality, customer satisfaction, staff morale, increased return on investment, reduced cost of quality (Capability Maturity Model Integration (CMMI) Version 1.2. Overview, 2003).

IPMA Delta model was developed by the International Project Management Association (IPMA) in 2013 as a model which offers organisations the most comprehensive project management assessment. The model consists of three modules based on leading project management standards: IPMA Competence Baseline (I module), IPMA Project Excellence Model (P module) and IPMA Organisational Competence Baseline (O module) (IPMA, 2016). Modules apply to organisations, projects and individuals overlapping and interrelating. Individual certification by project management competences for project managers, team members and stakeholders is based on the IPMA Four-Level-Certification sys-
tem (4-L-C), each level referring to a particular area of operation and experience (IPMA, 2016). **IPMA Competence Baseline (ICB)** consists of three ranges of competence (technical, contextual and behavioural) broken down into 46 elements, which take into account the person's knowledge, experience and social skills (IPMA ICB 3.0, 2006: 6). **IPMA Project Excellence (PE) Model** is adjusted to the P Module in order to enable self-evaluation of projects and programmes and consists of elements including project goals, leadership, people, resources and processes. The O Module adds a new dimension to project management maturity models as the assessment takes into account the entire organisation and looks at the management of projects, programmes and portfolios (PP&P), management, organisational alignment, resources and people's competences (IPMA OCB, 2013). Upon the assessment, organisations are placed at one of the five competence maturity levels: Initial, Defined, Standardised, Managed and Optimising (IPMA, 2016).

**Organisational Project Management Maturity Model (OPM3)** was introduced by the Project Management Institute (PMI) in 2003 and it considerably differs from other models mostly due to insufficient integration with the CMM model. It was inspired by interest in maturity models that demonstrate steps in the improvement and maintenance of organisational ability to turn the organisational strategy into effective and consistent delivery of projects in organisations regardless of their size. OPM3 offers a wide range of best practices in organisational project management, allowing the organisation to use it in research and self-analysis on the basis of which decisions related to potential changes can be made. It consists of 2 interrelated elements which help a company reach a certain maturity level of knowledge, assessment and improvement (PMI, 2003: xi,3). Table 1 shows a comparative analysis of the CMMI, IPMA Delta i OPM3 maturity models.
Table 1 Comparative analysis of the CMMI, IPMA Delta and OPM3 maturity models

<table>
<thead>
<tr>
<th>Capability Maturity Model Integration</th>
<th>IPMA DELTA</th>
<th>Organizational Project Management Maturity Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Initial – process is unpredictable, poorly controlled and reactive</td>
<td>1. Initial – project management achievements at personal level, individuals perform well but PP&amp;P performance is random, no formal standards, structures or processes</td>
<td>1. Knowledge element – describes organizational project management and organizational project management maturity, explains why they are important, and how project management maturity can be recognized</td>
</tr>
<tr>
<td>2. Managed – process is characterised for projects and managed</td>
<td>2. Defined – partly defined PP&amp;P standards, structures and processes, partly applied in the organisation</td>
<td>2. Assessment element – presents methods, processes and procedures that an organization can use to self-assess its maturity</td>
</tr>
<tr>
<td>3. Defined – process is characterised for the organisation and is proactive</td>
<td>3. Standardised – fully defined PP&amp;P standards, structures and processes which are largely applied in the organisation</td>
<td>3. Improvement element – provides a process for moving from its current maturity level to increased maturity level</td>
</tr>
<tr>
<td>4. Quantitatively measured – process is quantitatively measured and controlled</td>
<td>4. Managed – fully defined PP&amp;P standards, structures and processes which are fully applied in the organisation, actively controlled by the management</td>
<td></td>
</tr>
<tr>
<td>5. Optimising – focus is on continuous process improvement</td>
<td>5. Optimising – fully defined PP&amp;P standards, structures and processes which are fully applied in the organisation, actively controlled and continuously improved by the management</td>
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</tr>
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Maturity models are relatively new and are thus subject to criticism. Recommendations resulting from criticism suggest additional empirical support when defining the competences that contribute to project success the most. In addition, they are criticised for their characteristics, which oversimplify the reality and resemble a recipe, they lack flexibility and are focused on problem identification rather than its solution, they cannot monitor progress throughout time, they neglect the human potential and the human factor, etc. Despite criticism and their temporary limitations, project management maturity models have considerably contributed to the field of project management and increased the awareness of competences offering a paradigm for assessing organisations and their project management maturity (Cooke-Davies, 2002; Judgev, 2002; Skulmoski, 2001; Supić, 2005 according to Vlahov, 2014: 90-93).
5 CONCLUSION

Due to its flexibility and adjustability, project management as a profession is recognised and used for achieving business objectives, strategies and tasks within a set timeframe and budget. In addition, the need for project management has also been identified through the benefits it brings to the organisation, which are essential to its competitiveness and success. Just to name a few: reduction of operating expenses, increase in profitability, better control over changes, development of good relationships with stakeholders, enhanced quality of products and services etc. The degree to which an organisation has successfully implemented project management practices and has been applying them is indicative of the organisation’s project maturity. Indeed, project management maturity refers to the capacity of an organisation to successfully handle projects. As perfect execution of projects does not exist in reality, we can only measure the degree of maturity of the entire project management system. This degree of maturity suggests development from one level (lower) to another (higher). In order to measure the degree of project management maturity, many maturity models have been developed, most of them originating in the Capability Maturity Model. In terms of the dimensions the available models assess and the defined degrees of maturity, there are three distinctive models that we focused on in this paper. These models are: Capability Maturity Model Integration (CMMI), IPMA Delta and Organisational Project Management Maturity Model (OPM3). CMMI defines five maturity levels which largely refer to organisational processes, while on the other hand, the IPMA Delta model consists of three interrelated modules used to analyse organisations, projects and individuals. OPM3 embraces three elements allowing the company to achieve a certain maturity level: knowledge, assessments and improvements. Even though maturity models are relatively new and subject to criticism, they considerably contribute to the field of project management and to raising awareness of the importance of assessing organisations in terms of project management maturity.

REFERENCES


EDUCATIONAL MANAGEMENT AND MODELS OF SCHOOL MANAGEMENT WITH REGARD TO GLOBAL TRENDS AND THE ROLE OF COMPETENCES IN SCHOOL PRINCIPALS*

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Abstract

The globalization of the economy means the increasing division of labour, the increasing competition, the changes in the employment structure and the changes in the required knowledge and skills. In the terms of globalization, changes in the context (economy, politics, science, culture) of education are dependent on changes in the international context. The themes of this paper are knowledge as the most valuable product of the global economy of the 21st century and the managing of schools as the primary educational institutions. The main thesis of this paper is to present the current level and quality of management of Croatian schools tested through the competences of school principals in the Croatian educational system. For the educational management to achieve its potential it is necessary to stimulate the human resources through internal communication

* Acknowledgement: The paper was written within the bilateral research project entitled “Knowledge management in the function of development strategy” co-financed pursuant to the Protocol on Scientific and Technological Cooperation between the Republic of Croatia and the Republic of Montenegro for the years 2015/2016.
within the school institution and to create the stimulating work environment. The results of the research, which involved 55 primary school principals of the Brod-Posavina, Osijek-Baranja and Vukovar-Srijem County, are presented in this paper. The results point to the complexity and difficulty of the leading positions in the educational institutions of the Republic of Croatia, which are necessary to be systematically revised by focusing on and emphasizing the modern models of school management.

Keywords: globalization, competence, principal, management in education, models of school management in the Republic of Croatia

JEL Classification: D8, I2

INTRODUCTION

This paper deals with school management, the schools as primary educational institutions and the necessity for change of the traditional ways of management appointment in the 21st century schools. The aim is to research the structure and the competences of the school headmasters in the Republic of Croatia, the requirements for their appointment and their impact on the establishment of a positive working and educational environment, as well as any existing procedural variance in election and performance of their professional duties in schools across the EU member states.

General hypotheses:

H2: A significant statistical variance in competences of headmasters with respect to the time spent at said position is statistically insignificant.

H3: There is a statistically significant variance in headmaster competences with respect to their work experience at teaching positions.

At present, education provides the fuel for the development of economy based on knowledge while simultaneously the teachers are expected to exploit their own capacities in the knowledge acquisition process. The schools are expected to achieve certain goals while simultaneously plan and evaluate their activities. During the past few decades the schools have become more open towards the outside world, which is evidenced by their partnerships with the economy (OECD, 1991), parents and the local communities (OECD, 1997). This openness resulted in wider managerial duties of the school’s executive positions, with the headmaster turning into a “coalition constructor” and at the same time
the “internal” school manager. The investment in education becomes key performance indicators for understanding that which is currently happening in the modern (global) economy and competition (Bahtijarević-Šiber, 1999, p.717.).

1. GLOBALISATION PROCESSES AND OUTCOMES

Globalisation refers to a comprehensive and unifying social process that includes the entire world (Turek, 1999). From the economic viewpoint, one may say that the cause for the globalisation lies within the capitalistic production process, technological progress and international regulatory legislation. Globalisation processes have marked the beginning of a new era and planted the seed of a new global society. The outcomes and effects of the globalisation may be viewed as either positive or negative. The positive outcomes of the globalisation process include: the creation of a multipolar world, the possibility of fast information flow and exchange, the availability of new technologies and the creation of jobs in underdeveloped countries, widespread environmental consciousness and the taking into consideration the needs and comforts of individuals. The negative outcomes of globalisation include: rising unemployment, widespread poverty, widening of the gap between the rich and the poor, new diseases, political and economic interests placed above the interests of the humanity, strengthening of individual needs at the expense of the common needs. The unemployment rates in many countries are soaring and those who are made redundant do not migrate onto alternative positions with higher wages, but rather onto the growing unemployment lists..

2. 21ST CENTURY SCHOOL MANAGEMENT

2.1. The Headship Role

The headmasters of today are faced with a number of various tasks that, apart from the curriculum development, include financial and human resources management. The contemporary headmaster/school manager is expected to perform several duties:

• Teaching staff and teaching staff’s needs management and care,
• Encouraging good relations with the parents, the local community and government,
Defining a recognizable school ethos,
Promotion of high-quality curriculum and teaching improvements.

Apart from the above, a number of administrative, financial and disciplinary responsibilities lie within the daily duties of a headmaster and represent part of the necessary skill set required for successful quality school management. The choice of the right candidate is crucial. Therefore, different criteria should be taken into consideration before appointment is made. Apart from certain formal requirements that should be fulfilled by all the candidates, a comprehensive skill development is necessary through different managerial styles which complement the contemporary complexity of the educational environment. The headmaster position is a complex one because of the management and leadership skillset required for successful management of the school and its staff. Evidently, we are dealing with an interdisciplinary phenomenon that includes educational qualities, psychological and social features, as well as marketing and management characteristics (Jukić, 2012). The above clearly points out the complexity and the demands of the leadership position within the schooling system which should be systematically reviewed, focusing on and emphasising the school management characteristics and requirements.

2.2. The Effects of the Globalisation on the Croatian Educational System Organization

In the past, the Croatian educational system was divided into four spheres; a division that exists presently includes: preschools, primary schools, high schools and universities (Image 1). The Croatian government has drafted the Education, Science and Technology Strategy in 2013. The existence of said document is elaborated by the current state of the Croatian society which is the result of the changed global environment and the internal social, economic, cultural and demographic changes. This document of the Croatian government adheres to the European strategic document, The Lisbon Strategy¹, which points out the need to promote education and establishment of a more competitive knowledge-based economy (Mlinarević et al, 2016). As an EU member state, the Republic of Croatia has recognized the importance of educational reform and in lieu with that, in 2015 has begun its comprehensive curricular reform which puts emphasis

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¹ Lisbon Strategy, i.e. Lisbon Agenda, dated March 2000, draws a programme linking the short-term political initiatives with mid-term and long-term economic reforms.
on the importance of organisational and structural changes of the educational system. One of the more prominent changes is the transition from the eight-year to a nine-year primary school system. Further on, the comprehensive curricular reform stresses out the need for a more vertically connected system which mirrors the changes required by all educational levels (from preschools to universities). At present, the organisational structure in Croatian schools is determined by the Ministry of Education, Science and Sport and the Founder (the county or the city), with the possibility of involving parents, social services administration, inspection services, legislature, political parties, the media et cetera. The school within the Croatian educational system are not competitive. Croatia has implemented a very limited decentralisation with a vague division of duties and responsibilities, a lack of deeper system analysis and weak management. The result of the aforementioned is a strict management hierarchy and inadequate management. The school management process is conducted in accordance with the Education Act\(^2\) according to which the school is managed by the School Board as well as the headmaster. Education system management includes key decision making regarding the system itself and the conditions required for their successful implementation. The key features of the Croatian education system management include a high level of centralized and administrative audit. Current lacks of the Croatian educational system could be viewed through:

- Insufficient funding of the educational system, as well as poor financial management of the available funds.
- Educational staff members are insufficiently technologically trained and are lacking in numerous skills required in 21st century schools.
- The election of the headmaster is determined by the formal mandatory regulations, often politically conditioned without any criteria that would ensure the choice of the best candidate.
- Not only do the headmasters lack the knowledge of the school management, but more often than not they lack the pedagogical and psychological requirements needed for implementation of innovation into the teaching process. Since any kind of external evaluation of the school’s performance is non-existent, it is impossible to determine the actual quality level of either the school or its management.

\(^2\) Narodne Novine br. 87/08, 86/09, 92/10, 105/10, 90/11, 5/12, 16/12, 86/12, 126/12 94/13 i 152/14
2.3. Procedures and Requirement of the Headmaster Election in the Republic of Croatia

The procedure of headmaster election is an important step towards the establishment of the school as a teaching organisation; therefore, a thought-through and transparent approach to the candidate selection is very important. What should be taken into consideration here are the abilities, comprehensive knowledge, skills and attitudes of each individual candidate. As in the majority of EU member states, in the Republic of Croatia the tender for the headmaster position is published in newspapers and school web pages, and the election process is left at the discrepancy of the school. The measure in which the public tender is regulated is determined by mandatory prescribed requirements related to the formal education level and educational work experience. After the election by the school bodies, the headmaster is elected for a mandate of five years. The elections are reduced to the candidates’ years of working experience, without clear rules stating why a certain candidate would be better than the other, since all of them have to fulfil the same formal legal requirements: “a person who fulfils the requirements for a teaching position or professional staff member

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4 Education Act for Primary and High Schools in the Republic of Croatia, Article 126. (NG 152/14)

5 School bodies participating in the headship election process include the School Board, Board of Teachers, Board of Parents
may be appointed for a headmaster if they possess a minimum of a bachelor degree and five years of working experience in a primary or high school.” Therefore, it must be said that the primary school headmasters are elected exclusively from within the teaching ranks and that they possess only the competences acquired through their initial positions.

2.4. Procedures and Requirement of the Headmaster Election in EU member states

According to Eurodyce, in two-thirds of EU member states the public tenders are regulated quite differently.6 In some countries no special regulations exist and the general labour laws apply. Other countries have thoroughly developed procedures. In eleven countries, the headmasters are appointed based on the public candidate testing organized at the central level. For instance, in Lithuania there are two phases; at first, an independent body evaluates the leadership and managerial competencies as well as key competencies of the candidates, only then can a positively evaluated candidate participate in a testing procedure organized by the school owner (municipality or government body). Only four countries (Germany, Greece, Cyprus and Luxembourg) use candidate lists as the only election method. In almost all the remaining countries the experience at the teaching position is the primary condition for appointment. In Lithuania, leadership and managerial competencies are clearly stated requirements.

3. Managerial Tasks and Competencies of Headmasters

3.1. Experiences of the Republic of Croatia and the EU member states

Croatian school headmasters are professional managers responsible for functioning within legal boundaries and the professional performance quality of their schools.7 In most countries school management is traditionally distributed between the official managing teams. This implies that the headmaster is aided

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7 Source: http://www.zakon.hr/z/317/Zakon-o-odgoju-i-obrazovanju-u-osnovnoj-i-srednjoj-%C5%A1koli, Article 125; accessed on: (25-02-2016).
by one or several deputy headmasters and sometimes administrative secretary or an accountant. In countries with prevailing school autonomy, the headmaster holds a key role in the division of managerial tasks. For instance, in Finland the headmaster is entitled to organize managerial teams and groups according to current issues and school needs. The members of managerial teams often include teacher team leaders, responsible for actual decision implementation.

3.2. Headship competencies and Croatian schools management

A self-assessment research of school headship competencies was conducted at the County Professional Councils of primary school headmasters in November 2015. The research included 55 primary school headmasters from Brod-Posavina County, Osijek-Baranya County and Vukovar-Srijem County. The average age of the subjects is 47.6 (sd=8.28). The percentage of the first mandate headmasters was 50%, the second 20.4%, the third 18.5% and 11.1% of headmasters who hold the position for more than three consecutive mandates. 3.7% subjects hold undergraduate degrees, 94.5% hold graduate level degrees and 1.8 subjects hold a doctoral degree. The number of students attending their schools ranges from 82 to 820 and the average number was 306.4 students (sd=173.71).

Table 1 Descriptive data for tested matters

<table>
<thead>
<tr>
<th>r.br.</th>
<th>Matter</th>
<th>M</th>
<th>Range</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Administrative skills</td>
<td>4.4</td>
<td>3-5</td>
<td>0.60</td>
</tr>
<tr>
<td>2.</td>
<td>Leadership skills</td>
<td>4.9</td>
<td>4-5</td>
<td>0.29</td>
</tr>
<tr>
<td>3.</td>
<td>Communication skills</td>
<td>4.9</td>
<td>4-5</td>
<td>0.26</td>
</tr>
<tr>
<td>4.</td>
<td>Organisational skills</td>
<td>5</td>
<td>4-5</td>
<td>0.19</td>
</tr>
<tr>
<td>5.</td>
<td>Team leadership</td>
<td>5</td>
<td>4-5</td>
<td>0.19</td>
</tr>
<tr>
<td>6.</td>
<td>Time management</td>
<td>4.8</td>
<td>3-5</td>
<td>0.43</td>
</tr>
<tr>
<td>7.</td>
<td>Innovative</td>
<td>4.6</td>
<td>3-5</td>
<td>0.65</td>
</tr>
<tr>
<td>8.</td>
<td>Self-questioning</td>
<td>4.7</td>
<td>3-5</td>
<td>0.53</td>
</tr>
<tr>
<td>9.</td>
<td>Visionary /strategic thinking</td>
<td>4.8</td>
<td>3-5</td>
<td>0.46</td>
</tr>
<tr>
<td>10.</td>
<td>Polite</td>
<td>4.8</td>
<td>3-5</td>
<td>0.46</td>
</tr>
<tr>
<td>11.</td>
<td>Considerate</td>
<td>4.8</td>
<td>3-5</td>
<td>0.51</td>
</tr>
</tbody>
</table>
Descriptive analysis of data in Table 1 showed a significant high level of headship competencies. The conclusion is that the results of the listed variables are positive due to the fact that the subjects recognized the needs and the importance of professional and personal competencies required for further contribution to the development and the functioning of schools. Further research is needed to conduct a deep analysis of the accomplished managerial aims in schools, the effects of the external communication as well as human resources. Hence, this research showed the need for further analysis through headship licencing programme, in accordance with the provisions of the Education Act, as well further analyses of the teachers’ and administrative and technical staff’s attitudes on headship competencies.

Table 2 Differences in headship competencies with regard to the mandate: the results of the one-way ANOVA tests, variance analysis

<table>
<thead>
<tr>
<th>Type of Management</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional competencies</td>
<td>2,22</td>
<td>1</td>
<td>.097</td>
</tr>
<tr>
<td>Personal competencies</td>
<td>0,16</td>
<td>1</td>
<td>.922</td>
</tr>
<tr>
<td>Activity implementation</td>
<td>0,75</td>
<td>1</td>
<td>.527</td>
</tr>
<tr>
<td>Type of school management</td>
<td>0,34</td>
<td>1</td>
<td>.797</td>
</tr>
</tbody>
</table>

The ANOVA-tests showed no significant difference in the tested variables with regard to the headship mandate. The conclusion is, as above, that the awareness of the headmasters is recognized with respect to the managerial duties, legality of professional procedures, as well as professional performance of a school.

The ANOVA-tests showed a significant difference in personal competencies of headmasters with regard to their teaching experience. Statistically significant difference exists between the headmasters who have worked as teachers from 11-15 years (M=4,6) and headmasters who have worked as teachers for more than 25 years (M=4,9) (Graph 1).
Graph 1  Differences in personal competencies of headmasters with regard to teaching experience $F(5,49) = 3.5907, p=.00780$

4. HEADSHIP PROFESSIONAL EDUCATION - EXPERIENCES

The Education Act for primary and high school, Article 126 a (National Gazette 152/14) states that a headmaster must hold a licence although this article is inapplicable due to the fact that there is no licencing procedure for headmasters in the Republic of Croatia. Professional education of headmasters is organized by the National Education Agency, and the competencies for performing headmaster duties (personal, professional, developmental, social and action) are implemented through a modular approach (9 modules)\(^8\). Apart from the competencies, the headmasters are offered programmes from the areas of: leadership, management, assessment and audit. Overall, the professional education of headmasters is a condition in 21 countries or regions, and permanent professional education of headmasters is considered a professional obligation in 23 countries or regions. The usual modules include management, team formation, communication and leadership skills, school development, educational legislature, and organization. In Slovenia, the government founded the National Headmaster School in 1995, aimed at providing professional education of headmasters and headmaster candidates.\(^9\) In Finland, the Institute for Educational Leadership, which operates within a university, offers professional education for headmasters and heads of local education administrative units before and after employment. The National Professional Qualification for Headship (NPQH)\(^10\) in Great Britain is focused on teachers who wish to become headmasters.

CONCLUSION

The contemporary schools are tasked with preparing the young citizens for life in a world built on knowledge characterized by globalization and the

\(^8\) http://www.azoo.hr/


\(^10\) National Professional Qualification for Headship
use of ICT. The thinking and problem solving skills as well as the ability to function within a team are the competencies of constantly rising value and the teaching staff is expected to initiate the shift away from the traditional ways of teaching. They are expected to become the “managers of knowledge” in the service of their students as much as for their own benefit. The headmasters are supposed to share their role and responsibilities with all the interested parties; from teachers, students and parents to business subjects, local communities and others. As school management grows ever more complex, the headship becomes ever more professionalized. Apart from the equal legal requirements applicable to everyone, Croatia presently lacks the clear set of criteria concerning the headship employment and profile choice. The above circumstances lead to increasing number of differences between individual schools and the formation of a gap in headship management knowledge and skills in Croatian schools. The purpose of this research is to point out the complexity of the school management issue and its significance for the further development of our school system. The Education, Science and Technology Strategy calls for the implementation of certain aims and measures, which include the following: compiling of headship competency standards, headship education institutionalization and drawing up of headship licencing programme and procedures. These objectively measurable indicators would meet the requirements for the benefit of the individuals and the society that the Croatian educational system is faced with as the result of the globalisation process. It should be emphasized that the human resources based on the most qualified and motivated employees represent the indicators of success for future generations and education systems.

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**Online sources:**

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Abstract

The role of human resources management has changed in recent times from the raw data input i.e. personnel management to the one of the most important strategic functions. Choosing an effective HRIS has become an extremely important tasks, especially in web based companies sector. Due to remote work environment, it is becoming increasingly difficult to perform HR function in organisations. Lack of social contact and direct control of work performance lead to ineffective human resources management, if performed in traditional “old-school” manner. This article explores and proposes some possible solutions for such companies. There are many HRIS solutions on the market today, but implementing such solutions leads to high cost burden which small and middle organisations hardly can endure. The focus is on independent web-based solutions, which are cost effective and at the same time satisfy the need for strategic human resources management function. Case study of the available solutions was performed concerning the features HRIS should offer in remote environment company and the results evaluate available solutions by that criterion. The authors used qualitative research methods of input/output data analysis.

Keywords: human resources information system, remote environment, human resources strategic function

JEL Classification: O1, O15
In human resources management, new initiatives and changes to existing practices are constantly coming to light. Change is everywhere and all the time. Technology has enabled information to flow fast and dramatically change how and where we live and work. Human resources sector is at crossroads. Its role is changing from the raw data input to the leading strategic function in modern organisations. Today, managing change and cultural transformation is among the top five challenges facing HR professionals (Ulrich et al., 2015).

This article focuses on the use of HRIS and information technology. It is visible that there are interchangeable terms used to refer to HRIS, for instance e-HRM, HR intranet, web-based HR; computer based human resource management systems, virtual HR and HR portals (Lengnick-Hall & Moritz, 2003). We will use the term HRIS to refer to all the information technology solutions used in human resources management tasks.

Human Resource Information System (HRIS) is one of the most important Management Information Systems, which contributes to human resource administration functions of an organization. Besides hardware and software, it also includes people, forms, policies, procedures and data. Modern HRIS can help organizations by automating most HR planning functions. HRIS becomes an important strategic tool since it collects, manages and reports information for decision-making (Nagendra & Deshpande, 2014). Information technology extremely infuses human resource management in this global networking era. Digital possibilities have been challenging the traditional ways of delivering HRM services within business and public organizations for more than a decade now. In addition, the performance of human resource HRM organizations now days are becoming strongly dependent on HRIS (Troshani et al., 2011).

Briefly, HRIS is a computerized system that assists the process of information related to human resource management and has become a key element to all organizations (Chakraborty & Mansor, 2013). Thus, the importance of HRIS can be seen all-around, such as operational assistance in collecting, storing and preparing data for reports, simplifying and accelerating the processes and controlling the available data, reducing labor costs for human resource departments, and providing timely and diverse information to the management of the organization, based on which it is possible to make quality strategic decisions related to human capital (Aggarwal & Kapoor, 2012).

Implementation of the right HRIS has become a strategic task, especially in virtual organizations where there are only remote positions dispersed globally.
The question is how to do it effectively is such conditions. Numerous studies have been done on innovation, which focuses on both organizational and individual level. Chakraborty & Mansor (2013) have categorized three sets of factors (organizational, technological and environmental) as the main influence variables in HRIS implementation.

Organizational factors are those that represent organizational characteristics, which influence adoption of HRIS. Different solutions suit different organizations in terms of size, structure, business sector, employee expertise, et cetera. Troshani et al. (2011) study indicates that training is needed for all user levels such as operational and strategic levels to increase their knowledge and skills in using the system effectively. In addition, the authors also argued that degree of centralization effects adoption when decision is made at higher levels in organization (Chakraborty & Mansor, 2013).

Technological factors focus on the manner where technology characteristics can influence adoption. Technology readiness depends on organization’s technology infrastructure and IT human resources. Based on IT expertise’s skills and knowledge that they use to build an application; technology infrastructure makes an easier base on which internet technologies can be created (Chakraborty & Mansor, 2013). HRIS can become an integral part only if the organization has infrastructures and technical skills. These factors allow the technological capacity of an organization to adopt HRIS (Oliveira & Martins, 2010).

Environmental factors describes the area where organizations conduct their business, and includes industry characteristics, government regulation, and supporting infrastructure. As competitive pressure grows to reduce cost and serve more strategic role as well as to better manage the employees in the organizations, firms have realized that they cannot be competitive if they do not manage their human resources effectively (Chakraborty & Mansor, 2013).

CASE STUDY

We researched a virtual organization which is a web hosting provider, doing business globally. It employs 160 workers, mainly IT specialists and all of them are working remotely their homes (Unites States, India, Mexico, Argentina, Canada, Croatia, Slovenia etc.). The company does not have a human resources department, the human resources function takes too much time, and it’s ineffective concerning the working conditions. The company was looking for a start-up, cloud based solution answering the following demands:
1. Time tracking
2. PTO/vacation tracking + per department flexibility
3. Contact info & vitals tracking
4. »Notes« area
5. Scheduling
6. Salary tracking / history
7. Employment data
8. Different levels of access
9. File repository (documents)
10. Generating review forms & warnings
11. Customizable reporting / filters
12. E-signature
13. API
14. Sick day vs vacation differentiation
15. Notifications

Applications that meet the criteria are Bamboo HR, Tribe HR, KinHR, Shiftplanning and NaturalHR. Each of those applications was tested concerning the demands of the company. The following table represents results by features:

Table 1. Comparision of HRIS features

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>Bamboo HR</th>
<th>TribeHR</th>
<th>KinHR</th>
<th>Shiftplanning</th>
<th>NaturalHR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time tracking</td>
<td>✓</td>
<td>×</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>PTO/vacation tracking + per department flexibility</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
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<td>×</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>»Notes« area</td>
<td>×</td>
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<td>✓</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Salary tracking / history</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Employment data</td>
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<td>✓</td>
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</tr>
<tr>
<td>Different levels of access</td>
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<td>✓</td>
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</tr>
<tr>
<td>File repository (documents)</td>
<td>✓</td>
<td>✓</td>
<td>×</td>
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<td>✓</td>
</tr>
<tr>
<td>Generating review forms &amp; warnings</td>
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<td>✓</td>
<td>×</td>
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</tr>
<tr>
<td>Customizable reporting / filters</td>
<td>✓</td>
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</tbody>
</table>

Source: Authors work based on testing results.
The thorough description will be given only concerning the HRIS that suits the demands as presented in Table 1.

First application tested was Bamboo HR, an online human resources (HR) software service for small and midsized businesses. A winner of the 2013 Alfred P. Sloan Awards for Excellence in Workplace Effectiveness and Flexibility, BambooHR serves tens of thousands of employees in 70 countries worldwide and in multiple currencies (Softwareadvice.com, 2016).

- **Time tracking**
  This application does not offer time tracking. It is possible to add timesheets with manual data input, which is unsuitable for remote working environment.

- **PTO/vacation tracking + per department flexibility**
  BambooHR offers balance calculation, sick / vacation differentiation, accrual details by time off type and time off record by type. Easy to handle time off requests and differentiate it by accrual type. As the request is sent to the manager in charge, it fulfills per department flexibility demand.

- **Contact info & vitals tracking**
  This menu consist of basic info, name, birthday, social security number, national ID number, tax file number, t-shirt size, marital status, contact details, emergency contact. Application is very customizable and meets user’s needs but it does not offer custom fields, which limits the usability.

- **»Notes« area**
  Notes are not predefined, they are set as a short form messages. Unfortunately, there is no reporting option, as the application does not differentiate between the types.

- **Scheduling**
  The function is added to the application upon a request from user

- **Salary tracking / history**
  Tracking is possible from the first day of employment.

- **Different levels of access**
  The application differentiates between the following types of users: manager in charge, manager team, admin, employee or all.

- **File repository (documents)**
BambooHR supports different kinds of documents: company forms, applications, training documents, health forms, handbooks, performance reviews. It is possible to change access permission by each file in the repository.

- Generating review forms & warnings
  Reviews are based on employment data (age, salary, gender, etc.), but the application lacks the possibility to generate review forms from notes area where warnings are saved.

Other demanded features are integrated and need no additional description. Even though BambooHR fits most of the demands, it fails in the area scheduling, time tracking, reviewing and warnings, which are of significant importance in remote environment.

The next solution tested was Shiftplanning, which offers small to large businesses employee scheduling software.

- Time tracking
  The application offers integrated clock + clock in/out which is of significant importance in remote working environment.

- PTO/vacation tracking + per department flexibility
  Tracking is included in the calendar and it is possible to see who is absent at any time.

- Contact info & vitals tracking
  This menu consists of standard information input (name, ID, contact, wage). It is possible to see statistics and give assignments through the profile menu and to add custom fields.

- Scheduling
  The function offers different possibilities including calendar sync, employee availability, time off request etc. Scheduling shows conflict warnings and supports multiple location scheduling.

- Salary tracking / history
  It offers integration with Payroll.

Different levels of access

The application differentiates between the following types of users: employee & management, employee only and management only.

File repository (documents)
Shiftplanning offers a possibility to share files with the staff. Files are categorized in custom fields. This part is not limited to documents but it also supports different multimedia extensions.

Generating review forms & warnings

The application does not offer this feature.

The last application that meets the needs of the company is NaturalHR. Natural HR is a Web-based human resource information system (HRIS) suited for HR professionals working in companies of all sizes. Major features include support recruitment, onboarding, training management, absence management, performance management, task management, employee information management and reporting. Natural HR also includes a tool known as Social Stream, which is a platform that enables HR professionals to post events, notices and other important information. This solution can be accessed via both desktop and mobile devices, and has been used by over 11,000 companies across 51 industries in 191 countries. It offers a free version for small to midsize businesses, and a priced version for larger enterprises. (Softwareadvice.com, 2016).

- Time tracking
  The application does not have an integrated clock, it only offers time sheets that need to be approved by manager in charge.

- PTO/vacation tracking + per department flexibility
  Tracking offers the ability to define types, accruals, carryover, etc.

- Contact info & vitals tracking
  This menu covers all the requested details, social security number is mandatory and there is an option of adding custom fields.

- Scheduling
  This function is not available.

- Salary tracking / history
  The feature can be found under the menu: “Employee salary history”.

- Different levels of access
  The application differentiates between the following types access: Standard differentiation: employee, manager, admin + self-service for employees. It offers the possibility of self-service, employees are able to enter most of the data needed, so it shortens the application initial setup time.
• File repository (documents)
NaturalHR offers a possibility to share different type of files and divide them into categories.

• Generating review forms & warnings
This is the only application that directly sends warnings to employees. The third one is the final one.

Based upon presented results, the suitable HRIS for remote environment is a combination of two solutions: Shiftplanning and NaturalHR. Combining those solutions covers all the HR function areas, including the strategic one. The use of HRIS leads to noticeable cost deduction in HR function itself. HRIS use contributes a great deal to enhance variables such as cost and time savings (CTS), decision making contributions (DMC), quality information effects (QIE) employee development commitment (EDC), it is also worth noting that there is much that needs to be considered by the organizations in terms of HRIS planning, implementation and sustenance (Ankhra & Sokro, 2012).

The rise of start ups and new independent solutions offer almost unlimited possibilities when it comes to HRIS implementation. New generation of employees is easily adaptable to new technologies, which lead to new horizons in planning and development of sustainable and at the same time competitive strategies.

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MUSEUM ACTION “FATEFUL I DO AT THE VUKOVAR MUNICIPAL MUSEUM”

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Abstract

The “Fateful I DO at the Vukovar Municipal Museum” museum action has been started in order to mark the International Museum Day (18 May) and the 20th museum educational action “Sustainability”. The Vukovar Municipal Museum (VMM) operating at Eltz Palace is a place which the locals visit as participants of museum activities, as well as brides or grooms, best men or bridesmaids, or wedding guests. The tradition of wedding ceremonies at Eltz Palace was interrupted by wartime events, from the town’s occupation in 1991, the reintegration of 1997 and until the completed restoration of 2012, and was restored after the restoration in 2013. With the goal of reviving the mutual local history, VMM started the museum action of collecting photographs of newly-weds who had civil marriage ceremonies at Eltz Palace or had their photographs taken as keepsakes of their wedding day. This paper provides an analysis of the museum action through the dynamics and manner of photograph submission and the number of photographs.

Keywords: Vukovar Municipal Museum, Eltz Palace, International Museum Day, museum action, weddings, distribution, promotion

JEL Classification: Z1, Z19
GENERAL INFORMATION ABOUT THE VUKOVAR MUNICIPAL MUSEUM

By participating in everyday activities of a museum, it is possible to better understand its functioning and internal structure and to actively participate in creating the museum’s public image through the interaction with its users. Each museum has its unique path of creation, operation and developing activities through which it eventually finds its place in the cultural life of an area. VMM was founded in 1946 and the Eltz Palace, a residence of the counts of the Eltz family until the very end of World War Two, was granted to the museum in 1968. The social and political situation of 1990s left their mark on entire Croatia, and during the wartime devastation VMM i.e. the Eltz Palace and the museum holdings and documentation were particularly damaged. Despite the wartime situation, the museum continued its activities in exile, continuously preparing for the return which was realised in 1997, when the first procedures of preparing the space for continuing its activities were started, and in 1998 the museum started working in the destroyed spaces of the Eltz Palace. Although the subsequent years had seen some activities related to restoration, the Restoration contract was signed in 2005, and the large scale operation of restoring the Eltz Palace and the museum exhibitions started in 2009 within the framework of the project “Research, restoration and revitalisation of the cultural heritage Ilok-Vukovar-Vučedol”. The Vukovar Museum went through specific operating periods, and the period related to the management during wartime can be marked as the museum’s crisis management.

THE VUKOVAR MUNICIPAL MUSEUM PROGRAMME

VMM has been collecting and processing the cultural heritage of the Vukovar area since its inception until today, which it then presents through exhibitions and public activities; it works in cooperation with Croatian and foreign institutions and contributes to the formation of the cultural image of Vukovar, as well as of the broader European area.

In general what marks a museum and makes it visible in its surroundings is precisely its programme (cf. Dragojević et al.; 2008, p. 141) which should provide its users with something necessary, and it should be diverse up to the
point of not losing the purpose of its activities. A distinction of museum services is that they are often intangible, they cannot be stored, they are suitable for a single use, and its difficult to establish a general pattern, i.e. it is difficult to standardise them (cf. Mat et al.; 2002, p. 24). Furthermore, the museum programme must stand out among cultural and other contents being offered in an area; apart from being educational, it at the same time has to be entertaining. Human resources, or the museum employees, are crucial for the realisation of the museum programme, as they communicate with the museum users. The communication realised between the employees and museum users is external, while the communication among employees is internal. The justification of activities and the programme of an institution is precisely the attendance of users, or the consumers of that programme because the users are the target group of cultural institutions. This opens up the topic of marketing, whose goal is to find out what the users want and need, and to complete these desires. This means that marketing is not only inseparable from management, but their areas are interconnected. As stated in Pavičić et al., all contemporary and successful cultural institutions are “marketing oriented, i.e. are clearly focused on users/customers, they understand them and are in contact with them, they are familiar with how they act and they develop suitable offers in accordance with these stipulations” (Pavičić et al.; 2006, p. 50).

According to the Museum Act, marketing and public relations experts may perform professional activities. As there is no marketing organisation unit at VMM, all expert employees participate in marketing activities. Starting with a government trainee programme at VMM in February 2015, I was actively involved in researching user needs. According to the definition, “Cultural marketing in its basis deals with establishing which cultural products, services and ideas are supplied and demanded in its specific market, which forms the basis for establishing concrete measurable marketing goals, developing suitable cultural products and determining the manners to realise the set marketing goals” (Meler, 2006, p. 101).

During external communication, most often realised through expert guided tours and museum activities in conversation with visitors, I tried to use an informal conversation to find out their impression of seeing the museum’s permanent collection (opened completely in January 2014). The permanent collection follows the development of the Vukovar area from the earliest time through history up until the counts of the Eltz family who have left a lasting mark in
the entire Vukovar area, proceeds with the traditional way of life of the Vuko-
vvar villages, wartime events, and the collection features the role of wartime re-
porter Siniša Glavašević and his universal messages of peace and patriotism, as
well as provides a picture of exile and return through the figure of the little girl
Željka Jurić. The Collection of national folk costumes from Croatian counties
represent the importance and connection of Vukovar with the basis of Croatian
statehood, and the final room of the collection with messages from children is
the primary message of the museum collection which emphasises the complex
life in a multinational community, but also indicates the town’s future. By ana-
lysing the attendance I have noticed that visitors get most emotional while look-
ing at rooms dedicated to the Croatian War of Independence and culturocide,
and visitors who are members of the local community have often mentioned
their civil marriage ceremonies at the Eltz Palace and would gladly talk of their
wedding day memories.

WEDDING CEREMONIES AT ELTZ PALACE

VMM has created a special relationship with the people of Vukovar since
its foundation until today and became a place of gathering and many memories.
The local people are an essential part of museum activities during their life-
time, as visitors of the permanent collection or as participants of many events.
They are also often connected to the Eltz Palace with organising a significant
step in life - a wedding ceremony, as newly-weds, best men or bridesmaids or
guests. Weddings at the Museum were first held after opening the permanent
collection in 1969, in the Marble Hall of the Eltz Palace, while the manda-
tory photograph was taken in front of the fire place in the Marble Lobby. The
complete atmosphere of museum halls decorated with the required furniture
and paintings contributed to the accentuated dimension of value provided to
the festive marriage ceremony by the cultural monument. Weddings were held
until the wartime events, and the last one was held right before the war on 10
August 1991. After the return from exile and the restoration of the Eltz Palace,
the first wedding was held on 20 July 2013 in the Marble Lobby, which marks
an important date in the life of the Museum, the Palace and Vukovar.
STARTING AND IMPLEMENTING THE MUSEUM ACTION “FATEFUL I DO AT THE VUKOVAR MUNICIPAL MUSEUM”

Wanting to revive the memories of life in Vukovar at the Eltz Palace, the museum invited the locals to bring from their rarely preserved photo albums wedding photographs from ceremonies held in the period before the war, and has continued to collect photos from newly-weds of weddings being held now, as well as photos of newly-weds who have chosen the museum as the place where they would make photos as keepsakes of their wedding day. The photos collected in this action will become a part of the photo documentation of the Ethnographic collection of VMM. This photograph collection activity is a part of the museums donation drive, i.e. the creation of new collections, which started in exile and continued with the return to Vukovar, as a consequence of destruction and disappearance of several museum collections (cf. Marić et al.; 2013, p. 1) during wartime.

The museum action “Fateful I DO at the Vukovar Municipal Museum” was started on 13 April 2015 as one of the activities of VMM in order to mark the International Museum Day (18 May) and the 20th museum education action “Sustainability”. VMM joined the International Museum Day with the topic “Life, liveliness, sustainability through phases - from a complete ruin to a beautiful palace”.

This museum action was started on 13 April by posting a text on the official Facebook page of VMM titled BE A PART OF THE MUSEUM ACTION “Fateful I DO at the Vukovar Municipal Museum”! which stated that newly-weds photos (married at the Eltz Palace or having their photos taken there as keepsakes) will be collected in the period from 13 April to 16 May. The required information followed: First names and the last name of newly-weds; Newly-weds home town, Wedding date; State if: a) photo is from a wedding held at the Museum, b) photo taken at the Museum as a keepsake; If you have an interesting story that happened in relation to the photo, please share it with us!. Two options were offered to submit the photo: sending the photos and date with e-mail or a visit to the Museum where the photos would be scanned and returned, as well as the information noted. The published information regarding the museum action featured the first photo of the newly-weds who had their picture taken at the Museum on 10 April 2015 on their wedding day. We asked
those newly-weds to take a photo and received an oral positive response to publish their photo as the first in the album on the museum’s official Facebook page entitled as the action. With the intent to collect older photographs, a prize was offered for the oldest collected photograph. It must be noted that in accordance with individual requests of the submitters, photos were not published publicly in the album in four cases, but they are a part of the documentation.

**Graph 1:** A representation of years of held weddings according to photographs collected in the museum action “Fateful I DO at the Vukovar Municipal Museum”

![Graph 1](image)

*Source: Prepared by the author*

The Graph 1 shows the years when weddings were held at the museum premises of the Eltz Palace in continuity, since weddings have started to be held until the interruption in 1991. Although officially weddings were again held at the Eltz Palace in 2013 after the complete restoration of the Palace, this action confirmed they were held even before, as one wedding was recorded as happening in 2005 in the Marble Lobby and one was held in 2012 in the Eltz Palace Garden. Photographing newly-weds at the museum premises has been offered as an option since 2013, which is confirmed by the submitted photos; as well as the fact that wedding photos until 1991 are from weddings held at the Palace. Since 2013 the room where weddings are held has been changed as well. Up until 1991 weddings were held in the Marble Hall and after 2013 in the Marble Lobby. In total until the end of October 2015 235 photos were collected from
96 newly-wed couples, as well as 2 wedding videotapes and 2 invitations (stored in the documentation of VMM. Through further research of photos and videotapes it is possible to observe the fashion of the time, as well as the decorations to adorn newly-weds, parents and other important figures at weddings (eg. best men with decorative traditional towels).

As previously mentioned, two options for submitting photos were offered: by e-mail and personally coming to the museum, and during the action photos were also submitted at the Facebook page of the museum and by mail. The most common manner of submitting photos was by e-mail (48%), personally coming to the museum (44%), sending a message on the Facebook page of the museum (6%) and by mail (2%). Each submission received a response thanking the people for participating. In total 76 people participated in delivering photos. This large turnout and positive opinion about the action could be heard during visits, read in mails and also seen by the likes of the action album which on 30 October 2015 with 164 likes was the most liked album of the official Facebook page of VMM. The published photos received comments in cases when family members and friends were recognised. The form of communication through the museum's Facebook page is a part of external communication. “Therefore, new media should be singled out as those communication channels that enable interactive communication with users and other interested members of the public, which have been created due to the development of the information and communication technologies at the end of the 20th and the beginning of the 21st century... Internet is considered to be the the key new medium... It does not depend on the user’s physical location, it is fast and cost-effective”. (Pavičić et al.; 2006, p. 242)

The manner of introducing new programme activities at VMM was elaborated in the previous text. If the museum activity is considered to be a product, and the cost of the service is free, there are two more marketing mix variables left to analyse, which are promotion and distribution. The distribution of this museum action started with the publication of the action on the museum’s Facebook page - that is electronically, which is why it is called electronic distribution (cf. Meler; 2006, p. 220), and it has been continued in direct contact with users when visiting the museum. Various types of promotion were used in order for the potential participants to find out about the museum action. The first type is definitely the oft mentioned museum’s Facebook page, then the TV show “Dobro jutro, Hrvatska” (a live broadcast from the Marble Lobby
of the Vukovar Municipal Museum on 11 May) (http://www.hrt.hr/284016/magazin/budite-dio-muzejske-akcije-gradskog-muzeja-vukovar), statements for the local TV stations daily news (Vinkovačka televizija and Osječka televizija, on International Museum Day 18 May), advertising over radio stations (Hrvatski radio Vukovar, several times during April) and a report on Vukovar official pages within the report on International Museum Day at the Vukovar Municipal Museum (20 May) (http://www.vukovar.hr/tvrtke-i-ustanove/gradske-ustanove/gradski-muzej-vukovar/8563-medunarodni-dan-muzeja-u-gradskom-muzeju-vukovar-18-svibnja-2015-godine). The following graph shows the life cycle of the product - in this case the museum action. It was originally planned for the action to last a bit over a month (13 April - 16 May), but due to a large turnout it was prolonged and is still lasting.

Graph 2: Display of dates of receiving photos in the museum action “Fateful I DO at the Vukovar Municipal Museum”

According to the product’s life cycle and the line graph, this was a hit. After the original publication of 13 April, photos were being sent in, and then on 21 April a repost on the museum’s Facebook page reminded the users to submit photos. Some participants submitted several photos, but only one photo of a set was uploaded (author’s note: a photo of a bride was published upon a special request) and the photos were uploaded chronologically in the order they were received and in accordance with the dynamics of posting on the Facebook
page which was agreed upon in internal communication among the museum employees considering other posts. Although these two posts on the Facebook page were complemented by radio advertising, the largest number of wedding photos was received in the fifth week of the action (35%) in the week that featured a live report for the TV show “Dobro jutro, Hrvatska”. One week later, most photos were uploaded (19%) coinciding with the International Museum Day and statements for local TV stations. As the action was started to mark International Museum Day on 18 May, among other events prepared by VMM was a presentation of photos, as well as a gathering of action participants and other locals. All participants were invited by e-mail or phone to this event.

**Photo 1:** A collage of newly-wed photos created for the invitation to the presentation and gathering at the Vukovar Municipal Museum on International Museum Day

![Photo Collage](Source: Prepared by the author)

After the presentation of photos in the Aristocracy Hall and awarding the oldest photo collected in the action, with the sounds of the wedding march participants went to the room for holding weddings before the war - the Marble Room where wedding cake and refreshments awaited. The cake was cut by the oldest newly-weds participating in the action. This was followed by socialising of all participants and locals and remembering wedding days, both before and after the war. The presentation and socialising photos were posted on the muse-
um’s Facebook page. As stated, the action is still lasting due to the large turnout, but no posts or invitations for locals to send photos were published since May.

CONCLUSION

Weddings, i.e. civil marriage ceremonies at the Vukovar Municipal Museum at Eltz Palace were first held in 1969 when the permanent collection was opened and were continued until the war. Wartime events caused the devastation and disappearance of several museum collections, as well as serious damage to the Eltz Palace complex. After returning to Vukovar the Eltz Palace renovation was started, which finished in 2013, when the tradition of wedding ceremonies was continued. Through expert guided tours and talking with visitors you could hear their recollections about weddings at the Eltz Palace, which was the motive to start the museum action “Fateful I DO at the Vukovar Municipal Museum” to mark Internation Museum Day and the 20th museum education action in which the Vukovar Museum participated with the topic “Life, liveliness, sustainability through phases - from a complete ruin to a beautiful palace”. Rarely saved photos of newly-weds married at the Eltz Palace and photographed for wedding day keepsakes at the Palace were collected in this action. The action was originally planned to last from 13 April to 16 May, but due to a large turnout it was continued after this date. The beginning of the action was marked by electronic distribution, i.e. the post on the museum’s official Facebook page with action information. Until the end of October 2015 235 photos with a total of 96 newly-wed couples, two videotapes and two invitations were collected. Photos were most often submitted by e-mail, by personally visiting the museum, by using the museum Facebook page and by mail. The largest number of photos was collected after the promotion by live report for a TV show and after marking the International Museum Day, when a presentation and a social gathering of participants and locals were held. The museum action “Fateful I DO at the Vukovar Municipal Museum” is an example of a marketing oriented museum activity, where a satisfactory product was developed on the basis of communication with members of the local community. At the same time, locals were encouraged to actively participate in creating photographic documentation, as the museum holdings were damaged during the war as had their private photo albums. By inviting and local attendance at the museum facilities for weddings
and socialising, previous experiences were connected and compared to the present ones, while at the same time creating new memories at the Eltz Palace.

**Literature**


Zakon o muzejima, Narodne novine 110/15


Abstract

Due to constant changes in the societies in which they operate, today’s universities must be able to track and manage any change that may affect them as integral parts of those societies. The aim of this study was to analyze whether the existence of plans of possible changes and workflows of their management in cases of their occurrence in the developmental strategies of the particular constituents of Croatian universities could have an impact on the effectiveness of change management at the universities. The study included 25% of public universities in the Republic of Croatia (University of Osijek and University of Pula), in the period from June to September 2015. The data from all the available sources regarding the developmental strategies of the particular constituents of the universities involved in the study had been collected and plans and workflows for change management in the data analyzed. The study revealed that every single of the analyzed strategic developmental documents lacks plans of possible changes both in internal and external circumstances that affect the activity of higher education institutions as well as it lacks workflows to manage those changes. Bearing in mind that the management of change in higher education is one of the key aspects of creating and maintaining the comparative advantages of uni-
versities this study points to the necessity of inclusion of change management in the functional and organizational structure of Croatian universities, which will strengthen their position in the global education network of the 21st century.

**Keywords:** change management, university, developmental strategy, Croatia

**JEL Classification:** O3, H75

**INTRODUCTION**

Change and change management have imposed themselves as a dominant topic in managerial researches and management practice ever since the 80s of the 20th century. Globalization, hyper competitiveness, rapid progress of technology and constraints of resources are the most cited causes, or the justification for the creation of organizational changes (Hotho; 2013, 352).

The current focus in the field of education, both at national and institutional level, is change, transformation and transition. The aim is to achieve cost-effectiveness of education, often through mergers and restructuring, which usually indicates rationalization. The concept of change is therefore global and inevitable, where the change itself involves risk and requires the creation of new systems. The massive change affects all aspects of society, creating new dimensions and great uncertainty, and the question that society is facing today is how to manage such a change. The momentum of the said change inevitably has an impact on the structure and activities within higher education institutions (Govender et al.; 2005, 78-79).

Higher education institutions are under great pressure to change themselves (Scott; 2003, 78). The above mentioned pressure on higher education institutions to change comes from a series of interrelated factors which include: massive scale of the higher education system, a change in the students’ profile where adults increasingly enroll higher education institutions in terms of lifelong education, increased pressure of the industry on universities demanding from the universities creation of work force that, along with the theoretical knowledge, also possesses strongly developed practical skills, competition or pressure of competition among higher education institutions, which directs them to enroll more students in order to ensure their own survival, changes in the system of financing of the higher education, technological advances, i.e. especially strong revolution in information and communication technologies, and finally demands for high-quality research (Patria; 2012, 177).
Experts believe that in this sense universities have no other choice but to face the described strong pressure to implement changes or different educational reforms, where these should be done in a strategic way. Accordingly, experts considered that the best way to do this is to create a much clearer picture of “what” actually requires change (identifying good ideas) and “how” to do the desired change (implementation of the established good ideas) (Scott; 2003, 78). Regarding the latter, the inclusion of change management both in the functional and organizational structure of universities and all its constituents is imposed as a pledge of success by initiating, implementing and managing the inevitable changes that are happening within the society and have strong reflections on the universities as its integral part.

The aim of this study was to analyze whether the existence of plans of possible changes and workflows of their management in cases of their occurrence in the developmental strategies of particular constituents of the Croatian universities could have an impact on the effectiveness of change management at the universities.

MATERIALS AND METHODS

This study was conducted in two out of eight (i.e. 25%) of public universities in the Republic of Croatia, including the Josip Juraj Strossmayer University of Osijek and Juraj Dobrila University of Pula, in the period from June to September 2015. The above-mentioned universities had been selected in order to accomplish representativeness of the sample and coverage of universities of different ages, structure, size and geographic location in the Republic of Croatia, thus taking into account all additional variables that can affect the results of the research. On each of the two universities included in this study all the available data on developmental strategies of their particular scientific-educational or artistic-educational constituents had been collected and plans and workflows for change management in the data analyzed. The mentioned data had been collected primarily from data held by the particular scientific-educational or artistic-educational constituents of the University of Osijek and University of Pula, but also from publicly available data and different statistical records. All the collected data were analyzed in detail by appropriate methods, including analysis, synthesis, comparison, deduction and induction.
RESULTS

During this study the developmental strategies of scientific-educational or artistic-educational constituents of the two Croatian universities (University of Osijek and University of Pula) were analyzed. A total of 15 strategic developmental documents were at disposal for analysis, 10 out of 17 from the University of Osijek and all 5 from the University of Pula. The study found that all the university constituents belonging to the scientific areas of biomedicine and health, biotechnical sciences and interdisciplinary field of science made their strategic documents fully available to the public, while only 50% of strategic documents within the university constituents belonging to the artistic field had been publicly available. Within the university constituents belonging to other scientific areas the percentage of publicly available strategic documents was in the range of 66% to 75%.

The study revealed that every single of the analyzed strategic developmental documents lacks plans of possible changes both in internal and external circumstances that affect the activity of higher education institutions. Consequently, it can be concluded that such changes may significantly jeopardize the stability and functioning of the particular university constituents because these constituents did not foresee the possibility of the occurrence of changes and do not have the plans to cope with them nor an idea in which direction to look for solutions for these changes.

The study has further shown that none of the analyzed strategic developmental documents had workflows to manage possible changes neither in internal nor in external circumstances that affect the activity of higher education institutions. In this context, it can be concluded that the scientific-educational or artistic-educational constituents of the universities are totally unable to respond quickly to possible changes both in internal and external circumstances that affect the activity of higher education institutions, which in turn can have a significant adverse effect on their stability and functioning.

DISCUSSION

For several decades’ strategy has been considered as one of the main instruments of governance, through which it was possible to ensure the development of various organizations in a favorable environment, and their survival in adverse
conditions. Popularity of strategy, as an instrument of governance, resulted in attempts to use it as a management tool by various organizations such as local and regional governments, universities, foundations, etc., and not only business organizations. However, their interest in strategy usually ends in the process of formulating the direction and principles of long-term development of these organizations, while at the same time little attention is given to the process of the implementation of planned activities and facing and overcoming any difficulties encountered during the implementation of the described developmental plans. Accordingly, it becomes clear how change management has one of the key roles in the effective implementation of the created strategic plans (Markiewicz; 2011, 257).

By analyzing the universities, i.e. their scientific-educational and artistic-educational constituents and their developmental strategies, it becomes clear that the lack of planning of possible changes in internal or external circumstances that affect the activity of higher education institutions and the lack of workflows for the management of such changes in the strategic documents represent a serious flaw and potentially a large problem because change management emerges as a key instrument for the effective implementation of the planned developmental strategies. In this sense, implementation of a strategy can be treated as a process of maintaining harmony with a changing environment by means of change management in an organization that is related to the planned strategy (Markiewicz; 2011, 264).

Furthermore, it is clear that change will neither vanish nor wear out. The technology, civilization and creative human thought will retain their constantly accelerating forces that drive them to constant change. Consequently, one could actually say that the state of a continuous change almost became a routine (Paton & McCalman; 2008, 5).

Any organization that ignores the necessity of change does it at its own risk exposing itself to a great danger because changes, desired or undesired, will occur sooner or later. In order to survive and make progress organizations must adopt strategies that in reality reflect their ability to manage number of possible future scenarios resulting from the inevitably coming changes (Paton & McCalman; 2008, 7). Drucker, for example, argues that “winning strategies require information about events and circumstances occurring or rule outside of the organization itself ... Only by having such information, the organization can
prepare for the coming of the new changes and challenges resulting from the sudden and abrupt shifts in the world economy as well as in the nature and the content of the knowledge” (Drucker; 1997, 20-24). The latter is especially important for universities because it is the knowledge capital within the population which is ever more affected by the development of global communications and global mobility, consequently leading to the globalization of knowledge and education. Owing to new technologies most university teachers and scientists can cooperate with their colleagues from the academic communities of different countries, students have lots of opportunities to study outside their home countries, and so-called “virtual university campuses” are being developed. The spread of new technologies has enabled researchers to rapidly collect and process data, which ultimately results in an enormous increase in the quantity of empirical knowledge (Miškulin; 2015, 460).

While considering the importance of change management it is therefore important to point out that in today’s world of constant and rapid changes every organization can greatly benefit from more efficient and better change management. The world’s leading corporations, government bodies, leading higher education institutions as well as many other successful non-profit organizations have, by adopting change management and by appropriate use of this discipline, made a series of comparative advantages over their competitors in today’s constantly changing business world. The risks that organizations are exposed to when the management of changes within them is not effective include: reducing the productivity of the organization, increase of passive resistance to change within the organization, the emergence of active resistance to change and sabotaging changes by employees, leaving of the most valuable employees, deterioration of the working morale of the employees, overrun of costs and deadlines for the completion of various ongoing projects that are being implemented within the organization, disobedience of employees who constantly find ways to avoid a new way of performing their duties or to return to the old way of execution these duties, creating divisions among employees where all employees are separated into two groups – a group of those who accept the changes, and a group of those who do not, and creating a history of an organization in which inefficient change management prevails, thus classifying this organization in a group of unsuccessful and slowly dying organizations. Bearing in mind all the aforementioned risks that may arise as a result of inefficient change management in organizations it is not surprising that change management, along with
the appropriate leadership, has positioned itself as a key area of today’s modern management.

This study has unfortunately shown that so far Croatian universities have not given sufficient attention to change management as one of the possible sources of their comparative advantages in relation to universities in the neighboring countries. The same can be concluded from the fact that in none of the analyzed strategic documents of the two Croatian universities involved in the study there were no plans of possible changes in internal or external circumstances that affect the activity of higher education institutions as well as there were no workflows to manage those changes in case of their possible occurrence.

Proper management is a source of sustainable competitive i.e. comparative advantages of the modern, rapidly changing organizations (Nohria et al.; 2003, 43-52). Organizations that support and implement continuous and transformative change remain competitive (Cohen; 1999, 373-376). The ability of effective change management, today is, therefore, recognized as a fundamental competence of modern organizations and the source of its competitive i.e. comparative advantages (Radović-Marković; 2008, 124), where universities are not nor should be exceptions to this rule. In the university world, comparative advantage means greater efficiency and success of a university in all aspects of its work in relation to any other competitive university (Bisaria; 2013, 90-91).

CONCLUSION

This study confirmed that the identification and prediction of possible changes, as well as their adequate implementation and management in practice, is one of the key sources of comparative advantages of universities in today’s world. Accordingly, Croatian universities and their scientific-educational or artistic-educational constituents certainly need to include change management in their strategic documents and organizational schemes as a first step in the development of strategic management of changes and realization of the above-mentioned competitive advantages in the global field of science and higher education, which will also significantly strengthen their position in the global education network of the 21st century.
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RESULTS OF KAIZEN METHODOLOGY IMPLEMENTATION IN MANUFACTURING

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Abstract

Examples of Japanese business philosophy based on the Toyota Production System (TPS) show that Japanese carmakers, despite occasional crises and changes in trends on the global market, managed to achieve flexibility of production systems by which they can quickly and effectively adapt to changing consumer needs and requirements of individual market segments. To meet the needs of the consumers and on this basis ensure the survival and growth on the market, Japanese companies use a systematic approach to continually examine their operations and implement techniques of everyday advancement and improvement of business systems. Most of the successful, global companies such as already mentioned Toyota, then Honda, Nissan and Sony, are applying in their operations the Kaizen methodology based on incremental improvements of existing systems that do not require large investments.

The starting hypothesis assumes that it is possible to implement the Kaizen methodology, in an adapted form, in a domestic business entity and through its application improve the company's business in the long term. The results of applying the Kaizen methodology were systematically observed and recorded over a period of five years, and point to the fact that during the observation period 94 Kaizen activities in the form of small projects were conducted which
resulted in increased revenue per employee of 61% while also increasing the number of employees.

**Keywords:** Kaizen, PDCA, manufacturing improvement, cost reduction, process approach.

JEL Classification: L6, L66

1. **INTRODUCTION**

The effect of turbulent business conditions is a major challenge for today’s businesses. On the one hand businesses need to make a profit and thus satisfy the owners or shareholders; on the other hand they are forced to tailor their strategies to the challenges of the market reacting in a right way to the changes. Faced with the rapidly changing trends in the global market, educated consumers and new business competitors, they must continually examine the ways their products and / or services are designed, and constantly improve them if they want to ensure a longer survival in the market. One way of achieving flexibility of business systems which allows manufacturing companies to effectively respond to turbulent market conditions is the application of the Kaizen methodology. Although the roots of the methodology are found in the Japanese business tradition, so far it has been applied to global companies such as Toyota, Boeing, Ford, Intel and others.

Hypothesis assumes that the Kaizen methodology can, in a modified and adapted form, be applied in a domestic business entity. It assumes as well that it is possible to increase the operating income of an enterprise over a longer period of time by applying this methodology. The theory was assessed in a real production environment, and as a testing ground for hypotheses a local business entity was selected.

2. **KAIZEN**

Kaizen methodology originated in the Japanese business environment and represents the business philosophy of continuous improvement of business processes at all levels of the company. The very concept of Kaizen, etymologically speaking, is composed of two words. While Kai on the one hand means change, and Zen on the other hand means good or virtuous, Kaizen can be conceptually...
defined as a change for the better or continuous improvement (Lazibat; 2009, 94). Systematically speaking, Kaizen methodology encourages continuous, incremental changes in all areas of business, which can produce dramatic results over time (Imai; 2012, 37).

The implementation of the Kaizen methodology has a goal to improve operations by eliminating all the activities that do not create value through the whole value chain. Those redundant activities can usually be characterized as unnecessary actions. By eliminating redundant activities, a uniform flow of materials, information and resources is established through the business system thus increasing the labour productivity and efficiency of the business process, which is of a great importance for businesses operating in the global market.

2.1. The principles of Kaizen business philosophy

The preceding considerations clearly indicate the main principles of Kaizen business philosophy that are required to be applied if one wants to continuously improve business system. The four basic principles of Kaizen defined by Masaaki Imai are (Imai; 1986, 9):

- Employees are the main value of the business
- Improvement and advancement of business processes will be effective if implemented systematically, incrementally, in small steps and gradually
- Improvements need to be implemented at the earliest opportunity
- Recommendations for improvement must be based on statistical methods.

From the mentioned principles one can easily derive a methodology which use is required in the implementation of procedures to improve the business system. The basis of the methodology is so called Deming’s cycle, or the PDCA cycle of quality.

2.2. Kaizen methodology and PDCA cycle

If the ultimate goal of applying the Kaizen methodology is business excellence devoid of all unnecessary activities in the process. The conceptual foundation of continuous improvement is the PDCA cycle which is carried out following a series of activities for each phase of the process (Imai; 1986, 91):
1. PLAN – Detailed research and analysis of the existing business process and its standardisation (normalisation). Collection of the data to identify problems. Create an improvement plan and define measures to track the progress.

2. DO – Implement the aforementioned improvement plan, if needed, only in a pilot area. Then document all the changes and collect the measurement data.

3. CHECK – Evaluate the data collected in the second step, and check whether the results are consistent with the objectives identified in the improvement plan.

4. ACT – If the results are satisfactory, standardize a new method, inform all the employees involved in the process, and educate them about the new standards. Consider the possibility of such changes in other (similar) processes. If the results are not satisfactory, review and appropriately revise the plan, or give up the particular plan or project and move on.

In practice, the PDCA cycle is applied and implemented by the project team going in their work through all the phases of the PDCA cycle, focusing their activities on a particular business area or to specific working procedure. In doing so, it is particularly important that Kaizen activities are viewed as any other normal work process and that those activities become a part of everyday work activities carried out regularly according to a predetermined program.

2.3. Types of Kaizen through PDCA activities

Successful companies, in their efforts to retain their competitive position in the global market, are continuously working to enhance and improve business systems using PDCA cycle and four Kaizen activities (Imai; 1986, 25):

1. Quick Kaizen (QK)
2. Standard Kaizen (SK)
3. Main Kaizen (MK) and
4. Advanced Kaizen (AK).

Quick Kaizen (QK) – is a tool for quick improvements. Its implementation encourages the development of ideas and improvements, and their rapid execution. Most often, it is used when dealing with simple, concrete problems which data is readily available and known.
Standard Kaizen (SK) – This way of solving the problems is similar to the principles of Quick Kaizen, and the main difference is that Quick Kaizen is usually conducted by the workers directly on the shop floor, alone or under very little control, while the Standard Kaizen is carried out together with heads of departments and engineers.

Main Kaizen (MK) – This type of Kaizen is used to solve complex problems and requires a systematic approach and the participation of big teams, also it lasts for a longer period of time. In order to implement improvements by applying the Main Kaizen, the project includes a larger number of people organized into teams, and the project manager must monitor the progress of the project, the implementation of solutions and ensure dissemination of the acquired knowledge to other employees in the company which might not be the members of the Main Kaizen teams.

Advanced Kaizen (AK) – is a tool for achieving the strategic goals of the company and is managed by the top management which monitors the implementation of the project from start to finish. It requires the formation of a multidisciplinary team that is going to focus all its main activities on solving the given problem. Most often the knowledge of members in the team responsible for the implementation of the Advanced Kaizen is not sufficient to solve the problem; therefore it is necessary to include experts outside the company to solve the problem in a satisfactory manner. As a result, the Advanced Kaizen is a time consuming process and requires focusing on a wide range of business processes.

Which kind of Kaizen activity will be used in a particular case depends primarily upon the situation and the observed problem, as well as the availability of human resources, financial resources and time frame for the implementation of those improvement projects. Since every business is a unique system that operates in its own way, it is necessary to adjust the Kaizen methodology to the available resources and potentials of the system where continuous improvements are implemented.

2.4. Applying Kaizen methodology in a domestic business entity

Implementation of the Kaizen methodology in the studied company began with its orientation to the global market. Global competitors had adapted to the
changing market demands and had positioned themselves through products of optimum quality and reasonable price. Products of the studied company had superior quality than those of the competitors, but the price was significantly higher. To ensure the survival in the market, the company realized the need to change the existing business strategy and a decision was made to adjust the system so that it produces more competitive products for the challenging global market. The change in strategy included the implementation of Kaizen methodology and the formation of a team responsible for the continuous improvement and advancement of the studied business system.

3. RESULTS OF KAIZEN METHODOLOGY IMPLEMENTATION

After analysing the results of applying Kaizen methodology in a studied company, we notice that in the five-year period a total of 94 projects were conducted aimed at enhancing and improving business systems at all levels. In order to make the analysis of the implemented projects easier as well as study those projects’ impact on the business system, it was decided that Kaizen activities and projects will be divided into three groups, depending on their focus on the particular business segments.

3.1. Project groups

The first group consisted of projects related to improvements carried out on the products from the assortment of the company. The aim of these projects was to create products that were going to successfully compete with the competitors’ products on the market. The second group consisted of projects aimed at improving business processes at all business levels, from production to administration. These projects were implemented with the main objective being to identify and eliminate all unnecessary activities that do not create value in the analysed system, but which presence increases the operations cost. The third group consisted of projects aimed at improving the existing level of technological equipment and implementing new technologies previously unused in the production process. The objective of this group of projects was to increase the existing technology level and to prepare ground for new investments in modern technological processes of metal processing which would accelerate
this manufacturing process and increase the flexibility of the existing business system given the changing requirements and trends of the global market. Data on implemented projects is shown in Table 1.

**Table 1. Kaizen projects groups**

<table>
<thead>
<tr>
<th>Year</th>
<th>Product</th>
<th>Process</th>
<th>New Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>6</td>
<td>21</td>
<td>12</td>
</tr>
<tr>
<td>2.</td>
<td>3</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>2</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>4.</td>
<td>7</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>5.</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>∑</td>
<td>20</td>
<td>55</td>
<td>19</td>
</tr>
</tbody>
</table>

*Source: Authors’ calculations.*

Table 1 shows the distribution of projects by years of implementation of Kaizen methodology as well as the number of completed projects sorted by type. As Table 1 indicates, the largest number of Kaizen projects was carried out in the first year of implementation and through the observed five-year period the number of Kaizen projects was continuously decreased.

### 3.2. Types of Kaizen projects

Analysis of the results was expanded to include a distribution of conducted projects according to the types of Kaizen activities which are described in chapter 2.3. The results of the analysis are graphically presented in Figure 1.

**Figure 1. Kaizen projects according to Kaizen activities**

*Source: Prepared by authors.*
Figure 1 shows that in the five-year period 43 Quick Kaizen projects, 11 Standard Kaizen projects, 23 Main Kaizen projects and 17 Advanced Kaizen projects were conducted. Descending trend in the number of Kaizen activities can be observed from Figure 1 through the same 5 years period. The main reason for the reduced number of projects lies in the fact that during the implementation of Kaizen methodology, products were improved and aligned with the existing level of technology, and business processes were raised to a higher level of efficiency.

3.3. The savings achieved by Kaizen methodology implementation

Results of the data analysis regarding the achieved savings in a monitored company on an annual basis are shown in Figure 2.

**Figure 2.** Five-year period operations savings

![Graph showing annual reduction of operating costs.](image)

*Source: Prepared by authors.*

On average, according to Figure 2, the annual reduction of operating costs is 65,800,00 €, and a total reduction of operating costs, in the five-year period in the case of the observed company, is 330,000,00 €.

3.4. Kaizen methodology and revenue per employee

The significance of the impact the results of the application of Kaizen methodologies to business had in the studied company can be best illustrated by Figure 3 which depicts the revenue per employee in the observed five-year period.
Figure 3. Revenue per employee in the five-year period

The first part of the diagram, the first three years, shows a progressive increase in the revenue per employee, while in the following two years only moderate growth is displayed. At the end of the five-year period, revenue per employee increased by 61% compared to the first year of the introduction of Kaizen methodology. The presented growth measured in revenue per employee is linked to the implementation of Kaizen methodology that affected the functioning of the business system.

4. EXPERIENCE GATHERED THROUGH KAIZEN IMPLEMENTATION

Implementation of the Kaizen methodology in this particular case had a significant impact on the studied company because fundamental changes of the whole business system were introduced and implemented. Experience has shown that in the beginning of the implementation of the Kaizen methodology, a resistance to change of certain groups of employees exist, especially the elderly. Employees show resistance mainly because Kaizen projects are perceived as activities that add an extra pressure on everyday tasks and employees. To avoid this problem, which can be stopped and sometimes call into question the implementation of Kaizen activities, it is necessary to first select a small team of professionals able to initiate and implement changes, and subsequently to
continue to work on projects aimed at improving an existing business system. Experience shows that it is only a few Kaizen projects that need to initiate a curiosity and interest of other employees, normally more resistant to change, thereafter a good atmosphere is created for the implementation of improvement of business systems at all levels.

CONCLUSION

Practical experience of applying the Kaizen methodology, over a longer period, shows that the Kaizen is a powerful tool for the transformation of existing business systems. By applying the principles of the Kaizen methodology, companies can gain a competitive edge in the demanding global market. There are two key segments to be emphasized. The first segment is the continuous application of the PDCA cycle, and the second segment is a conduction of everyday improvements and advancements of the existing business systems which require neither a big effort nor any investment.

Implementation of the Kaizen methodology studied in this article shows that for the successful implementation, a support of the board and management is necessary as well as the involvement of the majority of employees through participation in Kaizen teams. The observed company has in a five-year period conducted 94 Kaizen projects aimed at improving the business system, and those projects resulted in a total savings in operations of 330,000,00 €. These results clearly confirm the first hypothesis of this research which stated that the Kaizen methodology could be applied in a domestic company and that it could achieve savings and reduce operating costs.

The general public common opinion is that improvement of business systems necessarily mean reduction in the number of employees because many business processes are automated thus reducing the need for workers. This specific example contradicts this view because it shows that the application of the Kaizen methodology improves the business system resulting in new hires. Namely, the results of the implementation of the Kaizen methodology point to the fact that the company was continuously hiring new workers because in a given time period the number of employees increased by 41.5%. At the same time, with an increase in the number of employees, the revenue per employee grew as well so at the end of the period the revenue per employee increased by 61%. This confirms the second part of the hypothesis of this work which as-
sumed that it is possible, over a longer period of time, with the application of the Kaizen methodology to increase the operating income of the company.

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ENTREPRENEURIAL DEVELOPMENT GOALS OF POWER BUSINESS IN SERBIA

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Abstract
Previous studies in economic development in the Republic of Serbia, have showed that an adequate solution for faster development of the Serbian economy is yet to be found, and thus society as a whole. One solution to this problem must be sought in the innovation development of the economy through the development of entrepreneurship. In circumstances where the privatization and restructuring in the Republic of Serbia is leaving many people without employment, one of the solutions of economic and social problems is development of small entrepreneurial organizations and private businesses. The impossibility of securing the necessary funds, high risk and traditionally non-innovative climate and culture in our country is not sufficiently pronounced tendency to form small entrepreneurial organizations. This paper presents a model that reflects one of the directions of development of entrepreneurship in the Republic of Serbia, as well as the results of the research structure of life objectives of managers of social enterprises, and private owners - entrepreneurs.
Keywords: development of entrepreneurship, manager, life goals

JEL classification: O1, F44

1. INTRODUCTION

The post-socialistic countries have understood the significance of entrepreneurship, thus they are increasingly putting the need for privatization and entrepreneurship in the foreground. These countries mainly draw on the experiences of the developed countries, and they are helped by various institutions and NGOs. Among those institutions, entrepreneurial business organizations, innovative centers, industrial parks, technoparks, etc. have a very significant role in encouraging small enterprises and providing support to entrepreneurs in order for them to sustain themselves during the initial working period, when they are most vulnerable.

Entrepreneurs and company managers live in completely different worlds, and therefore they have different life goals. Big companies are showing the tendency to operate from their prominent corporate headquarters whereas small and medium-sized enterprises often work and operate in worse conditions. While the managers of big companies are surrounded with a number of counselors; small and medium-sized entrepreneurs, in most cases, have to make decisions on their own. Their life goals are different, and this paper wants to point out the significance of entrepreneurial goals and their influence on the development of small and medium-sized enterprises (Ožegović, 2006).

Researcher consultants and practitioners understood the importance of individual goal setting a long time ago. The researches at the University of Maryland have established that the work performance is higher when people have specific goals rather than being simply said to do their best (Edwin & Bryan, 1967). Setting goals as a motivational technique is not only limited to economy, but it is also useful for public organizations. General vagueness of goals is a challenge for entrepreneurs in many organizations. However, there is evidence that this is the challenge that can be met. It is no longer about the people who are simply doing their job, following instructions and waiting for guidelines and decisions; they are now individuals with clearly defined goals. Employees should have a part in setting their life goals. If all the employees in one organization can focus on the same goals and think in the same way, there are no limits to possible achievements (Ulrich & Yeuang, 1989).
Some of the steps in the program of life and career planning are:
- To assess the life and career so far, while recording the most significant.
- To formulate the goals for lifestyle and career path and to predict the future.
- To develop an action plan for achieving a goal and to make a schedule as to when which goal should be met (Sajfert, Lazić, Cvijanović, 2008).

Planning a life and career in general should be done at the same time, because career planning is just a part of life planning. It has not yet been scientifically proved whether life and career planning has any influence on attitudes and behavior of an individual. The commitment of a participant in career planning is the biggest support to this kind of program. The enthusiasts who complete such a program claim that that have a better understanding of themselves, their career and their lifestyle. They are less concerned about the future as well. The economy of Serbia is in the process of transition and it is presupposed that managers and entrepreneurs have the structure of goals, and they are essentially different considering the ownership structure. As every organization is a social structure which is achieving a certain goal, this research intends to establish the structure of life goals of entrepreneurs in the same way (Sajfert, Lazić, Cvijanović, 2008).

There are as many notions about life goals as there are people. No one has a perfect, precise life goal. On the other hand, we have to admit that no feasible goal can be marked as a wrong goal. We are able to determine what makes the common ground of a better life goal, and what less valuable goals miss. That way, we can come to a scientifically based life goal, to common characteristics of correct notions of a life goal which enables us to face reality insofar as it relates to humanity. With respect to what has been said, we can come to the conclusion that everything that is good for the benefit of the whole humanity is good for achieving every person’s goals (Adler, 1989).

2. RESEARCH METHODS

Life goals of entrepreneurs and managers are the basic starting principle for setting up the tasks in this research. Current life goals of entrepreneurs are: leadership, expertise, creativity, prestige, solidarity, wealth, independence, love, security, sense of duty, pleasure. In that manner, the life goals of an entrepreneur can be grouped according to the possibilities of their realization, and how hard
it is to realize them, then, according to the course of their realization, according
to the carrier of realization, etc. The life goals of entrepreneurs include many
elements related to entrepreneurship.

This paper investigates the life goals of entrepreneurs. The investigation of
this problem represents the tendency to determine the influence of certain psy-
chological factors, such as personality characteristics of managers and entrepre-
eurs. This is done by means of a life goal test where the different structure of
life goals is validated. From theoretical and practical point of view, the investi-
gation of this problem is significant, especially since psychological factors-life
goals are not present enough in the previous research, both in Serbia and in
the world. The previous literature in the world has not determined the relation
of entrepreneur’s life goals to the performance of an enterprise. This research
includes two groups. Another reason why we opted for the sample to be com-
prised of the member of a number of successful enterprises is of a practical
importance. Determining similarities between the personality characteristics of
public enterprises and the control group – successful managers as factors of this
research is especially important from the point of view of their life goals.

All the respondents have spent at least a year as entrepreneurs. They volun-
tarily submitted themselves to our questioning during the working hours. Hav-
ing in mind our current economic situation, we can ascertain that our sample is
well chosen in addition to being appropriate. For our research, these conditions
were dominantly important for life goals of entrepreneurs.

The differentiation of the managers in public enterprises and the entrepre-
eurs was carried out with the life goals test. The research has been conducted
not only theoretically, but empirically as well. The empirical research was car-
rried out by the life goals test on the basis of anonymous questionnaire. 150 pri-
ivate entrepreneurs were chosen for the empirical research, as well as the control
group of 40 successful managers of public enterprises. The research was con-
ducted in Serbia. The sample of managers of public enterprises encompassed
all the levels of management: from the managing director and the board mem-
ers, to managers of enterprise profit centers, project managers, and all the way
up to functional managers such as: financial, marketing, production, staff, IT,
research managers and development managers. It can be concluded that the re-
search was limited to the top and bottom line of enterprise management, which
is of the utter importance to differentiation of private and public enterprises
management. The sample included enterprises from all branches of economy, which are of different size and different legal status.

The group of 40 managers served as a control group. The aim of this control group was to see if there is a difference in life goals of entrepreneur on one side, and managers on the other side.

Because the series of a structure cannot be treated as a function, since the characteristic on which they were conducted is not a variable value, and that is why they could not have been mathematically processed as frequency dispositions. The statistical methods have been used in this paper for that reason. The data collected in this research have been processed in the following order:

- the respondents were divided into two groups – entrepreneurs and successful managers. The primary processing included ordering of responses according to the type of formulation;
- the responses obtained by the research were counted for both groups, the relative frequency of all attributive features was calculated, on the basis of the total number of options for all the alternatives and the obtained results were arranged in tables in which the ranking was entered;
- the data from the tables is graphically illustrated with column charts, by entering frequencies on the ordinate axis, and entering attributive features to abscissa.

Life goals

Some life goals can be grouped around the following factors (motives): creativity, prestige, solidarity, wealth, independence, love, security, sense of duty and satisfaction.

(Table 1)
|   | WEALTH          | To earn large amounts of money;  
|   |                | To create large personal property.  
| 7 | INDEPENDENCE   | To be independent in working;  
|   |                | To use the possibilities of the freedom of thought and action;  
|   |                | To give the others the possibility to act and think freely;  
| 8 | LOVE           | To acquire and share friendship and love in family among friends.  
| 9 | SECURITY       | To gain a secure and a stable position at work and at the old age.  
| 10| SENSE OF DUTY | To completely devote oneself to fulfilling obligations arising from the highest values of ideals and principles.  
| 11| PLEASURE      | To enjoy life as much as possible;  
|   |                | To be happy and satisfied;  
|   |                | To own and to have good things in life.  

3. **RESEARCH RESULTS**

The research is in this paper is based on determining the correlation between life goals of public enterprise managers and private enterprise owners – entrepreneurs. Based on the information obtained from randomly selected samples, conclusions on the characteristics of the observed populations are drawn. The research was set out to prove that successful entrepreneurs, as owners of capital, possess a different structure of life goals compared to public enterprises managers.

*Entrepreneurs” life goals ranking*
The hypothesis that entrepreneurs with their creative characteristics can improve Serbia’s economic development by achieving their life goals has been con-
confirmed in this research. The correlation between life goals of entrepreneurs and public enterprise managers has been determined. It has been confirmed that:

- there is a difference in demands placed upon entrepreneurs in their characteristics on the basis of which their success can be predicted.
- there is a high correlation between the system of entrepreneurship and economic efficiency.
- ranking the characteristics of entrepreneurs and investigating the correlation between that structure and the success of entrepreneurs is possible.
- professional orientation, selection and progress, and also the structure of entrepreneurs' life goals is included in this context, are very significant for successful entrepreneurs.

So far, the literature and the research, both in the world and in our country, has not determined the correlation between the structure of life goals of entrepreneurs as individuals, and successful business performance, and that is what this paper has done.

In the market economy, as well as in our country, the entrepreneur, as an exhibit of the conception of successful business performance has become a profession.

This paper provides additional information specific to the technological development of business organization in the Republic of Serbia. The role of an entrepreneur demands specific effects of communication skills. For entrepreneurs, their communication skills represent the most prominent criterion for selection. The technology of entrepreneurial organizations has to be profit oriented, which is why there is already a growing European model of support from foreign investors. The research has proven that all entrepreneurs possess identical life goals, while the life goals of managers are completely different compared to those of entrepreneurs.

Based on the obtained data, the ranking of entrepreneurs' life goals was carried out. Solidarity is on the first place, independence comes second, and sense of duty comes third. Wealth is on the ninth place, prestige comes tenth, while leadership comes eleventh. Wealth is on the first place for successful managers, prestige as a life goal comes second, while leadership comes third. Love as a life goal is on the ninth place, while sense of duty comes eleventh.

The scientific justification of this paper consists in establishing the difference in how entrepreneurs understand and approach work, on the one hand,
and managers on the other hand. While researching the influence of the structure of entrepreneurs’ life goals on the success of business performance, coming from the scientific positions in theory and in the research itself, the following results have been obtained:

- in the ranking of life goals of successful managers: 1. wealth, 2. prestige, 3. leadership, 4. pleasure, 5. creativity, 6. security, 7. solidarity, 8. independence, 9. love, 10. prestige, 11. sense of duty;


Based on the research that was conducted it can be noted that for the modern understanding of progress, modern technology and modern working tools can be created by highly educated personnel engaged in scientific activities. It has been proven that the application of modern technology and the realization of plans leading the society to the world of more developed demands, shaping and continuing education of such entrepreneurs, who will serve for social needs, not only today, but in the future as well.

The results of this research promise, on all accounts, that their implementation would bring multiple economic and social benefits. Economic benefit - in the sense that the increase in success of business performance of entrepreneurs will result from their appropriate application, and social benefit - in the sense that with the help of this research enterprise companies will develop efficiently. Of course, under the condition that other factors, such as raw material supply, working discipline, good organization of work, etc. act in mutually dependant interaction.

4. CONCLUSION

The aim of this research is complementing scientific knowledge about the achievements of the theoretical thought, about how much influence the structure of life goals of entrepreneurs have on the economic development. The research shows the relation between the structure of life goals of entrepreneurs and the successful business performance. According to the knowledge of authors in literature and research in the world (Madžar,Lj., 2002,Renzis.L.,1961,Grinberg Dž., Baron R.,1998.,Edwin L.,Bryan F.,1967), the correlation between the
structure of life goals of entrepreneurs and managers has not been determined. This research aims to fill this void, which refers to ascertainment of existence of different structure of life goals of entrepreneurs and managers.

People in managerial positions in enterprises have different structures of life goals as a result of individual psychology, education, culture of environment in which they develop and work. Definition and structure of life goals of entrepreneurs can be determined in a different way. Life goals of entrepreneurs related to small and medium-sized enterprises are discussed in the paper. The structure of entrepreneurs’ goals represents the unavoidable area of organization and of management in the circumstances of modern scientific-technological progress and condition for increasing success of business performance is important.

The best and most successful enterprises have put an emphasis to people and management of their potential, abilities and learning. The classic research of learning in adults has two basic sources:

- Studying adult learning and
- Studying experiential learning.

Knowledge identifies the conditions in which adults learn the best characteristics of people who manage specifying these conditions. The point is that knowledge management is not significant in itself and for itself, but it should support the mission and business goals. The list of rules listed here comes from the experience in applying knowledge management in many public and private organizations.

- Information technology and information management are necessary, but not sufficient.
- Knowledge management focuses its attention to the value of intellectual capital, and that concerns people.
- Ideas create ideas: a reasonable idea provides the possibility of development of new and better ideas.
- Knowledge exchange and professional checks are the key to flexibility, quick reaction and the success of an organization.

An entrepreneur should possess qualities such as: oral and written communication, creativity, inventiveness, imagination, high motivation, leadership. In addition, to successful run an enterprise, an entrepreneur has to possess confidence, ability to quickly resolve problems, planning knowledge, business skills,
knowledge on the problems of interpersonal relationships and awareness on personal assumptions and flaws. Life goals are among the so-called eternal psychological and philosophical questions that every epoch, class, generation, and every individual to some extent, solve in a new way. The actuality of the problem of life goals is conditioned with the whole range of causes. The problem of life goals is not something new both in Serbia and in the world. Life goals cannot obviously be considered as a separate, independent problems, because they arise from the essence of philosophical conception of a man and the world as a whole. Long time ago, it was considered per se that the answer to the question of life goals arises from the entire psychology, philosophical system, metaphysics, sociology, as its base. Wisdom and knowledge in their original meaning are necessary as the knowledge of life and life for knowledge. The best workers learn and apply their knowledge by cooperating with other people, while they at the same time recognize what amount of information and knowledge is needed for solving complex situations and problems. There are four main processes in organization: creating ideas, solving problems, making decisions and taking more effective action. This process can be implemented by any individual knowledge worker, or a team, or a group of human resources. Every process represents a chance for knowledge workers to learn and expand their knowledge and experience. (Wiig K., 2004)

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LEADERSHIP THROUGH PRIVATE INITIATIVES IN MUSEUM AND GALLERY ACTIVITIES

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Abstract

Since the eighties can be seen a clear trend towards the privatization of the museum. State, federal states and municipalities are increasingly withdrawing from the position of the founders and owners and develop different models for separating the museum from its jurisdiction. New galleries, art halls and museums after privatization established largely as associations, limited liability companies or trusts, while former state or municipal museums become public institutions. The law is pre-defined as with most common form of the creation of management in the founding of the museum as a public institution, as well as institutions can establish them, and domestic and foreign natural and legal persons, and therefore the law is the existence of possibilities for private initiatives in the direction of investment in the museum - gallery activities. Europe has many successful examples of private initiatives in the museum - the gallery activities.

Keywords: management, museum, gallery, initiatives, privatization

JEL Classification: Z1, Z10
1. INTRODUCTION

In many European and non-European countries, the privatization of the museum, or their isolation, for years a reality. Thus, for example, the Hamburg state museums transformed into public endowments. Structural change was necessary, because the city museums, otherwise in a few years all succumbed to a more dynamic competition in the international museum environment. Museums have set three basic requirements:

• that for them no longer apply state budget laws,
• that the state agree to services that should be provided and
• to be completely independent in decision-making.

This could be done only outside the state “apparatus”. Contracts are established social educational tasks that museums must meet the financial obligations of the State towards them. Museums are getting the whole, and therefore the financial responsibility. Professional decisions are made alone, without the interference of politics and public administration bodies. (Flac and Lederer; 2002: 36-37) For example: the new law is in the Netherlands since 1993 enabled the establishment of twenty museum endowment. The aim of the privatization of State museums was to the abolition of multiple competencies and a clear division of tasks between the museum and the state provide professional, competent, effective and economically reasonable management. (Flac and Lederer; 2002: 36-37)

In this way, delegation enabled more concrete and better efficiency in the management due to the reduction of time and faster delegating tasks and thus increases productivity, but only management becomes faster and more efficiently.

2. THE INITIATIVES – PUBLIC AND PRIVATE

Private initiative and investors entries:

• new capital,
• direct investments and investments in facilities and acquisition and
• financial stabilization.

The model of public-private partnerships (hereinafter PPP) allows the design, financing, construction, maintenance and management of buildings with the participation of the private partners, who in their achievement given the key role. PPP meets the need of the private financing of the public sector and
providing greater benefit to public life by providing know-how and working methods of the private sector. The legal framework of PPP projects can be very different (most diverse contractual forms - such as BOT (Build, Operate, Transfer) and PFI (Private Finance Initiative), concession).

The objectives to be achieved by contracting PPP are contracting and implementation of a number of PPP projects; fair distribution of risks between private businesses and public authorities, with the aim of rational use of taxpayers’ money; benefiting from greater efficiency of private entrepreneurs, which makes it possible to rationally constructed and built to manage projects in a more rational way of public authorities; create added value by merging the efforts and skills of the private and public sectors; increase productivity, competition, rational use of economic capacity of private and public entities; transparency in selection and contracting; Finding new paths and ways of contracting public buildings; rational use of public funds for the benefit of all users of public services.

3. PRIVATE INITIATIVES

The privatization strategy was applied especially in the period of spreading the influence of neo-liberal theories of development, therefore, from the eighties XX century. It is, without doubt, one of the most delicate measures in culture, so that it is discussed much more said and written, but it is in reality been applied, even in countries that are leading in the privatization of the public sector (United Kingdom, Netherlands). Creative industries and enterprises are very topical issue in all developed countries. We are looking for ways to increase private initiatives in the creative industries, innovation, entrepreneurial spirit, and above all the risk appetite. Traditional activities of creative industries, such as museums, cultural heritage, libraries, archives, etc., for a long time were not considered as a testing ground for entrepreneurial initiatives. Some turn made the emergence of private museums, traveling collection, corporate museum collections, etc. (Pešić; 2014: 179-180) Problems related to public - private partnerships, private initiatives and other forms of private investment shows up as extremely successful factor in the management of the museum - gallery institutions, to assist in financing the basic forms of primary and additional needs or, costs of museums and galleries.

Museum and other institutions must have their new legal framework based by the founders or the new owners, which must be within the legal framework of the home country in which the museum restructures and establishes a new
model of governance. The new management model weighs more and better efficiency in the performance of museum - gallery activities.

It is important to accurately determine requirements for the independence of the museum. In Dutch model are defined as follows:

• Not allowed alienation nor financial burdening state collections.
• The buildings remain a national cultural property owned by the state.
• The Ministry of Culture is still responsible for funding activities of the museum.
• The staff is downloaded along with the recognition of labor rights and without reducing wages.
• Separation must be carried out without additional burden for the public budget.
• Founding Act must be defined

Private initiatives in the museum and gallery activities in Central Europe

In Croatia, it’s known only a few private initiatives, the most popular are:

• Marton Museum,
• Museum of Lauba and
• The Museum of Broken Relationships

4. INITIATIVE FUNDING AND FUNDRAISING

Financing remains the task of the museum, and the administration which is the museum as a public institution in the jurisdiction. Of course, there is a growing number of independent museums, which wholly or mainly dependent on their own income. But every coin has its price. (Šola; 2001:163)

Investments through private initiative require high investment costs. The entry of private capital in the structure of public institutions, in this case the museum - gallery institutions, represents a high cost for initial investments and serious approach to income generation of museums and galleries and strategic management to them by economic principles.

The sources, methods and activities to raise funds in the world is quite different. For example, the most common ways of raising funds in the US are: foundations, companies / corporations, government institutions and individuals. To fund raising activities to provide expected / desired results, they should be organized in a proper way. Fundraising activities can be developed at the level of:
• Short-term activities aimed at achieving security support to a specific project or program,
• Long-term planning of actions that are not necessarily associated with a specific project or program, but may relate to the total of the planned activities of the organization.

As the most simple and widely applicable method is proposed method of brainstorming, which is the most comprehensive to be carried out in initiating activities, but also for the duration of planned activities, to thereby solve the current problems. Plan internal activities should include drawing up a clear organizational - hierarchical structure of the project on the basis that it is possible to assign specific tasks and take responsibility. Depending on the size of the organization and the available / required number of employees and / or volunteers of the possible functions that can be set up, there are primarily: Committee for implementation, leader - coordinator and his deputy, person (service) records for donations and relations with donors. (Pavičić; 2003: 282)

Communication by the non-profit organization achieves those of whom expected financial or other support is often persuasive and it aims to motivate donors / funders / sponsors to behave in a certain - the way you want.

That is why many teams of experts around the world in the development and improvement of means of communication that nonprofits can use to achieve the desired cooperation with donors. In most cases, emphasizes the importance of rhetoric that is directed to donors and is an integral part of personal and impersonal communication. (Pavičić; 2003: 286)

Cooperation must be mutual, the museum - gallery institutions in their negotiations with funding sources must convincingly show the other side that the benefits and advantages achieved funding and sponsorship of museums or galleries.

A large number of non-profit organizations partially or fully financed from the budget, and without them we could not achieve the planned activities partially or even completely. Accordingly, the financing of the budget spent in an appropriate manner and according to transparent criteria can be regarded as extremely useful and socially desirable.

However, for non-profit organizations that mainly or entirely dependent on budgetary resources, in most countries of the world have been observed some
problems arising from the association of non-profit organizations and government institutions.

Since the problems mentioned most often stand out:

- Too much focus on budgetary resources and motivation to search for alternative sources of funding (for society as a whole, this means that there is a scarcity of available funds some other social needs or interest may remain unsatisfied)

- Bureaucracy (cooperation with state institutions is often associated with complicated bureaucratic procedures, “paperwork” and unnecessary/redundant activities, and is therefore often considered to state institutions, with funding and other support to non-profit organizations “transferred” and bureaucratic way of thinking. It’s the like quality educational systems.

A quality education system, more precisely education itself, is an important participant when it comes to enhancing the competitiveness of the national economy through the provision of the necessary quality and quantity of human capital, as the main resource of progress. (Glavas, Sebo and Stanic, 2015:129)

4. COOPERATION AND COMMUNICATION WITH SUCH INITIATIVES – SPONSORS AND DONORS

Analysis donors / financiers nonprofits integral part of the process of creating marketing strategies. However, often the analysis exclusively own current and/or potential donors like the present can not consider all available ways and means to create and improve relations with those without whose assistance the organization could not operate, because the non-profit organization will hardly make a positive step in the process of raising funds if oriented solely on those with whom you have already established cooperation and not looking for new opportunities and contacts. In addition, non-profit organizations big problem is the lack of criteria / conditions to satisfy in order to a donor / sponsor / financier was willing to help an organization or its activities. Museums and sponsors, donors and participants in communication.

Nowadays, information technology and high levels of literacy and communication between people who manage the specific segments in museums and galleries should be able to contact the above, acquire and work with sponsors,
donors and financiers of cultural activities. And in a time of recession and the crisis in global economies continue to exist companies and companies that are doing well and have free capital that can qualify for the further operation and sponsorship in culture and other social activities, which can be through donations and sponsorship of cultural programs and activities encourage the sponsorship and as social awareness and responsibility.

What questions would should set the cultural institutions in establishing cooperation?

What events or programs are suitable for co-operation with sponsors (it should be borne in mind that these programs are not conceived to gain sponsors, but are within the competence of an institution)?

Who comes to mind as a sponsor to the program?
• Based on the already izjašnjenog interests.
• Based on known targets.

How to approach the program sponsor?
• Theme.
• The expected interest of the audience.
• Possibility of publicity (PR).
• The possibility of joint advertising.
• Action - local, regional, national.

What information / data on the home can give?
• The number of visitors and capacity utilization.
• A report in the newspaper about the earlier events.

What budget would be appropriate for the participation of a sponsor?

What opportunities and rights issues this amount?

What other services are expected by the sponsor code?
• Providing support in the field.
• PR (Public Relations).
• Advertising.
• Organizational tasks.
• When it’s time of the tour

Who, after all the basic issues addressed cultural institutions?
• For contracts.
• For costs and fees.
• For the organization, advertising.

Who together with the sponsor is responsible for determining the details and implementation?
• Permanent staff associates who are entrusted with this task.
• Free staff / consultants with a contract for a fixed term. (Roth; 1996: 26-27)

All of these museums and galleries must investigate and prepare, because of the different approach of the above most museums and galleries in Croatia does not have a sufficient level of efficiency is not independence in the management and financing.

New York’s Metropolitan Museum, for example, your visitors in the entrance hall throughout the year has begun with huge bouquets of fresh seasonal flowers that provide donors, whose name can be read with each bouquet. It is not unusual and is not prohibited from museums popularity (and finances) built by renting their space for a variety of conferences, conventions, concerts and other events - of course, provided that the rules of behavior in line with the dignified status of museums and exhibits that are insured. (Zilber; 2005: 30)

This example of additional services need to be implemented and the Republic of Croatia due to the scarcity and lack of funds, but noted the insufficient number of similar activities at the level of nearly all museum - gallery institutions.

5. CONCLUSION

Through research to arrive at assumptions and knowledge to be a high level of efficient management and profitability of the museum - gallery institutions can be achieved by introducing private initiatives in the industry. The following work is a chapter in which elaborate privatnie initiatives and their effects as a possible part of the model of efficient management.

SOURCES:
Glavas, J., Šebo, D., Stanić, L. The impact of managers educational level on the development of the knowledge based organizations: the case of insurance companies in Croatia, Ekonomski vjesnik 1, 2015, Ekonomski fakultet u Osijeku, Osijek


Abstract

Capital structure represents a combination of debt and equity used by companies for financing their activities. The ratio between the two depends on a decision made by company management i.e. company business strategy. The objective of any management is to achieve a loan and own capital ratio which maximizes company value.

The Croatian food industry is the key sector of the Croatian processing industry accounting for about 20 percent of all workers employed by the export-oriented food industry.

This paper focuses on analyzing capital structure in said companies on a sample consisting of 29 companies.

**Keywords:** Capital structure, financial leverage, Croatian food companies

**JEL Classification:** L6, L66
tion, primarily investments. The adoption of such decisions should be based on acquired information regarding the terms of borrowing on financial markets since such financing decisions may significantly change the structure of liabilities. In presenting the structure of liabilities in literature, a share of loan capital (debt) to equity is often mentioned. This is known as a financial leverage by which the utilization of debt for company operations is financially justified ‘until such operations result in a rate of profit higher than a weighted interest rate for debt related interest’ (Ekonomski leksikon;1995). This rule is applied to financing new investments as well as to achieving the optimization of the existing financial structure.

Many authors understand capital structure as a debt/equity ratio. Učkar, for example, states that the capital structure means ‘the combination of debt and capital used by a company for funding long term operations’ (Učkar;2007,24), or Marković who defines capital structure as ‘a ratio between borrowed (long- and medium term) and own capital in corporate liabilities (Marković;2000,273). Their ratio will depend on the capital structure decision adopted by the management i.e. the policy of corporate long term funding since capital structure also represents ‘the management’s instrument in policy creation by means of which they try to increase the company value’ (Penavin&Šarlija, 2010,319). Every company relies on two main sources for ensuring adequate funding for its investments: equity and debt.

Food industry is one of the most important economic branches in the Republic of Croatia. According to data regarding the number of employees and income in 2012 obtained from the 2014-2020 Industrial Strategy of the Republic of Croatia (Ministry of Economy, 2014), food industry accounted for about 20% of employed industry workers and for about 20% of the overall income of the Croatian manufacturing industry. Its export-focused activities resulted in an 18.5% share of achieved income abroad (Ministry of Economy, 2014).

The purpose of this paper is to analyse and evaluate the capital structure of large food companies – the production of food classified under the 2007 National Classification of Activities (NKD 2007) in Section C Manufacturing, Division 10 Food Production, Groups 10.1 to 10.8, classified as large companies under the Accountancy Act. Said analysis will be conducted by means of concrete empirical data obtained from 2012-2014 financial statements. The paper is structured as follows: introduction in Chapter 1, description of the theoretical basis of given research in Chapters 2 and 3, empirical research findings in Chapter 4, and conclusions and guidelines for further research in Chapter 5.
2 CHARACTERISTICS OF LARGE COMPANIES IN CROATIA

According to Financial Agency’s data on business enterprises – corporate taxpayers in 2014 (http://rgfi.fina.hr), there were 104,470 entrepreneurs in Croatia who submitted their annual financial statements, of which 354 or 0.34% were classified as large, and 104,120 or 99.66% as small and medium-sized enterprises. Large enterprises recorded HRK 10.6 billion of consolidated financial results in 2014 – net profit for the period (a difference between total profit and total loss) i.e. their share in the overall net profit earned by enterprises was 108.4% while employing 31.6% of the workers. Activities with the highest overall profit share for the period were manufacture accounting for 23.3% and trade with 17.4%.

According to the Accountancy Act, enterprises are classified by asset size, total income and the number of employees. Small enterprises are thus those which meet two of the following three conditions: total assets under HRK 32.5 million, annual income under HRK 65 million, and average number of workers during a year under 50. Medium-sized enterprises are those which meet two of the previous three conditions, but do not comply with two of the following three: assets in excess of HRK 130 million, total annual income over HRK 260 million, and average number of workers during a year over 250. Large companies are those which numbers are higher for two of the previously mentioned conditions valid for medium-sized enterprises (Official Gazette 109/07.)

3 CAPITAL STRUCTURE THEORY

There are different opinions as to the possibility of setting an optimal capital structure. When passing ‘capital structure decisions, management should be well acquainted with capital structure theory, know the factors affecting capital structure, and assess the importance of each in concrete conditions, thus making a capital structure related decision based on personal judgement’ (Vidučić; 2001, 797).

Literature offers a large number of theories trying to resolve a dilemma surrounding this issue, explain the meaning of capital structure, and its impact on company value. One method for classifying theoretical achievements is to group theories in the following manner: (Vidučić; 2008, 207): 1. The Miller – Modi-
gliani theorem, 2. Traditional point of view, 3. Agency models (choice theory), 4. Asymmetric information access.

The traditional approach implies real optimal capital structure emerging during the lowest price of capital. The Miller – Modigliani theorem assumes that the company value is determined solely by cash flows and business risk while placing no relevance on capital structure. According to the choice theory, the optimal level of financial leverage is achieved by equalizing debt benefits and costs. Debt benefits are seen in tax protection and lowering of agency costs. Debt cost includes the cost of financial (difficulties) and agency costs. The theoretical contribution of this model is in defining factors affecting the selection of optimal capital structure (Boričić; 2011,16).

The asymmetric (opposing) information access relies on a supposition of existing asymmetric (opposing) information between a company manager and other company employees and investors (shareholders). It is assumed that managers possess more quality company development related information and expect good results from planned investments thus preferring debt to stock issue in case of which company shares will have better market value arising from good business results, while providing benefits for managers themselves. This theory implies the connection of financial leverage with company value or profitability. The previous model was called the ‘signaling method’. Apart from it, a ‘packing order’ model has been developed implying that the company will fund new projects by internally generated funds or low risk debt. The following conclusion can be made based on the above: ‘highly profitable companies have low financial leverage, while low profitable ones use a higher leverage’ (Boričić; 2011,18).

4 EMPIRICAL RESEARCH OF CAPITAL STRUCTURE IN LARGE FOOD COMPANIES

In the structure of the Croatian economy in 2014, manufacture businesses recorded income of HRK 158,935 million and profit of HRK 8,121 million accounting for a 23.3% share of total profit for the period. The number of employees in the manufacturing industry in 2014 was 224,543 accounting for 27% of all employees (http://rgfi.fina.hr). In view of food industry being the main sector of the Croatian manufacturing industry as a whole, this research opted for a sample of large manufacturing companies (joint stock (d.d.) and limited liability (d.o.o.)) - production of food – groups 10.1 to 10.8. In 2014, said com-
Companies recorded income of HRK 25.09 billion, profit of HRK 785.98 million, and loss for the period of HRK 273.83 million. The impact analysis of the capital structure of large companies included in the research was carried out for the three-year period, 2012 to 2014, using financial statements obtained from the FINA – rfgi public announcement web page, and analysed by statistical analysis methods.


4.1. Capital structure analysis for 2012

Table 1 shows data regarding descriptive statistics of capital structure for companies included in the 2012 sample (the calculation used data from Table 4 attached hereto).

Table 1 Descriptive statistics of capital structure for 2012

<table>
<thead>
<tr>
<th>Variables</th>
<th>Arithmetic mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Coefficient of variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>45.45</td>
<td>-5.43</td>
<td>70.88</td>
<td>6.02</td>
</tr>
<tr>
<td>Long term liabilities</td>
<td>17.83</td>
<td>0.62</td>
<td>44.55</td>
<td>13.48</td>
</tr>
<tr>
<td>Short term liabilities</td>
<td>35.74</td>
<td>16.58</td>
<td>72.11</td>
<td>6.70</td>
</tr>
</tbody>
</table>

Source: Calculation done by the author according to data

The table shows that the arithmetic mean of equity is 45.45%, which means that the average share of equity in the structure of liabilities in the observed sample accounted for 45.45%. The average share i.e. the arithmetic mean of long- and short term liabilities was 17.83% and 35.74%, respectively. The equity had the lowest minimal value of 5.43% recorded by Babić pekara d.o.o., while the maximum value was assigned to a 72.11% share of short term liabilities, also recorded by Babić pekara d.o.o. The coefficient of variation of equity showed the average deviation of equity share from the average share of capital by 6.02%. The coefficient of variation of long term liabilities was 13.48%, which
resulted in the average deviation of the share of long term liabilities from the average share of long term liabilities of 13.48%, while 6.70% represented the average deviation of a share of short term liabilities from the average share of short term ones.

Dukat d.d. accounted for the biggest equity share in the 2012 capital structure of 70.88%, followed by Zvijezda d.d. with 66.5% and Vajda d.d. with 64.40%, while apart from Babić pekara d.o.o., Zvečevo d.d. and Centar Škojo d.o.o. accounted for the smallest capital share in funding sources with 17.63% and 22.43%, respectively.

4.2. Capital analysis structure for 2013

Table 2 shows data regarding descriptive statistics of capital structure for companies included in the 2013 sample (the calculation used data from Table 4 attached hereto)

Table 2 Descriptive statistics of capital structure for 2013

<table>
<thead>
<tr>
<th>Variables</th>
<th>Arithmetic mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Coefficient of variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>45.73</td>
<td>6.17</td>
<td>71.04</td>
<td>6.69</td>
</tr>
<tr>
<td>Long term liabilities</td>
<td>16.44</td>
<td>0.92</td>
<td>51.51</td>
<td>11.21</td>
</tr>
<tr>
<td>Short term liabilities</td>
<td>37.13</td>
<td>15.32</td>
<td>79.92</td>
<td>6.94</td>
</tr>
</tbody>
</table>

Source: Calculation done by the author according to data

The table shows that the arithmetic mean of equity is 45.73%, which means that the average share of equity in the structure of liabilities in the observed sample accounted for 45.73%. The average share i.e. the arithmetic mean of long- and short term liabilities was 16.44% and 37.13%, respectively. Long term liabilities had the lowest minimal value of 0.92% recorded by Ledo d.d., while the maximum value was assigned to a 79.92% share of short term liabilities recorded by Babić pekara d.o.o., the same as last year. The coefficient of variation of equity showed the average deviation of equity share from the average share of capital by 6.69%. The coefficient of variation of long term liabilities was 11.21%, which resulted in the average deviation of the share of long term liabilities from the average share of long term liabilities of 11.21%, while 6.94% represented the average deviation of a share of short term liabilities from the average share of short term ones.
Ledo d.d. accounted for the biggest equity share in the 2013 capital structure of 71.04%, followed by Mesna industrija Braća Pivac d.o.o. with 69.76% and Zvijezda d.d. with 67.42%, while Babić pekara d.o.o., Kandit d.o.o. and Centar Škojo d.o.o. accounted for the smallest capital share in funding sources with 6.14%, 27.7% and 27.6%, respectively.

4.3. Capital analysis structure for 2014

Table 3 shows data regarding descriptive statistics of capital structure for companies included in the 2014 sample (the calculation used data from Table 4 attached hereto)

Table 3 Descriptive statistics of capital structure for 2014

<table>
<thead>
<tr>
<th>Variables</th>
<th>Arithmetic mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Coefficient of variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity</td>
<td>46.40</td>
<td>13.97</td>
<td>68.55</td>
<td>6.45</td>
</tr>
<tr>
<td>Long term liabilities</td>
<td>17.87</td>
<td>1.66</td>
<td>48.00</td>
<td>13.63</td>
</tr>
<tr>
<td>Short term liabilities</td>
<td>35.54</td>
<td>16.40</td>
<td>69.56</td>
<td>7.41</td>
</tr>
</tbody>
</table>

Source: Calculation done by the author according to dana

The table shows that the arithmetic mean of equity is 46.40%, which means that the average share of equity in the structure of liabilities in the observed sample accounted for 46.40%. The average share i.e. the arithmetic mean of long- and short term liabilities was 17.87% and 35.54%, respectively. Long term liabilities had the lowest minimal value of 1.66% recorded by Cedevita d.o.o., while the maximum value was assigned to a 69.56% share of short term liabilities recorded by Babić pekara d.o.o., the same as in 2012 and 2013. The coefficient of variation of equity showed the average deviation of equity share from the average share of capital by 6.45%. The coefficient of variation of long term liabilities was 13.63%, the same as the percentage of average deviation of the share of long term liabilities from the average share of long term liabilities, while 7.41% represented the average deviation of a share of short term liabilities from the average share of short term ones.

Ledo d.d. accounted for the biggest equity share in the 2014 capital structure of 68.55%, followed by Mesna industrija Braća Pivac d.o.o. with 68.00% and Zvijezda d.d. with 68.20%, while Babić pekara d.o.o., Danica d.o.o. and Zvečevo d.d. accounted for the smallest capital share in funding sources with 13.97%, 14.73% and 25.04%, respectively.
5 CONCLUSION

To define capital structure means to define funding sources which can be own and borrowed. The formation method is important in the management of company operations, achievement of results and, according to some theories, of company value. The issue of forming an optimal capital structure is interesting to numerous researchers. This paper aims at showing an average financial structure of large food companies – food production on a sample of selected companies. The research has shown a similar capital structure of large food companies thus confirming ‘greater similarities of capital structure in the companies within the industry than in the companies from different industry branches’ (Vidučić; 2001, 785) as well as that the structure of their capital is largely determined by the nature of their funds and operations (Ivaniš; 2010, 8). The biggest funding source is equity, which is followed by short- and long term liabilities, of which the latter has the smallest share. A decrease of long term liabilities shows a slowdown of investments since long term sources represent a dominant source of investment funding. The research should be continued and the manner in which the capital structure of these company affects operational profitability and asset structure examined.

References

Finatrgf- javna objava (08.03.2016.)
### Table 4. Sources of finance to companies 2012-2014 (%)

<table>
<thead>
<tr>
<th>Companies</th>
<th>Equity</th>
<th>Long term liabilities</th>
<th>Short term liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ml Braća Pivac</td>
<td>63,00</td>
<td>69,76</td>
<td>68,00</td>
</tr>
<tr>
<td>Danica d.o.o.</td>
<td>34,04</td>
<td>27,96</td>
<td>14,73</td>
</tr>
<tr>
<td>PPK Karlovc d.d</td>
<td>53,00</td>
<td>51,27</td>
<td>53,74</td>
</tr>
<tr>
<td>Perutnina Pltj</td>
<td>50,60</td>
<td>57,48</td>
<td>58,43</td>
</tr>
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<td>PKV Vrbovec Mi</td>
<td>38,60</td>
<td>31,06</td>
<td>44,84</td>
</tr>
<tr>
<td>Gavrilović d.o.o</td>
<td>22,95</td>
<td>25,88</td>
<td>35,21</td>
</tr>
<tr>
<td>Vajda d.d.</td>
<td>62,41</td>
<td>61,92</td>
<td>64,49</td>
</tr>
<tr>
<td>Sardina d.o.o.</td>
<td>35,73</td>
<td>33,17</td>
<td>35,60</td>
</tr>
<tr>
<td>Podravka d.d.</td>
<td>44,50</td>
<td>48,91</td>
<td>50,88</td>
</tr>
<tr>
<td>Zvijezda d.d.</td>
<td>66,50</td>
<td>67,42</td>
<td>68,20</td>
</tr>
<tr>
<td>Vindija d.d.</td>
<td>35,72</td>
<td>37,98</td>
<td>39,91</td>
</tr>
<tr>
<td>Dukat d.d.</td>
<td>70,88</td>
<td>53,35</td>
<td>55,59</td>
</tr>
<tr>
<td>Ledo d.d.</td>
<td>52,90</td>
<td>71,04</td>
<td>68,54</td>
</tr>
<tr>
<td>Minar d.d.</td>
<td>44,18</td>
<td>48,04</td>
<td>51,92</td>
</tr>
<tr>
<td>Zagrebačke pekare</td>
<td>48,97</td>
<td>42,88</td>
<td>39,79</td>
</tr>
<tr>
<td>Pan Pek d.o.o</td>
<td>45,61</td>
<td>58,54</td>
<td>59,13</td>
</tr>
<tr>
<td>Centar Škojo</td>
<td>22,43</td>
<td>27,60</td>
<td>27,13</td>
</tr>
<tr>
<td>PK d.d. Rijeka</td>
<td>60,11</td>
<td>63,14</td>
<td>62,53</td>
</tr>
<tr>
<td>Pekara Dubravica</td>
<td>30,10</td>
<td>25,67</td>
<td>44,85</td>
</tr>
<tr>
<td>Babič Pekara</td>
<td>-5,43</td>
<td>6,17</td>
<td>13,97</td>
</tr>
<tr>
<td>Koestlin</td>
<td>47,87</td>
<td>52,82</td>
<td>56,72</td>
</tr>
<tr>
<td>Karolina</td>
<td>50,44</td>
<td>49,95</td>
<td>54,12</td>
</tr>
<tr>
<td>Tvmorica šećera</td>
<td>45,66</td>
<td>49,67</td>
<td>43,18</td>
</tr>
<tr>
<td>Sladorana d.o.o.</td>
<td>43,27</td>
<td>40,76</td>
<td>29,59</td>
</tr>
<tr>
<td>Kraš d.d.</td>
<td>54,15</td>
<td>55,41</td>
<td>54,08</td>
</tr>
<tr>
<td>Kandit d.o.o.</td>
<td>49,22</td>
<td>27,7</td>
<td>19,6</td>
</tr>
<tr>
<td>Zvečev d.d.</td>
<td>17,63</td>
<td>18,34</td>
<td>25,04</td>
</tr>
<tr>
<td>Frank d.d.</td>
<td>57,99</td>
<td>58,34</td>
<td>59,00</td>
</tr>
<tr>
<td>Cedevita d.o.o.*</td>
<td>52,41</td>
<td>63,82</td>
<td>*</td>
</tr>
</tbody>
</table>

Source: Calculation done by the author according to data (rgfi-javna objava 08.03.2016.)
Improving Organization and Skills of Planning in Higher Education Using New Informational-Communicative Technology

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Abstract
Change and knowledge management have in the conditions of rapid changes and severe demands imposed on modern organizations become high priority of social strategies. Readiness for change, flexible use of knowledge, creativity, permanent improvement of planning skills and knowledge are undoubtedly most important competencies of employees in modern organizations. The aim of the paper is to research possibilities to improve organizational and strategic skills in higher education using new informational-communicative technologies, according to undertaken need analysis. Results of the need analysis (sample N=33) conducted in November 2015 in the Preschool Teacher Training College in Vršac (RS) showed that 48% of teaching staff and 62.5% of non-teaching staff evaluate their strategic skills, on a scale from 1 to 5, below 4 and 5. The results also showed that 72% of teaching and non-teaching staff had never attended a training aimed at improving organizational and strategic skills; 52% of teach-
ing staff and 12.5% of non-teaching staff use a computer to plan and organize work, excluding new programming tools. The obtained results imply that there is a need to initiate organization improvement through upgrading of organizational and strategic skills of employees. As a consequence, possibilities are considered in the paper of using new IC technologies for more successful planning and organization in settings similar to Preschool Teacher Training College, requiring high level of interconnectedness and team work in everyday activities.

**Keywords:** organization, organizational skills, strategic skills, ICT, higher education.

**JEL Classification:** D8, I2

### 1. INTRODUCTION

Globalization, fast and intensive changes in the needs and demands of market, turbulences in internal and external environment, expansion of IC technologies – are only some of the processes influencing markedly dynamic and continuous changes of organizational setting. Organization functioning in such a complex and constantly changing context demands readiness for change and flexible use of people's knowledge in organizations Drucker; 1995, Koter; 1997, Nelson & Quick; 2003, Robbins; 2004, as cited by Đurišić Bojanović; 2007, 212).

Long-term and systematic planning of human resources and creation of functional strategies for their improvement and development, as a cornerstone of organizational development, is a basis of strategic management, taking place within the process of creation of organizational strategies (Bejatović et al.; 2010, 36). Such approaches have announced and marked a new approach to the role of human resources, pointing to great importance attributed to people in an organization, in order to reach strategic aims and improve success of an organization.

Radical novelties in the functioning of contemporary organizations, and thus organizations within higher education, are very complex and take place at the level or an organization, a group and an individual. Management of self-development of an individual is a dynamic process of change – it appears in an individual itself, enabling him/her a contact with the outer world, bringing him/her back to personality, changing both the person and the environment. Individuals who are successful in management of their own development are characterised by the following features: they have positive self-assessment, they evaluate themselves in a
more realistic and accurate way than others, they express higher levels of readiness for accepting themselves and others as they really are; they are ready to identify themselves with others to a greater extent, i.e. they have highly developed empathy; they perceive reality in more objective manner; they own more expressed independence and autonomy; they have more meaningful interpersonal relations of high quality, establishing higher levels of interconnectedness and closeness; they have democratically structured character and readiness to cooperate with others and they have a good sense of humour (Nedimović et al.; 2015, 123).

From psychological point of view, improvement of organizational skills and skills of planning at the level of an individual/organization is to a great extent conditioned by numerous factors undisputedly involving those of working motivation of the employed. Modern motivation theories (e.g. McClelland’s three factor theory of needs) have emphasized the role and the importance of the need for achievement (aspiration towards success, striving for high achievements as compared to established standards), need for power (the need to make others behave in a way they would not normally behave) and need for connection (desire for friendly and close relations with other people). All three needs are of great importance for interpersonal interaction. They should be born in mind when motivating the employed to improve their own competencies, including organizational skills and skills of planning.

There are three typical general demands each organization (including higher education organizations) requires from its potentially employed staff: (1) becoming a part of an organization and staying in it, (2) carrying out appropriate organizational roles in anticipated way (routine work) and (3) additional, spontaneous and creative behaviour aiming at fulfilling functions and aims of the organization (Katz & Kahn; 1966, as cited by Vujić; 1995, 340). Motivation and readiness to improve organizational skills and skills of planning is in the domain of the third group demands.

Planning is defined as “man’s cognitive activity oriented to anticipation, i.e. previous consideration of the objects, subjects, means, time, place and results of a future real activity in order to consciously regulate and rationalize it” (Ristić et al.; 2008, 141). Successful planning assumes respect for scientific principle, principle of complexity, reality, continuity, flexibility, simultaneity, productivity, sustainability, as well as profitability, and it undergoes various phases: ranging from analysis of the work done in the previous period, establishment of intrin-
sic and extrinsic factors, definition of aims, creation of a plan with tasks for each potential participant, to conceiving measures for reaching aims and fulfilling tasks. Product of planning is a multidimensional plan, followed by organization (i.e. “agreement on who does what”) of plan realization.

When higher education institutions are in question, we find ourselves in the domain of learning organizations (Garvin; 1993). According to Senge “learning organizations are those organizations in which the employed are constantly broadening and empowering their capacities for creating results they truly want to achieve […] where people are learning how to learn together” (Senge; 2003, 135), i.e. those organizations in which employees do their jobs in such a way to develop their potentials, sharing the vision of mutual aim with their colleagues. There is certain organizational climate (individual perception of organizational characteristics of the institution) and culture (assumptions, value system, narrations, beliefs) in learning organizations (Nikčević; 2014, 69).

A good plan and successful organization lead, among other things, to savings of time – the only resource which is constantly and irretrievably spent. A sound plan, successful organization and well chosen tools for realization of plan and organization of work save time to even greater extent. In higher education institutions there are numerous time stealers and time wasters waiting in ambush: announced visits, private phone conversations, surfing on the Internet, unprepared meetings, vague aims, postponing work and – everyday correspondence exchanging various versions of materials among team members working on different tasks: ranging from accreditation documentation, materials prepared for publication to creation of documents as parts of any scientific conference, etc. Such work is not rarely followed by: fear that the wrong/old/outdated version of the material is sent, abundance of sent and received mails, dysfunctional correspondence (including, e.g. incompatible versions of computer programs), leading to unnecessary waste of time, work energy and enthusiasm of employees. The consequences of such work are felt before all by future academic citizens, i.e. students. Therefore it is a duty of each higher education institution to permanently monitor and assess success of planning and organizing at the level of both institution and each individual employee, which is in the domain of strategic management.

The application of information communication technologies in the field of higher education can be considered in two ways, as the use of ICT in the very process of learning (e.g. distance learning), but also as a means for planning, op-
erational realization and evaluation of teaching process (class schedule, exam timetable, consultations and other obligations schedule, preparation of documentations, dissemination of information through web sites, evaluation and monitoring of progress of students…) (Prtljaga; 2010, 279-290). Digitalization, unification and integration of all the sub-systems of higher education institution in a unique informational system could significantly contribute to better organization and planning (Spasić; 2007). It has turned out, however, that realization of such projects is often inefficient and long-lasting; it is therefore necessary to gain insights into the needs of an organization and to use on-line tools according to identified needs. These tools can in a simple way lead to improvement in the domain of organization and planning. All the above mentioned has served as a necessary incentive for a research whose findings are presented below.

2. METHODOLOGICAL FRAMEWORK

An exploratory research was conducted with an aim to investigate the needs and possibilities for the improvement of organizational skills and skills of planning in higher education with the use of new information communication technologies. The needs of those employed at Preschool Teacher Training College in Vrsac (Republic of Serbia) were examined in a research dealing with planning and organization of work at the level of individuals – organization members.

2.1. SAMPLE AND PROCEDURE

The research sample consisted of 33 subjects (25 members of teaching staff – professors, lecturers, assistants, teaching associates and 8 non-teaching staff members). The research was carried out in November 2015. A questionnaire designed for the purpose of the research was used as a research instrument in order to collect data. Descriptive and analytic method was used to describe and analyze the results.

2.2. INSTRUMENTS

A questionnaire was designed for the purpose of the research. A questionnaire for the assessment of needs for improvement of organizational and planning skills at the level of individuals – organization members. The questionnaire was administered anonymously and it consisted of 6 close type questions.
2.3. Hypothesis

There is no expressed need for the improvement of organizational and planning skills at the level of individuals among teaching and non-teaching staff employed at the Preschool Teacher Training College in Vrsac (RS).

3. FINDINGS AND DISCUSSION

The data were collected according to the A questionnaire for the assessment of needs for improvement of organizational and planning skills at the level of individuals – organization members and the obtained results are shown in Table 1.

Table 1 Assessment of needs for the improvement of organizational and planning skills at the level of individuals – organization members

<table>
<thead>
<tr>
<th>Assessment of needs for the improvement of organizational and planning skills at the level of individuals – organization members</th>
<th>Teaching staff</th>
<th>Non teaching staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>No of responses</td>
<td>%</td>
<td>No of responses</td>
</tr>
<tr>
<td>1. Do you manage to finish your work on time?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Yes, always.</td>
<td>10</td>
<td>40%</td>
</tr>
<tr>
<td>b) In most cases.</td>
<td>15</td>
<td>60%</td>
</tr>
<tr>
<td>c) No, I am always behind my schedule.</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>2. What do you do when you are under pressure of deadlines?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) I am never under such pressure.</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>b) Nothing, I do what I can.</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>c) I prioritize.</td>
<td>16</td>
<td>64%</td>
</tr>
<tr>
<td>d) I share work with others.</td>
<td>4</td>
<td>16%</td>
</tr>
<tr>
<td>e) I arrange a postponed deadline if possible.</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>f) Nothing of the above.</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>3. What helps you in planning and organization of work:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) pencil and paper,</td>
<td>11</td>
<td>44%</td>
</tr>
<tr>
<td>b) computer,</td>
<td>13</td>
<td>52%</td>
</tr>
<tr>
<td>c) a friend, an acquaintance, a colleague…</td>
<td>5</td>
<td>20%</td>
</tr>
<tr>
<td>d) nothing of the above.</td>
<td>2</td>
<td>8%</td>
</tr>
<tr>
<td>If your choice is a computer, please state which software, tools, etc. you use for planning and organization of your work:</td>
<td>MS OFFICE, SPSS, INTERNET, E-BOOKS</td>
<td></td>
</tr>
</tbody>
</table>
4. Assess your own planning skills at work:

<table>
<thead>
<tr>
<th>Option</th>
<th>Count</th>
<th>Percentage</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) dissatisfactory</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>b) satisfactory</td>
<td>12</td>
<td>48%</td>
<td>5</td>
<td>62,5%</td>
</tr>
<tr>
<td>c) very good</td>
<td>9</td>
<td>36%</td>
<td>2</td>
<td>25,0%</td>
</tr>
<tr>
<td>d) excellent (I am an expert)</td>
<td>1</td>
<td>4%</td>
<td>1</td>
<td>12,5%</td>
</tr>
<tr>
<td>e) I haven’t thought about this</td>
<td>3</td>
<td>12%</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

5. Other people say you are:

<table>
<thead>
<tr>
<th>Option</th>
<th>Count</th>
<th>Percentage</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) great organizer</td>
<td>3</td>
<td>12%</td>
<td>1</td>
<td>12,5%</td>
</tr>
<tr>
<td>b) well organized</td>
<td>11</td>
<td>44%</td>
<td>2</td>
<td>25,0%</td>
</tr>
<tr>
<td>c) disorganized</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>d) I don’t know</td>
<td>10</td>
<td>40%</td>
<td>5</td>
<td>62,5%</td>
</tr>
<tr>
<td>NO RESPONSE:</td>
<td>1</td>
<td>4%</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>

6. Have you ever attended a training for improvement of organizational and planning skills?

<table>
<thead>
<tr>
<th>Option</th>
<th>Count</th>
<th>Percentage</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Yes</td>
<td>7</td>
<td>28%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>b) No</td>
<td>18</td>
<td>72%</td>
<td>7</td>
<td>87,5%</td>
</tr>
<tr>
<td>NO RESPONSE:</td>
<td>0</td>
<td>0%</td>
<td>1</td>
<td>12,5%</td>
</tr>
</tbody>
</table>

Authors’ processing

In regard to planning and organization at individual level (self-assessment) of those employed at the screened higher education institution, the research results showed, among other things, the following:

1. 60% of the teaching staff members manage to fulfill their obligations on time, while even 40% of them cannot do it; 12,5% of the subjects from the group of non-teaching staff is constantly behind schedule.

2. When “under pressure of deadlines” 64% of teaching staff at the College chooses priorities, i.e. prioritize, while only 16% of them share work with others; in the same situation, 87,5% of non-teaching staff chooses priorities, while 12,5% of them arrange a new deadline, if possible.

3. In regard to what helps them in planning and organization of work, teaching staff stated that it is in the first place computer (52%), followed by pencil and paper (44%). When non-teaching staff members are in question, what helps them most in their work organization and planning are their friends, acquaintances, colleagues, etc. (50%), paper and pencil (25%), computer (12,5%) or something else (12,5%). The subjects were also asked to state which software, tools, etc. are most helpful to them in planning and organization of work. These were their responses: MS OFFICE, SPSS, INTERNET, E-BOOKS. (The find-
ing that SPSS and/or e-books help them in their more successful organization and planning seems rather surprising to the authors of the present paper).

5. When teaching staff is in question, only 4% of subjects consider that their planning skills are excellent, 48% of them think that they are satisfactory, while 12% of them have not thought about this aspect of their working lives. Only 12.5% of non-teaching staff consider that they are experts in work organization and planning and 62.5% responded that their planning skills are satisfactory.

6. 44% of teachers claim that others assess them as well organized and 40% of teacher staff do not know how other people see them in this respect. In the case of non-teaching staff even 62.5% responded that they do not know how other people assess them as organizers.

7. Only 28% of teaching staff members employed at the College have attended a training for improvement of organizational and planning skills and 72% of teachers have never participated in such a training. None of the employed as non-teaching staff (0%), i.e. in the workplaces dealing with financial, management, and legal issues, has attended a training for the improvement of organizational and planning skills.

According to the gained insights and findings, the established hypotheses according to which there is no *expressed* need for the improvement of organizational and planning skills at the level of individuals among teaching and non-teaching staff employed at the Preschool Teacher Training College in Vrsac (RS) has been rejected. Needs assessment has shown that certain actions should be taken in order to improve (modernize) organization in this higher education institution through improvement of organizational and planning skills of the employees, which is in the domain of strategic management. In what follows in the paper is a model for more successful planning and organization of work in higher education through empowerment of planning and organization of those employed in higher education institutions according to possibilities and offers at our disposal in the age we live in. Possibilities are considered to use new ICT for more successful planning and organization in higher education institutions, characterized by high level of interconnectedness of employees in work and expressed need for team work.

In accordance with the demands of the Bologna declaration in regard to accreditation, standardization and evaluation of education processes, there is ever-increasing need in higher education institutions for creation, organization,
filing and storing of adequate documentation. In order to fulfil its obligations and realize these tasks higher education institutions management forms smaller teams capable to meet the imposed needs. Seen as project tasks, they require calendars with planners and lists of responsibilities, cooperation pages, forums for exchange of documents and discussions, filing of project documentation, etc. It is possible to find plenty of more or less complex tools for this purpose on the Internet. Glasscubes, Trello, Github, ThinkBinder, Onlyoffice, Vkolab, Voo2do, Notestar are only some of the most popular tools, which are often, apart from project management, used in the field of project teaching.

Founded on the principles of Kanban – agile techniques/methods leading to successful project implementation, the online tool Trello, characterized by simplicity, clarity, neatness and the fact that it is free or charge, is one of the recommended choices when education is in question. It is based on three assumed columns (“planned”, “in progress”, “done”) which can be changed or supplemented by new ones when and if needed. Each column allows creation of cards containing a whole range of possibilities necessary for project implementation, comments, check-lists, calendar information, attachments in the form of text, picture, etc. Manipulation of columns and cards is very simple and opens up possibilities for successful monitoring of progress of project implementation, as an insight into the activity of each team member, i.e. co-workers individually. Progress made within the team is possible to follow through activation of notification via e-mail or on the smart phone. Training for using Trello is possible to organized by a more experienced team member, and it is also possible to be self-trained for using the proposed tool, with the help of a large number of free written instructions or video materials, the so called Webinars.

4. CONCLUDING REMARKS

Self-evaluation of organizational and planning skills of teaching and non-teaching staff employed at the Preschool Teacher Training College in Vrsac showed that more of the half of the subjects assess their own planning skills as far below good or excellent and that majority (more than 75%) has never attended a training in the field of improvement of organizational and planning skills. At the same time, more that half of teaching staff uses a computer for planning and organization of work, but not the new available tools appropriate for these purposes. The research findings point out that certain actions should
be taken in order to modernize the organization in the examined higher education institution through improvement of skills of organization and planning. Therefore a possibility is considered in the paper to use ICT (Trello tool) for planning and organization of work in higher education institutions. It is suggested that the offered model is applicable in all institutions of similar type. Use of free online tool Trello enables improvement of knowledge of employees on the role and importance of ICT in regard to organization and planning of work (primarily team work involving co-workers engaged in project type tasks) and encourages adaptable attitudes of those working in higher education towards new methods and techniques of organization and planning. In a word, it contributes to more successful planning and organization of work in higher education institutions.

References:
TOLERANCE FOR CHANGE AMONG STUDENTS

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Abstract
People with high tolerance of ambiguity are comfortable with uncertainty, sudden change, and new situations. These are the characteristics of hyper-fast changes occurring in many organizations of today. The basic objective of this study is to investigate students’ tolerance of change. Empirical research was conducted through survey at the Polytechnic of Rijeka in academic years 2013/2014 and 2014/2015. The survey included 76 students of specialist graduate studies of Entrepreneurship. Among them, 18 (23.68%) were male and 58 (76.32%) were female, while the age range was between 21 and 50. To prove the given hypothesis that students have a high tolerance of change, numerous scientific methods were applied, the method of descriptive statistics in particular. The research results are based on data collected by the questionnaire consisting of 16 questions. This instrument of measure is formally known as the tolerance of ambiguity scale. The results thus obtained indicate a low tolerance of change among students, which refutes the given hypothesis. Students’ resistance to change should be viewed as a resource rather than a problem. Even when people do support change, they typically assume that it is others – not themselves – who need to change.

Keywords: change, tolerance, students, resistance

JEL Classification: A2, A29

1. INTRODUCTION
Today more and more organizations are faced with dynamic and mutable environment, one which requires quick adjustment. The motto ‘change or die’ has become a battle cry for managers all over the world. In spite of that, numerous studies [2] have found that 9 out of 10 people don’t change their lifestyles
and behaviours...even when their lives depend upon it. The trouble is that even in real “change or die” situations, people don’t change. Real change requires a much more subtle, relationship-driven approach. Attitude towards change is of particular interest among the students of entrepreneurship, because everyone able to replace the traditional way of using resources with new combinations is an entrepreneur according to Schumpeter’s definition. George Bernard Shaw wrote, “The reasonable man adapts himself to the world: the unreasonable one persists in trying to adapt the world to himself. Therefore all progress depends on the unreasonable man.” These words are the perfect description of an entrepreneur, who is motivated by impossible, improbable and completely novel solutions.

Initiative and mentality of an entrepreneur can change the world. Accordingly, the basic objective of this study is to show that students of entrepreneurship show high tolerance of change. To prove or refute the given hypothesis, numerous scientific methods were used, the survey and descriptive statistics in particular.

2. RESEARCH PROBLEM AND METHODOLOGY

Turbulence of the modern environment requires a concrete and quick adjustment. To adjust, individuals must change first, and then the organization itself. Managers are often the biggest obstruction towards change, being too arrogant and stubborn to accept it. Organizational changes could be defined as the process of change, or modification of an organization. Depending on the complexity and the type of change, the process of changing could last a short while or take quite a long time. Therefore, there are two stages of organization, the current, which shows the functioning before the change, and the future or the desired stage, which describes the functioning after the change. Also, there is the transitional stage, between the forementioned two (cf. Exhibit 1).
Exhibit 1. Lewin’s Force Field Analysis Model


Lewin’s force field model [5] emphasizes that effective change occurs by unfreezing the current situation, moving to a desired condition, and then refreezing the system so that it remains in the desired state. Unfreezing involves producing imbalance between driving and restraining forces. This may occur by increasing the driving forces, reducing the restraining forces, or having a combination of both. Refreezing occurs when the organization’s systems and structures are aligned with desired behaviours. They must support and reinforce new role patterns and prevent the organization from slipping back into the old way of doing things.

Change management experts have developed a long list of reasons why people do not embrace change. Six of the most commonly cited reasons why people resist change are [7]: 1) direct costs - people tend to bloc actions that results in higher direct costs or lower benefits than those in the existing situation; 2) saving face – some people resist change as a political strategy to „prove“ that the decision is wrong or that the person encouraging change is incompetent; 3) fear of the unknown – worry that they cannot adjust to the new work requirements; 4) breaking routines – people resist initiatives that force them out of their comfort zones and require them to invest time and energy in learning new role patterns; 5) incongruent team dynamics – teams develop and enforce conformity to a set of norms that guide behaviour; 6) incongruent organizational systems – rewards, information systems, career paths, and other systems and structures are both friends and foes of organizational change.
Accordingly, this study will try to highlight the importance of high tolerance of change among students of entrepreneurship as an important indicator of future initiators of change in business organizations. The purpose of the study is to gain insights about students’ tolerance of change. Therefore, the basic assumption is: students of entrepreneurship are highly tolerant towards change.

Research on tolerance of change among students at the Polytechnic of Rijeka has been conducted by poll. The questionnaire was anonymous and consisted of 16 assertions. The students were asked to express the level of their (dis)agreement with the said assertions using marks from 1 to 7, according to Likert’s scale. Instructions were given according to Budner, S. (1962). Interpretation and analysis were conducted using McShane and Von Glinov (2010).

The research included first year regular and associate students of specialized graduate studies of entrepreneurship in Rijeka (N=76) during academic years 2013/2014 and 2014/2015. Among them, 18 (23.68%) were male and 58 (76.32%) were female, while the age range was between 21 and 50. Thus a database was created to be further processed and analyzed using appropriate statistic methods.

3. RESEARCH RESULTS AND DISCUSSION

Table 1 shows the level of students’ agreement with the assertions given in the questionnaire.

### Table 1. Distribution level of students’ agreement with given assertions, which show their tolerance of change (N=76)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Moderately agree</th>
<th>Slightly agree</th>
<th>Neutral</th>
<th>Slightly disagree</th>
<th>Moderately disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>An expert who doesn’t come up with a definite answer probably doesn’t know too much</td>
<td>13</td>
<td>24</td>
<td>18</td>
<td>4</td>
<td>10</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>I would like to live in a foreign country for a while</td>
<td>23</td>
<td>7</td>
<td>14</td>
<td>11</td>
<td>8</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>There is really no such thing as a problem that can’t be solved</td>
<td>21</td>
<td>17</td>
<td>12</td>
<td>16</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>People who fit their lives into a schedule probably miss most of the joy of living</td>
<td>15</td>
<td>10</td>
<td>16</td>
<td>14</td>
<td>14</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Statement</td>
<td>Counts</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A good job is one where it is always clear what is to be done</td>
<td>18 18 14 10 12 2 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and how it is to be done</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is more fun to tackle a complicated problem than to solve a simple one</td>
<td>13 14 16 9 15 7 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the long run, it is possible to get more done by tackling small,</td>
<td>12 25 11 14 7 6 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>simple problems rather than large, complicated ones</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Often the most interesting and stimulating people are those who don't</td>
<td>19 16 14 13 11 1 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mind being different and original</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What we are used to is always preferable to what is unfamiliar</td>
<td>4 14 18 15 16 7 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People who insist on a yes or no answer just don't know how complicated things really are.</td>
<td>10 17 20 9 10 7 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A person who leads an even, regular life in which few surprises or</td>
<td>9 15 16 17 8 6 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>unexpected happenings arise really has a lot to be grateful for.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Many of our most important decisions are based on insufficient</td>
<td>12 15 20 18 7 3 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>information.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>I like parties where I know most of the people more than ones where</td>
<td>10 17 23 13 7 3 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>all or most of the people are complete strangers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers or supervisors who hand out vague assignments give people a</td>
<td>4 16 26 9 14 2 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>chance to show initiative and originality.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The sooner everyone acquires similar values and ideals, the better.</td>
<td>6 15 20 14 13 3 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A good teacher is one who makes you wonder about your way of looking</td>
<td>27 11 16 13 6 2 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at things.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The questionnaire consisted of 16 assertions. After the respondents expressed their level of agreement with them according to Likert’s scale (Strongly agree ..., Strongly disagree), each assertion was associated with the appropriate number of points (from 1 to 7) based on instructions from Table 2.
Table 2. Scoring instructions

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Moderately agree</th>
<th>Slightly agree</th>
<th>Neutral</th>
<th>Slightly disagree</th>
<th>Moderately disagree</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>


Individual answers were processed to get data on the individual level of tolerance of change. Total (average) tolerance of change is shown in Table 3, with average score on every assertion.

Table 3. Level of tolerance of change

<table>
<thead>
<tr>
<th>Statement</th>
<th>2013/2014</th>
<th>2014/2015</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>An expert who doesn’t come up with a definite answer probably doesn’t know too much</td>
<td>2.65</td>
<td>3.43</td>
<td>2.96</td>
</tr>
<tr>
<td>I would like to live in a foreign country for a while</td>
<td>5.72</td>
<td>3.20</td>
<td>4.72</td>
</tr>
<tr>
<td>There is really no such thing as a problem that can’t be solved</td>
<td>2.39</td>
<td>3.37</td>
<td>2.78</td>
</tr>
<tr>
<td>People who fit their lives into a schedule probably miss most of the joy of living</td>
<td>4.80</td>
<td>4.40</td>
<td>4.64</td>
</tr>
<tr>
<td>A good job is one where it is always clear what is to be done and how it is to be done</td>
<td>2.67</td>
<td>3.30</td>
<td>2.92</td>
</tr>
<tr>
<td>It is more fun to tackle a complicated problem than to solve a simple one</td>
<td>5.04</td>
<td>4.00</td>
<td>4.63</td>
</tr>
<tr>
<td>In the long run, it is possible to get more done by tackling small, simple problems rather than large, complicated ones</td>
<td>2.70</td>
<td>3.50</td>
<td>3.01</td>
</tr>
<tr>
<td>Often the most interesting and stimulating people are those who don’t mind being different and original</td>
<td>5.46</td>
<td>4.57</td>
<td>5.11</td>
</tr>
<tr>
<td>What we are used to is always preferable to what is unfamiliar</td>
<td>3.85</td>
<td>3.50</td>
<td>3.71</td>
</tr>
<tr>
<td>People who insist on a yes or no answer just don’t know how complicated things really are.</td>
<td>4.85</td>
<td>4.40</td>
<td>4.67</td>
</tr>
<tr>
<td>A person who leads an even, regular life in which few surprises or unexpected happenings arise really has a lot to be grateful for.</td>
<td>3.48</td>
<td>3.53</td>
<td>3.50</td>
</tr>
<tr>
<td>Many of our most important decisions are based on insufficient information.</td>
<td>5.22</td>
<td>4.47</td>
<td>4.92</td>
</tr>
<tr>
<td>I like parties where I know most of the people more than ones where all or most of the people are complete strangers.</td>
<td>3.07</td>
<td>3.27</td>
<td>3.14</td>
</tr>
<tr>
<td>Teachers or supervisors who hand out vague assignments give people a chance to show initiative and originality.</td>
<td>4.70</td>
<td>4.17</td>
<td>4.49</td>
</tr>
<tr>
<td>The sooner everyone acquires similar values and ideals, the better.</td>
<td>3.74</td>
<td>3.27</td>
<td>3.55</td>
</tr>
<tr>
<td>A good teacher is one who makes you wonder about your way of looking at things.</td>
<td>5.76</td>
<td>4.83</td>
<td>5.39</td>
</tr>
<tr>
<td>Total</td>
<td>66.08</td>
<td>61.2</td>
<td>64.16</td>
</tr>
</tbody>
</table>
This instrument of measure is formally known as the tolerance of ambiguity scale [1]. Although it was developed 50 years ago, it is still used in research. People with high tolerance of ambiguity are comfortable with uncertainty, sudden change, and new situations. These are the characteristics of hyperfast changes occurring in many organizations today.

The table 4 shows the range of scores for high, medium, and low tolerance of change. These norms are based on results for MBA students.

**Table 4. Interpreting score**

<table>
<thead>
<tr>
<th>Tolerance of change score</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>81 – 112</td>
<td>You seem to have a high tolerance of change</td>
</tr>
<tr>
<td>63 to 80</td>
<td>You seem to have a moderate level of tolerance of change</td>
</tr>
<tr>
<td>Below 63</td>
<td>You seem to have a low degree of tolerance of change. Instead, you prefer stable work environments.</td>
</tr>
</tbody>
</table>


The acquired results (average score of 64,16) indicate that students of entrepreneurship are moderately tolerant towards change. Students of specialist studies of entrepreneurship in the academic year 2014/2015 have a worryingly low score of only 61,2 points.

The lowest average score was obtained in the following assertions, which were used to evaluate the tolerance of change (cf. Figure 1).

**Figure 1. Assertions for evaluating tolerance of change with the lowest score**

![Bar chart showing assertions for evaluating tolerance of change with the lowest score](image)
The highest average score was obtained from the following assertions.

**Figure 2.** Assertions for evaluating tolerance of change with the highest score

![Graph showing assertions](image)

The results showing a low tolerance of change among the students included in the survey point to an apparently necessary education on changing. The level of tolerance is not fixed. It can be improved by learning. As economist John Kenneth Galbraith once quipped, „In the choice between changing one’s mind and proving there’s need to do so, most people get busy on the proof!“[4]. Even when the people do support change, they typically assume that it is others - not themselves – who need to change. The problem, however, isn’t so much that resistance to change exists. The main problem is that change agents typically view resistance as an unreasonable, dysfunctional, and irrational response to a desirable initiative. They often form an „us versus them“ perspective without considering that the causes of resistance may, in fact, be traces back to their own actions or inaction [4].

**CONCLUSION**

The basic hypothesis of this study, ie a high level of tolerance of change among the students of entrepreneurship has not been proven. Main reasons of
resisting changes are direct costs, saving face, fear of unknown, breaking routines, incongruent team dynamics and incongruent organizational systems. The obtained results imply a twofold conclusion: 1) low tolerance of change should be approached as a resource, not an inherent obstacle to change; 2) teaching should focus on strategies for minimizing resistance to change – communication, learning, employee involvement, stress management, negotiation and coercion.

References

THE IMPORTANCE OF MONITORING TRENDS AND CHARACTERISTICS OF DEMAND IN BUSINESS TOURISM SEGMENT: EMPIRICAL EVIDENCE FROM OPATIJA, CROATIA

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Abstract

Business travel, an element of business tourism, is one of the fastest growing segments of the global tourist market that has a special status both in scientific research and in business practice, because of the economic and social benefits it brings to the community. Due to its significant economic effects, it should be pointed out that the level and structure of consumption achieved by participants and organisers of business meetings is more desirable for stakeholders in the destination than consumption of leisure tourists. The main purpose of this paper is to carry out an empirical research of demand-side factors that shape business tourism supply system within a destination and to determine the key characteristics of participants in business meetings. The town of Opatija is par-
particularly appropriate for a case study because of its tourism tradition of many centuries, but also its recognisability as a destination for business meetings and other events. The synthesis of results, findings and conclusions of this research will be used to form specific critical recommendations and valuable guidelines for the improvement of the destination's tourist supply

**Keywords:** business tourism, demand characteristics and trends, destination management, service quality, Opatija

JEL Classification: Z3, Z32

1. **INTRODUCTION**

The tourism trend develops a number of tourism forms. Singling out tourism forms with specific cause-effect characteristics is a stage in the legal process of development of social phenomena. According to Geić, (2007, 174), preconditions for development of specific forms of tourism are reflected through: evolution of the tourist market (increase in the purchasing power of the population, mass demand and intensification of development of specialised tourist offers, low average daily tourist consumption in mass tourism, transport infrastructure development and increase in demand mobility, application of new technologies in the distribution of services, availability of information and development of mass media – especially the Internet, controlled privatisation of natural, cultural and other resources, liberalisation of the movement of people and capital in the EU, etc.), socio-demographic changes of the population (growth of the world population, increased share of urban population – urbanisation, more leisure time, increase in the general education level, growing inclination to tourist travels, increase in the elderly population, getting married at a later age, families with two incomes, couples without children, increasing number of adult singles, global migrations of the population and multiculturality, etc.).

Specific and leisure tourism are, in fact, two completely opposite tourism development concepts. Leisure tourism is defined as tourism with a large number of tourists who travel in an organised manner, in the so-called package tours, i.e. it represents a concept of tourism development in which tourist as an individual is not recognised. In contrast, there are specific forms of tourism where the individual’s role is crucial and refers to the development of those segments of destination potential which can be personalised to meet the individual needs
of every tourist, while at the same time, intensely highlights the role of personal preferences that must be met.

Statistical monitoring of trends in the market niche of business tourism is often based on systematic monitoring of several key indicators related to meetings. The results obtained by a survey on business travellers will identify key areas for improving service quality and determine to what extent can development of business tourism improve the image of the destination and its market competitiveness.

2. AFFIRMATION OF BUSINESS TOURISM AS A SPECIFIC FORM OF TOURISM

As a specific form of tourism, business tourism is a relatively new model for the promotion of sustainable and highly profitable tourism in destinations with an offer tailored to the needs of participants in business meetings and other events, which usually consists of official and unofficial (tourist) components, in which economic effects are generated differently. Various terms are used in practice, and they cover a wide range of business events.

Based on the origin of the term „business tourism“ in European literature, eminent scientists use an acronym - MICE (meetings, incentives, conventions, events), while the acronym MEEC (meetings, expositions, events, conventions) is used in North America. The World Tourism Organization (WTO, 2007) points out that business meetings, incentives, conventions and trade fairs are key components of business tourism. The fact that the WTO in its official definition of tourism suggests that people who travel for business and professional reasons are also considered tourists (WTO, 1993) confirms the fact that the importance of business travel has been recognised a long time ago. References from scientific literature cover the definition of congress tourism¹ that suggests that it is a set of occurrences and relationships that arise from travel and stay of people attending the meetings in order to exchange predominantly scientific and professional information, to whom the meeting place is not the place of permanent residence or work (Lucanović, 1980:11). Congress tourism is included

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¹ Congress tourism is a part of business tourism, because business tourism in its main forms also includes business travel and business conferences which include corporate meetings, incentives, meetings, conferences, conventions, exhibitions.
in the main domain of business tourism terminology in the Republic of Croatia, because the majority of national demand for business tourism is mainly based on organising and holding conferences. Due to its important characteristics, it is also important to mention this form of the definition, which states that congress tourism is based on meetings which have their working part and tourist part.\(^2\)

**Chart 1. Intertwining of Tourism Supply Through Leisure and Business Tourism**

<table>
<thead>
<tr>
<th>Business tourism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leisure tourism:</td>
</tr>
<tr>
<td>• Accommodation</td>
</tr>
<tr>
<td>• Catering establishments</td>
</tr>
<tr>
<td>• Transport</td>
</tr>
<tr>
<td>• Outlet shops</td>
</tr>
<tr>
<td>• Attractions for visitors</td>
</tr>
<tr>
<td>• Tourist office</td>
</tr>
<tr>
<td>• Exchange offices</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leisure tourism +</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Facilities for exhibitions and conventions</td>
</tr>
<tr>
<td>• Audio-visual specialists and IT facilities</td>
</tr>
<tr>
<td>• Administrative services</td>
</tr>
</tbody>
</table>


Participants in business tourism often pay extra for using hotels of higher class and various available means of transport, unlike the participants in leisure tourism who do not require special treatment and services of higher quality. However, in terms of their requirements, there are four segments in which these two types of tourism are the same:

- When the working part of the day ends, business tourism participants become leisure tourism participants,
- Conferences often include programmes similar or identical to those in leisure tourism,
- Business travelling also includes travel as a reward for successful business performance (incentive product of business tourism),

\(^2\) Although participants in the meeting do not want to be called tourists, to avoid questioning the seriousness of the entire meeting, they are still leisure tourism tourists, because this is how they spend most of their free time.
Many business tourists are accompanied by close family members on their travels, and they are grouped among recreational tourists during the entire trip.

Special characteristics of business tourism are evident in the following (Gračan & Rudančić-Lugarić, 2011, 583): off-season character, higher consumption of the participants in the meeting, communication and educational characteristics of business meetings, interaction with other economic activities, all of which creates the image of a congress tourism destination. Due to its particularity in relation to general or leisure tourism, business tourism requires specific structural elements presented in Chart 2. This chart shows the classification of structural elements of business tourism, but the chart is not final and can be modified and expanded. Structural elements of business tourism are divided into individual segments such as factors, resources, infrastructure, and operators of business tourism. Each of the individual segments will be explained separately below.

Chart 2. Structural Elements of Business Tourism


It is a general opinion that participants in business meetings have greater purchasing power, i.e. a higher personal standard in comparison with the users of the basic form of tourism. It is indisputable that objective factors form business tourism demand. Subjective factors of business tourism are, of course, subjective behaviour of individuals, on the basis of which the effects of subjective
factors are intensified. This group of factors especially emphasises faddishness, imitation, and prestige. These factors also have certain significance, because they are one of the driving factors in business tourism. It is prestigious to be a participant in one or more important meetings, because it gains social reputation, for example, in scientific circles.

Business tourism surely has many elements in common with the basic form of tourism in general. However, in view of its specific character, a distinction should be made between the two conditions in the segment of resources and infrastructure; material and non-material conditions of business tourism. Material conditions of business tourism imply working, accommodation, transport and motivational conditions. Various convention centres and conference halls for the organisation of meetings, projectors and projection screens, computers, multimedia equipment, sound system, and other presentation equipment are basic working conditions for the participants in the meeting. Conferences that last longer than one day require special accommodation conditions in terms of provision of accommodation, food and beverages. Transport conditions in the business tourism relate to the transport of participants and their escorts, goods, such as various materials needed for the organisation of the meeting, and transmission of information. One of the most important factors in transport elements of business tourism is surely transport accessibility of the destination. It is very important to all participants that the business meeting is held in a place near the intersection and transport routes and airports. The venue of the meeting and accommodation facilities for participants in destinations in which business meeting is to be held should be well-connected with the airport, bus and railway station. The importance of local traffic lines in the destination in which the meeting is held should also be noted, because local transport and connections are extremely important for successful realisation of any meeting. In addition to the aforementioned types of transport, one of the important segments within transport conditions of business tourism is information traffic, i.e. transmission of information using ICT. Rapid transmission of information uses telephone and mobile networks, fast Internet and intranet connections, wireless technology, and other applications. Along with material conditions, non-material conditions are also a component of business tourism. These conditions include motivational conditions and services and products.

Motivational conditions enrich the business tourism supply, because they contain natural and social determinants. These two factors have a different in-
fluence on the selection of the venue of the meeting. Natural determinants make a number of decisions concerning the selection of the meeting by participants because of the entertaining part of the meeting, and the opportunity to travel and get to know a new tourist destination, its natural and competitive attractions. Social determinants are also highlighted, and they express motivation and desire of participants to socialise and externally interact with other participants who share their interests. Self-actualisation, change of life routines, also have an influence on the decision to participate in a meeting. Business tourism entities are participants in business meetings who actively or passively participate in the working part of the conference as listeners, lecturers or speakers. Many participants in a meeting come with escorts. All persons who do not participate in the working part of the meeting as listeners, lecturers or speakers, and have arrived to the venue of the meeting in the company of participants or at the invitation of the organisers, are considered escorts. Escorts can be divided into the following groups (Franić; 1977, 53): support staff, family members, other people accompanying the participants. Support staff can be persons who provide technical and intellectual assistance to participants and organisers. Other persons are considered friends, acquaintances, and guests of participants. Organised parallel programmes of entertainment activities for guests of the participants in the meeting are also very important for meetings.

Organisers of the meetings are often hotel business facilities, i.e. hotels. Hotel companies as organisers provide the space in which meetings take place, offer basic hotel services (accommodation, food, and beverages). They can also organise and offer parallel programmes of activities for guests of the participants in the meeting. According to some studies, hotels present the most attractive products on the supply side in terms of organisation of special events (Davidson & Cope; 2002, 89). Along with the organisers of business meetings, there are agencies, i.e. mediators who work on organising business meetings. These agencies take on the role of the buyer on behalf of their clients (companies) for which they organise meetings. They simultaneously act as mediators, because they can help in the organisation and running of the meeting. Professional agencies that can operate in the field of national meeting industry are AMC, PCO, DMC, EMC, and the national congress office. Furthermore, low capacity utilisation, great labour turnover and low business profitability are only a few of the problems faced by the stakeholders in the economy. In this regard, off-season nature of business tourism is one of its most important characteristics. Namely, various meetings are mostly organised during the spring and autumn.
According to the report by the Statistics Report International Association Meetings Market, the highest concentration of meetings is in September. June and May follow on the list of organised international meetings.

3. CHARACTERISTICS OF BUSINESS TOURISM MARKET

The specificity of business tourism market is reflected in its concentration on pre- and post-season, which alleviates the problem of different operations of many tourist facilities; business tourism market to some extent depends on the movement of national income; however, it depends very little on the movement of wages (considering that the costs of participants are borne by those who send them to the meetings). All of these specificities of business tourism market indicate high elasticity of demand, as opposed to supply, whose elasticity is very low, especially in comparison with leisure tourism.

Elements of business tourism market, according to Lucanović (1980, 30), are: business tourism demand, business tourism supply, business tourism prices, business tourism services. The main criteria for the selection of the venue of business meetings and conferences are the following: price, location, accessibility (transport infrastructure), capacity of the conference hall or centre, the possibility of booking or occupancy rate, previous experience, quality of conference facilities, quality of accommodation, food and beverages, service quality, employees’ awareness of visitors’ needs. Characteristics of the main segments of business tourism demand can be reduced to a few of the following: size, duration, consumption, location, the process of making a purchase decision, and periodic or seasonal nature of demand for meetings and congresses (Davidson & Cope; 2003, 83). Size – the size of the meetings and the number of visitors indicate that meetings of associations and organisations attended by their members are more numerous and larger than corporate meetings and congresses; duration – in terms of duration, corporate meetings are shorter than meetings of associations and organisations; consumption – from the point of consumption, congresses and meetings of associations and organisations are more cautious, with a tendency of searching for lower prices of accommodation and participation in congresses, because members usually pay for their own expenses; location – corporate demand and meetings and congresses of the private and corporate sector tend to return to the same destination, while associations and organisations do
Corporate demand is mainly about the nature of the task; the location is selected according to market needs or company’s headquarters, while associations try to find new locations that will be interesting and cost-acceptable to members, but also provide different destinations an opportunity to participate in the organisation of the congress, and often rotate them from time to time, so that they are, after a period, held again in the same destinations. The process of making a purchase decision – with associations, it mostly depends on the initiative of a particular interest destination, member state and its members, and takes place on the basis of voluntary work of individual members. Member states mostly participate in the bidding procedure, on the basis of which they offer the organisation of congresses or events. This is not the case with corporate demand, where the decision on the choice of a destination for the congress or event is made by individuals in corporations, while in associations, decisions are made by more individuals; periodic or seasonal nature of demand for meetings and congresses – it can be concluded that the seasonal nature of demand for meetings of the corporate sector exists only because of the nature of the tasks in certain activities as well as the need to adjust the meetings and congresses to periods when capacities in destinations are available, free, and when they can meet the needs of the congress and major events. They also depend on the season in which certain business activities take place, prices of facilities in destinations, transport connections of the destination with destinations the visitors come from. The holiday season is usually avoided due to the aforementioned reasons; availability of accommodation facilities and transport. The political factor also has a role in the selection of the destination for organisation of congresses and events, because visa-issuing legislation is often not the same and simple for different nationalities. The same applies to associations and their members, and in some destinations, significant factors are climate, time zones, climate conditions, and many other factors.

4. RESEARCH RESULTS

This part of the paper presents the results of the research of characteristics of participants in business meetings as well as research of business tourism in the town of Opatija. Overall, 200 surveys were distributed to business tourism tourists, of which 115 correctly completed surveys were returned, which is a satisfactory response rate of 58%. Interpretation of the results was carried out
taking into account the order of questions posed in the survey. Socio-demographic profile of the participants in the congress is described using the following variables: gender of the participants, age, level of education, average annual income. The question about the age of the respondents resulted in the following age structure: 5% of participants in the congress were 36-45 years old, 24% of participants in the congress were 46-55 years old, and 71% of participants in the congress were 56-65 years old. The share of female participants in the congress in relation to male participants was higher by 36 percentage points, which indicates business tourism trends in the direction of socio-demographic changes in favour of female participants in the meetings.

It was evident from the obtained responses on education level that the majority of the participants in the congress have two-year college level or university education (64%). 33% of participants have a master’s degree, while the fewest participants have a doctorate (3%). These results support the hypothesis that business tourists are mostly persons of a higher education level. In order to establish the purchasing power of the observed segment, the same respondents were surveyed about the amount of their average annual income: 46% of the participants has an average annual income of €25,000-34,000, 33% of the participants has an average annual income of up to €15,000; 17% of the participants has an average annual income of €16,000-24,000; 4% of the participants has an average annual income of €35,000-44,000. The following table presents the synthesis of the socio-demographic structure of congress participants analysed in the research.

Table 1. Synthesis of the Socio-Demographic Structure of Congress Participants

<table>
<thead>
<tr>
<th>No</th>
<th>Sociodemographic structure of the surveyed congress participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Gender</td>
</tr>
<tr>
<td>2.</td>
<td>Average age</td>
</tr>
<tr>
<td>3.</td>
<td>Education</td>
</tr>
<tr>
<td>4.</td>
<td>Average annual income</td>
</tr>
</tbody>
</table>

Source: Authors’ analysis according to analysed surveys

The objective of the next group of questions in the survey was to learn the characteristics of congress participants using the following variables: the frequency and period of attending the congress, means of transport used to the congress destination, and length of stay in the congress destination. Analysis of the obtained answers to the question whether the respondents arrived to the congress as participants or escorts to participants, the following data were
obtained: the majority of the respondents (76%) stated they were participants at the congress, 15% answered they were a participant with an escort, while 11% of the respondents arrived as escorts to the participants. Another interesting information is that the share of participants’ escorts and participants with an escort make together 26% of the respondents, which is an important information for congress organisers, as well as hotel companies in which congresses take place, in the context of providing additional offers in the segment of „escort programmes“. To the question „How often do you attend congresses?“, the following answers were obtained: most congress participants (63%) participate in congresses twice a year, 19% participates three times a year, while only a small share of participants (3%) attends congresses four times a year and more. These responses highlight the importance of improving business and conference facilities as well as the tourist offer of the town of Opatija. According to the conducted survey, the following question examines periods in which congress participants prefer attending congresses.

Participants usually attend congresses that are held in the spring (53%) and autumn (47%), which confirms the hypothesis that the majority of various meetings and congresses takes place in the periods before and after the main tourist season.

To the question „Which means of transport did you use to come to the congress?“, the following answers were obtained: 88% arrived to the congress by car, while 12% arrived by bus. Additional offered answers about means of transport used, such as airplanes or trains, did not receive any feedback because the meeting was domestic. To the question how long they stayed in the destination in which the congress took place, the respondents provided the following answers: most of the congress participants stated that they stayed in the destination only during the congress (68%), which is in correlation with the prevailing motive of arrival to the town of Opatija.

It is interesting that 23% arrived to the town of Opatija before the congress started, while only 6% stayed in the destination after the congress had ended. Precisely these two groups (participants who arrive before and stay after the congress) are reasons for further development and improvement of additional tourist attractions.

The synthesis of the analysed data provides an overview of the structure of characteristics of congress participants presented in the following table:
Table 2. Synthesis of the Structure of Characteristics of Congress Participants

<table>
<thead>
<tr>
<th>No.</th>
<th>Structure of the characteristics of congress participants</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The status of congress participant</td>
<td>76%</td>
</tr>
<tr>
<td>3.</td>
<td>The share of participants with escorts and escorts to the participants</td>
<td>26%</td>
</tr>
<tr>
<td>4.</td>
<td>Participation in congresses</td>
<td>Twice a year (63%)</td>
</tr>
<tr>
<td>5.</td>
<td>In which period do the participants attend congresses</td>
<td>In spring (53%) and autumn (47%)</td>
</tr>
<tr>
<td>6.</td>
<td>Means of transport used for reaching the congress destination</td>
<td>Car (88%)</td>
</tr>
<tr>
<td>7.</td>
<td>How long do congress participants stay in the destination?</td>
<td>During the congress (68%), participants who arrived before the beginning of the congress (23%)</td>
</tr>
</tbody>
</table>

Source: Authors’ analysis according to analysed surveys

The following group of questions asked for (and received) information on preferences in the selection of congresses business tourists want to participate in, on the consumption of congress participants and their escorts, impressions, opinions, and satisfaction with some elements of the tourist offer of the town of Opatija.

Below are presented the collected responses in order to establish the motives and criteria on which depends the selection of congresses in which business tourists would participate. Likert’s 5-degree scale was used for the selection criterion, and for each selection variable, unimportant-important, the participants could choose a single answer on the 1 to 5 scale, which means: 1 – not important, 2 – unimportant, 3 – somewhat important, 4 important, 5 – very important. The following question asked the respondents to elaborate on the criteria on which depends the selection of congresses they would participate in. The structure of the responses is presented in the following table.

The table refers to the presentation of results of the analysis of the question relating to the criterion which was relevant for the respondents during the selection of this particular congress they participated in. This question examined three main variables for the selection of participation in the congress: importance of the congress, transport accessibility of the destination and destination attractiveness. In the processing of these data, marks 1 and 2 were added, since they indicate „not important“ in the offered answers, and marks 4 and 5 that indicate „important“. The following charts show the results of the examination of the criteria which the respondents consider decisive in the process of selection of congresses they want to participate in.
Regarding the above-mentioned preferences, most participants agree that importance and scientific-professional programme of the congress, congress facilities, transport accessibility to the destination, and transport accessibility within the destination are important factors in the selection of congresses they would participate in. These statements were agreed upon by over 90% of the participants. A somewhat important criterion (30%) in the selection of congresses the participants would participate in is the social programme of the congress. In general, programme for participants’ escorts is not important to a small number of participants (15%) in the process of selection of congresses they would participate in. The following chart is linked to the previous one, and was aimed at exploring how important are the elements of destination attractiveness in the process of selection of congresses the participants would participate in.
Chart 4. The structure of responses for the criterion of the selection of congresses the participants would participate in, variable: destination elements

Source: Authors’ analysis according to analysed surveys

The chart shows a high percentage (65%) of congress participants to whom the elements are important in the process of selection of congresses they would participate in: destination attractions, accommodation quality and price, destination safety, wellness and spa services, gastronomic offer, climate in the destination, and Opatija’s promenades as cultural heritage of the town of Opatija. The next question was aimed to establishing who financed the participation of participants in the congress, and it confirmed the hypothesis that registration fees, costs of transport and accommodation for congress participants (93%) were covered by their companies, which largely reflects on their increased daily consumption. Parallel to this information, there is an important research that shows the structure of participants’ spending during their participation in the congress. For this reason, one of the questions was related to the level and structure of respondents’ spending during the congress.

Individual structure of participants’ spending amounts to: catering services: the amount of €50-100 82%, €100-150 15%; wellness and spa centre services: the amount of €10-50 89%, €50-100 11%; visits to museums, galleries and the theatre: the amount of €10-50 92%, €50-100 8%.
More than 70% of congress participants stated that they spend the most on catering services, and the least on cultural events (1%). Although culture is not business tourists’ primary motive of arrival to the destination, rich cultural heritage of the town of Opatija should be promoted more in order to become one of the more important segments of the tourist offer.

Individual cost structure of escorts at the congress is the following: accommodation services: €200-300 81%, €150-200 19%; catering services: €50-100 87%, €10-50 13%; wellness and spa centre services: €10-50 86%, €50-100 14%; cultural events: €10-50 72%, €10-50 18%; shopping in the destination: €50-100 69%, €100-150 31%; sports and recreational activities: €10-50 76%, €50-100 24%; self-organised excursions: €10-50 78%, €50-100 22%.

To sum up the data, the obtained responses resulted in the structure of consumption from which it is evident that, in the cost structure of participants’ escorts, the highest costs are accommodation services (39%) and catering services (27%). In this context, also interesting are the data on shopping costs in the destination, which amount to 15%. The respondents also expressed their opinion on what should complement the tourist and business congress offer of the town of Opatija. Congress participants identified lack of entertainment and cultural offer in Opatija i.e. additional events in general as the biggest problem. They also identified a disadvantage in the business tourism supply of the town of Opatija which they would like to eliminate: outdated infrastructure in which the congresses take place. The final response in this group of questions, to which all the participants (100%) answered that they would choose the town of Opatija for their holiday destination, and that they would also recommend it to their friends and acquaintances, is the most beautiful rating of the overall quality of the tourism product of the destination – town of Opatija. The synthesis of analysed data provides an overview of the preferences of congress participants presented in the following table.
Table 3. Synthesis of Preferences of Congress Participants

<table>
<thead>
<tr>
<th>Structure of preferences of congress participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Important criterion of selection of congresses the participant would participate in</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>3. Participation in the congress is financially enabled for the participants (registration fee, accommodation and transport costs) are covered by</td>
</tr>
<tr>
<td>4. Average structure of participants’ costs during the congress</td>
</tr>
<tr>
<td>5. Average structure of costs of participants’ escorts during the congress</td>
</tr>
<tr>
<td>6. Disadvantages of tourist and business congress offer of the town of Opatija</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>7. Recommendation of Opatija as a holiday destination</td>
</tr>
</tbody>
</table>

Source: Authors’ analysis according to analysed surveys

3. CONCLUSION

Although relatively new, business tourism has established itself as a specific type of tourism that is growing rapidly and maturing globally despite various market fluctuations. Business tourism is important, because it fulfills seasonal fluctuations in pre- and post-season of a destination, thus obtaining greater productivity from tourism activities. The dynamism of this tourism sector implies constant changes with regard to the demand that is demanding and in constant development. Namely, characteristics of congress participants show that they are guests with higher purchasing power that require higher accommodation standards as well as availability of the supply because of its temporal limitation. In this regard, congress participants’ escorts should also be taken into consideration as an important consumer segment. This also refers to expansion of the offer for the participants during the meeting through a programme of activities for escorts. It should be pointed out that the town of Opatija is a recognisable congress destination, although it is mainly recognised in the domestic market. This is a developed product, and further development must include necessary product innovation (for example, construction of a destination congress centre), and penetration into new business tourism markets.
The infrastructure of business tourism supply in the town of Opatija greatly relies on hotel companies in terms of conference halls, and smaller capacities in other facilities such as business and cultural buildings. It is necessary to steadily transform the existing destination potentials into competitive advantages based on innovation and quality of the offer that will contribute to its better position on the business market. Investments in hotel facilities of specific classification would be especially significant, business hotels in particular, in which accommodation is specialised for business people. Important services that should be offered are, for example, a specific offer in guest rooms, e.g. a working desk with appropriate lighting, conference rooms, a business centre, a communication centre, the possibility of express check-out, i.e. a conference hotel specialised in holding meetings. Important services offered in a conference hotel would be at least two conference rooms, appropriate technical equipment and services, a business centre, a communication centre, catering services.

In conclusion, it should be pointed out that future development of the destination of Opatija should primarily be based on high quality and implementation of trends from the competitive markets, with a focus on authochtonous values, which can make a qualitative detachment from the existing offer, with the aim of multiplying profit.

REFERENCES:

Abstract

Trends present on international tourism market shape the style of rest and travel, diversification of activities on vacation and impose the need for research, planning, shaping and management of tourism river cruises product. In accordance with specific characteristics of river cruising it is necessary to make certain corrections to the usual marketing mix elements for their application to river cruises. Therefore, the aim of this paper is to establish characteristics of the tourism river cruise products as one of key elements of the marketing mix that all organizations involved in river cruises have to effectively manage if they want to survive on dynamic tourism market and competitive environment.

Keywords: river cruises, tourist product, marketing mix, destination port of call, destination management companies

JEL Classification: Z3, Z32

1. INTRODUCTION

Marketing concept assumes that achieving the goals of organization depends on the identification of needs and desires of target markets and delivering the desired satisfactions more effectively and efficiently than the way competition
does it (Kotler et.al.; 2010, 30). Typically, a company designs, controls and adjusts the marketing mix in order to achieve the desired response from users and realize planned business goals. The purpose will be fulfilled if the marketing mix is such a combination of elements which enables meeting the expectations, needs and desires of the selected market segment (Ozretić Došen; 2010, 99). Considering that in the last few years there is a continuous accelerated growth in demand for river cruises, a question arises: which are the characteristic elements of that product by which holders of offer river cruises have to manage.

2. THEORETICAL STARTING POINTS

The term cruise (engl. Cruising, njem. Kreuzfahrt) according to the Dictionary of Tourism means “sailing for fun, entertainment, ie. to sail from-to or from place to place, on a boat, ship or motor yacht for satisfaction, usually by sea (more often), but also on lakes and rivers (less)” (Vukonić and Čavlek; 2001, 183). Gibson (2006, 14) in his considerations points out that a cruise is a vacation that includes travel the seas, lakes or rivers. Consequently, the concept of a cruise includes sailing, which can take place on a sea or some of internal waterways (rivers, lakes) mainly for the purpose of recreation and rest, and in this context, cruising on the rivers forms part of the “cruise industry.” River cruises are similar to the sea cruises, both are based on sailing by boat on a water route, and the purpose of sailing is rest, leisure and entertainment on board a ship where passengers, among other things reside during the trip, which consists of navigation and stops in ports along the route, all of this makes all basic content of the cruise (Ban; 1998, 251). Nevertheless, river cruises have certain specifics in relation to cruising the sea arising from the characteristics of the means of transport, characteristics of transport routes, the content on board and the tour program. Ships intended for cruise on rivers are considerably smaller than ships that cruise the sea due to the limited depth of river courses, which greatly influences the offer that a ship has, or the content and other services offered to passengers on board for the purpose of rest, leisure and entertainment during their travels. Offer onboard cruise ships for rivers is generally by offer and structure poorer, and the very voyage is towards predetermined targets (ports, cities, natural attractions) (Ban; 1998, 252) and passengers on river cruises can tour attractive sites along the rivers (cities, national parks ...) from the comfort of the ship which is especially attractive to older travelers, who are the main markets for river cruises (Goeldner and Brent Ritchie; 2009, 147).
In case of river cruises sailing to certain ports / cities / destinations that are visited during the cruise is more pronounced and it can be concluded that they also, along with sailing, form part of the product and the experience of river cruises. Therefore, viewed from the river cruise companies perspective as key holders of river cruise offer, there is a need for recognition of comparative advantages of destinations that are included in cruises itinerary. From that aspect, destination ports of call and destination management companies that operate in an environment of destination ports of call are included in creation of river cruise product. Therefore, a tourism product of river cruise should be analyzed from three viewpoints:

1. from the point of river cruise companies (specialized inland river cruise companies and tour operators who play a major role on the market of river cruises)
2. from the point of destination ports of call (as they are part of the river cruising industry)
3. from the point of destination management companies (key for organization of different programs on land as part of river cruise product).

3. CONSIDERATION OF THE KEY CHARACTERISTICS OF RIVER CRUISE AS TOURISM PRODUCT

Kotler in his considerations points out that “the product is everything that can be offered to the market, with the purpose to provoke attention, encourage the purchase, use or consumption, and which can meet the desires and needs. It includes physical objects, services, people, places, organizations and ideas” (Kotler et.al.; 2006, 539). For products and services in the river cruise industry a concept of total product can be accepted “as a set of tangible or intangible attributes (material and imaterijalnih) that meet a consumer’s need” (McCarthy according to Ružić; 2007, 150). River cruises consist of partial parts of tangible and intangible forms. Partial products of the material form are food, drinks, beds, etc., While immaterial components are made up of services, as well as certain symbolic and psychological elements that are formed around the product thanks to its brand, achieved image on the market and economic propaganda. According to concept of total product, constitutional elements of the river cruise total product can be divided into fixed and optional, whereby the fixed elements are the ship and
its functions (content) disposition of space and optional elements imply food, drink, program on board, the itinerary (port of call), excursions on the mainland to certain destinations and services (adjusted according to Ružić; 2007, 150). Taking into account key characteristics of river cruise offers, previously stated is possible to apply, with certain modifications, to the river cruise industry.

In order to obtain the necessary knowledge about the characteristics of the river cruise tourism market and trends that affect the formation of the river cruise product, in addition to the analysis of secondary data, it was necessary to conduct a survey with the aim of collecting the primary data. The used primary data in this paper is a part of the author’s primary research within the doctoral thesis River tourism marketing which was conducted in the period from 1.7. 2015. to 30.9. 2015. Primary data was collected by the method of interviewing. A total of nine individual interviews were conducted with key stakeholders in river tourism, representatives of receptive tourism agencies and destination management companies, directors of port authorities, representatives of relevant ministries, Croatian waters and river cruise agents for river cruises with years of experience. Themes of the interview included, among other things, key features of the river cruise market, characteristics of individual elements of river cruise marketing mix, general issues in development of river cruise and future trends. Data obtained through conducted interviews was used in further elaboration and reflection on river cruise as tourism product.

3.1. Tourism product of river cruise companies

Kotler points out that the product should be considered on five levels, each level represents an added value for the consumer, and together represent a hierarchy of values for consumers (Kotler et.al.; 2014, 526). From that aspect, five levels of river cruise product can be defined. The basic usefulness that a consumer buys when it comes to river cruising is an experience that is educational, entertaining and vacation in character on a ship sailing according to a predetermined itinerary and experience destinations that are visited according to the itinerar, basic product that companies for river cruises have to design consists of shipboard accommodation with full board, program on a ship and the opportunity to visit multiple destinations. Expected product comprises of all other characteristics related to providing the basic benefits from the accommodation in cabins, quality and diversity of gastronomic offer, ambience aboard and the possibility of visiting destinations through which they sail. Additional
services and benefits that companies offer to consumers, that are built around the basic and expected product, make the expanded product and include various lectures, workshops, wellness, organized transfers to the port of departure, stay in the destination before and after cruising, etc. All mentioned additional benefits to consumers are an important part of the overall product as well as a potential product that is trying to cheer up the consumer by providing unanticipated benefits such as bowls of fruit in the cabin, candy on the pillow or some other product that will pleasantly surprise guests.

In order to ensure a competitive edge companies are trying to differentiate their products and bring them closer to demand. Competition between river cruise companies generally takes place at the level of expected and expanded product whereby each company is trying to create a set of benefits that will mostly suit a targeted group of consumers.

Companies are continuously investing in the construction of new ships that will be different from competitors in certain fixed, as well as optional elements. Increasingly larger ships are being built with improved standards and quality of accommodation. Ships of the new generation offer multiple dining rooms, spa facilities and larger cabins with balconies. On some ships, accommodation is offered in more than one type / category of cabins like cabins with balconies, cabins with French balconies, suites, standard cabins, deluxe cabins, royal cabins, etc. There are examples of ships on which by the name of cabin, as well as its design, that are attempting to highlight the exploratory nature of cruise on the river or some other experience, for example, Explorer suite on the line of ships „Longship“. With full board service, travelers are additionally offered tastings of local gastronomic specialties and regional wines of destinations through which they travel, 24 hours room service and other services depending on the company can have an additional fee.

Depending on the size of ship it can offer an indoor spa and swimming pool, sundeck, gym (fitness center), movie theaters, playgrounds for various games,

1 Companies are selling river cruising to three different groups of travelers: Conservative maritime enthusiasts who like to spend time on the water (1), those who like to cruise on the oceans, but who enjoy river cruises as well (2), and passengers who are coming back (3). What unites all of these groups is the fact that most of them are among the demographic of 50-plus. (Mintel; 2015, 36)

2 Although increasingly larger ships are being built, their dimensions are limited by the characteristics of the rivers on which they sail (depth and width of the river, the height of bridges, locks, etc.)

theater with first-class equipment, library, various workshops tailored to the specific interests of travelers or related to the culture of a destination through which it travels (Yangtze river boats offer workshops for learning Chinese characters or Tai Chi) and various shops. In general, larger ships have a wider offer. Facilities and services aboard increase the value of a product and differentiate it from the competition therefore during the construction of new boats it is reached out for innovative design solutions in order to maximize the space aboard. Thus, on some newly built boats the space of indoor pool in the evening is transformed into a dance hall.

Companies add to their products of river cruise “unique values”, and a high standard of service. In order to adjust their product completely towards the interests of tourists, some companies are trying to differentiate on the market with a range of traditional vessels typical for some rivers and thus meet the trend of “discovering new and authentic experience”. For example on the Mekong River the focus is on small, traditional ships that rarely exceed the capacity of 20 guests at the same time (which is totally contrary to the vessels on the Yangtze River, which have a capacity up to 570 passengers).

3.2. Tourism product of a destination port of call

In contrast to maritime cruising within which the ports of call and destinations included in the itinerary of the program, which further enrich the overall experience offered by the cruise and excursions related to them form part of the expanded product (Peručić; 2013, 101), in river cruises destinations that are visited form part of the basic product and the experience of river cruise.

Destination ports of call are one of the optional elements of the total product of river cruise, which consists of partial elements of the material form (eg, ports, docks, food and beverages) and partial elements of the intangible form (service of representatives in port authorities, waiter service). Considering the importance of the attractiveness of certain destinations for the selection of ports of call, it can be concluded that important components of the tourism product of a destination port of call are partial quasi products or macro and micro locations of port of call as well as other spatial elements that contribute to the attractiveness and appeal of the destination port of call for its inclusion in the itineraries of river cruises. In this sense, one can speak of an integrated tourist product of a destination port of call whose key elements are (adjusted according to Ružić; 2007, 157):
• location of ports / harbors,
• construction elements, technical requirements and the capacity of ports/docks,
• mix of internal contents,
• attractiveness of the destination.

Given that it is in the interests of travelers on river cruises to see as much content on land, the location of ports/docks should be viewed in relation to the overall attractiveness of the destination where the port is located. As previously noted, from the aspect of river cruise companies that decide on the inclusion of certain ports in their itineraries overall attractiveness of the destination is important, especially range of tourism products and services offered on the mainland, availability of thematic itineraries tailored to specific interests of tourists, local gastronomy, presentations of culture, living and working in an area, good tour guides etc. On the other hand, for travelers the location of ports/docks in relation to the city center is important and the organization of ports and their environment make a port visually as well as functionally more attractive than other.

Construction elements and technical conditions are related to the possibility of mooring boats in different conditions depending on the change of water level, followed by the capacity of ports/docks for river vessels (often there is a need to simultaneously berth more than one ship) as well as a parking on the coast suitable for buses that transport travelers on excursions (to the city or its surroundings), or taxi stop for those travelers that are moving independently and do not want to walk.

A mix of internal content refers to the various tourist and catering services related to the provision of services such as preparing and serving of food and drinks, sale of souvenirs etc. To passengers on river boats, currently as a rule, is not in the interest to spend time staying in a port. Even that part of passengers which do not go on organized tours prefer to remains on the boat where have a superb range of catering facilities. Thus the amenities of port in terms of tourism and hospitality is not a crucial factor for a choice of destination for river cruise companies. However, by offering specific tourist attractions in the ports of call that passengers do not have opportunities to experience aboard, ports could complement offer of tourist attractions and in some way differentiated from those that passengers can consume on a riverboat which would further contribute to the attractiveness of destinations and ports of call themselves, as well as indirectly influenced the increased consumption of travelers from riverboat.
Attractiveness of the destination is for the river cruise companies one of the most important factors which has a crucial role in the selection of destinations that will be included in their itineraries. Destinations must first and foremost be special, authentic, with potential for creating various experiences, especially theme-oriented experience in order to meet different preferences of consumers who are increasingly more selective and strive to discover new and different experiences. It is therefore necessary to insist on the flexibility of offers in the destination, adapt it to the requirements of river cruise companies and their passengers in order to be more desirable when compared to other competitive destinations.

In the element of the marketing mix “product of a destination port of call”, can include additional elements of the process and the people, on whose quality depends the total satisfaction of travelers arriving to the destination port of call. The process of providing services, the behavior of persons who come in contact with customers and their interaction together form the user-visible operations of providing services (Ozretić Došen; 2010, 103). In addition to the basic operations of mooring and unmooring of the ship, in some ports is necessary to provide the border formalities (police and customs). Ports can be distinguished according to the procedures of border formalities and other port operations, and it is primarily related to their duration which can significantly affect the pleasure of visiting a particular destination/port, especially if you take into account that passengers remain in the destination up to 5 hours of which a fifth of time is lost on border formalities. People involved in the provision and use of services are also an important part of the offer because their behavior affects the creation of user perception. Therefore, all employees (ie persons involved in key port operations, which among other things includes contact with travelers) should be familiar with their role in the process of providing services, they must know what is expected of them and be able to act responsibly within their assigned rights and responsibilities (Ozretić Došen; 2010, 121).

### 3.3. Tourism product of destination management companies

When considering the river cruise sector, a key role of destination management companies stems from the formation of excursions that take place on land of destinations included in the itineraries. From the perspective of consumers, the possibility of visiting several destinations outside the ship represent a fraction of the basic river cruise product. Therefore, destination management companies have to create excursions that will:
• satisfy the basic need of consumers, which include transportation from the port to a certain attraction in the destination and return trip, service of a tour guide who speaks English,
• include unique features and attractions in a certain destination that will represent added value for the consumer (and also differentiate the product from the competition - other destinations from wider area)

Excursions organized by DMC must represent for a consumers an authentic experience of the entire destination, consisting of a combination of several individual tourism and catering services that make up a single package and are sold as a single package. DMC usually offer to travelers on river cruises several optional excursions that include a variety of activities and content so that passengers have a choice of excursions depending on their preferences, wishes and needs.

4. CONCLUSION

Use of marketing concepts has a crucial role in the creation of competitive position of a river cruise on a dynamic and changing market. When considering the issue of tourism product of river cruising, it should be taken into account that part of the basic service that is offered as a rule is tied to a physical product (river cruise ship) and as such is inseparable from it, while the other part of the basic service, as well as additional services may take place in other locations such as certain tourist destinations included in the itineraries. Therefore, in consideration of the tourist product of river cruising it should be viewed from three different viewpoints, from the point of river cruise companies, from the point of port of call and from the point of destination management companies. Research has shown that an ever stronger diversification is present on the river cruise market and one of the most important strategies for achieving competitive advantage is becoming the product development strategy and the strategy of market development. In this regard, the river cruise companies are particularly intensively seeking to improve their river cruising product which consists of various but complementary partial parts of the material and immaterial form, and are investing in the construction of modern luxuriously equipped and designed ships as well as introducing a variety of new programs aboard ships that are tailored to the specific segments of consumers. On the other hand, an extremely important component of the basic product of a river cruise is the possibility of
visiting destinations along the river which creates a unique new experience in cooperation with a number of destinations on land. Companies are designing new itineraries and new experiences for a specific targeted segments of travelers with which they will differentiate from the competition and have a unique offer. In this regard, river cruise companies require from ports of call and destination management companies new offers, customized towards specific interests and needs of travelers. Consequently, there is a need for the use of marketing concepts and management of marketing programs of all those involved in river cruises from river cruise companies, destination management companies to the ports of call in order to meet the expectations, needs and desires of the selected market segment of customers and to survive on a competitive market.

References
HUNTING TOURISM IN CROATIA – POSSIBILITIES AND RESTRICTIONS – CASE STUDY VUKOVAR – SRIJEM COUNTY

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Abstract

There is a significant growth of all segments in hunting in the last decade in the Republic of Croatia (number of hunters, hunting lodges and similar). However, adequate offer of high quality, dedicated and attractively prepared hunting grounds, as well as inevitable contents that accompany this kind of tourist offer, still do not exist. Croatia has basic resources, but in hunting-tourist sphere it is not even close to the developed offer of the countries in the European Union. It is more or less possible to develop hunting tourism of different levels in existing hunting grounds in Croatia. There are individual efforts of promotion of hunting tourism that are mostly based on enthusiasm of single hunting associations or county federations that try to represent the beauty and value of hunting destinations of this region, but they do not often come across the necessary sup-
port of competent local and state institutions. There are many problems the creators of such local development and marketing programs come across, but the most significant are the lack of understanding by the competent authority for the problems regarding hunting tourism and shaping of integral tourist package that comes with it. Due to that there are no necessary investments, there is a lack of promotion in domestic and foreign media, and the local inhabitants are not informed about possible use of their own resources.

It is possible to significantly change the situation for the better by creating additional cooperation between more units of local self-administration, hunting societies with the same or similar tourist features, tourist boards and development agencies which are active in the region and other tourist subjects. It is joining into “clusters” which present a great development possibility due to their current financing by the competent ministries and the European Union. This paper considers variations of possible development models, and on a specific case of Vukovar-Srijem County shows how theoretical model can find its application in a hunting-tourist underdeveloped region.

**Keywords:** hunting tourism, tourism product, triple helix, competitiveness of the region, clusters in tourism

**JEL Classification:** Z3, Z32

1. CURRENT POSITION OF CROATIAN HUNTING TOURISM ON EUROPEAN MARKET

Even though hunting tourism is not emphasized as a special tourist product currently trendy, it is understood as a contemporary type of tourism that belongs to rural tourism and has features of sports-recreation tourism, adventure- and eco-tourism, i.e. features of the fastest growing segments in tourism. According to that, hunting tourism as a contemporary type of tourism shows trend in growth, which is indicated by enchanting numbers of consumption and number of tourists-hunters, as well as increase of destinations that develop hunting tourism as a recognisable form of tourist offer. (Kovačević&Kovačević; 2007, 233)

According to research results conducted by the European Commission cultural tourism (39%), eco-tourism (28%) gastronomic tourism (26%) are the most numerous whereas respondents from adventure, social tourism, wellness tourism, fishing/hunting are less represented. According to conclusions the pri-
Priorities for future EU policies and actions the support is given to the promotion and the development of EU tourism products fishing/hunting has priority. (European commission - Results of the public consultation “European tourism of the future”, 2014)

Hunting tourism market is just as any other market under the influence of demand and offer, costs and benefits and national and international legal regulation system. Demand is led by wishes, needs and motifs of hunters, i.e. tourist-hunters who wish to travel abroad for special hunting experience. Offer is created under influence of demand (domiciling of wild species for hunting, habitats suitable for domiciling wild species and thus contributing to hunting experience).

Hunting market is special regarding other markets and selective forms because hunters-tourist, who are above all traditional, give advantage to familiar hunting methods and species they are already acquainted with. On the other side, they are attracted to novelties, enjoy their hunting achievements, and enjoy selecting a destination with a successful hunt and high-quality game. Additional mechanisms of market regulation include general safety and stability of political system and international regulation application quality. Tourist-hunters are interested in what happens with the money they pay for hunting, how much is invested into hunting and wildlife protection, and what is done regarding illegal hunting and illegal trophy trade.

Recent available analysis of the European market of hunting tourism indicates that there are about 7 million hunters in the European union, about 1,5 million of them travel abroad once or twice for hunting in their lives, which is approximately 25%, so around 350,000 hunters hunt abroad in a year, and that annually hunters spend around 10.000 million EUR in 80.000 to 90.000 huntings in Europe. This is a significant amount of financial resources that can be attracted to Croatian hunting destinations with a suitable hunting offer. (The European Federation of Associations for Hunting & Conservation - official website; 2016)

The number of foreign hunters differs from country to country. The majority of available data showing the number of foreign hunters’ circulation is estimated, whereat some of the data are based on official sources, and some on expert’s estimates. According to Hofer, from 300 to 500 foreign hunter visit Croatia which brings annual income less than 500.000 EUR, unlike Hungary, which is visited by 15.000–25.000 foreign hunters annually. (Hofer; 2002, 27)
There is a problem that arises during research – lack of available official statistics on current number of hunters in individual European countries, therefore the data have to be collected through national hunting associations, which makes it more difficult to evaluate financial potential of a single market of this selective form, but data synthesis from existing official statistics and single data make up the statistics as presented in the (Table 1).

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of hunters</th>
<th>Number of inhabitants (million)</th>
<th>Inhabitants on km²</th>
<th>Share in population</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>1,331,000</td>
<td>64.1</td>
<td>100</td>
<td>1.48</td>
</tr>
<tr>
<td>Germany</td>
<td>351,000</td>
<td>82.5</td>
<td>230</td>
<td>1.233</td>
</tr>
<tr>
<td>Italy</td>
<td>750,000</td>
<td>58.1</td>
<td>193</td>
<td>1.77</td>
</tr>
<tr>
<td>Spain</td>
<td>980,000</td>
<td>40.5</td>
<td>85</td>
<td>1.41</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>800,000</td>
<td>61.1</td>
<td>248</td>
<td>1.76</td>
</tr>
<tr>
<td>Denmark</td>
<td>165,000</td>
<td>5.5</td>
<td>126</td>
<td>1.33</td>
</tr>
<tr>
<td>Finland</td>
<td>308,000</td>
<td>5.2</td>
<td>15</td>
<td>1.17</td>
</tr>
<tr>
<td>Norway</td>
<td>190,000</td>
<td>4.7</td>
<td>14</td>
<td>1.24</td>
</tr>
<tr>
<td>Sweden</td>
<td>290,000</td>
<td>9.0</td>
<td>20</td>
<td>1.31</td>
</tr>
<tr>
<td>Estonia</td>
<td>16,600</td>
<td>1.3</td>
<td>29</td>
<td>1.78</td>
</tr>
<tr>
<td>Latvia</td>
<td>25,000</td>
<td>2.3</td>
<td>35</td>
<td>1.92</td>
</tr>
<tr>
<td>Lithuania</td>
<td>32,000</td>
<td>3.6</td>
<td>55</td>
<td>1.112</td>
</tr>
<tr>
<td>Poland</td>
<td>106,000</td>
<td>38.5</td>
<td>123</td>
<td>1.363</td>
</tr>
<tr>
<td>Belgium</td>
<td>23,000</td>
<td>10.4</td>
<td>341</td>
<td>1.452</td>
</tr>
<tr>
<td>Ireland</td>
<td>350,000</td>
<td>4.2</td>
<td>58</td>
<td>1.12</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>2,000</td>
<td>0.5</td>
<td>192</td>
<td>1.250</td>
</tr>
<tr>
<td>Netherlands</td>
<td>28,170</td>
<td>16.7</td>
<td>395</td>
<td>1.618</td>
</tr>
<tr>
<td>Austria</td>
<td>118,000</td>
<td>8.3</td>
<td>98</td>
<td>1.70</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>110,000</td>
<td>10.2</td>
<td>129</td>
<td>1.93</td>
</tr>
<tr>
<td>Hungary</td>
<td>55,000</td>
<td>9.9</td>
<td>109</td>
<td>1.190</td>
</tr>
<tr>
<td>Slovakia</td>
<td>55,000</td>
<td>5.4</td>
<td>110</td>
<td>1.98</td>
</tr>
<tr>
<td>Slovenia</td>
<td>22,000</td>
<td>2.0</td>
<td>100</td>
<td>1.91</td>
</tr>
<tr>
<td>Switzerland</td>
<td>30,000</td>
<td>7.6</td>
<td>185</td>
<td>1.253</td>
</tr>
<tr>
<td>Cyprus</td>
<td>45,000</td>
<td>0.8</td>
<td>89</td>
<td>1.17</td>
</tr>
<tr>
<td>Greece</td>
<td>235,000</td>
<td>10.7</td>
<td>84</td>
<td>1.45</td>
</tr>
<tr>
<td>Malta</td>
<td>15,000</td>
<td>0.4</td>
<td>1,333</td>
<td>1.27</td>
</tr>
<tr>
<td>Portugal</td>
<td>230,000</td>
<td>10.7</td>
<td>116</td>
<td>1.46</td>
</tr>
</tbody>
</table>
Using the ratio of hunters to overall population of a country, and according literature it is possible to identify four regions (Pinet; 1995, 2): The Nordic Region, with the highest ratio (1:26 on average). Hunting is a spontaneous leisure pursuit across all social classes, regardless of geographical origin (rural or urban). Nature is very present in Scandinavian hunting practice.

- The Atlantic Region, with a lower ratio (1:333), forms the largest pool of hunters in the Union. Hunting is regularly practised here, even more so among rural people and in the middle to lower income bracket (blue-collar workers). They are primarily interested in small game, migratory or sedentary.

- There is still a large number of hunters in the first group, but their ratio to population (1:99) is lower. Hunting traditions and disciplines are probably more closely linked to land ownership and there is a more “sporting” approach: good, stylish shooting is particularly appreciated. Pheasants and partridges are the most sought-after game species. France (1:48), Germany (1:233), Italy (1:77), Spain (1:41) and the United Kingdom (1:76) are influenced by long-standing aristocratic traditions and heavily urbanised territories. Standard hunting practice calls for high income. Big-game hunting is subject to complex, efficient codes of conduct. The game management aspect of hunting originated in this area. Poland and Hungary are in a class of their own because of the deep political changes that have taken place there in recent years. It would be interesting to see if,
a few years from now, hunter population trends bring these countries into line with their “natural” hunting area (Austria, Slovenia, Czech Republic, Slovakia) and its ratio (1:88)

There are, however, no watertight borders between these areas. Whatever their country of origin, all hunters have common characteristics that stretch beyond the basis of hunting (quartering, finding, shooting and retrieving).

Throughout Europe and in many other countries around the world, hunting is a leisure activity or sport - although hunters may not always refer to it as such. Hunting is the opportunity to capture and kill game in open spaces while keeping to a set of defined rules. These rules are progressively being modified through the gradual evolution of long-standing hunting traditions and the implementation of Community regulations.

2. ANALYSIS OF POSSIBLE FORMS FOR A BETTER APPEARANCE IN EUROPEAN TOURIST MARKET

In the last ten years hunting in the Republic of Croatia records steady growth of all segments (number of hunters, number of hunting lodges and similar). However, there is still no suitable offer of high quality, dedicated and attractively prepared hunting grounds, as well as essential contents that accompany such form of tourist offer. There are essential resources in Croatia, but in hunting-tourist sphere it is not as close as developed as in countries of the European Union.

With the insight into the Statistical chronicle of the Republic of Croatia as well as into the data from the Croatian Hunting Association, Ministry of Agriculture of the Republic of Croatia and individual county hunting associations, it is not possible to find out how many shootings came from foreign hunters and how many from domestic, and the total financial result of such hunting.

Continental Croatia disposes with exceptional natural resources which both domestic and foreign tourist hunters find interesting. However, solely the influence of game and hunting areas present insufficient utilised potentials for development of hunting and hunting tourism. There are around

3.021.509 ha in Continental Croatia, which represents 55% of hunting area of the Republic of Croatia, i.e. 682 hunting grounds. (Information system of central hunting records, Ministry of Agriculture; 2016)
First category represents hunting grounds with realised planned or realised spring number, accession, shooting list and waste. Their number is the smallest, there are only 41 of them in Continental Croatia, and they are mostly under state management, i.e. Hrvatske šume (Croatian Forest Administration). The second category represents hunting grounds with data on planned shooting list, spring number and accession to the hunting-economy basis, but without realised shooting list and waste. There are 137 of them in Continental Croatia. Third category are hunting grounds with data on planned shooting list, spring number and accession which includes 125 hunting grounds, whereas the forth category represents hunting grounds with no data at all, 378 of them. (Table 2).

<table>
<thead>
<tr>
<th>No of hunting grounds</th>
<th>Hunting grounds</th>
<th>Hunting ground area (ha)</th>
<th>Share in total hunting ground area in Croatia (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
<td>III</td>
</tr>
<tr>
<td>Zagreb county</td>
<td>83</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Krapina-Zagorska county</td>
<td>31</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Varaždin county</td>
<td>32</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Koprivnica-Križevci county</td>
<td>14</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Međimurje county</td>
<td>21</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bjelovar-Bilogora county</td>
<td>62</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Virovitica-Podravina county</td>
<td>34</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Požega-Slavonija county</td>
<td>43</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Brod-Posavina county</td>
<td>40</td>
<td>10</td>
<td>19</td>
</tr>
<tr>
<td>Osjek-Baranja county</td>
<td>107</td>
<td>8</td>
<td>37</td>
</tr>
<tr>
<td>Vukovar-Srijem county</td>
<td>73</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>Karlovac county</td>
<td>76</td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Sisak-Moslavina county</td>
<td>66</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>Total Continental Crotia</td>
<td>682</td>
<td>41</td>
<td>137</td>
</tr>
</tbody>
</table>

Table 2 Overview of hunting grounds in Continental Croatia

Source: Calculation made by the authors according to the data available in the Ministry of Agriculture, Croatian Bureau of Statistics, Croatian Hunting Association)

The bed thing is that the current development relies only on enthusiasm of individual hunting associations or county associations, which try to represent the beauty and value of hunting destinations with great effort, but do not get the necessary support of competent local and national institutions, especially for problems with forming an integral tourist package. Hunters, i.e. tourists, travel within or across the borders of their countries to acquire certain hunting
experience and/or trophies and are willing to pay an adequate price for that. Agencies represent travel agencies which represent organisers, owners of hunting grounds or other receptive agencies in domestic and/or foreign hunting market, and they offer and sell hunting. They mostly do not organise hunting in the destination, but function as agents. Natural resources have to be available to hunters. Therefore, hunting tourism needs to be (Hofer; 2002, 18):

- politically and socially accepted in the country of hunting destination,
- certified in legal national and international organisational provisions,
- transformed into products which satisfy hunters’ needs at a reasonable price.

According to the stated definition it can be concluded that there are certain subject in hunting market, too: hunters, agencies, organisers and regulation system, as shown in figure (Figure 1.)

Figure 1 General model of hunting tourism model


At the European Union level, acquisition and possession of weapons and related matters are regulated by two Directives: Directive 91/477/EEC and Directive 2008/51/EC. These Directives are designed to ensure control of acquisition and possession of weapons, facilitate the flow of firearms in a single market, and transpose into EU law the United Nations Protocol Against the Illicit Manufacturing and Trafficking of Firearms. Both Directives contain minimum requirements; EU Members are free to impose more stringent rules
pertaining to firearms and many have done so. (Firearms-Control Legislation and Policy: European Union; 2016)

Apart from these, there are also laws, ordinances and directives defined within national legislature, as shown in the table (Table 3).

<table>
<thead>
<tr>
<th>Acts:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Hunting Act NN 140/05, NN 75/09</td>
</tr>
<tr>
<td>2. Forest Act NN 140/05, NN 82/06</td>
</tr>
<tr>
<td>3. Nature protection Act NN 70/05</td>
</tr>
<tr>
<td>4. Animal protection Act NN 135/06</td>
</tr>
<tr>
<td>5. Veterinary Act NN 41/07</td>
</tr>
<tr>
<td>6. Weapons Act NN 63/07</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regulations:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Regulations on use of weapons and ammunition NN 68/06</td>
</tr>
<tr>
<td>2. Regulations on closed season NN 155/05</td>
</tr>
<tr>
<td>3. Regulations on conditions and hunting methods NN 62/06</td>
</tr>
<tr>
<td>4. Regulations on game warden service base NN 63/06</td>
</tr>
<tr>
<td>5. Regulations on professional service for implementation of hunting-economy NN 63/06</td>
</tr>
<tr>
<td>6. Regulations on trophy assessment NN 62/06</td>
</tr>
<tr>
<td>7. Regulations on dogs NN 62/06</td>
</tr>
<tr>
<td>8. Regulations on implementation method of hunting-economy base NN 40/06</td>
</tr>
<tr>
<td>9. Regulations on hunting method in border area NN 67/06</td>
</tr>
<tr>
<td>10. Regulations on hunting method with birds of prey NN 62/06</td>
</tr>
<tr>
<td>11. Regulations on writing method and implementation of study for import and breeding of wild boors NN 35/08</td>
</tr>
<tr>
<td>12. Regulations on content and manage of keeping hunting records NN 67/06</td>
</tr>
<tr>
<td>13. Regulations on official inspector badge NN 11/06</td>
</tr>
<tr>
<td>14. Regulations on education of hunting staff NN 78 / 06</td>
</tr>
<tr>
<td>15. Regulations on labelling big game NN 54/06</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Provision:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Game price list NN 67/06</td>
</tr>
<tr>
<td>2. Compensation tariffs for calculation on game loss NN 67/06</td>
</tr>
<tr>
<td>3. Decision on shortening brow bear closed season</td>
</tr>
<tr>
<td>4. Croatia hunting associations Statute</td>
</tr>
</tbody>
</table>

**Table 3** Acts, Regulations and Provisions for regulating hunting in Croatia

*Source:* authors

Development of hunting, and especially hunting tourism, represents a successful application of interdisciplinary expert and scientific profession in prac-
nce of hunting economy. The precondition for that is achievement of a significant transformation in staff education. It is necessary that the professional staff that does business in hunting, and especially in hunting tourism, through education system receives basic professional knowledge besides that in forestry, veterinary science, agronomy, biochemistry and ecology also in ecology, tourism, economy etc. Besides that, it is necessary to ensure better employment of highly professional staff in that activity. Employees at the hunting ground as a tourist destination should be a well-played team of interdisciplinary professional profiles with various roles, i.e. tasks. According to the rule, the following staff should be represented in its systematisation: hunting ground manager, guides (attendants) to the tourist in hunting, game warden, interpreters, ballistics, administration staff, catering staff, drivers, butchers et al. (Prentović; 2007, 230)

Organisers, according to national regulation, can be private persons, government agencies or commercial companies that own the right to sell hunting (authorised for hunting) to foreigners in a destination, operate business locally and obtain price according to the costs and gain according to legal frame and readiness of the hunters to pay for a hunting service. They usually pay for the right i.e. the permit to the agencies to sell their hunting. Additional secondary jobs are made up of jobs which are important for a foreign tourist-hunter in a destination, like renting hunting equipment, trophy transport, accommodation, translation service, guide and similar.

3. CLUSTERING OF HUNTING SUBJECTS OF VUKOVAR-SRIJEM COUNTY

Hunting grounds in Vukovar-Srijem County are of lowland type, and in Vukovar and Ilok area they pass into hilly Syrmian landscape, which makes almost one third of county area under forest, making it suitable for habitats and abundance of food for game breeding. There are 53 common hunting grounds and 20 state hunting grounds formed in the area of Vukovar-Srijem County. Major game types bred here are common deer, hare, pheasant and partridge, and in smaller hunting grounds there are wild boar, fallow deer, moufflon and common deer. Hunting Association of Vukovar-Srijem County manages development of hunting, with a total number of 1919 hunters in 2014, and with a total area of 191.659 ha. There is a total number of 58 hunting objects in the area of the county, and according to a research conducted by Vukovar-Srijem
County only 27 hunting objects have such a level of arrangement to provide simple catering services. It means that there is an access road to the object, water system, furnished kitchen with fridges, dining room, sanitary works, furnished yard with a terrace, arbour with a barbecue. Some associations already have, and some are building rooms for rest and overnight stay. (Information on condition of hunting in the area of Vukovar-Srijem County for the hunting year 2013./2014; 2016)

Clusters are geographically concentrated, mutually connected economy subjects, specialized suppliers, service providers and adjoining institutions that in certain areas represent region or country. According to Porter, there are five competitive forces which need to be influenced by competitive advantages of the destination in order to secure the future of tourist destinations. So, clusters represent a group of all economic subjects which make a destination competitive. Together they make the competitiveness diamond that includes four strengths group, which define competitiveness in mutual relation: demand conditions, tourist subjects and their competitors, inputs and support sector (Porter; 2000, 8).

Clusters ensure institutional support that brings a lot of advantages to tourist subjects in coordinated work and can expand their activities using advantages of quicker access to market information, lower promotional costs, easier coordination with owners, and managers of hunting resources, higher number of experts in theoretical and operative plan, quality monitoring and evaluation, and many other facilities. Due to complexity of numerous legal regulations in hunting, relations in society and individual interests of different social groups, it is necessary to establish the so-called Triple Helix concept of cooperation between private, public and academic sector in order to build efficient institutional support and development model which will respond to future challenges. The balanced relationship between knowledge, social benefit and profit motivation arises from this form of cooperation. The efficient system of knowledge transfer will be obtained by connecting and cooperation between public and educational sector, and enterprise in hunting tourism will be based on knowledge, as shown in the figure, by connecting educational and private sector. (Figure 3)
Taking into consideration all previously mentioned models (General model of hunting tourism, Porter’s diamond of competitiveness, Triple helix model) the first step in development of a hunting-tourist product in Vukovar-Srijem County should be forming the institutional support for cluster development. Institutional support includes: Faculty of Economics in Osijek, Faculty of Agriculture in Osijek, Croatian Forest Research Institute, County Hunting Association, county administrative departments, county and local development agencies, county tourist board, tourist subjects (catering and accommodation capacities, rent a car, hunting equipment shops, meat processing companies, etc.) When planning development of tourist product and establishing the offer, demand for that product it is extremely important to conduct a good tourist resources analysis. In order to make the analysis valid, it is also necessary to conduct an analysis of tourist market that the product is planned for, and the analysis has to be based on data and opinion of those experts from scientific community who are familiar with the area in which the tourist product is being developed. During analysis every cluster needs to pay attention to:

- hunting accommodation capacities;
- catering object: catering objects analysis, those with hunting gastronomy offer;
- hunting manifestations: fairs, competitions, dog shows;

**Figure 3:** Cooperation of public, private and educational sector in tourism according to Triple helix model.

*Source:* authors
- other tourist subjects: weapons and hunting equipment shop, police, vet inspection, air-conditioning owners, dog breeders.

After detailed analysis of tourist resources and market possibilities, all tourist potentials should be placed into a central system that will be at disposal to all cluster members. The creation of theme routes (itineraries), event development etc. will be made from these resources according to previously defined criteria (legal regulation, various research studies of environmental impact, marketing plan, feasibility studies, promotional materials). Those which closely satisfy conditions of hunting tourist market (traffic, tourist and hunting infrastructure, location, activity) i.e. those which can join the tourist offer immediately should be developed as priority tourist products, whereas those which are not cluster should be a part of project preparation, improving accommodation quality, game breeding, education. Cluster for development of hunting tourism in Vukovar-Srijem County should aim at encouraging all subjects that influence the development of a tourist product.

4. CONCLUSION

The increasing interest in hunting tourism in Vukovar-Srijem County results from its economic significance, but individual hunting associations, especially at local levels, are not able to make a significant step forward despite the fact that they invest significant financial resources not only into hunting but also into tourist infrastructure, because they do not have enough organisational and financial strength to appear at the European tourist market. One of possible solutions could be joining with the goal of mutual actions i.e. clustering. The goal of clustering is to raise hunting as an economy segment to a higher level i.e. to create the possibility of opening new workplaces, and at the same time maintain measures of protection and preservation of nature, flora and fauna through hunting. By developing tourist offer, infrastructure building in Vukovar-Srijem County and by strengthening human capacities along with a suitable geographical position there are preconditions for intensifying the already existing traditional hunting and direct it into development of integral tourist product. Vukovar-Srijem County has enabled a great number of hunters, hunting associations, tourist agencies and guests to include into a program of development of hunting tourism by implementation of Act on hunting and awarding hunting grounds to the associations, by encouraging the Hunting Association and
Tourist Board. Introduction into institutional support by the scientific community ensures the following: interdisciplinary experts’ team with various roles, extremely rich hunting grounds with high grades game, area branding through hunting tourism promoted as ecologically acceptable, in harmony with nature, responsible, elite and exclusive form of tourist destination.

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PRELIMINARY RESEARCH OF THE ORGANIZATIONAL CULTURE OF CONSTRUCTION COMPANIES IN CROATIA

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Abstract

Understanding of organizational culture in the context of construction industry is not sufficient yet. Therefore, the research question of this study has been: what is a dominant culture profile of companies within the context of the Croatian construction industry.

The research has been conducted using both primary and secondary data sources: after an extensive literature review, research has been continued using Cameron and Quinn’s Organizational Culture Assessment Instrument over the data set collected from 108 respondents working in construction companies in Croatia.

The findings show that the Croatian construction industry has been dominated by the hierarchy culture. In addition, the analysis indicates the clan type being the dominantly preferred organizational profile.

This paper is the result of the first research phase so for the next phase it suggests comparative research concerning culture profiles of relevant construction industry subcategories (core business, size, regional orientation and ownership subcategories).

Keywords: organizational culture, organization, construction

JEL Classification: M1, M14
1. INTRODUCTION

The concept of organizational culture incorporates several disciplines (like organization, psychology, sociology and anthropology) so even its definition is complex and has given rise to academic discussions regarding what it should and should not include.

However, one of the most important authors who developed and advanced the concept, Edgar Schein, defines the organizational culture as the deepest level of basic assumptions shared by members of an organization, which define the organization’s view of itself and its environment, as well as its *modus operandi* (Schein, 1992). He has developed a model of organizational culture that identifies three distinct cognitive levels in organizational cultures. Out of those levels, only behaviour is fully visible manifestation of the culture. Other cognitive levels (values and assumptions) are hardly detectable elements and that is the main reason why the culture is so difficult to be understood, managed and changed.

2. PREVIOUS STUDIES OF ORGANIZATIONAL CULTURE IN CONSTRUCTION

One of the basic characteristics of the construction industry is that it is a labor-intensive business. Of course, the bottom line of construction performance is money resulting from day to day projects. These projects are accomplished by having the right people in the right positions, communicating effectively through multiple lines of responsibility. But, effective communication becomes an issue when subjects to not share basic assumptions, when their organizational cultures do not match.

Because of that, we are facing increased awareness and interest in organizational culture in the construction industry lately, both in academic society as well as among professionals. “The capability of handling the culture-issue within construction processes can in fact be seen as a kind of risk-management tool: using it can reduce the risk for dissatisfaction of all parties involved, by reducing the risk of behavioural miscommunication.” (Tijhuis, 2012, 2)

Such an attitude is in compliance with study undertaken by Smyth and Kusuma (2013), whose results suggest that the identification of companies’ organisational culture orientation is a prerequisite of understanding the elements that make up an effective business development in construction.
Further more, there is a research showing that the culture existing in construction has significant differences to culture from other industries. Specific culture in construction is the result of a specific business environment, being: geographically distributed nature of construction, dynamic nature of site management, highly mobile and itinerant work force, the large number of companies and organizations that have to work together in a project and a fixed duration of construction project (Riley and Clare-Brown, 2001). Therefore, it is not possible to transfer management tools from one industrial sector to the other without substantial redesign. This fact imposes a need for the research of organizational culture in construction itself.

Some scholars have approached the research of organizational culture in construction with the aim of providing an overall understanding of the concept (Dainty et al. 2007; Coffey, 2010). There are also others, who analysed certain aspects of the topic:

- cultural differences among contractors and designers (Akiner and Tijhuis, 2007; Oney-Yazici et al., 2007; Ankrah and Langford, 2005; Nummelin, 2006),
- relationship between organizational culture and performance of the company (Zhang and Liu, 2006; Coffey, 2008; Ankrah, 2007; Cheung et al., 2012),
- influence of the organizational culture in international business (Chan and Tse, 2003; Ozorhon et al., 2008),
- correlation of the future culture in construction with todays trends, arising from students' expectations (Sandrk Nukic and Matotek, 2014)

Probably the most systematic approach to organizational culture in construction has been organized within the International Council for Research and Innovation in Building and Construction (CIB), within its special Task Group “TG23 - Culture in Construction”, todays Working Commission W112 “Culture in Construction” (http://www.cibworld.nl).

Current Commission’s coordinator, Professor Wilco Tijhuis, stated recently that recovery activities after enormous negative effects the global economic crisis had on construction industry should not focus so much on technology-aspects alone, but also on behavioural aspects. In order to do so, he invites scholars to contribute with the additional research of cultures in construction industry, especially within different national contexts (Tijhuis, 2013).
3. EMPIRICAL RESEARCH - ORGANIZATIONAL CULTURE IN CROATIAN CONSTRUCTION INDUSTRY

3.1. The research background

Recent academic papers regarding organizational culture in Croatia suggest that culture and “soft” organizational elements have not been recognized (yet), leaving to the ‘hard’ elements of organization (primarily organizational structure) the position of decisive factor of organizational performance and success (Nacinovic et al., 2009; Lovrinčević, 2010; Buble, 2012; Goić, 2013;).

However, the culture has been studied in general and beside some exceptions (Brčić, 2002; Kovač et al., 2006; Antić and Cerić, 2008; Antić et al., 2010; Šandrk Nukić and Matotek, 2014) there are almost no industry specific studies.

Considering the previously stated need for studying culture in construction within different national contexts and considering the lack of empirical examination of the organizational culture in construction industry in Croatia, the starting research question of this paper is: What is the dominant culture profile of Croatian construction industry?

3.2. Methodology

There is a variety of measures concerning organizational culture. In order to use a relevant questionnaire, the Organizational Culture Assessment Instrument (OCAI) has been chosen for the purpose of this paper. OCAI is the most used questionnaire within the CIB W112 Commission and tested reliable in measuring organizational culture (Giritli et al., 2013; Cameron and Quinn, 2005).

As a measurement tool, OCAI is based on the Competing Values Framework, which was developed during the 1980s (Quinn and Rohrbaugh, 1981; Cameron and Quinn, 2005) for assessing and profiling the dominant cultures of organizations. This framework is consisted of two dimensions: the first dimension measures organizational focus from internal to external and the second dimension differentiates a focus on flexibility, discretion and dynamism from focus on stability, order and control.
These two dimensions form four quadrants, as presented in the Figure 1., with each quadrant representing a distinct set of values. Those value sets are in fact four types of organizational culture: the clan, the hierarchy, the adhocracy and the market (Cameron and Quinn, 2005). It is important to emphasize that none of the types is dominant over the others (Cameron, 2004).

After appreciating such a polarization of basic values in an organization, organizational culture is being assessed by the Organization Culture Assessment Instrument, which identifies fundamental cultural aspects of the organization through six key dimensions (Cameron, 2004): the dominant characteristics, the leadership style, the organizational glue, the strategic emphasis, the criteria of success and the management of employees.

Each of the six key dimensions encompassed by OCAI has four alternative statements, representing different cultural orientations. The respondents have been asked to rate their organizations’ culture by dividing 100 points among those four alternatives in each dimension, depending on the extent to which each alternative is similar to their own organization. A higher number of points should have been given to the alternative that is the most similar to their organization.

The questionnaire has been carried out in two rounds: at first, questions have been answered in respect of the existing organizational culture, and in the second round in respect of the culture respondents would prefer. In that way, OCAI not just assesses the current culture but it also gives an opportunity to effectively change the culture if necessary, if the current and preferred organizational culture differ.
Finally, the averages have been calculated in order to use the individual scores as an indication of the consensual view of the current and preferred organizational culture of the group tested, representing the construction industry in Croatia.

3.3. Sampling and data collection

For the purpose of this study, the OCAI questionnaire was formed as an online, anonymous questionnaire. Chosen study population was the construction industry in Croatia. The respondents from construction companies were positioned as operative management level employees or higher, who could influence the organizational culture, at least within their own team and scope of work. In total, 108 responses have been collected, forming the study sample.

3.4. Findings

In the first step of the analysis, special attention was paid to descriptive statistics of control variables, in order to illustrate the sample nature. The results of frequency analysis are provided in the Table 1.

Table 1. Frequency analysis results

<table>
<thead>
<tr>
<th>CHARACTERISTIC OF THE RESPONDENT</th>
<th>FREQUENCY</th>
<th>PERCENTAGE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>71</td>
<td>65,74</td>
</tr>
<tr>
<td>Female</td>
<td>37</td>
<td>34,26</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;30</td>
<td>13</td>
<td>12,04</td>
</tr>
<tr>
<td>30-40</td>
<td>45</td>
<td>41,67</td>
</tr>
<tr>
<td>40-50</td>
<td>30</td>
<td>27,78</td>
</tr>
<tr>
<td>50&gt;</td>
<td>20</td>
<td>18,52</td>
</tr>
<tr>
<td>Size of the company</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 10 employees</td>
<td>29</td>
<td>26,85</td>
</tr>
<tr>
<td>10-49 employees</td>
<td>16</td>
<td>14,81</td>
</tr>
<tr>
<td>50-249 employees</td>
<td>6</td>
<td>5,56</td>
</tr>
<tr>
<td>250-499 employees</td>
<td>15</td>
<td>13,89</td>
</tr>
<tr>
<td>&gt;499 employees</td>
<td>42</td>
<td>38,89</td>
</tr>
<tr>
<td>Type of the company</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contracting</td>
<td>52</td>
<td>48,15</td>
</tr>
<tr>
<td>Design</td>
<td>34</td>
<td>31,48</td>
</tr>
<tr>
<td>other</td>
<td>22</td>
<td>20,37</td>
</tr>
</tbody>
</table>
The further exploration of data was undertaken by the examination of the core measures of the OCAI questionnaire, in order to learn the dominant and other cultural identities in Croatian construction industry. The results are presented in Table 2.

**Table 2. Current organizational culture in Croatian construction companies**

<table>
<thead>
<tr>
<th></th>
<th>Clan</th>
<th>Adhocracy</th>
<th>Market</th>
<th>Hierarchy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current</strong></td>
<td>26,05</td>
<td>18,50</td>
<td>26,49</td>
<td>28,96</td>
</tr>
</tbody>
</table>

It can be noted that the dominant culture of the sample is the hierarchy type, meaning that construction companies in Croatia are mostly highly formalized and structured organizations. People are kept together by well-defined procedures and leaders are primarily good coordinators and organizers. Success depends on predictability and efficiency. Hierarchy type is followed by market and clan type, respectively.

Analysis was tested using the Welch’s version of t-test from the software package *Statistica 12*. At the significance level 0.05, the test suggests that although dominant current culture type of the sample is hierarchy, none of the culture types has an absolute domination over the population. Additionally, test confirmed that adhocracy culture is never a dominant current culture type of the population. That is potentially bad because, according to previous studies (Cheung et al. 2012; Yesil, Kaya, 2012), it harms the innovative behaviour of construction companies, thus having a negative impact on their competitiveness and performance.

As for the preferred culture types, it should be noticed that there is a discrepancy between current and preferred status of organizational culture in Croatian construction companies. These results are presented in Table 3.
<table>
<thead>
<tr>
<th>Clan</th>
<th>Adhocracy</th>
<th>Market</th>
<th>Hierarchy</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.97</td>
<td>23.64</td>
<td>16.21</td>
<td>26.18</td>
</tr>
</tbody>
</table>

Obviously, predominant preferred culture type is clan, which could lead to construction companies becoming a friendly place to work in, held together by loyalty and collaboration. In organizations like that, managers act as mentors and success is a result of high commitment. Additionally, it is interesting that such a preference is in compliance with the expected trends in Croatian construction industry, detected in a study done by Sandrk Nukic and Matotek (2014).

Welch’s t-test showed that, at the significance level 0.05, clan is the dominant preferred culture type of the whole population.

The mutual relation of current and preferred organizational culture in the Croatian construction industry is presented by a diagram in Figure 2.

![Figure 2](image)

**Figure 2. Relationship of current and preferred organizational culture in Croatian construction industry**

4. **CONCLUSION**

Considering the lack of empirical examination of the organizational culture within the construction industry in general and especially in Croatia, this paper aimed to provide empirical observations on the dominant and subordinant organizational culture types in Croatian construction industry.
Through the process of relevant literature review, the research has shown that global, systematic efforts in understanding organizational culture in construction are not yet sufficient.

The empirical research presented in this paper has been done on a national sample of construction companies in Croatia, using Cameron and Quinn’s Organizational Culture Assessment Instrument. The research provided empirical evidence on hierarchy type being currently the dominant organizational profile and the clan type being the predominant preferred cultural profile.

While contributing to the understanding of the organizational culture in construction, obtained results give the opportunity to apply effective management practices that will improve performance.

As for the future, it would be interesting to further research the cultural profile of the Croatian construction industry, in terms of differences related to firm’s core business, size, ownership and regional orientation. Understanding those differences would enable more effective project management in terms of managing potential conflicts among different subjects involved in construction projects.

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http://www.cibworld.nl
ROLE OF LEADER PROGRAMME IN CROATIAN RURAL DEVELOPMENT

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Abstract

In this paper, the authors analyse the Leader Programme function, its principles and implementation in practice, comparing the European countries’ experiences with the development trends in Croatia. In a realistic way, they show the management issues, but they also point out the paths of rural area development according to other countries’ experience. Using the method of analysis and synthesis, as well as by the field research conducted using the Delphi method, the authors wish to, as realistically as possible, show the Leader Programme model and its adoption in the current politics of our country’s rural area management and development. This paper’s aim is to illustrate the advantages of this programme as a current and future development model, but also to indicate the problems this particular programme encounters in practice.

Keywords: Leader Programme, management, development, rural area.

JEL Classification: O1, O18

1. INTRODUCTION

Rural areas, for many years have been marked with various problems which led to falling behind of those areas, starting from the loss of human resources, to the erratic management, which directly reflects upon the economic development itself. A quality established system of communication, systematic monitoring and allocation of as large as possible financial support to the whole development are needed in order to efficiently manage all resources. Although such a system would include the founding of institutions which requires costs, they can also be non-profit ones and the means for their work could be found in various incentives and other self-government measures. A large step forward in
management would also be an appropriate use of the information programme “GIS” (joining of cartography, statistical analysis, development and technology database). The scientists on the “science side” debate about the GIS programme as a method or a body of knowledge for the development and examination of the spatial theory (Brenner 1993; Laffey 1993; Sandhu 1993b, 1993a Wright) and not as a physical subject of the GIS programme itself. (Brenner, A. November 1, 1993. Environmental Protection Agency. Re: GIS as a Science [Discussion]. Geographic Information Systems Discussion List [Online]. Available). For a certain number of years attempts have been made to act towards provision of assistance to rural areas and great possibilities in that part are provided by the implementation of the Leader Programme. Poor communication with ministries, as well as an insufficient number of employed with specialist or expert knowledge aggravate a quality approach to many European funds, thus also to the Leader Programme itself. The cooperation between the civil and public sector in the County is not institutionalised and associations do not cooperate sufficiently. The European Union has/had a developmental programme LEADER 1 (Liaison Entre Actions de Développement de l’Economie rurale, 1991-1994), followed by LEADER 2 (1995-1999) and LEADER + (2000-2006). They have been used by local action groups and communities of public and private partners, who, together, shape and create the rural areas’ strategy and developmental measures (www.hrvatski-farmer.hr, of 12.12.2011). In Croatia, for example, the rural area renewal and development is most frequently perceived as construction renewal; rarely is it perceived as a spatial planning task with social and cultural, economic and demographic and political dimensions. Therefore, the rural area renewal should be considered as a sum of all the measures. The local self-government unit must find a way to realise the policy of a unique, spontaneous living space to all its inhabitants.

2. STRATEGY OF LEADER PROGRAMME

“Rural development is a new developmental model of the agricultural sector” (Plog et al., 2000., p. 392). “Apart from the increase in agricultural production competitiveness, it also includes protection of the environment, land management, diversification, improvement of life in rural areas and LEADER approach (Liaison Entre Actions de Développement de l’Economie rurale), which means that all the initiatives for starting of activities should come from
the local community” (Moehler, 2006, p. 56). “One of the basic characteristics of rural development implementation in rural communities is putting an accent on local population, by which it is validated as a main factor of the overall rural area development. It is this particularity of trust in people who live in rural areas and in their abilities to discover what suits best their environment, culture, work traditions and skills itself that makes the LEADER Project special”. (Štifanić, Debelić, 2009, p. 8). Connecting at the local level brings people together in order for them to exchange their experiences and knowledge, inform themselves and promote rural development activities, find project partners, as well as create a feeling of belonging to a larger entity, such as the local action group.

During recent years in Croatia, there have been intensive talks about rural development. Plans and programmes are being produced, development strategies and laws are being proposed, legislation is being coordinated with the EU and the means/funds from the EU programmes, intended for those purposes, are being used (CARDS, INTERREG, SAPARD and other). However, in order to implement the rural development plans and programmes, Croatia needs expert consulting assistance from the EU, as well as a greater self-initiative. Given that Croatia is a candidate for accession to the European Union, it should dedicate itself more to familiarising with the experiences of the other EU member countries in the process of rural development in order to avoid other countries’ mistakes. The first analyses and evaluations of the EU rural development policy show that the means from the EU funds were mostly spent on structural measures, namely approximately 34%, which includes the increase in competitiveness, i.e. investment in companies and food production, assistance to young farmers and earlier retirement. Approximately 38% of means were spent on environmental protection, soil quality improvement, afforestation and natural resource protection. “A large part of the means was also spent on the preservation of old, traditional crafts, village reconstruction, improvement of life quality in rural areas, as well as the preservation of tradition for the purposes of the development of tourism in rural areas” (Montelone, Storić, 2004, p. 139).

Equally, rural tourism also, “as a growing business in the tourist industry offers many benefits to the local community development. It can be developed locally, in partnership with small businesses, local government, other agencies in the area and its development is not dependent on external or large companies’ decisions” (Kumrić, Franić, 2007, p. 135). The Leader approach supports innovative approaches and stimulation of unexploited resource development, or, just
a different view on existing issues; the problem of rural areas, its preservation and sustainable development had been recognised in Europe much earlier than in Croatia.

One more principle by which this programme is recognisable is local financing and management, which gives big powers to the LAGs in decision making and financing of specific programmes.

2.1. Principles of Leader Programme strategy

Fundamental principles of the LEADER Programme in the rural communities sustainable development are based on the characteristics of the areas to which they are applied, which means that an attempt has been made to use own unexploited resources. This principle emanates from the participants’ need to base their development on local values. According to the Leader’s action groups, there are four main values of this programme:

1. decentralised, integral approach, based on a specific area’s characteristics
2. community involvement
3. uniting of development bearers at the local level

For example, the bottom-up approach (typical for Italy), as opposed to the majority of developmental plans, is a completely opposite approach, by which an attempt was made to encompass the largest possible number of participants who would influence the decision making process for an area. Literally everyone who wishes and believes that they can assist the developmental process, whether it concerns the inhabitants or the public, private, or some other sector representatives. “The bottom-up approach means that the local factors take part in the decision making processes pertinent to the strategy and selection of the priorities which should be implemented in their local area. The European experience has shown that the bottom-up approach should not be considered as an alternative or contrast for the top-down approaches of national and/or regional authorities, but that they should be combined in order to achieve better overall results”. (Štifanić, Debelić, 2009, p.11).

Therefore, the principles based on good European practice and LEADER approach are:
• Sustainable rural development which is based on preservation and development of environmental, human, social and creative/productive capital.
• Approach based on area characteristics, as they form a foundation for quality development.
• Starting up the community, as it lags behind in inclusion in developmental processes and needs support in order to get involved in developmental processes.
• Bottom-up approach – today’s development is not possible without involvement of the public. This is why all available forces in local communities should be involved in order to, by richness of ideas and possible solutions, as high a quality as possible development could be achieved.
• Development of local partnerships in approaches and actions – presently, fragmented initiatives are often condemned to failure beforehand, they lack power and trust.
• Networking and cooperation, as well as connecting, synergistic acting in developmental processes, exchange of knowledge and experiences, both in today’s modern Europe and here, in Croatia.
• Innovative quality and tradition, together with sustainable rural development, but innovations are essential in order for traditional values to be represented in a new and market competitive way.
• Integral approach – sector division is a frequent cause of problems in development. Horizontally, inter-sector linking, as well as the vertical one, linking of local, regional and national institutions, is of great importance in realisation of sustainable rural development.
• Local financing and project management – it is extremely important that local level activities should also be financed from local budgets.

3. LEADER PROGRAMME FUNCTION IN RURAL DEVELOPMENT

Member countries of the European Union apply the rural development programme Leader in strengthening the local development as a counter-balance for europisation. In the period between the years 1991 and 2006, Leader I, Leader II and Leader+ Programmes demonstrated a new approach for integral and sustainable rural area development, strengthening local communities’ develop-
mental policies. In the solution of the problem of a less favourable position of rural Europe in comparison to the urban, the Leader programme represents a new social and economic model (Ray, 2001, p. 280). In analysing rural development programmes in the European Union and in Croatia, an attempt was made to concentrate on the Leader Programme as a new and innovative approach to the development of rural community, village and agriculture. In the period when Croatia is negotiating its accession to the European Union we can observe the results of the Leader Programme and principles and give recommendations for its application in Croatia. The main advantage of the Leader Programme was the bottom-up approach, which helped activate local resources for the purposes of local community development. Additionally, it involves the local population who has the closest insight into the developmental opportunities and who is deemed partly responsible for and more dedicated to the project than the external active participants. Such an approach is not in opposition to the top-down approach in the sense of the influence coming from the top of the state, regional authorities or through relevant ministries. For Croatia, the Leader Programme is considered to be positive for the purposes of rural development and we expect fast adjustment of local active participants in the creation of LAGs, as well as strengthening of their role as developmental factors. For example, we find the first institutional initiative of that kind in the Istrian County’s attempts to include the Leader Programme in their rural development (Laginja and Čorić, 2000). One of the non-government organisations using the Leader Programme principles is the Croatian Rural Development Network. After the years of informal work, in January 2006, it was formally registered with the task of gathering and representing civil society organisations which deal with the sustainable rural development of Croatia (www.odraz.hr, of 23. 10. 2011).

3.1. Strategic guidelines for the Republic of Croatia’s rural area management according to the Leader Programme principles

The strategic guidelines for rural area development, which should form a base for preparation of a comprehensive strategy of the development of the Republic of Croatia, should be based on the five points which we quote below. According to the studied documentation, Delphi method research and a many years long work in that area, it is proposed that the following be acted on:
a) Increasing destination competitiveness

Rural area must develop a tourist offer which will be competitive by its quality, price and attractiveness and that offer should particularly be based on originality, historical, cultural and natural characteristics of that area and its other specific qualities. Competitiveness is very important in achieving a strongly manifested destination advancement; the destination will achieve the said goal by means of offer differentiation and quality emphasising.

b) Current offer advancement and creation of new way of management

Through field research the deficiency of rural area management was determined. Apart from removing those drawbacks, the activities directed to rural development must be focused on new products and a new offer accompanied by adequate and systematic resource management.

c) Increasing overall rural area quality

Quality-wise, the current offer does not satisfy the requirements of the modern market and EU, which, in future, should be changed by bringing in new investors and retaining the existing ones, with a necessary measure of knowledge and expertise, compatible with European and world levels.

d) Creation of clusters/LAGs for the purposes of tourist (economic) development

In order to increase the number of visitors and tourists also in the geographically isolated and remote areas which contain less interesting attractions (natural, historical and cultural), it would be necessary to unite all destination’s landmarks by means of clusters. Apart from this, associated itineraries for visits to attractions would also be created. In such a way a visitor critical mass would be created even in less attractive locations with less interesting contents.

e) Breading and linking

Owning an appropriate product is a part of a successful equation. Branding is a path by which potential producers and consumers are encouraged to purchase and to produce products. Apart from an integral image, quality hallmarks for typical products can also be created.

3.2. The goal of development of Republic of Croatia’s rural areas according to the Leader Programme principles

1. Faster overall economic and social growth and development
A more dynamic overall development, which can be achieved by synergy of all significant economic and managerial factors, is needed in the area.

2. Dynamic, quality and organised tourism development

Tourism in rural area does not follow in speed and quality the development of Croatian coastal destinations. In that part, tourism is expected to provide greater dynamics in development, improvement of overall quality, as well as a modern and flexible management system. Rural areas have all the predispositions to become recognisable eco-destinations, in which rural and all other sustainable forms of tourism in protected natural areas will become prominent.

3. Multiplicative impacts (economy and overall)

The current position in the economic structure does not facilitate achievement of remarkable multiplicative impacts on associated businesses. This area development must commence noticeable activities also in the fields of agriculture, trade and traffic.

4. Improvement of the lives of inhabitants

Rural area development will enable a decrease in unemployment and drain of inhabitants, economic prosperity and security, as well as entrepreneurship and a positive climate for further economic activities.

5. Giving meaning to programmes which provide a faster return on invested capital

In their work, proposers of all the contents in rural areas need to take into consideration those products which will facilitate a faster return of invested means to investors.

4. CONCLUSION

The main advantage of the Leader Programme was the bottom-up approach, which helped activate local resources for the purposes of local community development. Additionally, it involves the local population who has the closest insight into the developmental opportunities and who is deemed partly responsible for and more dedicated to the project than the external active participants. Such an approach is not in opposition to the top-down approach in the sense of the influence coming from the top of the state, regional authorities or through relevant ministries.
Only by managerial approach, respecting all managerial functions, is it possible to realise the concept of management and development as, objectively speaking, the situation in rural areas is stagnant and advancement cannot be felt. Regardless of the fact that it concerns the investment in the economic and non-economic sectors, it is possible to realise such an approach.

Equally, a team of people with managerial competences, with knowledge about the matter of rural area management, can and ought to conduct rural development actions and stimulate the implementation of the EU programmes for rural part development. Cooperation alone in that area goes further than the networking itself. It involves Local Action Groups which carry out a mutual project with another LEADER group, or with a group which has a similar approach in another region, member-country, or even in some third country.

“Cooperation can help LEADER groups to bring into focus their local activities. This can enable them to solve particular problems or to add value to local resources”. (Štifanić, Debelić, 2009, p.27).

The cooperation projects are not only a simple exchange of experiences; they have to include specific mutual projects, ideally conducted within a common structure.

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INTELLECTUAL CAPITAL MANAGEMENT IMPLEMENTATION MODEL IN TOURISM ORGANIZATION

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Abstract

Modern aspects and elements of management are based on intellectual capital today more than ever before. Modern management seeks to realize the strategic goals and improve the competitive position of the organization in its environment through intellectual capital management. This paper tries to point out the complexity and specificity of the intellectual capital model in the transition conditions in the example of Dalmatia as a tourist region in the Republic of Croatia. The quota sample which consisted of ten hotels has been used as a research sample. Methodology of data processing was factor analysis as multivariate method. Criteria are defined through six latent variables which provide the high reliability in the construction of an intellectual capital model in the tourism organizations in transition conditions.

Keywords: intellectual capital; implementation; factor analysis.

JEL Classification: Z3, Z32
INTRODUCTION

The subject of the paper is the creation of a model for managing the intellectual capital of tourist organizations in transition conditions on the basis of factor analysis, which examines the interdependence between a large number of variables aiming to reduce them and to find latent variables or factors. Aim of the paper is to point out the complex, demanding and specific implementation of the intellectual capital management model in transition conditions on the example of the tourist region of Dalmatia in Republic of Croatia.

The paper consists of four parts. The first part describes the importance of intellectual capital in modern organizations. The second part describes some of the standard methods of measuring the intellectual capital. The empirical research on quota sample of 10 hotels in Dalmatia is shown in the third section along with the resulting six latent variables which are relevant for the intellectual capital management model. The final part of the paper shows the synthesis of the research results.

1. THE IMPORTANCE OF INTELLECTUAL CAPITAL IN THE MODERN ORGANIZATION

The modern global societies and economies of the 21st century are often called the “societies of knowledge”, and such terms are often used to emphasize how the underlying factors of creating new value are ceasing to be material factors of production (land, labor and capital), and they are being replaced by information and knowledge held by people within organizations. This is the birth of the intellectual capital concept coined by Thomas A. Stewart. Intellectual capital is particularly important in the 1990s when the positive difference between market and book value of the company is researched for the first time. Such difference is the result of the fundamental components of intellectual capital like human, structural and relational (consumer) capital. (Sundać, Fatur, 2004). Thus the new value and competitive advantage is created by promoting the flow of knowledge within an organization and transforming that knowledge into value in forms of relational, human and structural capital – the constituent elements of intellectual capital i.e. creating a synergistic relationship between these elements. Intellectual capital can be defined as the “sum of the collective knowledge, experiences, skills and abilities of the company on how to achieve better results,
provide better services and create other intangible values” (Kolaković, 2003). We can conclude from the above definition that intellectual capital does not apply to all knowledge within an organization, but only the knowledge that is able to generate or has a potential to generate a competitive advantage.

Human capital is a “set of competencies, knowledge, social and personal attributes, including creativity and the ability to do work that produces economic value” (Simković, 2001). Although human capital, as a component of intellectual capital is significantly more discussed in the last two decades, its importance as a factor in creating new value was already recognized in the 18th century by Adam Smith who considered it was necessary to invest in the knowledge and abilities of the employees the same way as investing in other production factors. In the 21st century, human capital receives particular attention due to the fact that the modern economy is dominated by the tertiary or service sector, in which a person (service provider) is the basic element of the overall quality. Human capital of the modern organizations has two important aspects – idea or preliminary capital and managerial capital. While preliminary capital emerges from research and development of various experts in an organization, managerial capital refers to the ability of efficient coordination of all resources of a company in order to achieve its business goals, while adhering to principles of efficiency and effectiveness.

Structural capital is stored (archived) knowledge at the disposal of the organization in the form of patents, licenses, business procedures and databases. Structural capital includes inventions and innovative processes which become measurable in economic terms only when the State Office for Intellectual Property issues a document (patent) which enables the holder to exploit the invention. Only when the invention is protected, it is classified as non-current intangible asset. Structural capital has particular significance for a modern organization, because it represents the skeleton and a base of organizational knowledge that the employees leave behind. (Van Zyl, 2005), An organization holds a permanent ownership of the structural capital while human capital is owned only while the holder of the capital (employee) is working for the organization.

The relational or customer capital is an important aspect of the overall intellectual capital of the organization in a sense that an organization can’t successfully achieve its business goals without developed partnerships and contacts in its surroundings. This is primarily related to the relationship with suppliers, buyers and distributors. Important aspects of relational capital in an organization are image (reputation), brand and market position.
2. STANDARD METHODS OF MEASURING INTELLECTUAL CAPITAL

Standard methods of measuring intellectual capital represent a form of modification of standard ROA indicators where information about net income and assets are replaced by information related to intellectual capital. Jurczak (2008) classifies the methods of measuring intellectual capital as follows:

- Economic value added (EVA), (Stewart 1997) – calculated as the ratio of profits earned in relation to intangible values. The newly created value (profit) is divided by the cost of salaries.
- Human resource costing and accounting (HRCA) (Johnson 1997) – calculates the hidden cost implications related to human resources that reduce the profit of a company.
- Calculation of knowledge capital (Stewart 1997) and (Luthy 1998) – based on the calculation of excess profits above expected levels created from tangible assets of the company.
- Value added of intellectual capital (VAIC) (Pulic 1997) – measures how much and how efficiently intellectual capital generates value based on components: human capital and structural capital.
- Balanced scorecard (Kaplan, Norton, 1992) – measures performance through the following perspectives: financial, customer, internal processes and the perspective of learning. Indicators are used in the performance analysis of achieving organizational goals. With measurable results, BCS presents unquantifiable factors (human capital) which are responsible for the result.

3. FACTORS FOR THE IMPLEMENTATION OF INTELLECTUAL CAPITAL MANAGEMENT MODEL IN TOURISM ORGANIZATIONS IN TRANSITION CONDITIONS

The main problem of this research is to determine the factors that connect a large number of interdependent variables that are relevant for intellectual capital management in tourism organizations of Dalmatia that are in transition conditions. Paper results are based on a survey “Evaluation of the impact certain variables have in measuring intellectual capital” conducted on a representative sample of 100 respondents who are employed in 10 Dalmatian hotels (quota sample). Respondents answered in writing. Statistical analysis was performed.
in the SPSS 16.0 software (Statistical Package for the Social Sciences) with considerable results obtained through factor analysis as a multivariate method.

3.1. Results of empirical research

One of the basic prerequisites for the application of factor analysis is that the data is measured on an interval scale. The respondents had to assess the importance of every variable (16 in total) on a scale from 1 to 5, where 1 represents “this variable is not at all important for the quality of intellectual capital and 5 stands for “this variable is of great importance for the quality of intellectual capital”. This scale can be considered as interval if the intervals on it are equal. Factor analysis for the intellectual capital management model was conducted on 16 variables which are as follows: Expertise, Experience, Collegiality, Teamwork, Creativity, Inventiveness, Efficiency, Motivation, Communication, Level of participation, Education, Training and Development, Manuals with business practice, Customer relations, Supplier Relations, Organizational culture.

Table 1 shows the communality of prominent variables that answers the question of how much of the variance of each variable is explained with a number of contained components (factors).

Table 1. Communality of prominent variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Initial</th>
<th>Obtained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expertise</td>
<td>1.000</td>
<td>.913</td>
</tr>
<tr>
<td>Experience</td>
<td>1.000</td>
<td>.805</td>
</tr>
<tr>
<td>Collegiality</td>
<td>1.000</td>
<td>.877</td>
</tr>
<tr>
<td>Teamwork</td>
<td>1.000</td>
<td>.964</td>
</tr>
<tr>
<td>Creativity</td>
<td>1.000</td>
<td>.980</td>
</tr>
<tr>
<td>Inventiveness</td>
<td>1.000</td>
<td>.812</td>
</tr>
<tr>
<td>Efficiency</td>
<td>1.000</td>
<td>.894</td>
</tr>
<tr>
<td>Motivation</td>
<td>1.000</td>
<td>.967</td>
</tr>
<tr>
<td>Communication</td>
<td>1.000</td>
<td>.944</td>
</tr>
<tr>
<td>Level of participation</td>
<td>1.000</td>
<td>.971</td>
</tr>
<tr>
<td>Education</td>
<td>1.000</td>
<td>.917</td>
</tr>
<tr>
<td>Training and development</td>
<td>1.000</td>
<td>.897</td>
</tr>
<tr>
<td>Manuals with business practice</td>
<td>1.000</td>
<td>.705</td>
</tr>
<tr>
<td>Customer relations</td>
<td>1.000</td>
<td>.795</td>
</tr>
<tr>
<td>Supplier relations</td>
<td>1.000</td>
<td>.984</td>
</tr>
<tr>
<td>Organizational culture</td>
<td>1.000</td>
<td>.946</td>
</tr>
</tbody>
</table>

Source: authors (SPSS 16.0)
Table 2 shows the testing of the correlation matrix which confirms the suitability of the data for the implementation of factor analysis. Kaiser-Meyer-Olkin measure is the following criteria with which the sustainability of the data for the application of factor analysis can be examined. Kaiser Mayer Olkin measure moves in a closed interval from 0 to 1. If the value of this measure is less than 0.5, the correlation matrix is not suitable for factor analysis. Kaiser-Meyer-Olkin measure in this case amounts to 0.557 and that value confirms that the data is suitable for the implementation of factor analysis.

The value of Bartlett’s test for the statistical significance of the correlation matrix $\chi^2 = 1023.911$ with 120 degrees of freedom and sig. 1% also confirms appropriateness of the statistical processing collected through factor analysis.

**Table 2 KMO and Bartlett’s test**

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .557 |
| Bartlett’s Test of Sphericity | Approx. Chi-Square | 1023.911 |
| Df | 120 |
| Sig. | .000 |

Source: authors (SPSS 16.0)

The paper used factor analysis of the main components. Secreted factors include specific variance. The table 3 presents the initial results from which the factors are gained and shows values, percentages and cumulative percentages of variance for each factor.
### Table 3 Principal components analysis

<table>
<thead>
<tr>
<th>Component</th>
<th>Eigenvalue</th>
<th>Square load sum</th>
<th>Square load sum rotation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Variance %</td>
<td>Cumulative %</td>
</tr>
<tr>
<td>1</td>
<td>5.472</td>
<td>34,203</td>
<td>34,203</td>
</tr>
<tr>
<td>2</td>
<td>2.006</td>
<td>12,540</td>
<td>46,743</td>
</tr>
<tr>
<td>3</td>
<td>1.676</td>
<td>10,475</td>
<td>57,218</td>
</tr>
<tr>
<td>4</td>
<td>1.474</td>
<td>9,211</td>
<td>66,428</td>
</tr>
<tr>
<td>5</td>
<td>1.313</td>
<td>8,209</td>
<td>74,637</td>
</tr>
<tr>
<td>6</td>
<td>1.054</td>
<td>6,585</td>
<td>81,222</td>
</tr>
<tr>
<td>7</td>
<td>0.635</td>
<td>3,970</td>
<td>85,193</td>
</tr>
<tr>
<td>8</td>
<td>0.544</td>
<td>3,400</td>
<td>88,593</td>
</tr>
<tr>
<td>9</td>
<td>0.435</td>
<td>2,718</td>
<td>91,310</td>
</tr>
<tr>
<td>10</td>
<td>0.374</td>
<td>2,340</td>
<td>93,650</td>
</tr>
<tr>
<td>11</td>
<td>0.333</td>
<td>2,079</td>
<td>95,729</td>
</tr>
<tr>
<td>12</td>
<td>0.194</td>
<td>1,212</td>
<td>96,941</td>
</tr>
<tr>
<td>13</td>
<td>0.179</td>
<td>1,121</td>
<td>98,062</td>
</tr>
<tr>
<td>14</td>
<td>0.158</td>
<td>0.989</td>
<td>99,051</td>
</tr>
<tr>
<td>15</td>
<td>0.115</td>
<td>0.722</td>
<td>99,773</td>
</tr>
<tr>
<td>16</td>
<td>0.036</td>
<td>0.227</td>
<td>100,000</td>
</tr>
</tbody>
</table>

Source: authors (SPSS 16.0)

Factors which are of value greater than one are gained through factor analysis of the main components. Results shown in table 3 present six factors, because the eigenvalue of the seventh factor is less than 1. That matches with the Kaiser-Gutmann criteria, and showcased factors explain 81,222% of the total variance which is suitable when doing research in social sciences. Having identified a number of factors, it is necessary to determine the matrix of rotated components. In this case the Varimax rotation is chosen. Varmiax rotation of factors results in simplification of columns in the factor structure matrix, by simplifying the factors. (Živadinović, 2002) Factor loads indicate the significance of variables for each factor, significant values being from 0.5 to 1.
Table 4 The rotated component matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational culture</td>
<td>0.824</td>
<td>0.152</td>
<td>0.091</td>
<td>0.070</td>
<td>0.268</td>
<td>0.036</td>
</tr>
<tr>
<td>Efficiency</td>
<td>0.799</td>
<td>0.226</td>
<td>0.399</td>
<td>-0.094</td>
<td>-0.002</td>
<td>0.030</td>
</tr>
<tr>
<td>Customer relations</td>
<td>0.720</td>
<td>-0.027</td>
<td>-0.140</td>
<td>0.474</td>
<td>0.095</td>
<td>0.193</td>
</tr>
<tr>
<td>Training and development</td>
<td>0.136</td>
<td>0.838</td>
<td>0.052</td>
<td>0.291</td>
<td>0.079</td>
<td>0.054</td>
</tr>
<tr>
<td>Level of participation</td>
<td>0.175</td>
<td>0.757</td>
<td>-0.033</td>
<td>-0.091</td>
<td>0.318</td>
<td>0.197</td>
</tr>
<tr>
<td>Collegiality</td>
<td>0.309</td>
<td>0.679</td>
<td>0.482</td>
<td>0.087</td>
<td>-0.275</td>
<td>-0.131</td>
</tr>
<tr>
<td>Communication</td>
<td>-0.149</td>
<td>0.584</td>
<td>0.175</td>
<td>0.138</td>
<td>0.486</td>
<td>0.194</td>
</tr>
<tr>
<td>Motivation</td>
<td>0.057</td>
<td>0.130</td>
<td>0.810</td>
<td>0.200</td>
<td>0.089</td>
<td>-0.078</td>
</tr>
<tr>
<td>Expertise</td>
<td>0.467</td>
<td>0.229</td>
<td>0.572</td>
<td>0.065</td>
<td>0.184</td>
<td>0.280</td>
</tr>
<tr>
<td>Creativity</td>
<td>0.390</td>
<td>0.001</td>
<td>0.509</td>
<td>0.498</td>
<td>0.120</td>
<td>0.031</td>
</tr>
<tr>
<td>Inventiveness</td>
<td>-0.077</td>
<td>-0.073</td>
<td>0.167</td>
<td>0.868</td>
<td>0.182</td>
<td>-0.116</td>
</tr>
<tr>
<td>Supplier relations</td>
<td>0.201</td>
<td>0.210</td>
<td>0.047</td>
<td>0.831</td>
<td>0.095</td>
<td>0.162</td>
</tr>
<tr>
<td>Education</td>
<td>0.150</td>
<td>0.216</td>
<td>0.306</td>
<td>0.077</td>
<td>0.847</td>
<td>0.035</td>
</tr>
<tr>
<td>Experience</td>
<td>0.312</td>
<td>0.063</td>
<td>-0.170</td>
<td>0.319</td>
<td>0.820</td>
<td>0.061</td>
</tr>
<tr>
<td>Manuals with business practice</td>
<td>0.193</td>
<td>0.323</td>
<td>-0.081</td>
<td>0.153</td>
<td>0.123</td>
<td>0.845</td>
</tr>
<tr>
<td>Team work</td>
<td>-0.016</td>
<td>-0.158</td>
<td>0.646</td>
<td>-0.191</td>
<td>-0.012</td>
<td>0.672</td>
</tr>
</tbody>
</table>

Source: authors (SPSS 16.0)

The interpretation of factors is based on the rotated matrix components. Table 4 shows that the first factor is defined by variables of ORGANIZATIONAL CULTURE, EFFICIENCY AND CUSTOMER RELATIONS, the second factor with TRAINING AND DEVELOPMENT, LEVEL OF PARTICIPATION, COLLEGIALITY AND COMMUNICATION, the third factor with variables of MOTIVATION, EXPERTISE AND CREATIVITY, fourth factor by INVENTIVENESS AND SUPPLIER RELATIONS, the fifth by EDUCATION AND EXPERIENCE and the sixth factor by MANUALS WITH BUSINESS PRACTICE AND TEAM WORK.

3.2. Factors for constructing an intellectual capital management model in tourism organizations in transition conditions

Each factor and their factor loadings are as follows:

1. Factor called “FOCUS ON TASKS AND HUMAN RELATIONS” consists of the following variables:
   - Organizational culture (0.824)
   - Efficiency (0.799)
- Customer relations (0,720)

2. Factor is called “COMMITMENT” and consists of the following variables:
   - Training and development
   - Level of participation
   - Collegiality
   - Communication

3. Factor is “INDIVIDUAL’S DESIRE FOR PROMOTION” and consists of the following variables:
   - Motivation (0,810)
   - Expertise (0,572)
   - Creativity (0,509)

4. Factor is “BUILDING A VALUE CHAIN” in hotel business consists of the following variables:
   - Inventiveness (0,868)
   - Supplier relations (0,831)

5. Factor is “LEVEL OF EMPLOYEE KNOWLEDGE AND SKILLS” in hotel business and consists of:
   - Education (0,847)
   - Experience (0,820)

6. Factor is the “DESIRE FOR TEAM PROGRESS” in hotel business and consists of:
   - Manuals with business practice (0,845)
   - Teamwork (0,672)

4. CONCLUSION

Factor analysis resulted in six factors on which it was possible to establish a model for implementing intellectual capital in a tourism organization. It is evident that certain factors represent a combination of the components of intellectual capital (human, structural and relational capital). Thus is the first factor, “focus on tasks and human relations”, a combination of human and relational capital. The second factor, “commitment” exclusively shows the features of human capital such as willingness to commit to training and development, participation, collegiality and communication. Features of human capital are also relevant for the third factor, “individual’s desire for promotion”, such as motivation,
expertise and creativity. Due to changes in the structure of the tourism industry which are marked by the creation of global distribution systems, it is not surprising that the “building a value chain” is recognized as the fourth factor in the intellectual capital management model in tourism organizations. This factor is a combination of inventiveness as a feature of human capital and supplier relationship which is a component of relational capital. The level of knowledge and skills of the employees is determined by the level of education and experience and thus is the key factor in selecting and hiring the employees in the tourism industry. “Manuals with business practice” is a component of structural capital and a variable of the sixth factor which is the “desire for team progress”, which is in turn a component of relational capital and important part of team work.

References
PRACTICE-ORIENTED EDUCATION AS AN ADVANTAGE FOR UNIVERSITIES OF APPLIED SCIENCES

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Abstract

Concept of universities of applied sciences was established in Germany in 1968 as institutions called Fachhochschulen. Since then, many countries in Europe adopted this type of universities. Universities of applied sciences moved away from classical idea of universities known as “research and teaching” and adopted “theory and practice”. Today in Germany more than 33% of students are students of Fachhochschulen, and this number is growing around 5% every year, while number of students in classical Universities is growing around 2.5%. Therefore, it is clear that university of applied sciences found their place in high education market.

Both classical universities and universities of applied sciences aim towards same group of students. Thus, universities of applied sciences had to adopt different approach in order to attract more students. Most important advantage of these universities is their practically-oriented education. One of the key features of practice-oriented education is connection with private sector companies. This way, universities of applied science can shape their curriculum to fit labour market, what shall result with attracting more students. Away from German example, universities of applied sciences in Croatia still did not gain such a reputation. Croatian universities of applied sciences still struggle with attracting best students. Therefore this paper aims to question practice-oriented education as an advantage for universities
of applied sciences, as well as to show how practical part of education is organized in Croatia and other European countries, and how it should be organized.

**Keywords:** university of applied sciences, university, practice-oriented education, students, internship, companies.

JEL Classification: D8, I2

1. **INTRODUCTION**

Service oriented education requires great number of high educated labour force. Classical universities were not able to complete this task by themselves, so countries in Europe introduced second type of high education called University of applied science (hereinafter: UAS). UAS firstly appeared in Germany, and later in Austria, Greece, Croatia, etc. Main role of UAS is professional education of students introducing practice oriented education with training and work-based education. This paper monitors idea of UAS in three countries: Germany, Austria and Croatia. Through case studies it shows whether this concept of high education institution has reached success on high education market, and can practice-oriented education be advantage of UAS.

2. **UNIVERSITY OF APPLIED SCIENCES**

In past 50 years Europe is facing enormous changes in economic activity: on one side there is ‘deindustrialisation,’ and on the other side the creation of a services society or ‘tertiarization.’ (Maroto-Sanchez & Cuadrado-Roura; 2011, 6) Service oriented economy requires high-skilled labour force for services such as education (especially higher education), legal services, banking, real estate and accounting, broadcasting and television, air transportation, and health care. (Buera & Kaboski; 2012, 7) This growing need for high educated workers in specific skill oriented field resulted with UAS. This sort of high education institutions first appeared in Germany, from where it spread to Austria and other countries. In German language UAS are called *Fachhochschulen* (hereinafter: *FH*; *Fach* – field of study, *hochschulen* – high education institution) and it sums purpose of this high education institution. Sami is with mentioned English term: *university of applied science*. However lawmaker in Croatia did not follow this model and gave this institution of high education rather unhandy name *Velučilište* (it is derived from word *Sveučilište* which means University), by which name it lost its initial purpose of institution specialized in topical areas. Therefore we note that
future development of UAS in Croatia should involve term relation with its purpose. It must be added that other term for such institutions used in Europe is Polytechnics and is used in translation form in Finland and Portugal.

2.1. Fachhochschulen in Germany

FH were introduced in Germany by the agreement on the Standardisation in the Field of the Fachhochschule System in 1968, but teaching started not before academic year 1970/71. They fulfil their own specific educational function, characterised by a practice-oriented education in teaching and research, a usually integrated semester of practical training, and professors, who have, in addition to their academic qualifications, gained professional experience outside the field of higher education. (Lohmar & Eckhardt; 2014, 147) With Framework Act for Higher Education (Hochschulrahmengesetz) organization and administration of higher education institutions are regulated in detail by federal state legislation. (Lohmar & Eckhardt; 2014, 61) It is why many say we cannot discuss about German high education in general, when there are different rules and practices in every state. However it must be noted that Bologna treaty which was signed in 1998, during first decade of new millennium changed perspective of higher education in Germany. Process started in January 2000 when German Science Council published a comprehensive recommendation for implementation of Bologna treaty. (Ertl; 2013, 5) Changes such as adoption of system based on two main cycles, easily readable and comparable degrees, ECTS credits system and promotion of mobility brought German universities and FH back together. (Bologna Declaration, 1999) Therefore, differences among different federal states are not such as they used to be. Currently there are around 340 institutions of higher education in Germany, from which there are 152 FH. FH are record higher student interest every academic year, and have much higher growth rate than classical universities.

Table 1 Number of students by types of higher education institution

<table>
<thead>
<tr>
<th>Type of institution</th>
<th>Winter semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>1,611,664</td>
</tr>
<tr>
<td>Fachhochschulen</td>
<td>792,837</td>
</tr>
<tr>
<td>Other</td>
<td>94,908</td>
</tr>
<tr>
<td>Total</td>
<td>2,449,409</td>
</tr>
</tbody>
</table>

Source: Destatis, Statistisches Bundesamt
From Table 1 we can see that number of students in FH is growing in much higher pace than number of university students. From academic year 2012/2013 to 2015/2016 number of students studying at FH is 18% higher, while at same time number of students at universities is 10.7% higher.

Why FH are so attractive for students is interesting topic. Horscher for example offers obvious advantages of FH. Firstly at FH students do more practical work at facility, so that they do not have so much of studying at home (what was one of intention of Bologna process) and consequently expectation of finishing studying is much higher than at universities. Secondly, due to practice-oriented lecture, student groups are much smaller than at universities where there are sometimes few hundreds of students, while in FH groups are between 20 and 50 students. Finally it is not hard to conclude that there is higher connection and cooperation between lecturers and students from which students can only benefit. (Horcher; 1998, 116) Other approach could, however, say that UAS students have fewer opportunities for professional development outside of their profession, what university students usually have.

2.2. Fachhochschulen in Austria

Austria introduced FH in May 1993 with Fachhochschulen Studies Act. The core idea was not establishing of institutions but rather conducting FH programs. Therefore, at beginning federal states allowed already existing institutions to involve FH programs as additional programs. Few years later some of this institutions evolved into FH institution such as Germany have (or today Croatia). We find this approach very useful since allowing wider range of institutions to join high education market can contribute competition in market of higher education, where existing institutions now have to compete for students. We must not lose out of our sight that UAS are practice-oriented institutions and classical university lecturers, whose experience in greater level lean on science and research, are not always best option for UAS.

In his work, another author, Leitner finds FH as a successful model, however he sees several shortcomings which could be accredited to fact that this is relatively young model of high education. He describes three points: the design of some study programs is too narrow – therefore only related to very special occupation; some FH only offer one or two programs which are also widespread on two or more locations; the fast growth of the FH in the recent 10 years also lead to a lack of qualified and experienced teachers. (Leitner; 2004, 110-111)
Unlike Croatia both Austria and Germany decentralised FH so that Federal government is not involved in administration and licence for FH. However, through federal government financial scheme where it finance institution per number of study place, it can have impact on establishment, development and downsizing of study programs. Unlike Austria, Germany finance institutions by their success: financing regarding number of students that successfully finish their study. Here we should note that both Germany and Austria allow FH students to gain Bachelor and Master Diploma, although, often on diploma letters FH are added. Therefore, FH students do not differ much from classical university students which allow FH programs to be more attractive.

3. PRACTICE-ORIENTED EDUCATION IN UNIVERSITY OF APPLIED SCIENCES

On German and Austrian example we saw that both countries introduced FH system in order to bring high education towards labour market. Research and science offered at university level could not meet requirements of modern service oriented economy. The change to practice oriented education requires not only a curriculum and delivery style change, but a total rethink of the assessment practices. (Jorgensen & Howard; 2005, 1) Therefore, introducing a new type of institution was a benefit for all; universities could continue doing what they are best in, and labour market got a pool of high educated workers. This is how it was supposed to work in theory; however, from Leitner we saw that even in Austria there are shortcomings very similar to Croatian example.

When Croatian government introduced UAS with The Scientific Activity and Higher Education Act (hereinafter: The Act; Official Gazette 123/03) it established three types of high education institutions: university, UAS and higher schools. Task of university is scientific, art and development oriented research. Task of UAS and higher schools are professional and vocational education. In Croatia there are 50 higher education institutions: 8 public universities, 2 private universities, 4 private UAS, 11 public UAS, 22 private higher schools, and 3 public higher schools. (AZVO) Important part of practice oriented education is internship or work-based education. However, it should not be excluded that prior to practice students require theoretical foundation. Theory lectured at UAS is more connected with practice than such theory at classical universities. Nevertheless, courses at UAS are more determined towards one practical field.
existing on job market. In order to provide quality practice oriented education UAS need quality lecturers. That is reason why in Germany FH lecturers defer from lecturers at classical universities. According to Hubert Mücke, Managing Director of Higher Education Teachers Associations: “For a job as FH Professor candidates must bring at least five years of professional experience in their field, three of them outside of the university. A scientific career at the university is not enough.” (Spiegelonline; 2013) Lecturer cannot gain practical experience throughout studying theory; and that is why it is essential for lecturers to have practical experience in their field prior to becoming UAS lecturer. Also, positive approach is to activate UAS as business subject on market. Since lawmaker gave to UAS autonomy in selecting lecturers, it would be useful for every UAS to determine a practical experience as a requirement for every new lecturer.

3.1. Work-based education, training and internships

In Europe 2020 strategy EU defines two major targets in higher (tertiary) education: increasing attainment of higher education (at least 40% of young people aged 30-34 should have completed tertiary or equivalent education by 2020), and improving quality and relevance of higher education. (Tufekcic & Tufekcic; 2013, 138) European Commission stresses that: involving employers and labour market institutions in the design and delivery of programmes, supporting staff exchanges and including practical experience in courses can help attune curricula to current and emerging labour market needs and foster employability and entrepreneurship. (European Commission; 2011)

There are two types of work-based learning: via institutional training centres and via internship in external company. In Croatia there is excellent example of institutional training centre in UAS Pozega. At Study of Oenology and Viticulture UAS Pozega allows their students education and training in UAS’s vineyard of more than 18,500 grapevines. Complete care of vineyard is conducted by students of second and third year bachelor program and their lecturers. Their capacity is around 50,000 litres of wine. (Pozeska-kronika; 2014.) This is a unique example how education and training should work. In Pozega there are 4 practical courses, one in each semester of second and third year of bachelor program. Study plan describes that aim of course is to allow students to apply previously learned knowledge in practice. Most important goal is to train students for independent work in viticulture and winemaking production. (VUP, 2013)
Another useful example of UAS and business coexistence is Austrian UAS Upper Austria in Hagenberg, established in 1993 in Software park Hagenberg, also known as Austrian Silicon Valley. Hagenberg Campus is an important part of this successful technology park founded in 1989, which today hosts 70 companies, including 20 start-ups, and 12 research institutes. More than 1,000 people are employed here, while 1,400 students work towards a Bachelor’s or Master’s degree programme at our School of Informatics, Communications and Media. (UAS Upper Austria; 2015, 7) In Austria students are required to complete an internship in a company or organization in Austria or abroad. Duration of the internship is between 9 to 24 weeks. UAS like Hagenberg is example of coexistence between education and business; as well as example of connection between job market and education. Every company around UAS benefits from students who work their internships there and as well can find job after graduation. Students learn from practice which gives their education an advantage towards classical university students. Both allow UAS to be more attractive for new students.

UAS that do not have their own capacities allow their students to work at external companies or organizations through internships. This is a part of UAS processes in Croatia that still is not developed successfully. It is our impression that both students and employers do not see benefits of student training. Students on the one side are unmotivated since those trainings are in most cases unpaid, and usually last for less than a month. On the other side, employers do not see benefit of ‘new fresh blood’ in their businesses and in most cases do not have time nor money to work with students. If we look at German practice, we can see that situation is completely different. There are several internet pages specialized for internship seekers (such as meinpraktikum.de). Internships are in vast majority of cases paid. In job trends questioner in 2014, Staufenbiel found that 65% of employers pay 401-800 € per month for interns, while only 11% of interns receive less than 400 € per month. (Staufenbiel; 2014, 72)

### 3.2. Implementation of practice oriented education in Croatia

The Act describes function of UAS as higher education through organizing and performing professional studies, and can also perform professional, scientific and art activities according to The Act and its statute. Lawmaker did not go any further with determination of institute activities, rather allow every institution to organise its activity through study plan and implementation plan. In most cases in implementation plan we can find that training and internship
should be conducted in outside companies or organizations. However, reality is that there are not many such companies or organizations that would provide such an opportunity for students.

UAS in Croatia, according to The Act, are organized to benefit local society. Translating this we find that UAS should follow local society needs; and furthermore, UAS should follow local job market. In example of UAS Pozega, and UAS Upper Austria we saw how much students and whole local society can benefit from well organized programs. Second step is to connect existing local businesses with UAS. Most important step is to create internships positions for students. As it is shown above in countries like Germany or Austria, internships and work-based education are considered as win-win option for students, institution and employer. Internships are the link between theoretical knowledge and concepts learned in the classroom setting, and real time industry applications. Students who have participated in internships have reported better time management and communication skills, higher levels of self-discipline, increased initiative and have higher self-image concepts. (Radigan; 2009, 2)

Secondly, most significant impact of internship on UAS is better position of UAS on market. Students will appreciate that after graduating at certain UAS they will have knowledge and skills that are needed on job market. On the other hand, with in-school practical experiences like ones in UAS Pozega, UAS can earn extra funds that will allow them to attract better lecturers, invest in infrastructure, which at the end again leads toward better position on high education market. Considering classical universities, Gault et.al. stress that there are views in academia that feel internship programs as nothing more than part time jobs in exchange for an easy “A”. They believe internships detract from the students’ academic pursuits. They argue that generally speaking, intern programs lack sufficient oversight and can actually diminish a university’s image, leading to diminished funds. (Gault et. al.; 2000, 51-52) This however cannot be case with UAS since their purpose is practical education and can be seen as advantage towards classical universities.

Finally, from internships benefit businesses and organizations. Student interns that are properly placed are typically highly motivated. Student interns provide companies with inexpensive, competent assistance. If the internship involves a paid position, it is usually at much lower rate and without the additional expense of fringe benefits. (Radigan; 2009, 3) Also, student internship can provide employer in-depth analysis of potentially new worker. The company is not
under any obligation to hire the student, and is therefore able to evaluate these potential employees virtually risk free. (Radigan; 2009, 4) However in situation where companies cut their expenses and can hardly even pay their employees, it is hard to expect they would hire intern and give them salary. On the other hand, students have less interest to work 5 months without any salary. We find, therefore, that government must stimulate internships, if not with direct funds, then by allowing companies and organization to use those expenses as tax relief.

4. CONCLUSION

Idea of UAS was born in Germany. Likewise, Germany is a country in which UAS have strongest position. From table 1 we saw that number of students in UAS is rising much faster than number at classical universities. In Europa 2020 strategy EU encourages work-based and vocational education with training. Practice oriented education requires work-based education which can be conducted either within institutional centres or at outside partner businesses and organizations. UAS Pozega created well organized conditions for their students at their own vineyards and facilities, allowing students work-based education. However, internships in businesses and organizations outside of UAS is not as popular in Croatia as it is in Germany or Austria. Case of UAS Upper Austria show how high-tech industry can cooperate with high education from which everyone benefit. We find that classical universities are unable to introduce practice-oriented education in such high level as UAS, and that is why Croatian UAS must utilize this advantage to survive and succeed at high education market. UAS system needs suggested improvements so it can gain better position on market and as well stronger ability to fulfil its purpose of creating high-educated labour force for service economy.

BIBLIOGRAPHY


MOTIVATION FOR WORK – PERCEIVED SOURCES OF WORK MOTIVATION OF POLICE OFFICERS (PROFESSION, ORGANISATION, MANAGEMENT)

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Abstract

Identification of key components of the police functioning (profession, organisation, management) as relevant sources of work motivation of police officers and evaluation of specific motivational factors within the mentioned sources – are important preconditions for improving motivation, professional satisfaction and work efficiency of the police officers. In accordance with the above-mentioned, empirical research was conducted to determine the perception of police officers on the sources of work motivation and motivational factors in the police, and the intensity of their effect on working engagement and enthusiasm of the respondents. The research was conducted by method of survey,
by means of Questionnaire on the Sources and Factors of Work Motivation of the Police Officers. The sample of respondents includes 210 police officers who are students of undergraduate and specialist graduate professional study programme of Criminalistics at the Police College in Zagreb. Research results show that police officers perceive police profession as the most relevant source of work motivation; they perceive police organisation as moderately motivating source, and police management as borderline motivating source. Motivational factor “Protection of citizens’ lives” is evaluated by respondents as the one with the most intense motivating effect (among sixty factors in total), and “Financial incentives (Christmas bonus, vacation bonus…” as the factor with the least intense or with demotivating effect (because this factor existed before, but it was abolished and currently does not exist). In principle, profession is determinate source of work motivation, while organisation and management are flexible (indeterminate) sources that can and must be adapted to the motivational affinities and preferences of police officers to a certain level. Diagnostic and cognitive results, obtained by the research, can present the basis for further, in-depth and more extensive research of the issue (based on subject or new information) and be useful resource for better understanding and more effective implementation of motivational techniques and strategies in the police practice.

**Keywords:** motivation for work, the police, sources of work motivation, motivational factors, perception of the police officers

JEL Classification: M5, M54

**INTRODUCTION**

Work efficiency of every profession depends on many different factors, but *motivation for work* is probably one of the key factors among them. Police profession is specific and highly relevant social activity, so the qualitative level of services the police offer to citizens is important. The police force is a central service of the Ministry of the Interior, which offers the protection of citizens’ fundamental constitutional rights and freedoms and protection of other values protected by the Constitution of the Republic of Croatia (Law on Police, Article 2). Police tasks and police powers are applied by the police to prevent and eliminate dangers even in the criminal investigations. Police officer is an officer of the Ministry, which is authorised to perform police tasks by application of police powers (Law on Police Tasks and Powers, Article 1 and 2). The efficiency of the police officer, among others, depends on the level of his/her work motivation.
Motivation is a common term for all internal factors which consolidate intellectual and physical energy, initiate and organise individual activities, direct behaviour and determine its direction, intensity and duration (Bahtijarević Šiber, 2009:557).

Positive work motivation causes positive effects on the efficiency of the police officers, which ultimately results in improving the operational potentials and functionality of the police organisation. Material compensations and stimulations in the police are mostly limited and general, and more form (office, position) than content related (achieved work results). Non-material strategies and motivation techniques are abstract or latent, police supervisors do not recognise them or avoid them, and the police system (Ministry of the Interior as an organisation) in this regard is generally inert or indifferent.

Research topic

Empirical research is focused on identification of particular key factors of the police functioning as sources of motivation of police officers (profession, organisation, management), i.e., on the identification and evaluation of motivational factors (facts and circumstances) among the mentioned sources. Improving knowledge on the mentioned research topics (motivational sources and factors) – is an important precondition for systematic improvement of motivation of police officers and their work efficiency.

Research objectives

Identification of the perception of police officers on the sources of motivation, as well as the intensity of motivation caused by particular motivational factors - are the main objectives of this research. Realisation of the stated objectives implies identifying and comparing motivational relevance of particular sources of motivation (profession, organisation, management), that is, identifying the intensity of motivating effect of particular motivational factors and their ranking. The results obtained by this research can be relevant guidelines for further, in-depth and more extensive research of the issue and useful resource for better understanding and more effective implementation of motivational techniques and strategies in the police practice.
RESEARCH METHOD

Empirical research was conducted by method of survey, by means of questionnaires. The survey was conducted in March 2016 at the Police College in Zagreb.

SAMPLE OF RESPONDENTS

Two hundred and ten respondents (police officers) participated in the survey. Respondents are students of undergraduate professional study programme of Criminalistics (103 respondents) and specialist graduate professional study programme of Criminalistics (107 respondents). All respondents (students) are active police officers - employees of the Ministry of the Interior (employees of the Police Administrations or employees of the General Police Directorate). Demographic characteristics of the respondents are shown in Table 1.

Table 1. Demographic data of the research participants (respondents)

<table>
<thead>
<tr>
<th>Demographic data (N=210)</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>158</td>
<td>75</td>
</tr>
<tr>
<td>Female</td>
<td>52</td>
<td>25</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to 25 years old</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>25-30 years old</td>
<td>96</td>
<td>46</td>
</tr>
<tr>
<td>30-35 years old</td>
<td>71</td>
<td>34</td>
</tr>
<tr>
<td>35-40 years old</td>
<td>27</td>
<td>13</td>
</tr>
<tr>
<td>40 and more years old</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Organisational unit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA – I category</td>
<td>56</td>
<td>27</td>
</tr>
<tr>
<td>PA – II category</td>
<td>31</td>
<td>15</td>
</tr>
<tr>
<td>PA – III category</td>
<td>35</td>
<td>17</td>
</tr>
<tr>
<td>PA – IV category</td>
<td>55</td>
<td>27</td>
</tr>
<tr>
<td>General Police Directorate</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>Length of service in the police</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to 5 years</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>5-10 years</td>
<td>109</td>
<td>53</td>
</tr>
<tr>
<td>10-15 years</td>
<td>38</td>
<td>18</td>
</tr>
<tr>
<td>15-20 years</td>
<td>28</td>
<td>14</td>
</tr>
<tr>
<td>20 and more years</td>
<td>13</td>
<td>6</td>
</tr>
</tbody>
</table>

The sample is predominantly represented by men (75%), while 25% of respondents are women. The actual representation of men in the total population of police officers is even more pronounced (according to unofficial data, in 2014, there were 83% of men and 17% of women). The dominant age of respondents is between 25 and 30 years old; while the average age of respondents in the sample is 31.1 years old (it is significantly lower than the actual average age of police officers, which was 38.5 years old in 2014 according to unofficial data). The Law on
Police (Article 10) provides that Police Administrations shall be established for the purpose of performing police and other tasks in the territory of the Republic of Croatia. Territory and headquarters of a particular Police Administration is determined by the Government of the Republic of Croatia, by means of Regulation on Territories, Headquarters, Types and Categories of Police Administrations and Police Stations - which prescribes (Article 3) that in the territory of the Republic of Croatia, twenty Police Administrations, divided into four categories, shall be established. General Police Directorate, in accordance with the Law on Police (Article 9), directs, coordinates and supervises the work of Police Administrations. In the sample, the most common respondents come from the first and fourth categories of Police Administrations, while the presence of other levels of organisational units is slightly lower, but sufficient. The length of service in the police is important demographic characteristic that should be taken into consideration when interpreting the results of research - in total, and in relation to certain sources, or motivational factors. Prevailing length of service of the respondents is from 5 to 10 years, and the average length of service of the total sample is $M = 10.3$ years.

**Research instrument (Questionnaire)**

Determining the perception of relevance of certain sources of work motivation and intensity of effect of certain motivational factors in the police work was carried out by surveying police officers, by means of Questionnaire on the Sources and Factors of Work Motivation of the Police Officers.¹ The questionnaire consisted of an introductory (informative) and a main part. The main part of the questionnaire consisted of general questions (demographic characteristics of the respondents) and essential questions (sources and factors of work motivation of police officers). Sources of work motivation in the questionnaire were classified into three categories: police profession/work, police organisation and police management. Each of these categories contained twenty particles - motivational factors. With regard to each particle / motivational factor (sixty in total), respondents were offered ranking scale (1-2 = not motivating, 3-4-5 = moderately motivating, 6-7 = very motivating), according to which they, by circling the appropriate number, declared their attitude toward the level/intensity of motivation caused by each of the above-mentioned factors.

¹ Note: Technique and method used in this research are comparable and similar to those used in the research on the problem of stress in the police - see Orlović, Labaš, Gudelić, 2015.
Statistical analyses

Processing and systematization of data collected by research was performed using statistical computer program for sociological research SPSS 20 (Statistical Package for the Social Sciences). Data analysis was realised by descriptive statistical procedures, i.e., by showing descriptive indicators - statistical values (M, SD, rank), regarding the responses of respondents in relation to the particles/motivational factors from all three sources of work motivation (profession/work, organisation, management). For the purpose of further and detailed analyses of the data collected, in the continuation of this research project, analytical and mathematical statistical techniques from the domain of inferential statistics (for example Mann-Whitney U test or Kruskal-Wallis H test) will be used, with the aim of determining the possible differences in the attitudes of different groups of respondents in relation to the certain motivational factors.

RESEARCH RESULTS AND DISCUSSION

Essentially, the research was determining the perceived intensity of effect of certain motivational factors on work motivation of police officers. Motivational factors are divided into three groups, i.e., three types of sources of motivation, so the research results show the motivational relevance of certain sources of motivation in the police – profession, organisation, management.

Police profession/work – the source of work motivation of police officers

Police profession as a source of work motivation encompasses motivational factors related to the characteristics of police work which is largely specific and even unique. Police tasks are defined by the Law on Police Tasks and Powers, and primarily imply protection of life, rights, liberty, safety and inviolability of a person, protection of public order, protection of property and prevention and repression of crime (criminal offences and misdemeanours). The questionnaire consisted of twenty “profession-related” motivational factors, on which intensity of effect respondents were declaring (1-2 = not motivating, 3-4-5 = moderately motivating, 6-7 = very motivating). Research results in relation with the above-mentioned are shown in Table 2.
Table 2. Basic descriptive statistical values and ranks of perceived intensity of effect of “profession-related” factors of work motivation in the police

<table>
<thead>
<tr>
<th>Rank</th>
<th>“Profession-related” factors of work motivation</th>
<th>M</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Love of police work/profession</td>
<td>5.33</td>
<td>1.15</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Excitement of police work</td>
<td>5.37</td>
<td>1.07</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Diversity of police work</td>
<td>5.22</td>
<td>1.17</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>Importance of police work (specific cases)</td>
<td>5.42</td>
<td>1.17</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>Social benefits of police work</td>
<td>5.34</td>
<td>1.20</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>Helping people in need, victims and injured parties</td>
<td>5.75</td>
<td>1.12</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Protection of legal order and system</td>
<td>5.02</td>
<td>1.40</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>Protection of justice and equality of citizens</td>
<td>5.15</td>
<td>1.47</td>
<td>13</td>
</tr>
<tr>
<td>9</td>
<td>Sense of responsibility for work results</td>
<td>5.16</td>
<td>1.30</td>
<td>12</td>
</tr>
<tr>
<td>10</td>
<td>Application of police powers in police action</td>
<td>4.69</td>
<td>1.45</td>
<td>18</td>
</tr>
<tr>
<td>11</td>
<td>Protection of citizens’ lives</td>
<td>5.91</td>
<td>1.02</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Prevention of misdemeanours</td>
<td>4.67</td>
<td>1.44</td>
<td>19</td>
</tr>
<tr>
<td>13</td>
<td>Protection of state and social property</td>
<td>4.90</td>
<td>1.26</td>
<td>17</td>
</tr>
<tr>
<td>14</td>
<td>Protection of public order</td>
<td>4.94</td>
<td>1.29</td>
<td>16</td>
</tr>
<tr>
<td>15</td>
<td>Protection of citizens’ property</td>
<td>5.07</td>
<td>1.20</td>
<td>14</td>
</tr>
<tr>
<td>16</td>
<td>Prevention of criminal offences</td>
<td>5.59</td>
<td>1.20</td>
<td>5</td>
</tr>
<tr>
<td>17</td>
<td>Detection of punishable acts</td>
<td>5.60</td>
<td>1.12</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>Proving punishable acts</td>
<td>5.53</td>
<td>1.35</td>
<td>6</td>
</tr>
<tr>
<td>19</td>
<td>Finding the perpetrators</td>
<td>5.90</td>
<td>1.25</td>
<td>2</td>
</tr>
<tr>
<td>20</td>
<td>Sanctioning the perpetrators (by the courts)</td>
<td>4.30</td>
<td>2.04</td>
<td>20</td>
</tr>
</tbody>
</table>

Examination of data in Table 2 shows that the average values of motivating effect of “profession-related” factors of work motivation range from $M = 4.30$ to 5.91 (moderately to very motivating). Average perceived intensity of these motivational factors (1-20) is $M = 5.24$ (min. = 1, max. = 7). The factors with the greatest intensity of motivating effect are “protection of citizens’ lives” ($M = 5.91$) and “Finding the perpetrators” ($M = 5.90$), while the factors with the lowest intensity of motivating effect are “Sanctioning the perpetrators (by the courts)” ($M = 4.30$) and “Prevention of misdemeanours” ($M = 4.67$).

Police organisation – the source of work motivation of police officers

The organisation of the police is generally determined by the provisions of the Law on Police and related subordinate legislation (regulations, statutes). They define descriptions of tasks of positions in the police system, as well as other specific facts and circumstances related to the equal status (rights and
duties) of police officers and the overall principles and rules of functioning of the police organisation. The questionnaire consisted of twenty organisational motivational factors, on which intensity of effect respondents were declaring (1-2 = not motivating, 3-4-5 = moderately motivating, 6-7 = very motivating). Research results in relation with the above-mentioned are shown in Table 3.

**Table 3.** Basic descriptive statistical values and ranks of perceived intensity of effect of organisational factors of work motivation in the police

<table>
<thead>
<tr>
<th>Rank</th>
<th>Organisational factors of work motivation</th>
<th>M</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Position (the fact that you have a job)</td>
<td>4.78</td>
<td>1.48</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Security of position (permanence of employment)</td>
<td>4.83</td>
<td>1.41</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Salary (the amount of personal income)</td>
<td>3.13</td>
<td>1.73</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>Working conditions (equipment, protection, minimising the risk)</td>
<td>2.87</td>
<td>1.48</td>
<td>17</td>
</tr>
<tr>
<td>5</td>
<td>Availability of free time (in a day, week ...)</td>
<td>4.03</td>
<td>1.50</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>Organisational standard (restaurant, rest, recreation)</td>
<td>2.72</td>
<td>1.56</td>
<td>18</td>
</tr>
<tr>
<td>7</td>
<td>Clear description of tasks and duties</td>
<td>3.41</td>
<td>1.49</td>
<td>13</td>
</tr>
<tr>
<td>8</td>
<td>Clear standards of work performance</td>
<td>2.91</td>
<td>1.47</td>
<td>16</td>
</tr>
<tr>
<td>9</td>
<td>Benefits (pension insurance – length of service, health insurance, life insurance)</td>
<td>4.05</td>
<td>1.49</td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>Good working atmosphere</td>
<td>4.20</td>
<td>1.69</td>
<td>7</td>
</tr>
<tr>
<td>11</td>
<td>Possibility of career progress</td>
<td>3.67</td>
<td>1.88</td>
<td>10</td>
</tr>
<tr>
<td>12</td>
<td>Financial incentives (Christmas bonus, vacation bonus ...)</td>
<td>2.17</td>
<td>1.88</td>
<td>20</td>
</tr>
<tr>
<td>13</td>
<td>Material incentives (scholarships, tuition fees ...)</td>
<td>4.43</td>
<td>1.71</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>Days off, holidays, vacation</td>
<td>4.49</td>
<td>1.56</td>
<td>3</td>
</tr>
<tr>
<td>15</td>
<td>Mutual trust between you and your colleagues</td>
<td>4.28</td>
<td>1.53</td>
<td>6</td>
</tr>
<tr>
<td>16</td>
<td>Appropriate rules and ordinances of police action (powers ...)</td>
<td>3.61</td>
<td>1.45</td>
<td>11</td>
</tr>
<tr>
<td>17</td>
<td>Possibility of professional training (specialisations, courses ...)</td>
<td>4.49</td>
<td>1.55</td>
<td>3</td>
</tr>
<tr>
<td>18</td>
<td>Enough staff in relation to the organisation</td>
<td>3.00</td>
<td>1.46</td>
<td>15</td>
</tr>
<tr>
<td>19</td>
<td>Equal workload of staff (obligations/tasks)</td>
<td>2.63</td>
<td>1.41</td>
<td>19</td>
</tr>
<tr>
<td>20</td>
<td>Professionalism and responsibility of co-workers</td>
<td>3.49</td>
<td>1.43</td>
<td>12</td>
</tr>
</tbody>
</table>

Examination of data in Table 3 shows that the average values of motivating effect of organisational factors of work motivation range from M = 2.17 to 4.83 (low to moderately motivating). Average perceived intensity of these motivational factors (1-20) is M = 3.66 (min. = 1, max. = 7). The factors with the greatest intensity of motivating effect are “Security of position (permanence of employment)” (M = 4.83) and “Position (the fact that you have a job)” (M = 4.78), while the factors with the lowest intensity of motivating effect are “Financial incentives (Christmas bonus, vacation bonus ...)” (M = 2.17) and “Equal workload of staff (obligations/tasks)” (M = 2.63).
Police management – the source of work motivation of police officers

Police management is especially complex activity, the reasons for this being multiple and different. Among the most important reasons are: nature/character of police tasks, amplitude/complexity of the legal framework in which such tasks are regulated, size/complexity of the police organisation and the number of staff in the police (police officers and employees). The questionnaire consisted of twenty “management-related” motivational factors, on which intensity of effect respondents were declaring (1-2 = not motivating, 3-4-5 = moderately motivating, 6-7 = very motivating). Research results in relation with the above-mentioned are shown in Table 4.

Table 4. Basic descriptive statistical values and ranks of perceived intensity of effect of “management-related” factors of work motivation in the police

<table>
<thead>
<tr>
<th>Rank</th>
<th>“Management-related” factors of work motivation</th>
<th>M</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Help and support of supervisors while performing tasks</td>
<td>3.45</td>
<td>1.70</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>Team work and coordinated police actions</td>
<td>3.83</td>
<td>1.58</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>Autonomy and independence in work</td>
<td>4.14</td>
<td>1.35</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Public recognition for good work (praise, respect)</td>
<td>3.22</td>
<td>1.85</td>
<td>14</td>
</tr>
<tr>
<td>11</td>
<td>Participation in setting goals and making decisions about tasks</td>
<td>3.42</td>
<td>1.40</td>
<td>11</td>
</tr>
<tr>
<td>5</td>
<td>Possibility of creativity and confirmation of capability at work</td>
<td>3.59</td>
<td>1.51</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Awareness (the feeling that you are informed on affairs)</td>
<td>3.76</td>
<td>1.49</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Possibility of planning and career development</td>
<td>3.53</td>
<td>1.73</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Availability of professional knowledge of supervisors</td>
<td>3.51</td>
<td>1.75</td>
<td>7</td>
</tr>
<tr>
<td>10</td>
<td>Communication skills and behaviour of supervisors</td>
<td>3.47</td>
<td>1.78</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td>Working engagement and dedication of supervisors</td>
<td>3.40</td>
<td>1.84</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>Compassion of supervisors and assistance in personal matters</td>
<td>3.35</td>
<td>1.86</td>
<td>13</td>
</tr>
<tr>
<td>19</td>
<td>The annual assessment of your work (made by supervisors)</td>
<td>3.13</td>
<td>1.74</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Possibility of professional development (support of supervisors)</td>
<td>3.61</td>
<td>1.72</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Supervision style and attitude towards subordinates</td>
<td>3.43</td>
<td>1.69</td>
<td>10</td>
</tr>
<tr>
<td>16</td>
<td>Stimulating organisational climate and culture</td>
<td>3.10</td>
<td>1.53</td>
<td>17</td>
</tr>
<tr>
<td>17</td>
<td>The way of election and appointment of supervisors</td>
<td>2.33</td>
<td>1.47</td>
<td>20</td>
</tr>
<tr>
<td>18</td>
<td>Stability and longevity of supervisory function</td>
<td>2.77</td>
<td>1.48</td>
<td>18</td>
</tr>
<tr>
<td>19</td>
<td>Equal attitude of supervisors toward all officers</td>
<td>2.62</td>
<td>1.71</td>
<td>19</td>
</tr>
<tr>
<td>20</td>
<td>Supervisors’ honesty</td>
<td>3.21</td>
<td>1.83</td>
<td>15</td>
</tr>
</tbody>
</table>
Examination of data from Table 4 shows that the average values of motivating effect of “management-related” factors of work motivation range from $M = 2.33$ to $4.14$ (low motivating to moderately motivating). Average perceived intensity of these motivational factors (1-20) is $M = 3.34$ (min. = 1, max. = 7). The factors with the greatest intensity of motivating effect are “Autonomy and independence in work” ($M = 4.14$) and “Team work and coordinated police actions” ($M = 3.83$), while the factors with the lowest intensity of motivating effect are “The way of election and appointment of supervisors” ($M = 2.33$) and “Equal attitude of supervisors toward all officers” ($M = 2.62$).

Results of this research show that police officers perceive the police profession/work as the most relevant source of work motivation - the average perceived intensity of motivational factors of this source is $M = 5.24$ (highly motivating source). The second-ranked source is the police organisation, with the average intensity of motivational factors of $M = 3.66$ (moderately motivating source), while the police management as a source of motivation, with the average intensity of motivational factors $M = 3.34$ (borderline motivating source) is in the last place. The positive fact is that police profession has motivating effect on police officers because it is determinate source of work motivation. The negative circumstance is that police organisation and police management are sources with relatively limited motivating effect, but mitigating circumstance is that these sources are not determinate and can be reformed and adapted in accordance with strategic assessments and the needs of the police system.

In relation to the police profession, research results show that its protective and investigative dimension are most motivating to police officers while the lowest level of motivation is caused by sanctions for the perpetrators imposed by competent courts (the supposed reason for this is the perceived inadequacy of sanctions with regard to the complexity of the offence and the effort in detecting and proving committed offence). In relation to the police organisation, the most important factors of work motivation of police officers are the fact that they have a job and security/permanence of employment, while demotivating effects result from the lack of financial incentives (Christmas bonus...) and unbalanced workload of police officers. In relation to the police management, the highest intensity of work motivation of police officers is caused by independence and autonomy in work and team work and coordinated police actions in complex cases, while demotivating effects on work motivation are caused by the way of election of supervisors and their unequal attitude toward police officers.
CONCLUSION

By conducted empirical research, by method of survey, and by means of Questionnaire on the Sources and Factors of Work Motivation of the Police Officers, the perception of police officers (students of the Police College in Zagreb) was determined on the motivation in the police, i.e., the sources of motivation (profession, organisation, management), as well as on motivational factors within the mentioned sources.

Research results show that police officers perceive the police profession as the most relevant source of work motivation, while they perceive the police organisation as moderately motivating source, and the police management as borderline motivating source. Motivational factors “Protection of citizens’ lives” and “Finding the perpetrators” were evaluated by respondents as those with the most intense motivating effect (between sixty factors in total), while “Financial incentives (Christmas bonus, vacation bonus ...)” and “The way of election and appointment of supervisors” were evaluated as those with the lowest motivational effect (their effect was actually demotivating).

Diagnostic and cognitive results, obtained by the research, can present the basis for further, in-depth and more extensive research of the issue and be useful resource for better understanding and more effective implementation of motivational techniques and strategies in the police practice. In this respect, it is necessary to analyse evaluation of each motivational factor additionally and in more details, and to attempt to maintain or improve (in practice) positively evaluated factors, while negatively evaluated factors should be significantly corrected, amortised or annulled. In this regard, it is important to understand that the police profession (generally) is determinate source of work motivation, while the police organisation and management are flexible (indeterminate) sources that can and must be adapted to the motivational affinities and preferences of police officers to a certain (significant) level.

Identification of key components of the police functioning (profession, organisation, management) as relevant sources of work motivation of police officers and evaluation of specific motivational factors within the mentioned sources – are important preconditions for improving motivation, professional satisfaction and work efficiency of the police officers. The issue of work motivation is primarily the responsibility of the strategic management of the police, as well as human resources management, but all the other management structures and ultimately all employees individually are also responsible.
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SOCIAL RESPONSIBILITY OF HIGHER EDUCATION INSTITUTIONS IN CROATIA

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Abstract
Due to the growing social consciousness and public pressure as well as legislation, all organizations especially organizations in the business sector are challenged to base its existence and development on the principles of sustainable development. Organizations that actively participate in resolving the environmental, social and ethical issues are considered to be socially responsible. Basic areas of consideration in socially responsible organization are environmental protection and welfare of employees, as well as welfare of local communities and society as a whole. Higher education institutions have always been change agents, therefore, it is of great importance that they are role models for socially responsible behaviour. Basic hypothesis of this paper is that the majority of universities in Croatia do not systematically develop socially responsible practices. Therefore, this paper deals with the concept of social responsibility. The aim of this paper is to explore strategic documents of Croatian universities in order to determine commitment to social responsibility.
Keywords: higher education institutions, social responsibility, sustainable development

JEL Classification: D8, I2

1. INTRODUCTION

Orientation of the business sector towards corporate social responsibility (CSR) has not appeared on a fully voluntary basis, it appeared after a series of public reactions to the questions that the business sector had not previously considered relevant. One of the most frequently cited example is an example of Nike and a buyers boycott of products of the company after some inscriptions appeared in the New York Times about the labour force exploitation as well as the child labour by their Indonesian suppliers (Newell; 2015, p.1). Due to the pressure from various stakeholders, corporate social responsibility issues came to the board of directors, so in 2005, 360 different resolutions that were related to different areas of CSR from working conditions to global warming have been brought (Porter & Kramer; 2006, p.78).

Nowadays, especially in Croatia, CSR is still reserved for companies mostly for promotional purposes. However, other organizations, especially educational institutions, should base their actions on the principles of CSR. Educational institutions should be the initiators of change, not only through education and disclosure of scientific and technical papers, but also through their own example. The purpose of this paper is to explore strategic documents in order to determine whether there is a strategic commitment of higher education towards sustainable development and social responsibility. It will also explore whether higher education institutions are reporting about their CSR activities. The starting point is the thesis that Croatian universities have not developed a strategy for corporate social responsibility, and therefore there are no reports about that issue. The research will be conducted on strategic documents of Croatian universities with the methods of analysis, synthesis, comparison, description and compilation.
2. THE CONCEPT AND THE REASONS FOR IMPLEMENTATION OF CORPORATE SOCIAL RESPONSIBILITY

Corporate social responsibility is a choice, it is based on a voluntary basis and it express the social responsibility that goes beyond the prescribed legal framework. It encourages the increasing standards of social development, environmental protection and respect for human rights. One of the first definitions of social responsibility is one of Howard R. Bowen from the 1950s, whereby social responsibility refers to the commitment of the business sector to apply business policies, take decisions and actions that are desirable considering the community goals and values (Carroll; 1999, p.269). K. Davis has published a significant number of papers about the subject both in textbooks and in articles. He considered that socially responsible decisions are worth in the long term providing additional power to the company. Davis became famous for his view of the relationship between social responsibility and the company power and has set up the so-called “The iron law of responsibility”, according to which corporate social responsibility must be proportionate to its social power (Davis; 1960, p.71). J.W. McGuire has defined social responsibility as an idea which assumes that the company has not only economic and legal obligations, but also has a certain responsibility towards the society where it operates, that goes beyond the economic and legal obligations. This definition is closer to what nowadays is meant by social responsibility because McGuire expanded the definition with the extent in which he states that the CSR activities are above the legally prescribed duties (McGuire; 1963, p.144). Stated author has elaborated that the companies should have the interest in political decisions, community well-being, education and caring about the satisfaction of their employees.

Many global companies have already taken some steps into the direction of socially responsible initiatives, but those efforts were not productive as much as they could be at least for two reasons. The first reason is that business sector and society are usually considered as two opposing sides even though they are interrelated and one without the other cannot function. The second reason looking at CSR in generic way instead of adapting it to the strategy of each company. According to Porter it is necessary to access towards CSR in the same way as to core business since that is the only way CSR will become the opportunity, innovation and competitive advantage (Porter&Kramer; 2006, p.79).
Both in literature and practice there are four main reasons for the introduction of corporate social responsibility. The first reason is the moral responsibility according to which the company obligation is to be a “good citizen”. According to the non-profit organization Business for Social Responsibility companies must achieve its commercial success while respecting ethical values, people, the community and the natural environment (www.bsr.org; 10/03/2016). Another reason for introducing CSR into the strategy is sustainability which includes long-term social and environmental viability. Sustainability is described in the Brundtland report, which provided one of the most quoted definition of sustainable development, according to which, the sustainable development is the development which allows meeting the needs of present generations without compromising the ability of future generations to meet their own needs (http://www.un-documents.net/wced-ocf.htm; 20/02/2016). Achieving sustainability is most effective when it benefits both the company, environment and the community. For example, DuPont has saved over 2 billion dollars due to the reduction of energy consumption and had a positive impact both on the environment and on their business (Porter&Kramer; 2006, p.80). Another reason are business licenses which means that every company needs a government license to start a business or to launch some projects. That means they have to fulfil a number of conditions which in recent years have become more stringent, particularly in terms of environmental and community impact. The last reason for the introduction of CSR is the image, respectively reputation that the company creates including CSR in its own strategy (Porter&Kramer; 2006, p.81).

In order to make social responsibility accepted and implemented in the work and activities of many stakeholders, it is essential to establish and implement regulations and agreements between the various stakeholders. Method of regulating the relations between stakeholders and their activities, is based on social responsibility knowledge. The effective implementation of this approach would be additionally strengthen by the knowledge transferred in higher education institutions.

3. THE ROLE OF EDUCATIONAL INSTITUTIONS IN PROMOTION OF SOCIAL RESPONSIBILITY

Education as well as the development of science is crucial for the promotion of new ways of thinking and emphasizing social and environmental values as well
as improving human capabilities for solving environmental issues and development. In order to address the global social, environmental and economic crisis it is necessary to develop new approaches to economic development through the improvement of education and the development of science and technology. The development of science, technology and education improves the way educational and scientific institutions operate, and is also raising the level of scientific knowledge. Sustainable development is multidisciplinary concept as well as corporate social responsibility, therefore they require quality knowledge management on a global and local level as well as the constant upgrading of educational and training programs (Črnjar & Črnjar, 2009, p.305).

Sustainable Development Strategy of the Republic of Croatia includes the intention of increasing literacy, higher proportion of highly educated population and encouraging lifelong learning. It notes that education for sustainable development should be carried out at three levels: (Matešić, 2008, p.334) through formal education in educational institutions, outside the usual educational institutions, for example through the activities of NGOs (non-formal education) and the media (newspapers, TV, radio) in order to make education for sustainable development as an integral part of everyday life.

It is important to emphasize that education at all levels, from preschool to higher education shall be directed towards sustainable development and the promotion of attitudes, skills and behaviour in harmony with the environment, creating a sense of ethical responsibility (Community of European universities: The University Charter for Sustainable Development; 1994).

4. INDICATORS OF SUSTAINABILITY ON HIGHER EDUCATION INSTITUTIONS

Higher education institutions, particularly when it comes to public higher education institutions, have a public purpose and accordingly, social responsibility. However, in terms of increasing market demands as well as more significant liberalization, deregulation and decentralization strengthens the need to build trust and social responsibility. According to Jongbloed, Enders and Salerno social responsibility of higher education institutions refers to solving important problems facing society, which require social, economic and cultural innovations (Jongbloed et.al.; 2008, p.318). Various indicators of success of higher education institutions are formed at the international level, rankings of
other higher education institutions are done depending on them. There is also a developed methodology of ranking of higher education institutions with regards to their social responsibility. The Global Network for ranking of higher education institutions QS has developed one such methodology. The aim of measurement is to show the level of social responsibility of individual institutions. The goal of the measurement is to show the level of social responsibility of individual institutions showing the amount of investing in the local community and environmental awareness regarding to that criterion. QS is assigning so called QS-star from 1 (at least possible) to 5+ (maximum possible). The criteria that is considered when measuring the social responsibility of higher education institutions are: (www.topuniversities.com/qs-stars/home; 10/03/2016)

• Community investment and development. This criterion carries a maximum of 20 points, and implies that the social responsible higher education institutions are trying to directly enhance the region where they are located. The greatest number of points are obtaining higher education institutions that invest 1% of their income or 2 million dollars in community projects.

• Charity work and assistance in cases of natural disaster carries a maximum of 10 points. This criterion is related to donating funds for charity and help to those in need due to a disaster. The highest scores are rewarded to higher education institutions that donate 1% of their income for these purposes.

• Regional development of human capital. It can be viewed in two ways in which one is related to the proportion of graduates employed in the region, and the other to the number of students from the region. Most points are rewarded to institutions that have 50% of students from the region, respectively whose 50% of graduates recruited in the region. This indicator carries a maximum of 10 points.

• The impact on the environment. Particularly significant is the development of ecological awareness as higher education institutions educate future leaders and experts. In order to receive the maximum 10 points, higher education institutions must have the following: internet page about the sustainability, energy saving program, a program for saving water, recycling program and a transportation policy.
According to these criteria neither of the Croatian higher education institutions are on the rankings of this organization. The reason could be in first and second criteria that are connected to the community investment and donations especially when it comes to public institutions of higher education. They have limited amount of financial funds and their use is limited.

On a global scale there are also other rankings which are usually under the titles sustainability of higher education institutions or green higher education institutions, which are mostly related to the relation of higher education to the environment. For example, Times Higher Education rankings, Best Colleges ranking, UI Green Metric etc.

5. SOCIAL RESPONSIBILITY PRACTICES OF CROATIAN HIGHER EDUCATION INSTITUTIONS

The concept of sustainable development is a part of a substantial number of courses in Croatia’s university and professional study programs. In Croatia, in Opatija, there is a PhD programme entitled Management of Sustainable Development. Performing PhD studies in management of sustainable development prerequisites are created for the development of the scientific centre of the region that encourage the structural changes in the economy.

With the expansion of knowledge in graduate studies, the initiative for the establishment of the first specialized post-graduate studies on sustainable development is launched. It is accepted by the Rector of the University of Zagreb, and is expected to hand over lecture requirements for accreditation, so the study program could start working (Croatian Business Council for Sustainable Development; 2015, Vol. 11, No. 41, p.7). The objective of the study is to strengthen the competence of managers and policy makers to strengthen understanding of sustainable development.

In the early 2015 there was a “Multi share EU forum“ about corporate social responsibility. It was stated on the forum that it is of great importance to educate leaders who understand social responsibility in achieving long-term goals. The need to educate managers was emphasized because it is important that companies embrace the values that are taught through courses on corporate social responsibility. Also the participants concluded that education institutions
and the business sector should strengthen their relationship in order to focus education program on real issues and challenges (Croatian Business Council for Sustainable Development; 2015, Vol. 11, No. 41, p.9). Dissemination of scientific and technical knowledge is the premise of sustainable political and economic development in the Republic of Croatia.

At the moment in the Republic of Croatia, there are 10 universities, 7 public and 3 private. Public universities are University of Dubrovnik, University of Osijek, University of Pula, University of Rijeka, University of Split, University of Zadar, University of Zagreb, while private universities are DIU Libertas Croatian Catholic University and the University of North.

If the mission, vision and values statement are observed together with strategic goals of Croatian universities, most of them do not have systematically developed strategy of social responsibility or green university strategy, as the world’s leading universities have. However, some of the universities have a vision or a mission to be a socially responsible organization. University of Rijeka (www.uniri.hr; 11/03/2016) with its research aims to contribute to sustainable regional development while the University of Split calls on Europe 2020 Strategy and through educational programs and research strive for smart, sustainable and inclusive growth (www.unist.com; 09/03/2016). University of Pula, University of Dubrovnik, University of North and Croatian Catholic University aim to become socially responsible universities.

University of North currently has the most developed strategy of social responsibility. Cited University has a vision to be socially responsible, and that vision develops into the strategy through five strategic objectives. The vision of the University of North is “to be the leading educational, scientific, professional and socially responsible institution for the training of personnel in the field of technical, economic, biomedical and health sciences and interdisciplinary scientific and artistic areas in northwestern Croatia.” (www.unin.en; 11/03/2016). Social responsibility of the University is planning to be achieved through the following five strategic goals (www.unin.en; 11/03/2016).

- Keeping active enrolment policy with the aim of increasing higher education graduates in the region of north-western Croatia,
- Increase access to higher education and lifelong learning, to a wider range of citizens in the region,
• Promoting environmental awareness in the community and demonstrating through their own example environmentally responsible actions,
• The impact on the economic development of the region,
• Promoting and supporting socially acceptable values.

Each of these objectives has associated tasks and activities, which will help to achieve them, as well as objectives achievement measuring indicators. From the above it can be concluded that this University has recognized the importance of corporate social responsibility. The strategy covers the period from 2015 to 2020 therefore reports are not yet available.

With the review of accessible documentation it can be seen that so far not a single university in Croatia has reported about their social responsibility, sustainability or green politics, therefore it can be concluded that neither university has actively and systematically implemented CSR activities. Due to new strategies that are designed for the period until 2020 or 2025 it can be assumed that such activities, on the majority of universities, will not be engaged in the next strategic period.

6. CONCLUSION

With a view of solving global social, environmental and economic crisis it is necessary to develop new approaches to development. Due to the present unsustainability, development is directed towards the concept of sustainable development. One of the fundamental and most important approaches to development is through the promotion of education and through the development of science and technology. Inclusive, responsible and sustainable development can be achieve by improving the education, training, scientific knowledge and work of individual institutions.

Educational institutions have a key role in providing knowledge about the topic of corporate social responsibility. With the development of skills and knowledge sentiments of ethical responsibility are being created. In order to ensure growth of presence of corporate social responsibility it is necessary to continuously implement reforms for raising the level of education. Continuous improvement in the area of social responsibility is the basis for building a society based on knowledge, supported by a culture of research, investment and information.
Higher education institutions meet the public, social and necessary function, so social responsibility of higher education institutions is different from corporate social responsibility. Regardless, institutions of higher education should be an example of the organization that cares about the environment, employees, business transparency and the wider community. It is therefore important to develop a strategy of socially responsible business.

With the analysis of strategic documents of universities in Croatia, the set hypothesis is proved. It is concluded that, although some universities have a vision to be a socially responsible institution, most institutions do not systematically implement CSR activities, nor are reporting about. It is therefore recommended that Croatian universities, as do universities worldwide, develop a strategy of corporate social responsibility and begin to systematically implement it.

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THE IMPACT OF PROJECTS AS AN INTEGRATOR IN IMPROVING THE PERFORMANCE OF ENTERPRISES

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Abstract
The scope of this paper is an introduction of model of integrated project management in order to improve performance. The emergence of new goals and challenges in the organization can lead to a stronger organizational cohesion. Common goals that appear in the project recruit a large number of participants with different profiles. With the completion of the project cycle a driving force remains in the organization, using the positive experience it is possible to improve the performance of companies in the longer period. The main element of improving performance in the company are highly motivated people. Through positive experiences that accumulate through the implementation of the project it is possible to increase the satisfaction of all participants.

Keywords: project management, post-project period, human resources, multidisciplinary team, communication skills

JEL Classification: L67, H43
INTRODUCTION

In the last couple of decades, projects are becoming increasingly popular in the business world. For the most employees it is acceptable to become a member of project team thanks to the nature of projects. This paper will deal with the results of the finished projects with emphasis on human resources. Through the work in the project environment, people will gain new skills and experience. We are expecting that it will lead to improving interpersonal relationships and increase the performance of organizations.

Teamwork is one of the most important segments in project management, but when a project is finished teams are disbanded. Former members of the teams are returning to their regular duties, but the experience and knowledge that they have collected in teamwork are transferred to other members of the collective. From this, it follows that with the completion of the project and disbanding of teams the company gets a new value that is hard to quantify. Indirect monitoring performance can be to determine the existence changes in the company.

The integrative function of the project is visible at the level of better communication between the former members of the teams that participated in the project. Greater cohesion of the team members can lead to the cohesion of other members of the collective who have not directly participated in the project. This is especially important for a better understanding between the members of the collective who come from different disciplines. Every profession has adopted paradigms, symbols and language. Unfortunately, conflicts could occur due to inadvertence communication of ideas. Many concepts have different meanings for different professions. A better knowledge of different professions and people who are part of the collective conflicts could be avoided or mitigated.

PROJECT MANAGEMENT IN ORGANIZATIONS

Project management is a relatively new discipline aimed at creating new unique values, and there are many definitions of project management. One of the most often cited is the following definition: “Project management is the application of knowledge, skills, tools and techniques to project activities to meet project requirements” (Project Management Institute, 2013, 3). It should be emphasized that the project is time-limited, i.e. project is temporary endeavor.
However, the results of the project may not be temporary. This paper will not deal with the direct results of the project effort but with secondary effects that could be felt in the organizations that participated in the project.

Organization of project effort alone is a complex task that involves a large number of people in the organization with the aim to deliver new values. “Temporary organizations such as projects, portfolios, and programs are used to deliver beneficial value to their stakeholders” (Barclay, Osei-Bryson, 2016, 49). The temporary nature of the project organization leads to the creation of complex interpersonal relationships between members of the project team and the rest of the organization. With the exception of organizations that are exclusively engaged in projects, most organizations form temporary project teams of existing people who subsequently come back to the organization. Our paper will address such organizations because the effect on the performance of companies can be felt only if project team members return to the organization.

Thanks to new information and communication technologies, geographical restriction is no longer essential for participation in the project efforts. “Computers have had a major impact on the planning process, enabling networks to be developed on the computer screen and then revised in real time as the planning progresses” (Sears, 2015, 94). New technologies offer us unprecedented opportunities such as creation of virtual teams or increasing the level of performance in the planning and execution of the project. Thanks to software and hardware solutions today we can easily and more accurately plan, and monitor project activities. Thanks to modern databases and software solutions, it is possible to monitor a large number of activities and resources in real time. In this way, it is possible to foresee possible conflicts in the project even in the initial stages.

Gathering reports from project teams is only a small part of project management, it is necessary to constantly motivate project team members, encourage and guide them towards the desired goal. Working with people is very important for project management. The meetings are tool for human resource management in the project, which have their own advantages and disadvantages. “Despite challenges, a well-conducted meeting can have spectacular project results” (Kliem, 2008, 113). Well-run meetings can solve many problems, but it could also help team members to understand each other’s better. The ultimate goal is that all project team members accept the common values in order to function as efficiently as possible.
Post-project time

The very nature of the project is temporary, which implies that the project is clearly time defined; every project must have a beginning and an end. “Temporary does not typically apply to the product, service, or result created by the project; most projects are undertaken to create a lasting outcome” (Project Management Institute, 2013, 1). However, projects are complex so that behind them remains a great deal of results, some of them are intangibles. Knowledge and experience are one of those intangible results.

“Among a number of important mechanisms, the post-project review is one of the most structured and most widely applicable approaches to passing on experience from one team to the next” (Zedtwitz, 2002, 256). In other words, after the project has ended, there must be a series of meetings to codify gathered knowledge and experience.

The aim of the work is aimed at this segment of the project; this segment has often been neglected. However, the benefits of the project efforts are multiple besides obvious one we have and increase the motivation of staff involved in project. Part of project definition is that it is an effort, which resulted in the something unique (at least from the standpoint of those who undertake projects). From this, it follows that the projects bring new challenges for all members of the project team. It requires a full commitment of every member of a project team to resolve possible obstacles.

Work in the functional organizations does not offer such challenges. Projects are imbued with the constant changes and challenges that can mobilize the creative energy of all members of the project team. The creativity can increase the motivation of the project team, every success in the project is important for all members of the project team. The project manager must be very experienced in order to properly direct the creative energy and mitigate the negative effects of possible failure. Therefore, “it would be dangerous, however, to focus exclusively on formal methods of learning and neglect other informal and tacit means of knowledge and experience building” (Zedtwitz, 2002, 257).

Teamwork in a multidisciplinary environment

Teams are formed because it is impossible for individuals to complete complex tasks, through teamwork and the sharing of work, it could be easier and
faster to overcome complex tasks. Only the formation and management of the team is a complex task that requires a lot of experience and knowledge from a project manager. However, working with a multidisciplinary team is particularly challenging and requires even greater engagement of project managers.

Most of the tasks in the project are relatively complicated so that, “...project teams are faced with challenges to utilize diverse knowledge and create new knowledge in order to meet stringent requirements and fulfill ever-changing needs” (Fong, 2003, 480). In other words, the teamwork is creating new knowledge and experience needed to overcome the obstacles when running a project. This knowledge is the property of the team members and often it is uncodified, with the dissolution of project teams this knowledge goes with project team members. Despite of all efforts to keep so much knowledge in the organization through its codification, but some knowledge cannot be codified. Fortunately, many members of the project teams are returning to their jobs in the organization so that it is possible to retain part of the knowledge.

In recent years, we could notice the developing of specific project management methodologies aimed toward people, and one of these methodologies is agile project management methodology. “Placing the emphasis on the individuals in the agile development teams rather than on process or tools means understanding people, recognizing their strengths (not only in terms of programming skills, but also in terms of soft people skills), and understanding the differences between people of different backgrounds and how the differences affect team dynamics” (Crowder & Friess, 2015, 11).

If we add the impact of new information and communication technologies, we come to the emergence of Global Virtual Teams. “GVTs’ (global virtual teams)’ are essentially teams that are distributed across national boundaries and connected through advanced information technology such as email, instant messaging, and video conferencing” (Scott, Widman, 2015, 13). This leads to the fact that the teamwork management becomes more demanding; the concept of global virtual teams imposes a new challenge in the form of working with people who have different cultural background.

Knowledge and experience accumulated in these environments are unique. All project team members have the opportunity to show themselves in the best possible way. Learning and continuous improvement can lead to increased motivation.
The company performance

“The function of performance management is to help managers integrate strategic and operational performance…” (Bainey, 2016, 143). In other words, monitoring the performance of company management monitors the connection between strategic objectives with operational execution. By monitoring a set of indicators, management could easily determine the corrective measures.

“Indicators cover both tangible and intangible assets, such as intellectual capital.” (Arnaboldi, Azzone, Giorgino, 2015, 61). Tangible values are usually related to the resources and costs, these indicators are relatively easily monitored. However, intangible indicators are associated with the human factor. Knowledge, motivation, commitment to work and business goals are just some of the possible indicators that are difficult to define and even harder to monitor. Yet, intangible value of company may be the main reason for the success. The best example is intellectual property; this category is closely related to knowledge and innovation capacity of company.

In modern business we cannot allow ourselves to ignore environmental issues. “Thereby, not surprisingly, performance is not only considered in terms of economic performance (for example savings or profitability) but also in non-economic terms such as eco-efficiency” (Durst, Edvardsson, Bruns, 2015, 16). Ecological problems are more acute so that in developed markets environmental awareness is becoming more prominent. This leads to the fact that companies that are not able to monitor their performance can fall behind the competition.

RESEARCH METHODS

For the purposes of this paper, we shall analyze the average score of professors received by students. We analyze the period from 2011 to 2014. This period is important because it matches with the beginning and end of the cycle of long-term projects. All observed subjects participated in conduction of long-term projects. The initial year of analysis is the year in which the subjects were not part of any project. The last year is the year in which the subjects passed through projects as part of a team. The aim of the research is to determine whether there is a positive or negative trend in teaching after the project has ended.

Working with students is the primary function of all subjects so this is the main indicator of the performance of a higher educational institution. After
determining the trend of teaching, we could create a model that will show the integrative function of projects and project impact on company performance.

The reason for the use of higher educational institutions is in unaided approach of management and the great similarities in working with students. Because of these attributes, it is possible to compare directly professors from different institutions. This gives a qualitative and quantitative attribute necessary for the creation of the model.

**Analysis of the performance of higher education institutions**

For the purpose of the work, we have analyzed the three institutions of higher education, two faculties and one school of professional studies. All three institutions are in the territory of Vojvodina. The reason for the analysis of higher education institutions is that under the laws of the Republic of Serbia, each institution has to go through a process of external evaluation. The part of the process of evaluation includes evaluating teachers by students. In this way it is possible to follow the teaching. This is important because this score contains a range of professional and personal competencies of teaching staff.

We chose the twelve teachers of different levels of education and teaching positions. All professors were involved in the scientific and technical projects. All professors have participated in long-term projects, but at the same time, they have worked in their home institutions.

It should be noted that the first six professors evaluated with scores ranging in the range of 1 to 5. Other professors are evaluated with scores ranging in the range of 5 to 10. Due to the variety of assessment methodologies is difficult to carry out comparative analysis. We also have a small number of subjects which prevents us to discover whether changes in average scores are statistically significant (Table 1).
Table 1. The average score of teachers per year

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However, despite of all the limitations of the analysis of the average score, it can show us a positive trend in the work of teachers. Practically in all cases, except in the latter case, we can observe the increase of average marks. In the latter case we have the anomaly which could be explained by the increasing number of students who have evaluated the last subjects. In this case, observed professor has been assigned to the new program, which has developed over time. In other cases, the number of students who have been evaluating professors has been relatively stable. Over time, the number of students has very little changed so that this information is not essential for our analysis.

Model

The analysis will serve as a starting point in the creation of our model. In the center of model is teamwork in the project environment. All subjects have undergone specific training before entering the project environment and have had the support of the project manager. These two functions are universal and will not be shown explicitly in the model (Figure 1).

Before the start of the project, it is necessary to collect ideas for projects executed initial actions needed to start the project, to form a team, to train team members and eventually manage teamwork in project activities.
Upon the completion of the project teams disband, and team members returning to their home institution. However, it is necessary to separate a specific time for the codification of knowledge and experience in the form of various publications and reports. In this way, everyone in the home organization could acquire knowledge. Unfortunately, it is impossible to codify entire knowledge so members of the project teams are invaluable for the transfer of knowledge and experience acquired in the work of the project team. They are important for increasing the performance of the organization.

CONCLUSION

The paper provides important insight into post project time because in the literature and in practice this is often neglected. Direct results of projects have an important place in business life, as opposed to indirect results. After execution of the project there are a number of positive side effects that are difficult to be directly identified, but all of these effects could lead to increasing performance of organization. In the paper we have introduced a model based on the experiences and analyzes of organizations that have participated in the long-term projects. It means that the model has both theoretical and empirical character.

The limitations of work are reflected in the small number of cases and the analysis only of higher education institutions in the Republic of Serbia. From this it follows that the work is largely oriented towards higher education, while business organizations are neglected. Unfortunately, in business organizations there is still a small number of completed projects, especially in production organizations.
The average score of professors also has its limitations. The first and most serious limitation is related to the nature of the assessment. This score is a composite and includes a large number of attributes, and some of the attributes do not have to be related to the experience gained in working on projects. However, a part of the assessment relates to the experience and knowledge of professors who have accumulated in working on projects. Our analyses give us a guidance needed to identify important segments for the model.

The work provides new opportunities for further research on the indirect results of the project effort. Furthermore, based on the presented model it is possible to set up a new practice in project management, which will include careful planning of post-project activities.

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“EDUCATION ON EXPORT-RELATED TOPICS OF CROATIAN ECONOMY STUDENTS: CURRENT STATE EVALUATION”

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Abstract

Today, export is one of the most important factors for the development of global and national economies. Export represents the sale and marketing of domestic products abroad and it is often exploited as a form of participation in the foreign markets, especially for companies that are in the early stages of the conquest of foreign markets. Also, it enables the company to lead their established operations without major changes or interventions in the organization and is less risky than any other appearance in the market. Education on export-related topics is of the highest importance for improvement of export activities. In order to estimate the level of education of export-related topics of Croatian economy students, survey research has been conducted. The results of the survey revealed that most of the export-specific topics are only shallow-covered, while more general topics are in-depth explored during the education of Croatian economy students.

Keywords: Export, Croatia, education, export-related education, survey

JEL Classification: D8, I2

INTRODUCTION

At the organization level competitiveness can be defined as the capability of a firm or industry to sell or supply products or services in the international market (Zhang, Ebbers and Mulder, 2012; Kalendiene and Miliauskas, 2011) which result with prosperity, higher incomes and employment level (Koneczna
The ability of export goods is measured according to values of export and import (Tyson, 1992; DeCourcy, 2007). As one of the main advantages of export is reduced risk, since there is no need for additional investment in production abroad. Also, the export strategy enables companies to produce and supply several different markets from one central point (the company), achieving economies of scale and reducing production costs. The end of the last and the beginning of this century was marked by significant liberalization and opening up of markets from which we accordingly may conclude that tariffs and transport costs are also much lower than before, what is in favour of export as a cost-effective exit strategy for foreign markets.

Firms who are export oriented can improve their business in several ways: utilize operating capacity, boost production efficiency, raise technological quality, and increase the profit which leads to a higher competitive level (Guan and Ma, 2003).

Competitiveness of the industrial sector is measured by the difference of export and import goods (Saboniene, 2011, Saboniene, 2009). Lack of export strategy is that often there is limited information about foreign markets. The company can be considered as an outsider in the local markets and may face a hostile atmosphere and the refusal to demand for its products. Legal problems are still one of the negative aspects of exports and the problems with the licenses, obligations, contracts, etc. Furthermore, one of the barriers to export as an exit strategy for foreign markets is a lack of initiative. Lack of initiative may occur when the company is focused too much on the domestic market, where there are no foreign links in the distribution channel and where is sufficient knowledge or financial resources of the company. Commercial and market risks, the diversity of cultures, exchange rate risk, etc. are just some of the possible barriers to export. However, despite the barriers that hinder exports, today Its role is so important that it is one of the key determinants of economic success of the country and therefore it is still one of the cheapest and often the chosen strategy of conquest of foreign markets.

Higher export policy in one country increases its competitive advantage (Saboniene, 2011) but also has positive effects on economy of the recipient country (Kabundi and Nadal de Simone, 2012; Canova and Dellas, 1993). There are also findings on importance of export on competitiveness. Wilson (2000) investigates changes in the competitive level of six Asian economies which are export-
ing to the USA, EU and Japan between 1983 and 1995. Countries with higher levels of export such as Malaysia and Thailand were more competitive. Research made by Kalendiene and Miliauskas (2011) showed that export added the most to competitiveness in Lithuania while export stimulate economic development, especially of small economies (Bruneckiene and Paltanaviciene, 2012).

The question emerges to what extent Croatian economic faculties offer educational programs tailored for the improvement of export activities, in order to find the answer to this important question, survey research has been conducted on the sample of Croatian students in the field of economics and business, from four faculties from that area. The rest of the paper consists of the following parts: export activity of Croatia and European countries, education on exports, presenting results of the paper, and estimating the level of educational programmes in export.

EXPORT ACTIVITY OF CROATIA AND EUROPEAN COUNTRIES

Export performance measures are commonly used to measure the performance of companies due to the process of globalization and market liberalization. These processes have resulted in the Croatian market growth companies that decide to participate in export activities. Existing research of Croatian exporters show their dissatisfaction with the export performance and for the main obstacles to improving export results exporters cite problems of financing exports, prices of export products, inadequate or non-existent promotional activities, and poor quality products.

Exports as a form of international business is one of the most important components of the internationalization of companies both directly affect the stimulation of growth companies. However, the international market, by definition, tends to the complexity and unpredictability of these companies are exposed to international competition forced to develop strategies to overcome the hostile environment for foreign companies. Main indicators of foreign trade in each country are imported, exports, trade balance and foreign debt. Seeks to analyse the foreign trade it should be analysed these indicators.

After analysing the Table 1. we can see that exports of goods services and had an increasing trend from 2004 to 2008, after which it recorded a decrease
in 2009 (from 18.519.00 to 15.566.80 mil €) followed by regrowth from 2010 to 2014 when exports of goods and services amounted 19.907.90 mil €. On the other hand, imports recorded a very similar trend as exports.

From 2004 to 2008 there were constant growth of imported goods and services, from 15.216,50 mil € in 2004 to 22.388,70 mil € in 2008. From 2009 to 2012 imports of goods and services were increasing but not in such large proportion as in previous years. In 2012, the amount of imported good and services was 18.057,30 mil €, and in 2014 it was 19.030,30 mil €. Also, we can see that trade balance in 2004 was negative but through the years it has been decreasing with the final result in 2012 when it was positive for the first time in last ten years. Trade balance continue to grow in next two years, which can be seen from Table 1.

**Table 1:** Main indicators of foreign trade in Republic of Croatia in mil EUR (2004-2014)

<table>
<thead>
<tr>
<th>Godina</th>
<th>Uvoz</th>
<th>izvoz</th>
<th>Vanjskotrgovinska blanca</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>15.216,50</td>
<td>13.203,20</td>
<td>-2.013,30</td>
</tr>
<tr>
<td>2006</td>
<td>18.652,80</td>
<td>15.943,80</td>
<td>-2.709,00</td>
</tr>
<tr>
<td>2007</td>
<td>20.323,50</td>
<td>17.131,30</td>
<td>-3.192,20</td>
</tr>
<tr>
<td>2008</td>
<td>22.388,70</td>
<td>18.519,00</td>
<td>-3.869,70</td>
</tr>
<tr>
<td>2009</td>
<td>17.242,00</td>
<td>15.566,80</td>
<td>-1.675,20</td>
</tr>
<tr>
<td>2010</td>
<td>17.173,70</td>
<td>16.983,50</td>
<td>-1.990,20</td>
</tr>
<tr>
<td>2011</td>
<td>18.271,40</td>
<td>18.064,70</td>
<td>-206,70</td>
</tr>
<tr>
<td>2012</td>
<td>18.057,30</td>
<td>18.265,20</td>
<td>207,90</td>
</tr>
<tr>
<td>2013</td>
<td>18.511,00</td>
<td>18.712,40</td>
<td>201,40</td>
</tr>
<tr>
<td>2014</td>
<td>19.030,30</td>
<td>19.907,90</td>
<td>877,60</td>
</tr>
</tbody>
</table>

**Source:** Eurostat
From Figure 1, we can see that Southeast Europe countries do not export much good and services, such as Romania, Bulgaria, Serbia, Montenegro, Federal Republic of Macedonia and Albania. Also, Lithuania, Latvia, Poland and The Island are small exporters. On the other hand, Western Europe (Portugal, France), and on the Northern Europe in Finland, Sweden and Norway export much good and services.

**Figure 1.** Export of goods and services in Europe in 2014 in million EUR

**Source:** Eurostat

**EXPORT-RELATED TOPICS IN ECONOMICS & BUSINESS EDUCATION**

The most important and significant educational programs related to exports which are offered in Croatia are programs offered by Croatian Chamber of Economy and Faculty of Economy in Zagreb and particularly Faculty of Economy in Osijek. Education of Croatian Chamber of Economy are based on providing information about export markets, representation of Croatian exporters abroad, connecting potential business partners, advising entrepreneurs on export transactions, essential features of public authority involving the issuance and verification of documents in foreign trade, etc. On the other hand, the main goal of education which offers Faculty of Business and Economics is
getting acquainted with the latest developments in the areas that are important for the successful management of export, developing strategic thinking and business entrepreneurship, development of multifunctional capabilities, which allows the program structure that optimally integrates multiple functions and business activities: finance, management, marketing, entrepreneurship, business and economic analysis, and the analysis of global trends and the competitive ability and potential of Croatian economy, etc.

One of the postgraduate study programs, which are also topic source, is Export Managing which is closely related to this issue. More about Export Managing postgraduate study can be found on the following link: http://www.efzg.unizg.hr/default.aspx?id=7846. Professors with high professional and international experience are employed in this postgraduate study program and curriculum is adjusted to many international similar programs. The main goal of the postgraduate study program Export Managing is getting familiar with issues such as: successful export managing at the global market, stagnation of export, removal of trade barriers, leveraging competitiveness. The main topics at the postgraduate study Export Managing are: trends in international trade, competitiveness and comparative advantage, management in international business and finance of export. Faculty of Economy in Osijek, through their professional meetings (Opatija, Porec ...) or how organized at the Faculty tackle the topic of exports, but more from a global point of view, rather than analyzing in detail the core or essence of the problem of exports and possibly offering them solutions or imposing export strategy.

Based on the presented educational programmes, export-related topics in economics & business education are explained through four dimensions: general topics, global export topics, macromanagement export topics and micro-management export topics.

Each of four dimensions has a different number of levels.

- **General topics** consist of two levels. Those levels refer to: (1) macroeconomics and (2) microeconomics.

- **Global export topics** consist of five levels. Those levels refer to: (1) modern trends in international trade, (2) international economy, (3) international business, (4) international trade and prosperity and (5) international tax systems.
Macro-management export topics consist of five levels. Those levels refer to:
(1) competitive and comparative advantage of Republic of Croatia, (2) institutional export support, (3) global financial markets, (4) intra-industrial trade and (5) entrepreneurship and export,

Micro-management export topics consist of five levels. Those levels refer to:
(1) international corporate marketing strategies, (2) international investments, (3) international entrepreneurship, (4) export financing and (5) risk management in international trade.

METHODOLOGY

Survey research on export-related topics in economics and business education was carried out in November 2015 on a random sample of 125 graduate study students from Faculty of Economics in Zagreb, Osijek, Rijeka, Pula and Split. The questionnaire was mailed to respondents. Export-related topics in economics and business education were explained through four dimensions: general topics, global export topics, macro-management export topics and micro-management export topics with many levels of each dimension. The goal of the survey was to estimate to what extent respondents are familiar with the statements referring to elaboration of export topics during their undergraduate and graduate programmes.

SAMPLE CHARACTERISTICS

Table 2. presents sample characteristics. Most of the respondents are female (56%), while 44% are male. The highest percentage of respondents (37%) prefer working in private small or medium firm while only 10% of respondents prefer to work in private large firm. Approximately the same percentage of respondents would like to work with international firm (20%) or to be an entrepreneur (18%). The respondents are graduate study students from Faculty of Economics in Zagreb, Osijek, Rijeka, Pula and Split. There were the same number of respondents from all Universities (25).
Table 2. Sample characteristics

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>70</td>
<td>56%</td>
<td>56%</td>
</tr>
<tr>
<td>Male</td>
<td>55</td>
<td>44%</td>
<td>100%</td>
</tr>
<tr>
<td>Preferred place of employment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Governmental organization</td>
<td>19</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Entrepreneur</td>
<td>22</td>
<td>18%</td>
<td>32%</td>
</tr>
<tr>
<td>International firm</td>
<td>25</td>
<td>20%</td>
<td>52%</td>
</tr>
<tr>
<td>Private large firm</td>
<td>13</td>
<td>10%</td>
<td>63%</td>
</tr>
<tr>
<td>Private small or medium firm</td>
<td>46</td>
<td>37%</td>
<td>100%</td>
</tr>
<tr>
<td>University</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zagreb</td>
<td>25</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Osijek</td>
<td>25</td>
<td>20%</td>
<td>40%</td>
</tr>
<tr>
<td>Rijeka</td>
<td>25</td>
<td>20%</td>
<td>60%</td>
</tr>
<tr>
<td>Pula</td>
<td>25</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>Split</td>
<td>25</td>
<td>20%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Author survey, November, 2015

Table 3. presents minimum, maximum, mean and standard deviation of grades. The total number of respondents is 125. Minimal grade is 2, while maximum grade is 4,80. The average grade is 3,30 to 0,51 of a standard deviation.

Table 3. Descriptive statistics of average grades

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average grade</td>
<td>125</td>
<td>2.00</td>
<td>4.80</td>
<td>3.30</td>
<td>0.51</td>
</tr>
</tbody>
</table>

Source: Author survey, November, 2015

RESULTS

Table 4.presents the results referring on general topics which consist of two subtopics, macroeconomics and microeconomics. The first subtopic refers to macroeconomics (GT1). Most respondents agree that case studies were lectured on the topic (44%), while only 2% of them said that they did not hear about the topic at all. The second subtopic refers on microeconomics (GT2)
where the situation is almost the same as for the first level-macroeconomics. Most respondents agree that case studies were lectured on the topic (48%), while only 2% of them said that they did not hear about the topic at all. More than 30% of graduate study students confirm that the topic was lectured in-depth (34%). All average grades for dimension general topics are quite high, over 4, which mean that the most respondents have been informed about Microeconomics and Macroeconomics on a high extent, especially on case studies. The average grade is quite similar, it is 4.13 for the first level-Macroeconomics and 4.19 for the second level- Microeconomics.

**Table 4. General topics**

<table>
<thead>
<tr>
<th></th>
<th>I did not hear</th>
<th>The topic was only mentioned</th>
<th>The topic was partly lectured</th>
<th>The topic was lectured in-depth</th>
<th>Case studies were lectured on the topic</th>
<th>Total</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Macroeconomics (GT1)</td>
<td>2%</td>
<td>8%</td>
<td>10%</td>
<td>37%</td>
<td>44%</td>
<td>125</td>
<td>4.13</td>
</tr>
<tr>
<td>Microeconomics (GT2)</td>
<td>2%</td>
<td>11%</td>
<td>6%</td>
<td>34%</td>
<td>48%</td>
<td>125</td>
<td>4.19</td>
</tr>
</tbody>
</table>

*Source: Author survey, November, 2015*

Table 5. presents the results referring on global export topics which consist of five subtopics. The first subtopic is modern trends in international trade (GET1). The most of graduate study students (29%) said that the first subtopic was partly lectured (29%) and that it was lectured in-depth (27%) while only 8% of respondents agree that case studies were lectured on the topic. The second subtopic is an international economy (GET2) where more than 30% of respondents state that the topic was lectured in-depth (35%) and that the case studies were lectured on the topic (32%). Only 2% of respondents agree that they did not hear about the topic at all.

Third subtopic is an international business where the highest percentage of respondents (42%) said that the topic was lectured in-depth while only 2% of respondents did not hear about the topic at all. The fourth subtopic refers to international trade and prosperity (GET4). The majority of respondents (35%) stated that the topic was lectured in-depth and that the topic was partly lectured (31%). Just 3% of respondents did not hear about the topic at all during their education. The fifth subtopic is an international tax (GETS). The same percentage of respondents (29%) agree that the subtopic was only mentioned,
partly lectured and that it was lectured in-depth. Just 6% of respondents agree that they did not hear about the topic at all. The lowest average grade is for the first subtopic modern trends in international trade (2.97) which means that the graduate study students did not hear a lot about it during their education and compared to other topics. All other average grades are above 3. The highest average grade is for the subtopic international business (3.89) which means that respondents have been informed on this subtopic to a high extent during their education.

Table 5. Global export topics

<table>
<thead>
<tr>
<th>topic</th>
<th>I did not hear about the topic at all</th>
<th>The topic was only mentioned</th>
<th>The topic was partly lectured</th>
<th>The topic was lectured in-depth</th>
<th>Case studies were lectured on the topic</th>
<th>Total</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>GET1</td>
<td>11%</td>
<td>24%</td>
<td>29%</td>
<td>27%</td>
<td>8%</td>
<td>125</td>
<td>2.97</td>
</tr>
<tr>
<td>GET2</td>
<td>2%</td>
<td>16%</td>
<td>15%</td>
<td>35%</td>
<td>32%</td>
<td>125</td>
<td>3.81</td>
</tr>
<tr>
<td>GET3</td>
<td>2%</td>
<td>5%</td>
<td>24%</td>
<td>42%</td>
<td>27%</td>
<td>125</td>
<td>3.89</td>
</tr>
<tr>
<td>GET4</td>
<td>3%</td>
<td>23%</td>
<td>31%</td>
<td>35%</td>
<td>8%</td>
<td>125</td>
<td>3.23</td>
</tr>
<tr>
<td>GET5</td>
<td>6%</td>
<td>29%</td>
<td>29%</td>
<td>29%</td>
<td>6%</td>
<td>125</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Source: Author survey, November, 2015

Table 6. presents the results on five macro-management export topics. The first subtopic is a competitive and comparative advantage of Republic of Croatia (MACRO1). The majority of respondents (39%) said that the topic was partly lectured while only 2% of respondents did not hear about the topic at all. The second subtopic refers to institutional export support (MACRO2) were quite similar percentage of respondents said that they did not hear about the topic (23%), that the topic was only mentioned (26%), that the topic was partly lectured (24%) and that the topic was lectured in-depth (24%). Only 3% of graduate study students agree that case studies were lectured on the topic. The third subtopic is global financial markets (MACRO3) where the highest percentage of respondents (37%) said that the topic was lectured in-depth while only 2% of respondents did not hear about the topic at all. Approximately the same percentage of graduate study students said that the topic was partly lectured (27%) and that case studies were lectured on the topic (23%).
The fourth topic refers to intra-industrial trade (MACRO4) where the majority of respondents (34%) stated that the topic is partly lectured and just 8% of respondents did not hear about the topic at all during their education.

The fifth subtopic is entrepreneurship and export (MACRO5). The highest percentage of respondents agree that the topic was lectured in-depth (35%) and that the topic was partly lectured (31%) while only 2% of respondents did not hear about the topic at all during their education. The lowest average grade is for the second subtopic (institutional export support-2.60) which means that the most of graduate study students did not hear a lot about it during their education (23%). The highest average grade is for the subtopic global financial markets (3.68) which means that respondents have been informed on this sub-topic to a high extent during their study.

Table 6. Macro-management export topics

<table>
<thead>
<tr>
<th>Competitiveness and comparative advantage of Republic of Croatia (MACRO1)</th>
<th>2%</th>
<th>15%</th>
<th>39%</th>
<th>32%</th>
<th>13%</th>
<th>125</th>
<th>3.40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional export support (MACRO2)</td>
<td>23%</td>
<td>26%</td>
<td>24%</td>
<td>24%</td>
<td>3%</td>
<td>125</td>
<td>2.60</td>
</tr>
<tr>
<td>Global financial markets (MACRO3)</td>
<td>2%</td>
<td>11%</td>
<td>27%</td>
<td>37%</td>
<td>23%</td>
<td>125</td>
<td>3.68</td>
</tr>
<tr>
<td>Intra-industrial trade (MACRO4)</td>
<td>8%</td>
<td>29%</td>
<td>34%</td>
<td>19%</td>
<td>10%</td>
<td>125</td>
<td>2.94</td>
</tr>
<tr>
<td>Entrepreneurship and export (MACRO5)</td>
<td>2%</td>
<td>16%</td>
<td>31%</td>
<td>35%</td>
<td>18%</td>
<td>125</td>
<td>3.56</td>
</tr>
</tbody>
</table>

Source: Author survey, November, 2015

Table 7. presents the results on five micro-management export topics. The first subtopic is international corporate marketing strategies (MICRO1). More than thirty percent of graduate study students said that the topic was partly lectured (34%) and that the topic was lectured in-depth (31%). Just 8% of respondents did not hear about the topic at all during their education. The second topic refers to international investments (MICRO2). Very high percentage of graduate study students did not hear about the topic at all during their education (29%) or said that the topic was only mentioned (24%). Only 6% of respondents agree that the topic was lectured in-depth. The third topic is an international entrepreneurship (MICRO3) where the highest percentage of
graduate study students (31%) said that the topic was lectured in-depth while only 3% of respondents did not hear about the topic at all during their education. The fourth topic refers to export financing (MICR04) where the most of respondents agreed that the topic was lectured in-depth (31%) or that the topic was partly lectured (29%). Just 6% of graduate study students did not hear about the topic at all during their education. The fifth topic is risk management in international trade (MICRO5). The highest percentage of respondents agree that the topic was partly lectured (32%) while 10% of respondents did not hear about the topic at all during their education. All average grades are quite low, even below 3. The highest average grade is for the third subtopic (international entrepreneurship-3,39) which means that respondents have been informed on this subtopic to a high extent during their study.

The lowest average grade is for the subtopic international investments (2,66) which means that the graduate study students have been informed on this subtopic to a high extent during their education.

Table 7. Micro-management export topics

<table>
<thead>
<tr>
<th>Topic</th>
<th>I did not hear about the topic</th>
<th>The topic was only mentioned</th>
<th>The topic was partly lectured</th>
<th>The topic was lectured in-depth</th>
<th>Case studies were lectured on the topic</th>
<th>Total</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>International corporate marketing strategies (MICRO1)</td>
<td>8%</td>
<td>13%</td>
<td>34%</td>
<td>31%</td>
<td>15%</td>
<td>125</td>
<td>3,31</td>
</tr>
<tr>
<td>International investments (MICR02)</td>
<td>29%</td>
<td>24%</td>
<td>19%</td>
<td>6%</td>
<td>21%</td>
<td>125</td>
<td>2,66</td>
</tr>
<tr>
<td>International Entrepreneurship (MICR03)</td>
<td>3%</td>
<td>21%</td>
<td>27%</td>
<td>31%</td>
<td>18%</td>
<td>125</td>
<td>3,39</td>
</tr>
<tr>
<td>Export financing (MICR04)</td>
<td>6%</td>
<td>24%</td>
<td>29%</td>
<td>31%</td>
<td>10%</td>
<td>125</td>
<td>3,13</td>
</tr>
<tr>
<td>Risk management in international trade (MICRO5)</td>
<td>10%</td>
<td>21%</td>
<td>32%</td>
<td>23%</td>
<td>15%</td>
<td>125</td>
<td>3,11</td>
</tr>
</tbody>
</table>

Source: Author survey, November, 2015

Figure 2. shows a comparison of average values of education related topics. The highest average total number was given to general topics (4,16) which means that most of the respondents consider those topics as most important. On the other hand the lowest total average number was given to Micro-management topics (3,12) which were understood as the least important education
related topics. Two topics were graded approximately with the same total average value of 3.38 (Global topics) and 3.24 (Micro-management topic).

References

General Economics
MOTIVATION TO PURSUE HIGHER EDUCATION OF PART-TIME STUDENTS

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Abstract

The higher education system is closely linked to the business world and plays a key role in the creation of competent experts that will be able to respond to the needs and challenges of the modern economy. Since today's economy is based on knowledge, the creation of the so called "knowledge worker" is an urgent need of every society. Such a worker is the basis of competitive ability of the national but also of the global economy. The aim of the higher education system is to create such an expert. In higher education there are two categories of students: full-time and part-time students. Since these two categories differ from each other they must be separately analyzed. The aim of this study is to determine and rank the motivating factors that encourage Croatian part-time students to continue their education in the higher education system, and compare them with the results of existing studies. The results of this study may be important to Croatian higher education institutions in planning their own marketing activities aimed at potential students since motivation is part of the consumer decision-making process.

Keywords: Motivation, higher education, intrinsic and extrinsic factors, part-time students.

JEL Classification: M5, M54
INTRODUCTION

The economy is the propulsive power of each country. In order for an economy to run properly and effectively, from a knowledge perspective, skilled workers are needed.

Today, in the 21st century, in a so called “knowledge-based economy era” terms as “knowledge” and “intellectual capital” are the most emphasized concepts and most valuable assets. Looking at the development of society through the eras of economic development, it can be seen that each of the economic periods is specific, and differ from each other. For example, the basic resources of the Industrial era are “natural resources, oil, raw materials” (Kolaković, 2003, p. 926), of the Informatization era is “information” (Pulić, 1990, p. 120) and of the Knowledge-based economy era is “knowledge” (Jelčić, 2004, p. 11).

If we look at the type of worker and the needed degree of professional qualification, in the Industrial era we have a “production worker” with no high qualification needed, in the Informatization era we have an “information handler” (Pulić, 1990, p. 142) which is qualified and highly skilled and in the Knowledge-based economy era there is a “knowledge worker” which is a highly educated worker. (Matas, Marjanović, & Marušnik, 2012, p. 117) It is evident that the emphasis of today’s new economy is on knowledge as basic resource with the knowledge worker as its holder. Therefore workers that possess knowledge are the most important assets of the global economy. Knowledge in the knowledge-based economy era is not any kind of knowledge but only that kind of knowledge that is applicable, enables new value creation and that is confirmed on the market. (Matas, Marjanović, & Marušnik, 2012, p. 119)

Peter Drucker, as one of the most notable authors and business experts of the 20th century, said that the productivity of knowledge and knowledge workers will not be just a competitive but also a decisive factor in the world economy. (Drucker, 1997) Therefore the importance of knowledge is evident.

Thus the link between the business world and the potential students / future experts is the higher education system. Educational institutions play a key role in the creation of competent experts who will be able to respond to the needs and challenges of the modern economy. They are the main source of experts for the labor market, and they are largely responsible for the outcomes of learning, competences and expertise of future workers. As emphasized, today’s economy is based on knowledge, therefore the “knowledge worker” is the basis of the modern economy.
of competitive ability of any economy, especially of the global economy. The aim of the higher education system is to create such an expert.

DEFINITION OF PART-TIME STUDENTS

In higher education, from the Croatian perspective, there are two distinct categories of students: full-time and part-time students.

According to the Scientific Activity and Higher Education Act (2013), Article 86, by definition a full-time student is the one who studies at a higher education institution according to the full teaching schedule (full-time) while a part-time student is the one who attends an educational program, also at a higher educational institution, that requires a specific teaching program usually because of work obligations or other activities. The term part-time student can be related with another term: the “non-traditional student” or “adult learner”. Both are usually older students, who have returned to school because they did not pursue a postsecondary education when they were younger; some of them are parents, working full time, having family responsibilities, struggling to balance time, energy and financial resources between school and work. (Choy, 2002, p. 1-2; Ely, 1997)

According to what mentioned it is clear that these two categories of students, full-time and part-time, are different primarily because of life circumstances and therefore are differently motivated to pursue higher education and must be separately analyzed. The focus of this study however will be on part-time students, on understanding their motives and needs that push them to be partakers in higher education and become part of the “knowledge workers” of the globalized world.

LITERATURE REVIEW

The “product” that higher education institutions offer is in fact a service.

Services, compared to products, are a different category of substance. Services can be distinguished by four distinctive characteristics: intangibility, inseparability, variability and perishability. Unlike physical products, services cannot be seen neither touched before they are bought. (Kotler & Keller, 2006, p. 405) Intangibility represents a major distinguishing feature of services. This applies
also to education where the specific nature of the service offering is difficult to define. (Mazzarol, 1998, p. 164)

The main focus of this research revolves around the question: Why do non-traditional students, or part-time students, continue their education?

Fundamentally we seek to understand the motivations that lie behind their decisions to attend a higher education institution.

There are four distinct types of consumer purchasing decisions: Complex decision-making, limited decision-making, brand loyalty and inertia. (Assael, 1998, p. 67) The higher education services, especially for part-time students, belong to the category of complex decision-making. Firstly because of the intangibility characteristic of a service. Secondly because part-time students, as mentioned before, need to invest more effort, energy, time and financial resources primarily because of family responsibilities which represent for them a high risk decision.

In complex decision-making consumers are highly involved in the whole process primarily because the product/service is high-priced and it is associated with a higher risk of performance. (Assael, 1998, p. 67, 75)

Motivation is an important influencing factor in the consumer decision-making process and can be defined as an internal drive to act to meet unsatisfied needs. (Assael, 1998, p. 79-82)

There are more theories that try to explain consumer behavior and the decision-making process in terms of motivation. From the existing literature we can generally state that there are four major theories about motivation: Maslow’s Hierarchy of Needs, Herzberg’s Motivation/Hygiene (two factor) Theory, McGregor’s X Y Theories, and McClelland’s Need for Achievement Theory. (Pardee, 1990, p. 3)

Although motivation is considered to be a highly complex concept that is influenced by a large number of factors, it can be summarized into two major categories: extrinsic or intrinsic. (Knutsen, 2011, p. 9) Intrinsic motivation can be related to psychological motives and are internal to the individual while extrinsic motivation can be related to social motives and are external to the individual. (Mullins, 2005, p. 472; Bassy, 2002, p. 21)

Intrinsic motivation, as internal to the individual, can be related to intangible rewards as for example personal challenge and achievement, receiving apprecia-
tion or other rewards as to learn, develop, and expand their capacities that stem from engaging in activities that interest them. (Mullins, 2005, p. 472; Sansone & Harackiewicz, 2000, p. 16) Extrinsic motivation, as external to the individual, can be related to tangible or concrete rewards as for example a better job, higher salary or other similar benefits. (Mullins, 2005, p. 472)

In the context of higher education Knutsen (2011) assumed that part-time students could be motivated to pursue education extrinsically because or rewards as increased lifetime earnings, better job opportunities, and increased access to healthcare and retirement savings, while intrinsically because of rewards such as the desire to learn or the desire to challenge one to reach his or her fullest potential. (p. 12)

To define what motivates part-time students to pursue higher education, a set of influencing factors is presented from existing literature that cover intrinsic and extrinsic motivators.

**Hypothesis**

Knowledge is what is and will be required by companies in order to gain better performance and competitive ability on the market. Therefore factors that are in direct relation to knowledge, knowledge acquisition or better job performance should be prominent in the research results. The following hypothesis can be set based on the motivating factors listed in this paper: motivators as “To perform my job better” (9) and “To fulfill my professional objectives” (11) are among the most influential.

**Methodology and research design**

The research was conducted at the Polytechnic of Pula, College of Applied Sciences, involving part-time students attending a graduate and an undergraduate course of study. The undergraduate course of study is in the field of technical sciences while the graduate course of study is in the field of social sciences (management). A total of 40 surveys were completed. Examined were 28 undergraduate and 12 graduate active students in the academic year 2015/2016.

Data were analyzed using descriptive statistics in the Statistic Package for Social Sciences (SPSS).
The survey instrument is the same used by Knutsen (2011). The list of statements with the corresponding ordinal numbers, both extrinsic and intrinsic, is presented in Table 1.

**Table 1:** List of survey statements

<table>
<thead>
<tr>
<th>Extrinsic motivation factors</th>
<th>Intrinsic motivation factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To increase my income</td>
<td>4. To advance my personal growth</td>
</tr>
<tr>
<td>2. To make my job more secure</td>
<td>5. To develop my potential</td>
</tr>
<tr>
<td>3. To make more friends</td>
<td>9. To perform my job better</td>
</tr>
<tr>
<td>6. To increase my access to food and clothing</td>
<td>10. To fulfill my personal objectives</td>
</tr>
<tr>
<td>7. To improve my current job condition</td>
<td>13. To be appreciated by others</td>
</tr>
<tr>
<td>8. To participate in a variety of activities and clubs</td>
<td>16. To help develop others</td>
</tr>
<tr>
<td>11. To fulfill my professional objectives</td>
<td>17. To be respected</td>
</tr>
<tr>
<td>12. To be a member of a university community</td>
<td>18. To enrich my life</td>
</tr>
<tr>
<td>14. To buy a better vehicle or other material goods</td>
<td>23. To gain the acceptance of friends</td>
</tr>
<tr>
<td>15. To increase my ability to save for retirement</td>
<td>24. To gain the acceptance of family</td>
</tr>
<tr>
<td>19. To enhance my social skills</td>
<td></td>
</tr>
<tr>
<td>20. To attain social status</td>
<td></td>
</tr>
<tr>
<td>21. To have better access to health care</td>
<td></td>
</tr>
<tr>
<td>22. To increase my job opportunities</td>
<td></td>
</tr>
<tr>
<td>25. To gain a promotion</td>
<td></td>
</tr>
</tbody>
</table>


The demographic data of the respondents is as follows:

- The majority of respondents were male (85%).
- Educational status is as follows: high school graduates (70 %), undergraduates (10 %) and other levels of higher education (20 %).
- The majority are workers in private companies (42,5 %), workers in public institutions (27,5 %), followed by business owners (17,5 %) and other (12,5 %).
- The age is evenly distributed in the range from 20 to 54 years.
- The income status is as follows: 42,5 % have income from 2.500,00 to 5.599,99 kuna, 45 % from 5.600,00 to 9.499,99 kuna, only 2,5 % have income above 9.500,00 kuna and 7,5 % didn’t want to declare their income.
• For the purpose of comparison, the average monthly net salary per person employed in legal entities in Croatia, according to the National Bureau of Statistics, amounted to 5,772.00 kuna in December 2015 (roughly 836 USD or 762 EUR).

RESULTS

The results of the research are presented in Table 2. Since two distinct groups of students were examined, undergraduate and graduate, the results were separately treated. Also a summarized analysis was made including both groups for the purpose of comparison. A mean score for each statement was calculated with the appropriate standard deviation.

Table 2: The results of the conducted survey on motivation factors

<table>
<thead>
<tr>
<th></th>
<th>ALL</th>
<th>Undergraduate</th>
<th>Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Mean</td>
</tr>
<tr>
<td>4.</td>
<td>40 6.6500</td>
<td>0.57957</td>
<td>28 6.7143</td>
</tr>
<tr>
<td>5.</td>
<td>39 6.5385</td>
<td>0.55470</td>
<td>27 6.5556</td>
</tr>
<tr>
<td>10.</td>
<td>40 6.2250</td>
<td>1.04973</td>
<td>28 6.4286</td>
</tr>
<tr>
<td>11.</td>
<td>40 6.1000</td>
<td>0.87119</td>
<td>28 6.2143</td>
</tr>
<tr>
<td>9.</td>
<td>40 5.8000</td>
<td>1.18105</td>
<td>28 5.8214</td>
</tr>
<tr>
<td>22.</td>
<td>40 5.6000</td>
<td>1.61404</td>
<td>28 5.7143</td>
</tr>
<tr>
<td>19.</td>
<td>40 5.5500</td>
<td>1.41331</td>
<td>28 5.6071</td>
</tr>
<tr>
<td>18.</td>
<td>40 5.4000</td>
<td>1.41058</td>
<td>28 5.4286</td>
</tr>
<tr>
<td>7.</td>
<td>39 5.3846</td>
<td>1.44396</td>
<td>27 5.3333</td>
</tr>
<tr>
<td>1.</td>
<td>40 5.1750</td>
<td>1.72296</td>
<td>28 5.0714</td>
</tr>
<tr>
<td>2.</td>
<td>40 4.9750</td>
<td>1.86035</td>
<td>28 4.8571</td>
</tr>
<tr>
<td>25.</td>
<td>40 4.8750</td>
<td>1.82837</td>
<td>28 4.8571</td>
</tr>
<tr>
<td>16.</td>
<td>40 4.6500</td>
<td>1.47718</td>
<td>28 4.7857</td>
</tr>
<tr>
<td>3.</td>
<td>40 4.6000</td>
<td>1.27702</td>
<td>28 4.7857</td>
</tr>
<tr>
<td>12.</td>
<td>40 4.2250</td>
<td>1.64063</td>
<td>28 4.3214</td>
</tr>
<tr>
<td>15.</td>
<td>40 3.9000</td>
<td>1.95854</td>
<td>28 3.8571</td>
</tr>
<tr>
<td>21.</td>
<td>40 3.8500</td>
<td>1.68781</td>
<td>28 4.0357</td>
</tr>
<tr>
<td>17.</td>
<td>39 3.6667</td>
<td>1.81127</td>
<td>28 3.7500</td>
</tr>
</tbody>
</table>
As can be seen the first five most influential motivators with the higher mean score for both groups are those with the ordinal numbers 4, 5, 10, 11 and 9: To advance my personal growth, To develop my potential, To fulfill my personal objectives, To fulfill my professional objectives and To perform my job better. The least influential motivators are 6, 14, 23 and 24: To increase my access to food and clothing, To buy a better vehicle or other material goods, To gain the acceptance of friends and To gain the acceptance of family. The most influential motivators fall into the category of intrinsic factors except for the number 11, which is an extrinsic factor.

**CONCLUSION**

Part-time students in Croatia, despite the limited number of respondents at just one higher education institution, seem to be motivated primarily by intrinsic factors (except for the number 11), particularly by these: To advance my personal growth, To develop my potential, To fulfill my personal objectives, To fulfill my professional objectives and To perform my job better. Knutsen (2011) also identified these five factors to be among the most influential (among the top seven factors) for U.S. workers to pursue higher education. Chwan-Yi & Yaw-Bin (2004) also identified these factors to be among the most influential for adult learners in Taiwan. Compared to other similar studies, it can be stated that these findings are in line with the existing results from literature. Also this study is an additional argument that confirms what is already researched in other countries, regions and institutions. Finally, it can be stated that the set hypothesis in this paper is valid and, although not the most influential, motivators as “To perform my job better” (9) and “To fulfill my professional objectives” (11)
are among the top five most influential factors, factors that are directly related to knowledge as a needed resource to increase business performance.

LIMITATIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH

This research covered only two specific groups of students on one higher education institution, one attending the undergraduate and another attending the graduate course of study. The undergraduate course is part of technical sciences while the graduate course is oriented toward economy and it is part of social sciences.

The main limitation is that this research is limited to a specific course of study within a specific academic discipline at just one higher education institution. Another limitation is the sample size.

Recommendations for further research would be to broaden the research to multiple categories both on undergraduate and graduate courses in different academic disciplines (as for example social, technical, humanist, natural sciences) at different higher education institutions and to broaden the sample size to obtain more comprehensive results.

REFERENCES


Microeconomics, Macroeconomics and Monetary Economics
THE INFLUENCE OF THE BUSINESS ENVIRONMENT ON THE SMES EMPLOYMENT IN THE EU 28

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Abstract

Small and medium-sized enterprises (SMEs) in 2014 represent over 90% of enterprises in European Union countries in the non-financial business sector and employed almost 90 million people. They are the driving force behind a great number of innovations and lead to a development of the national economies through employment potential, value added, investments and internationalization. However, despite their importance to the vitality of the economy and the potential offered, too many significant economic barriers remain. Hence, the paper examines the influence of the business environment on the employment in SMEs of the EU member states, drawing on a panel dataset of 28 EU countries and over the period 2008-2014. The analysis is extended with the variables that can have a significant influence on the observed relationship, including the gross capital formation and production in the industry. The obtained empirical analysis suggests that further progress is essential through lower costs of starting a business and through stronger macroeconomic conditions, such as higher industrial production, higher investments and lower labour costs.

Keywords: employment, small and medium sized enterprises (SMEs), doing business, European Union.

JEL Classification: O13, O44
1. INTRODUCTION

Eight years on from the global economic crisis, Europe’s recovery has been sluggish. The next few years will determine whether Europe continues moving forward or falls back (McKinsey Global Institute; 2015). However, with the help of a small and medium-sized enterprises (abbreviated as SMEs), European Union (EU) members has a potential to launch challenging reforms, encourage production, investment and job creation, and unlock new macroeconomic dynamism. Namely, the evolution of employment reflects (net) job creation trends, with SMEs being traditionally seen as the engine of employment growth (European Commission; 2015b). More specifically, in 2008, the European Commission adopted a Communication (European Commission; 2008) on SMEs referred to as the ‘Small business act for Europe’ (SBA) – think small first’ with the aim of emphasizing that vibrant SMEs will make Europe more robust to stand against the uncertainty thrown up in the globalised world of today. The Communication sets out 10 principles that are essential to bring added value at EU level, create a level playing field for SMEs and improve the legal and administrative environment throughout the EU. Additionally, latest data available indicate that nine out of every 10 enterprises is an SME, and SMEs generate two out of every three jobs (European Commission; 2015c). It is evident, therefore, that SMEs stimulate an entrepreneurial spirit and innovation throughout the EU and are thus crucial for fostering competitiveness and employment (European Commission; 2015c).

In that context, according to European Commission, creating a business friendly environment for existing small and medium-sized enterprises (SMEs) and potential entrepreneurs is one of the EU’s main objectives. The European Commission is operating together with the EU states on improvement of SME-friendly policies, checking the progress in their execution and sharing best practices. A business environment must be characterized by predictability, transparency, stability but also the transparency of public decisions. The World Bank is one of the bodies carrying out an annual report, Doing Business, which evaluates all indicators measuring the predictability of the business environment (Brasoveanu and Balu; 2014.). Business environment is perceived to influence operations and performance of enterprises in general and small and medium enterprises in particular (Okwu et al.; 2013).
Thus, the present study contributes to the literature on the determinants of SMEs employment and covers all twenty-eight EU countries for a period from 2008 to 2014. Moreover, to the best of our knowledge, this paper is the first attempt to measure the impact of the business environment on the employment in SMEs of the EU member states. Besides, the obtained analysis is extended with the variables that can have a significant influence on employment, including investments, production in the industry and labour costs. Namely, general economic conditions, especially the macro-economic environment, have a major influence on the SME’s employment creation performance, which means that many of the job-creating firms were based in Member States with a more favourable macro-economic environment (European Commission; 2015a). The methodology consists of using the technique of dynamic panel, which permit us to take advantage of the rich information in panel data, accounting for the heterogeneity in both panel unit and time dimensions (Baum; 2006).

The rest of this paper is structured as follows. The next section, the importance of the business environment in the EU countries and review of related literature, comes after this introduction. In section 3, we present the data, and introduce the methodology adopted. Section 4 displays our empirical results. Finally, section 5 concludes.

2. LITERATURE OVERVIEW

The importance of business environment is fully recognized and reflected in the competitiveness grid. The SME Competitiveness Grid is composed of three layers of determinants for firm competitiveness: firm level capabilities, the immediate business environment, and the national environment. The immediate business environment includes local or industry-related factors that are external to the firm but within its microenvironment. The national environment encompasses all structural factors that exist at the national level, such as policies on entrepreneurship and ease of doing business, trade related policies, governance, infrastructure and resource endowments (ITC; 2015).

In literature, the influence which business environment has on the development of the SMEs sector is a topic of wide interest.

Mallet and Wapshott (2014) emphasized that SMEs’ employment relationships are not only dependent upon the specific nature of the firm but are also
influenced by external factors and the turbulent environments in which they often find themselves. Rocha (2012) in his study emphasized that a simplified business environment, supported by fiscal and budgetary policies could support the development of SMEs, contributing, in this way, to improving the living conditions of households with small incomes and with fewer chances in terms of employment opportunities. Okwu et al. (2013) in their study argued that the business environment in which SMEs operate has a particular, special relevance for their abilities to create jobs and provide employment opportunities. Authors in their study employed descriptive approach to examine job creation and employment capacities in the SMEs sector in the business environment of the Lagos, Nigeria. The analysis was based on ten elements of the business environment and two indicators of SMEs’ relevance. The research revealed that small enterprises business sector is dominant. The analysis also showed that inadequate access to external finance, competitive pressures, multiples taxes and other fees and corrupt practices are some of the factors militating against the development of the SMEs in the Lagos. The study recommended SME friendly policy with specific focus on encouraging female entrepreneurs. Brasoveanu and Balu (2014) researched the influence of the business environment on small and medium enterprises in Romania. Authors concluded that Romanian business environment is still one unattractive to foreign investors as well as to local ones. Attracting investments in Romania requires a predictable and stable tax system and a significant improvement of the business environment. Authors revealed that it is necessary to create a stable and predictable business environment to support the SME sector. They emphasized that SME sector is the key of economic recovery. Belas et al. (2015) argued that fundamental prerequisite for successful management and the development of all businesses is a favourable business environment in which the state supports and protects economic competition, creates clear and stable rules, and effectively ensures compliance by all market participants while minimizing administrative barriers towards entrepreneurs. In order to examine the current situation of the business environment of SMEs in selected regions of the Czech Republic and Slovakia, Belas et al. researched socio-economic parameters of the business environment such as motivational factors, status in society, level of corruption, business risks, approach to debt finance, ability to manage financial risks and business optimism. Results showed that despite the significant deterioration in the business environment, SMEs demonstrate business optimism, and about 90% of the entrepreneurs in Czech Republic and Slovakia believing that their company will survive the next
five years. The next section of this paper is the description of the methodology that includes a description of data and variables, and methods applied in the research.

3. **EMPIRICAL STRATEGY**

3.1. **Data**

The data used are those that allow us to study the impact of business environment and macroeconomic performance on the employment in SMEs. The observations are annual. The analysis included a unique dataset of all 28 EU member states and covered the period 2008–2014.

The depended variable is the number of persons employed in SMEs, in all available sections (B-J, L-N; 2010=100). The values were taken from Eurostat database (more precisely from SME Performance Review 2014/2015). Next variable is cost to start a business (% of income per capita). Namely, Doing Business database (from World Bank) records all procedures officially required, or commonly done in practice, for an entrepreneur to start up and formally operate an industrial or commercial business, as well as the time and cost to complete these procedures and the paid-in minimum capital requirement. According to Starting a Business Methodology, these procedures include obtaining all necessary licenses and permits and completing any required notifications, verifications or inscriptions for the company and employees with relevant authorities. In that context, cost is recorded as a percentage of the economy’s income per capita. Other variables included in the model are industrial production in manufacturing (the source of the data was Eurostat), gross capital formation and labour cost. The gross capital formation variable is expressed as a % of GDP. The source of the data was World Bank – World Development Indicators. Also, in order to test whether the model works for different specifications of SMEs employment, we examined the growth rate of exports, expressed as a %, from the UNECE Statistical Division Database. In our analysis, we also included a labour cost index (labour cost for LCI – compensation of employees plus

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1 Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

2 According to World Bank, gross capital formation (formerly gross domestic investment) consists of outlays on additions to the fixed assets of the economy plus net changes in the level of inventories.
taxes minus subsidies recorded as a percentage change over previous period) for manufacturing. The source of the data was also Eurostat. It is expected that positive (and high) industrial production and investment lead to an increase in SME employment, as well as export growth. On the other hand, we expected that the labour costs have a negative effect on SMEs employment, i.e., suggesting that the smaller the labour costs, the higher the employment.

Indices (the depended variable and industrial production) are logarithmically transformed, and the other variables are expressed in percentages. The lagged value (one-period lag) of the dependent variable will be used as an instrumental variable.

3.2. Econometric methodology

In our econometric analysis, we have computed the system GMM estimator (Blundell and Bond;1998), which is a common option to deal with dynamic panel biases. Namely, the Arellano-Bond approach (Arellano and Bond;1991), and its extension Arellano–Bover/Blundell–Bond (a system GMM) (Areallno and Bover;1995; Blundell and Bond;2000) is an estimator intendend for issues with: a small T (periods), large N panels (units), a linear functional relationship, one left-hand variable that is dynamic, depending on its own past realisations, right-hand variables that are not strictly exogenous: correlated with past and possibly current realisations of the error, fixed individual effects, implying unobserved heterogeneity, heteroskedasticity and autocorrelation within individuals, but not across them (Roodman;2009). However, a potential weakness in the Arellano–Bond dynamic panel data estimator (Arellano and Bond;1991) was revealed in work by Arellano and Bover (1995) and Blundell and Bond (1998). More specifically, the lagged levels are often rather poor instruments for first differenced variables, especially if the variables are close to a random walk (Baum;2006). Their modification of the estimator includes lagged levels as well as lagged differences (Baum;2006). Thus, empirical strategy in this paper is based on rather simple linear dynamic panel data specification given by (StataCorp;2011):

\[ y_t = \sum_{i=1}^{J} \alpha_j y_{t-i} + \gamma_0 \beta_1 + \nu_t + \epsilon_t, \quad t = 1, \ldots, T, \]  

(1)
where $y_{it}$ is the dependent variable, the $\alpha_j$ are $p$ parameters to be estimated, $x_{it}$ is a $1 \times k_1$ vector of strictly exogenous covariates, $\beta_1$ is a $k_1 \times 1$ vector of parameters to be estimated, $w_{it}$ is a $1 \times k_2$ vector of predetermined or endogenous covariates, $\beta_2$ is a $k_2 \times 1$ vector of parameters to be estimated, $\nu_i$ are the panel-level effects (which may be correlated with the covariates), and $\varepsilon_{it}$ are the remaining part of error term in the model. The $\nu_i$ and the $\varepsilon_{it}$ are assumed to be independent for each $i$ over all $t$. In the analysis, we apply a two-step system GMM with robust standard errors.

4. EMPIRICAL RESULTS

To investigate the impact of the business environment on the employment in SMEs of the EU member states, the set of regression analysis that use panel estimation models and that were discussed in the previous section were undertaken under sample of all 28 European Union member states. The model is estimated using two-step system GMM estimator with robust standard errors. The number of instruments are less than the number of groups.

As can be seen in specifications (1), (2) and (3) presented in Table 1, model diagnostics provides support to the analysed dynamic models. First, tests for first and second order serial correlation, show no autocorrelation between the residuals of the first and second order. Second, the results of the Sargan test (a test of overidentifying restrictions) imply that the null hypothesis of instrument validity cannot be rejected. Third, the results of the corresponding Wald test suggest the significance of all explanatory variables. Table 1 also contains the results of the impact assessment of the selected macroeconomic variables on the SMEs employment. More precisely, in any case, the three sets of estimates (i.e., those presented in Columns (1), (2) and (3)) provide a similar picture – the results of this estimate are in the majority cases in accordance with the economic literature and the expectations. It is evident that the lagged values of SMEs employment act positively on the current employment. This result means that if the SMEs employment at year $t-1$ increases, then the employment at the year $t$ increases also and reciprocally. The results of dynamic panel estimation prove also that the proxy for business environment is an important factor for reviving SMEs employment. In fact, the coefficient for the variable cost to start a business is negative and statistically significant. Concerning the production and investment (gross capital formation), they also contributes in the explanation
of SMEs employment. The signs relating to those variables are positive and statistically significant. Labour cost has a negative effect on SMEs employment, as expected. However, the role of the growth rate of exports is found to be statistically insignificant. Thus, we cannot confirm the existence of a positive effect of this variable on the SMEs employment.

**Table 1** Estimated equation: dependent variable is SMEs employment

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lagged dependent variable</td>
<td>0.521***</td>
<td>0.567***</td>
<td>0.427**</td>
</tr>
<tr>
<td>Cost to start a business</td>
<td>-0.004*</td>
<td>-0.003*</td>
<td>-0.004**</td>
</tr>
<tr>
<td>Production in industry</td>
<td>0.203***</td>
<td>0.177**</td>
<td>0.177**</td>
</tr>
<tr>
<td>Gross capital formation</td>
<td>0.007***</td>
<td>0.008***</td>
<td>0.0111***</td>
</tr>
<tr>
<td>Growth rate of exports</td>
<td></td>
<td>0.0003</td>
<td>-0.0003</td>
</tr>
<tr>
<td>Labour cost</td>
<td></td>
<td></td>
<td>-0.003*</td>
</tr>
<tr>
<td>Constant term</td>
<td>1.144 (0.173)</td>
<td>1.028 (0.113)</td>
<td>1.619 (0.143)</td>
</tr>
<tr>
<td>Sargan test of overidentifying restrictions (p-value)</td>
<td>0.4953</td>
<td>0.3589</td>
<td>0.3415</td>
</tr>
<tr>
<td>Arellano-Bond test for AR(1) in differences (p-value)</td>
<td>0.2143</td>
<td>0.2878</td>
<td>0.3042</td>
</tr>
<tr>
<td>Arellano-Bond test for AR(2) in differences (p-value)</td>
<td>0.4032</td>
<td>0.4382</td>
<td>0.3931</td>
</tr>
<tr>
<td>Number of observations</td>
<td>163</td>
<td>163</td>
<td>163</td>
</tr>
<tr>
<td>Number of groups</td>
<td>28</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Number of instruments</td>
<td>14</td>
<td>15</td>
<td>16</td>
</tr>
<tr>
<td>Wald test</td>
<td>99.62 (0.0000)</td>
<td>188.06 (0.000)</td>
<td>193.54 (0.000)</td>
</tr>
</tbody>
</table>

*Source: calculation of the authors.*

**Note:** (1) ***, **, * indicate statistical significance at 1%, 5% i 10%; p-values in parenthesis. (2) Two-step system GMM estimator with robust standard errors is applied. (3) The Sargan test is a Sargan–Hansen test of overidentifying restrictions. The null hypothesis states that the instruments used are not correlated with the residuals. (4) AR1 and AR2 are tests for first and second-order serial correlation in the first-differenced residuals. The null hypothesis for the second-order serial correlation test states that the errors in the first-differenced regression do not show second-order serial correlation.
5. **CONCLUSION**

An increasing body of literature is indicating that the SME sector might be a result of economic development rather than one of the causes.Nevertheless, there is no single advanced economy without a strong SME sector (Rocha; 2012). In that context, this article discusses the importance of the SMEs, as well as the significance of business environment in the EU countries. Namely, since there is limited empirical research focusing on this relationship in the context of SME, the current research aims at looking into the causal factors of employment empirically. Moreover, due to their relevance in the previous literature, we incorporate investment, industrial production and labour costs into our analysis and evaluate their roles. The system GMM model was used to analyse an extensive panel data set of all 28 European Union member states over the 2008-2014 period.

The outcomes of the model showed that smaller cost to start a business is statistically significant indicator of the SMEs employment. Moreover, SME employment is positively linked to a larger industrial production, higher investments and lower labour costs. Further, although there are disparities between EU countries, the results confirm the general pattern of the effect of macro-economic perspective and business environment on employment. However, the role of the growth rate of exports is found to be statistically insignificant. The findings make clear that upgrading the policy environment for SMEs, and removing the remaining barriers is a prerequisite for their development. In light of these results, the study has important implications for constructing the framework for the EU policy on SMEs and is of interest to investors, entrepreneurs and economic policy creators.

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DEVELOPMENT OF NEW PRODUCTS WITH THE IMPLEMENTATION OF GUTENBERG’S PRODUCTION FUNCTION

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Abstract

Many years of crisis and recession on one side and the need to maintain the company on the other side have prompted businesses in the manufacturing sector to come out of their comfort zone and sleepiness. Years in front of crisis and recession for most created a false sense of security and stability. Many manufacturing companies weren’t involved in developing new products. With the arrival of the crisis, cost-cutting has become the dominant preoccupation of business strategies. Due to the decrease in revenue, it is also necessary to cut costs and keep them under control, if the goal is to survive in the market. While the variable costs of production, because of their nature, reduce themselves, there was a need to resolve fixed costs, or with a reduction or by expanding the
product range. Businesses that possessed surplus production capacity, with the advancement and improvement of existing products, launched the production of new products.

Gutenberg in his production function talks about the division of production factors in the permanent and expendable. In order to connect a constant factors and fixed costs it is necessary to include cost of fixed factors in calculation. Since it is known that the average fixed costs have degressive movement, it can be concluded that by starting production of the new product, until filling up capacities, the average production overheads reduced to the lowest level.

The aim of this paper is to determine the applicability of the Gutenberg production function in the real business environment of the production company. Results of the study show that it is possible by starting production of new types of products to reduce average fixed costs to the lowest level.

**Keywords:** Gutenberg production function, fixed costs, average fixed costs, production of a new product.

JEL Classification: L1, L15

1. **INTRODUCTION**

Reflecting on economy of the Croatian republic in recent years, one can notice negative impact of crisis and recession. Years that preceded crisis, have created a false impression of security and stability with economic entities. Economic entities, instead of leading economy, left workflow to lead them. The arrival of crisis and recession has prompted entrepreneurs to come out and wake up from their complacency. It is the only way to survive in such an unfavorable period. Since there has been a decline in production, revenues were also reduced. With the reduction in revenues, there has been a reduction in variable costs. Businessmen in their complacency did not promptly respond and didn’t begin decreasing fixed costs on time. After initial shock and disbelief economic entities have started to think on how to reduce fixed cost component. Some businesses that possessed production capacity surplus, with a mandatory improvement and enhancement of existing products also launched production of new products. Looking at the microeconomic theory foothold can be found for practice. Erich Gutenberg in his production function talks about division of production factors on permanent (fixed) factors and consumer (variable) factors.
Hypothesis of the paper assumes applicability of Gutenberg production function in the real business environment of the production company. As a testing ground for hypothesis local business entity from textile industry was selected.

2. PRODUCTION FUNCTION

When talking about the productive functions it should be noted that there are few theorists who have made their contribution to the definition, interpretation and observation of the production function. Here should be mentioned the Cobb-Douglas production function, Leontief production function and the Gutenberg production function.

2.1. Cobb-Douglas production function

When talking about the Cobb-Douglas production function it is about production function which describes the relationship between two or more inputs in the production process. (www.docentes.fe.unl.pt/~jamador/Macro/cobb-douglas) That function describes the physical inputs of labor and capital and the amount of output that can be obtained from various combinations of the previously mentioned variables. Charles Cobb and Paul Douglas developed their theory in the period before World War II during the Great Depression. Cobb-Douglas production function can be expressed in the following ways:

a) Mathematically \[ Y = AL^\beta K^\alpha \]

Where is:
- \( Y \) = total production
- \( L \) = labor input
- \( K \) = capital input
- \( A \) = total factor productivity
- \( \alpha \) and \( \beta \) are the output elasticity’s of capital and labor, respectively. These values are constants determined by available technology

b) Graphic
2.2. Leontief production function

Leontief production function or production function of fixed ratio implies that the factors of production will be used in the technological predetermined ratio, and that there is no possibility of factors substitution. Wassily Leontief developed his theory of input-output analysis in the period before World War II, and published it in 1941, he is considered to be father of input-output analysis. (JURČIĆ LJ.: Razvitak input-output analize u Hrvatskoj EKONOMSKI PREGLED, 2000. str. 1317). Production function is one of the methods of input-output analysis. Also Leontief production function can be expressed in the following ways:

a) Mathematically: $Q = \min\left(\frac{Z_1}{\alpha}, \frac{Z_2}{\beta}\right)$

Where is:
- $Q =$ quantity of output produced
- $Z_1 =$ utilised quantities of input $X$
- $Z_2 =$ utilised quantities of input $Y$

$\alpha$ and $\beta$ are technologically determined constants

b) Graphic
2.3. Gutenber production function

Gutenberg in his production function, the ratio of the production function B as he called it, talks about division of production factors on constant and consumable. Constant factors can be recognized as fixed factors, while consumable factors can be identified as the variable factors. (Santini I., Troškovi u poslovnom odlučivanju, II izdanje, HIBIS d.o.o., Zagreb, 2006. str. 80). In order to connect a constant factors and fixed costs it is necessary to include in calculating the cost of fixed factors. That calculation leads to costs in mass. In order to connect Gutenberg production function with economic entity in which the research was conducted, it is necessary to include another variable in the calculation, that variable is amount. When the costs in the mass divide per product unit average costs are obtained. Average costs have their own rules, and in observed economic entity need has arisen to reduce fixed costs and their division into a larger quantity. Looking at the costs in mass, fixed cost is always the same, but when the fixed cost is divided by the quantity of manufactured products he is inversely proportional to the quantity, in other words, the higher the amount, the average fixed cost per unit of output decreases and vice versa.
3. EXAMPLE OF APPLICABILITY OF GUTENBERG PRODUCTION FUNCTION IN A REAL BUSINESS ENVIRONMENT

As a testing ground for hypothesis local business entity from textile industry was selected. Business entity deals with production and sales of socks. With the arrival of crisis and recession, the volume of production decreased, and there was an increase of average fixed costs. Variable costs were, due to their nature, reduced and need has arisen to resolve the problem of fixed costs. Business entity had, at that moment, on its disposal a production capacity surplus, and has decided to start a production of new product type. Average total cost was also growing, but slower.

3.1. DESCRIPTION OF THE PRODUCT MANUFACTURING PROCESS

Production takes place on technological modern automated machines for socks knitting. Because the machines were new, purchased just before the beginning of crisis, they are subject to depreciation in the amount of 210,000,00 HRK per year. The production involves 18 workers. They are divided into sev-
eral working processes, setting twists on machines: control the operation of machines, transfer of knitted socks to socks sewing machine, control of finished products and packaging. The capacity of the economic entity is 5-7 thousand pairs of socks a day, in two shifts. Since the demand for products dropped to around 5,000 pairs a day there was a problem. Too much to be done by one shift, but too little for two shifts. Problem can be solved in several ways.

3.2. Possible solutions to the problem

a) Solution A: Reducing the production amount that can be produced in one shift (2500-3500 pairs), dismissal to part of employees, working in one shift.

b) Solution B: To produce the amount required by the market, work in shift and a half, releasing four workers.

c) Solution C: Try to start the production of new products to compensate for part of the reduction in production demand.

3.3. Advantages and disadvantages of problems solutions

a) Solution A: By reducing the production variable costs would be reduced and thus the total cost would be reduced to. Also work in one shift would reduce the proportion of variable costs. Employee reductions would reduce the costs, but would also have a negative effect on atmosphere in the observed economic entity. The bad atmosphere would act on work and on efficiency of workers. By reducing the production to a level that is lower than the market needs, would open ability to competition to take over the part of the market. Possible solution of the problem would have the following financial effects:

<table>
<thead>
<tr>
<th>TIME</th>
<th>Q</th>
<th>FC</th>
<th>VC</th>
<th>TC</th>
<th>AFC</th>
<th>AVC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEFORE</td>
<td>143.000.00</td>
<td>127.516,67</td>
<td>510.000.00</td>
<td>637.516,67</td>
<td>0,89</td>
<td>3,57</td>
<td>4,46</td>
</tr>
<tr>
<td>AFTER</td>
<td>55.000.00</td>
<td>79.591,67</td>
<td>196.153,85</td>
<td>275.745,51</td>
<td>1,45</td>
<td>3,57</td>
<td>5,01</td>
</tr>
</tbody>
</table>

Source: created by authors

b) Solution B: To produce the amount required by the market, work in shift and a half, releasing four workers. By reducing the shift variable
costs would reduce as a result of production cuts and downsizing. Layoff would like in model solution A led to a reduction of costs, but would also led to a deterioration in the working atmosphere. Renewed increase in demand for the product, production capacity could relatively easy and fast return to the previous amount. Possible solution of the problem would have the following financial effects:

Table 2 - Overview of operating costs with solutions B (in HRK / month)

<table>
<thead>
<tr>
<th>TIME</th>
<th>Q</th>
<th>FC</th>
<th>VC</th>
<th>TC</th>
<th>AFC</th>
<th>AVC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEFORE</td>
<td>143.000,00</td>
<td>127.516,67</td>
<td>510.000,00</td>
<td>637.516,67</td>
<td>0,89</td>
<td>3,57</td>
<td>4,46</td>
</tr>
<tr>
<td>AFTER</td>
<td>110.000,00</td>
<td>106.216,67</td>
<td>392.307,69</td>
<td>498.524,36</td>
<td>0,97</td>
<td>3,57</td>
<td>4,53</td>
</tr>
</tbody>
</table>

Source: created by authors

c) Solution C: Launching of new products require minor modifications on existing machines. Also new product line has a slightly higher consumption of materials and so it comes up to a small increase in variable costs. New products have a higher added value so this investment is profitable. By starting production of the new product lines, there is possibility of increasing production capacity engagement to compensate for part of the reduction in production demand Possible solution of the problem would have the following financial effects:

Table 3 - Overview of operating costs with solutions C (in HRK / month)

<table>
<thead>
<tr>
<th>TIME</th>
<th>Q</th>
<th>FC</th>
<th>VC</th>
<th>TC</th>
<th>AFC</th>
<th>AVC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEFORE</td>
<td>143.000,00</td>
<td>128.516,67</td>
<td>510.500,00</td>
<td>639.016,67</td>
<td>0,90</td>
<td>3,57</td>
<td>4,47</td>
</tr>
<tr>
<td>AFTER</td>
<td>143.000,00</td>
<td>128.516,67</td>
<td>510.500,00</td>
<td>639.016,67</td>
<td>0,90</td>
<td>3,57</td>
<td>4,47</td>
</tr>
</tbody>
</table>

Source: created by authors

3.4. Choosing a solution to the problem

Table 4 - Display changes average costs (in HRK / month)

<table>
<thead>
<tr>
<th>TIME</th>
<th>AFC</th>
<th>AVC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEFORE</td>
<td>0,89</td>
<td>3,566</td>
<td>4,46</td>
</tr>
<tr>
<td>OPTION A</td>
<td>1,45</td>
<td>62,28%</td>
<td>3,566</td>
</tr>
<tr>
<td>OPTION B</td>
<td>0,97</td>
<td>8,29%</td>
<td>3,566</td>
</tr>
<tr>
<td>OPTION C</td>
<td>0,90</td>
<td>0,78%</td>
<td>3,570</td>
</tr>
</tbody>
</table>

Source: created by authors
The table above shows that solutions A and B essentially significantly increase the amount of average fixed and average total costs. Solution A notable increase 62% of average fixed cost and 10% increase in average total costs. In solution B, these increases were slightly smaller 8% average fixed costs and 1.66% of the average total costs. In both solutions A and B, there is no increase in average variable costs. Solution C provides only a slight increase in average costs. Average fixed costs grow up to only 0.78%, the average total costs increase by 0.235% and the average variable cost growth (as opposed to other options A and B) of 0.11%. Reason why average variable cost are slightly higher is consumption of materials for new products. According to Gutenberg production function (variable and fixed manufacturing components) and the analysis of all options to solve the problem is reason for giving up on solution A. Although at first solution B acts as a good solution, because of the inability to predict how long will crisis last and how long will it take to restore production volume, negative business climate in economic entity and the increase in average fixed and average total cost is reason for giving up on solution B. Because of unused production capacity and analysis results decision was made on solution C. In support of decision also goes desire for the development of new product lines and market survival in times of crisis and recession.

4. RESULTS OF SELECTED SOLUTION

After the decision to launch production of new product an analysis of the results obtained, for the first time real impact of solution C on production costs can be calculated.

Table 5 - Results selected solution C (in HRK / month)

<table>
<thead>
<tr>
<th>TIME</th>
<th>Q</th>
<th>FC</th>
<th>VC</th>
<th>TC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEFORE</td>
<td></td>
<td>143,000,00</td>
<td>127,516,67</td>
<td>510,000,00</td>
</tr>
<tr>
<td>OPTION C</td>
<td></td>
<td>141,900,00</td>
<td>128,516,67</td>
<td>509,500,00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TIME</th>
<th>AFC</th>
<th>AVC</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEFORE</td>
<td>0.89</td>
<td>3.566</td>
<td>4.458</td>
</tr>
<tr>
<td>OPTION C</td>
<td>0.91</td>
<td>3.598</td>
<td>4.503</td>
</tr>
</tbody>
</table>

Source: created by authors

Since this is a production that is only started and products are new and innovative on market, the results are more than satisfactory. There was a slight difference between planned and actual results of production. Instead of planned
production quantity 143.000,00 business entity only produced 141.900,00 pair of socks. Comparisons of planned and actual results are in following table.

**Table 6** - Comparison of planned and achieved results Option C (in HRK / month)

<table>
<thead>
<tr>
<th></th>
<th>Q</th>
<th>FC</th>
<th>VC</th>
<th>TC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BEFORE</strong></td>
<td>143.000.00</td>
<td>128.516.67</td>
<td>510.000.00</td>
<td>637.516.67</td>
</tr>
<tr>
<td><strong>PLAN</strong></td>
<td>143.000.00</td>
<td>128.516.67</td>
<td>510.500.00</td>
<td>639.016.67</td>
</tr>
<tr>
<td><strong>OPTION C</strong></td>
<td>141.900.00</td>
<td>128.516.67</td>
<td>509.500.00</td>
<td>638.016.67</td>
</tr>
</tbody>
</table>

**TIME** | **AFC** | **AVC** | **AC** |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BEFORE</strong></td>
<td>0.89</td>
<td>3.57</td>
<td>4.46</td>
</tr>
<tr>
<td><strong>PLAN</strong></td>
<td>0.90</td>
<td>0.78%</td>
<td>3.57</td>
</tr>
<tr>
<td><strong>OPTION C</strong></td>
<td>0.91</td>
<td>0.78%</td>
<td>3.59</td>
</tr>
</tbody>
</table>

*Source: created by authors*

Fixed costs are realized in the amount in which they were planned, but due to a small discrepancies between planned and actual quantity there was a slight change in planned and realized amounts of variable and total costs that are somewhat lower than planned, and average fixed, variable and total costs that are slightly higher than planned.

5. **CONCLUSION**

The analysis proved hypothesis that Gutenberg’s theory type B can be connected and used in modern business production company. Thanks to planning there was no serious damage to production of finished products in economic entity. Costs in mass (variable and fixed) and average costs were related with calculation, and on basis of these results decision was made that proved to be correct. Result of analysis show minor deviations from the plan due to slightly lower production volumes achieved by the planned less than 1% (0.77%). Despite the reduced volume of production decision that is made is better than other considered decision.

**LITERATURE**

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CROATIAN STUDENT WORKFORCE: FINANCIAL IMPACT AND EXPERIENCE*

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Abstract

In terms of disrupt economic activity; one of the core competencies of each individual is the possession of knowledge and skills in the field of finance and looking after personal finances. In this paper, the authors analyze the experience of occasional employment of the student population in the labour market. The survey explores personal attitudes of the student population towards their satisfaction achieved while working for different student job services as well as the amount of money they made, and the implementation of the acquired knowledge in their future education.

Keywords: financial impact, labour market, student population, work experience

JEL Classification: D14, E6

* Acknowledgement: The paper was written within the bilateral research project entitled “Knowledge management in the function of development strategy” co-financed pursuant to the Protocol on Scientific and Technological Cooperation between the Republic of Croatia and the Republic of Montenegro for the years 2015/2016.
1. INTRODUCTION

One of the core competencies of each individual is the possession of knowledge and skills in the field of finance and looking after personal finances. The involvement of student population in jobs provided by student job services is increasingly gaining in importance. In this way, students have a direct impact on their financial position in the segment of financing / co-financing their education, and at the same time, they acquire additional skills which can be applied throughout their education, and encourage the development of their own financial education.

The need for funding student fees, as well as, the rising costs of student life is a daily concern of the student population. In order to increase their funds, finance their various needs and avoid going into debt, students often perform different jobs while studying and finance themselves in that way.

2. EXPERIENCES OF OCCASIONAL EMPLOYMENT OF THE STUDENT POPULATION IN THE LABOUR MARKET

This research covers the experiences and attitudes of the student population at the University of Josip Juraj Strossmayer in Osijek on occasional employment and its integration into the labour market. The methodology of this research is based on the method of survey instrument and conducted by the means of an on-line questionnaire.

The research was conducted in February, 2016 on a representative sample of 128 examinees. The target group included student population, and the survey itself consisted of two parts. The first part of the survey collected some basic information about the sample (gender, age and year of study), whereas the second part dealt with questions related to the inclusion of students into the labour market with the help of student job services.

The aim of the research is obtaining information on the experience of occasional employment of the student population in the labour market and the recognition of their own status in the labour market.

Reasons for complete, increased or partial financial involvement of student population in the labour market can be found due to the shortage of personal
incomes, i.e. incomes of their households necessary for financing their educational costs.

The fact that students simultaneously work and study emerges as one of the most important determinants of student satisfaction (Moro-Egido; Panades, 2008, 1).

Therefore, the relevance of student satisfaction analysis is supported by the fact that, if students are viewed as consumers of college education, their satisfaction is important for institutional success because effective institutions will have satisfied customers, and because satisfaction supports the recruitment of additional customers (Moro-Egido; Panades, 2008, 2).

Gender and student’s academic year are shown in Table 1

Table 1: Gender and student’s academic year

<table>
<thead>
<tr>
<th>Gender&amp;academic year</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>37</td>
<td>28,9</td>
<td>28,9</td>
<td>28,9</td>
</tr>
<tr>
<td>Female</td>
<td>91</td>
<td>71,1</td>
<td>71,1</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>100,0</td>
<td>100,0</td>
<td></td>
</tr>
<tr>
<td>Academic year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First year of studies</td>
<td>28</td>
<td>21,9</td>
<td>21,9</td>
<td>21,9</td>
</tr>
<tr>
<td>Second year of studies</td>
<td>30</td>
<td>23,4</td>
<td>23,4</td>
<td>45,3</td>
</tr>
<tr>
<td>Third year of studies</td>
<td>22</td>
<td>17,2</td>
<td>17,2</td>
<td>62,5</td>
</tr>
<tr>
<td>First year of graduate studies</td>
<td>37</td>
<td>28,9</td>
<td>28,9</td>
<td>91,4</td>
</tr>
<tr>
<td>Second year of graduate studies</td>
<td>11</td>
<td>8,6</td>
<td>8,6</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>100,0</td>
<td>100,0</td>
<td></td>
</tr>
</tbody>
</table>

Source: authors

In the total sample of 128 students surveyed: 71% were female students and 29% male students. According to the academic year, the most surveyed students were in their first year of graduate studies (29%), followed by the second year of undergraduate studies (23%) (Table 1).

Gender in relation to the age of students is shown in Chart 1.
The highest percentage of women surveyed (47%) is aged from 19 to 21, while the largest percentage of males (49%) are aged between 22 and 24 (Chart 1).

Using the services of student job services and the working hours are shown in Table 2.

<table>
<thead>
<tr>
<th>Services of student job services &amp; working hours</th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Std. Deviation</th>
<th>Variance</th>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>Yes</td>
<td>93</td>
<td>72,7</td>
<td>1,27</td>
<td>1,00</td>
<td>1</td>
<td>.477</td>
<td>.200</td>
</tr>
<tr>
<td>No</td>
<td>35</td>
<td>27,3</td>
<td>1,00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>128</td>
<td>100,0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working hours</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>By day</td>
<td>84</td>
<td>90,3</td>
<td>1,10</td>
<td>1,00</td>
<td>1</td>
<td>.297</td>
<td>.088</td>
</tr>
<tr>
<td>At night</td>
<td>9</td>
<td>9,7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>93</td>
<td>100,0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: authors

Services of the student job services, used by the student population for occasional employment on the labour market, have had a positive impact on 73% of the surveyed students which indicates a great interest of the student population to be involved in the labour market.
The most usual working hours, stated by 90% of the respondents, is daytime, while 10% work at night (Table 2).

Activities in which students usually perform their work is shown in Chart 2.

**Chart 2:** Activities of work in relation to the gender of students

![Chart 2: Activities of work in relation to the gender of students](chart)

**Source:** authors

The largest number of female students usually work in the commerce (promotion of goods and services, filling the shelves of shopping malls and etc.) and in the catering industry (waiters, hostesses, etc.). Female students are also very frequently involved in different tasks in the commerce, and have to deal with a variety of physical activities as a part of that job.

There is a similar order of activities in which males conduct business (commerce, catering, various physical labor). In addition to that, the above mentioned types of jobs are more frequently performed by women and they are more interested in for student jobs offered by student job services. (Chart 2).

Activities of work to working days is shown in Table 3.
### Table 3: Activities of work to working days

<table>
<thead>
<tr>
<th>Working day</th>
<th>Monday Count</th>
<th>Tuesday Count</th>
<th>Wednesday Count</th>
<th>Thursday Count</th>
<th>Friday Count</th>
<th>Saturday Count</th>
<th>Sunday Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catering industry</td>
<td>12</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Commerce</td>
<td>18</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Financial institutions</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Production</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Various physical jobs</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Catering industry and commerce</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Catering industry and financial institutions</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Catering industry and production</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Commerce and financial institutions</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Commerce and various physical jobs</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Catering industry, commerce and production</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Catering industry, commerce and customer service agent</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Catering industry, production and various physical jobs</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>57</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>7</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Rang</td>
<td>1</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: authors

Most of the students work during the whole week, while a smaller number of them work only several days a week or just over the weekend. Students usually start work on Mondays. Students also start their work on Saturdays and Sundays. A somewhat smaller number of surveyed students start their work on Fridays, Thursdays or Tuesdays (Table 3).

The total monthly income of Croatian students is on average 2,181,00 HRK. There are three main types of monthly incomes: family, job and scholarships (Šćukanec et al, 2015, 11).

The amount of monthly income made while performing jobs supplied by the student job services, is shown in Table 4.
Table 4: The amount of monthly income

<table>
<thead>
<tr>
<th>Amount in HRK</th>
<th>Frequency</th>
<th>Percent</th>
<th>Mean</th>
<th>Median</th>
<th>Mode</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>To 1.000,00</td>
<td>50</td>
<td>53,8</td>
<td>1,53</td>
<td>1,00</td>
<td>1</td>
<td>.618</td>
<td>.382</td>
</tr>
<tr>
<td>1.001,00 – 3.000,00</td>
<td>37</td>
<td>39,8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.001,00 – 5.000,00</td>
<td>6</td>
<td>6,5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>93</td>
<td>100,0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: authors

The most common amount of students’ monthly income made, while performing jobs supplied by the student job services, is 1.000,00 HRK (54%). Next are students whose monthly incomes range from 1.001,00 to 3.000,00 HRK (40%). The smallest percentage of students (6%) have a monthly income from 3.001,00 to 5.000,00 HRK.

On the basis of actual monthly income made by students, it is possible to notice that students usually perform in lower-paying jobs, which is noted previously in the framework of the activities in which they work (Table 4).

The applicability of the acquired knowledge gained by working on jobs supplied by the student job services, and interference in studying during the involvement in the labour market, are shown in Charts 3 and 4.

Chart 3: The applicability of the acquired knowledge

Source: authors
The largest percentage of students (38% of them) evaluated the applicability of the acquired knowledge gained by working on jobs supplied by student job services, as partly useful. Other students (20% of them) have declared that they neither use nor waste the acquired knowledge, while 17% of students answered that they use them distinctly.

A small percentage of students (14%) have declared that these student jobs have been of no use in their future education (Chart 3).

In addition, the highest percentage of students (32% of them) stated that their work does not prevent them from their studies, while only 6% said that it prevents them to a very high degree. The results show that a high number of surveyed students manage to perform all their obligations while working on jobs supplied by student job services (Chart 4).

The correlation i.e. the measure degree of the linear connection between individual important variables for the conducted research is shown in table 5.
Table 5: Correlation research variables

<table>
<thead>
<tr>
<th></th>
<th>G</th>
<th>A</th>
<th>S</th>
<th>AC</th>
<th>TW</th>
<th>WD</th>
<th>AMI</th>
<th>AAK</th>
<th>IS</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>1</td>
<td>.375</td>
<td>.342</td>
<td>.038</td>
<td>.320</td>
<td>,166</td>
<td>.039</td>
<td>.239</td>
<td>.226</td>
<td>1.71</td>
<td>.455</td>
</tr>
<tr>
<td>A</td>
<td>.375</td>
<td>1</td>
<td>.000</td>
<td>.023</td>
<td>.455</td>
<td>.959</td>
<td>.039</td>
<td>.193</td>
<td>.122</td>
<td>1.68</td>
<td>.720</td>
</tr>
<tr>
<td>S</td>
<td>.342</td>
<td>.000</td>
<td>1</td>
<td>.000</td>
<td>.097</td>
<td>.084</td>
<td>.030</td>
<td>.096</td>
<td>.066</td>
<td>2.79</td>
<td>1.308</td>
</tr>
<tr>
<td>AC</td>
<td>.038</td>
<td>.234</td>
<td>.217</td>
<td>1</td>
<td>.319</td>
<td>.466</td>
<td>.154</td>
<td>.191</td>
<td>.066</td>
<td>14.26</td>
<td>32.025</td>
</tr>
<tr>
<td>TW</td>
<td>.320</td>
<td>.435</td>
<td>.466</td>
<td>.319</td>
<td>1</td>
<td>.000</td>
<td>.163</td>
<td>.001</td>
<td>.001</td>
<td>1.10</td>
<td>.297</td>
</tr>
<tr>
<td>WD</td>
<td>,166</td>
<td>.084</td>
<td>.411</td>
<td>.032</td>
<td>.000</td>
<td>1</td>
<td>.030</td>
<td>.019</td>
<td>.000</td>
<td>2.67</td>
<td>2.342</td>
</tr>
<tr>
<td>AMI</td>
<td>.039</td>
<td>.030</td>
<td>.019</td>
<td>.154</td>
<td>.163</td>
<td>.001</td>
<td>1</td>
<td>.285</td>
<td>.043</td>
<td>1.53</td>
<td>.618</td>
</tr>
<tr>
<td>AAK</td>
<td>.239</td>
<td>.193</td>
<td>.096</td>
<td>.191</td>
<td>.006</td>
<td>.001</td>
<td>.001</td>
<td>1</td>
<td></td>
<td>3.33</td>
<td>1.280</td>
</tr>
<tr>
<td>IS</td>
<td>.226</td>
<td>.122</td>
<td>.066</td>
<td>.000</td>
<td>.176</td>
<td>.178</td>
<td>.043</td>
<td>1</td>
<td></td>
<td>2.51</td>
<td>1.316</td>
</tr>
</tbody>
</table>

*Correlation is significant at the 0.05 level (2-tailed).
**Correlation is significant at the 0.01 level (2-tailed)

G – Gender
A – Age
S – Student
AC – Activities
TW– Time of work
WD – Working days
AMI – Amount of monthly income
AAK – The applicability of the acquired knowledge
IS – Interference in the study

There are significant positive linear correlations in the conducted research between the working hours of and the students. There is also a noticeable medium strong level of the connection between the working hours and the age of students, and also between the working days and students (Table 5).

3. CONCLUSION

The awareness of the importance of involving students into the labour market by working on jobs supplied by student job services is becoming more and more significant. Results of the research on the experiences of the occasional employment of the student population on the labour market indicate the following:
• most of the student population get involved in the labour market and work on jobs supplied by student job services while they attend a university
• They usually perform jobs in the catering industry and commerce in relation to other activities (financial institutions, etc.)
• jobs are usually performed during the day and during the entire work week, and less frequently on the weekends,
• the amount of monthly income they get is usually minimal (up to 1,000.00 HRK), which is expected given the type of work they perform,
• Most of the student population use the acquired knowledge in their further studies and the extra work does not interfere with the regular execution of student obligations.

REFERENCES
THE DYNAMIC OF THE ECONOMIC GOVERNANCE ARCHITECTURE IN THE CONTEXT OF THE EUROPEAN UNION

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Abstract
The process of economic governance implies structures, norms and regulations that have as main objective to reduce the uncertainties across economies and to promote high rates of economic growth. An efficient economic governance is particularly important upon improving the sustainability of the business environment, increasing the competitiveness level in report to other economies, managing human resources and assuring a high standard of living for the society. The main purpose of this paper is to investigate the process of economic governance across the Member States of the European Union taking into consideration the existing literature in the field that highlights the extremely important connection between economic governance - economic growth - economic convergence. Furthermore we analyzed some main indicators such as the Social Justice Index or the indicators used by international organization, namely World Economic Forum, across all European economies in order to present a
clear image upon the existing differences between these countries as well as the 
factors responsible for this situation.

**Keywords:** economic governance, European Union, economic growth.

**JEL Classification:** G3, G34

1. **INTRODUCTION**

Over time the literature in the field identified a series of economic and non-
economic factors that have an impact upon the process of economic growth as 
well as economic convergence. Despite the fact that the majority of the studies 
developed both theoretically and empirically approach the main determinants of 
the economic growth strictly from an economic point of view, a series of recent de-
bates highlight the importance of the quality of economic governance and its role 
in assessing the differences between economies. Although the process of econom-
ic governance is relatively a new area of research, the majority of the studies focus 
on this issue taking into consideration the coordinating mechanism between gov-
ernment, market and society. In the continuous attempt to assure a harmonious 
economic integration of all the Members States, the European Union architecture 
registered some major short-comings in managing the activity across the existing 
institutions in order to guarantee economic stability. A proper evaluation of the 
interconnection between economic governance – economic growth/convergence requires a precise definition of what the process of economic governance means.

According to Concise Oxford English Dictionary, the process of economic gov-
ernance is analyzed through a multitude of perspectives: a) the action or manner 
of governing, controlling; b) the function of governing; the permission or author-
ity to govern; c) the manner in which is governed; a regulatory system, a discipline; 
d) the method of developing a business or a lifestyle (Concise Oxford English 
Dictionary, 2008). These multiple perspectives associated to the governance pro-
cess are a strong indicator in favor of its complexity, of the launched externalities as well as the effects triggered in the political, economic or social framework.

Dixit (2009) argues that often emerging or under-developed economies have an inefficient system of governance, identifying a series of factors responsible for this aspects such as: a) these states were not confronted with the situation of managing high volumes of transactions on large geographical distances or large periods of times; b) these states do not have neither the experience, not
the ability or knowledge to organize their governance process according to the requirements imposed by the developed economies or by the investors that act across modern markets.

The reminder of this paper is organized as follows: Section 2 details a short literature review in the area of the economic governance studies both from a theoretical and empirical point of view; Section 3 analyze some main instruments used by international organizations in order to measure economic governance across European Union Members States and the last section summarizes the main conclusions of this study.

2. ECONOMIC GOVERNANCE AS A STIMULATING FACTOR FOR THE ECONOMIC GROWTH – SHORT LITERATURE REVIEW

There is a wide range of studies that focus upon the interconnection between economic governance and economic growth/convergence highlighting the multiple perspectives and channels from which this relation may be analyzed.

For the business environment and the investors, the economic governance process is perceived as a key factor when assessing the level of risk aversion. There are a number of criteria foreign investors take into consideration when deciding to open a subsidiary in a foreign country, such as: a well-developed legal system concentrated upon state of law and respect of the property rights, a low level of bureaucracy and corruption, a high level of transparency and protection against frauds. A poor economic governance, measured in terms of a poor institutional system, determines an increase in the structure of transaction costs, but also an incomplete transmission of information across the market that in the end reduces the level of foreign investments.

Despite all that, establishing a clear interdependence between economic governance and economic growth or economic convergence constitutes a real challenge for researchers, taking into consideration the fact that the literature in the filed offers a wide range of definitions and interpretations associated to this complex process. North (1990) appreciated that the key of analyzing the link between economic governance – economic growth – economic convergence consists in specifying exactly what economic governance involves, what institutions represent and the degree they differ from organizations, as well as their influence on transaction and production costs. North considered that the insti-
tutions as perceives as the “rules of the game” across a society that shape the individuals behavior and the way they relate one another or develop their activity.

Improving the quality of the economic governance process is even more important when referring to the emerging economies that concentrate their efforts towards reforming the economies and developing a background that would assure a sustainable economic growth (Globerman, 2002). North (1990) considered that third world countries are poor because institutional constraints define a set of payments of the political / economic activities that do not stimulate productive activity. Improving the quality of economic governance in order to promote economic growth and convergence between economies constitutes a prior objective for more than 5.5 billion citizens that live in countries with a low or medium GDP/capita (Gani, 2011).

One channels through which economic governance may influence economic growth is economic stability. Alesina et al. (1996) addresses the interconnection between economic stability and economic growth taking into consideration a number of 113 economies over a time period between 1950 and 1960. The authors define economic instability as the probability of a change in what concerns the governmental level, both using constitutional and unconstitutional methods. The results of the article highlight that, across states with high political instability, the economic growth rates are more reduced, compared to the periods characterized by political stability. Also the authors do not identify any influence in what concerns the authoritarian regimes compared to the democratic ones. Moreover, political instability tends to have a constant trend, meaning that a political failure once produced will have a tendency to perpetuate over time.

Another channels that emphasize the link between economic governance and economic growth is the level of corruption. Knack and Keefer (1995) aimed at establishing a correlation between the level of corruption and economic growth / economic convergence across governments. The results focus on three main areas: a) political violence and civil liberties are insufficient indicators to measure the quality of the institutions; b) the institutions oriented towards protecting property rights are triggering factors of economic growth and investments; c) the states where there is an efficient control in what concerns the institutions deliver clear evidence that support conditional convergence.

Mo (2001) uses as data source for measuring the connection between the control of corruption and the level of economic growth the corruption percep-
tion index published by Transparency International, the data set including 54 economies. For estimating the results, the author uses the least square method, the conclusions highlighting the fact that an increase with 1% in what concerns the level of corruption reduces the rate of economic growth with 0.545%. The most important channel through which corruption influence economic growth is political instability that influences in a percentage of 53% this correlation.

Mendez and Sepulveda (2006) studied the effects of corruption on economic growth on the long term, taking into consideration measures of political liberties as key indicators of this connection. The used data focus on the time period between 1960 and 2000 from three different sources, namely International Country Risk Guide, Institute for Measurement Development and Corruption Perception Index. The conclusions of the research are in favor of a non-linear relation between the level of corruption and economic growth.

Gerring et al. (2011) conducts a complex analysis on the variety of socio-economic and political channels through which governance may influence economic growth. In this article, democracy is considered a stock variable and not a level variable. The author concludes that the democracy variable influences economic performance, considering also the historical evolution from this country. Figure 1 details the classification of the channels and their interdependence with the process of economic growth.

**Figure 1: Democracy and economic growth**

Source: Gerring et al. 2011: 32.

3. INSTRUMENTS TO MEASURE GOVERNANCE ACROSS EU

The quality of the economic governance process is evaluated by a series of institutions that use a wide range of indicators to quantify the optimum level associated to this issue. One of these indicators is the Social Justice Index. This index incorporates a series of policies whose main objectives target the develop-
ment of individual capacities and equal participation opportunities within a society. These objectives are in line with the European Union efforts to respond to goals assumed within the 2020 Europe strategy that focus on three main pillars namely: a) the annual publishing of some data that would allow a comparative analysis between different countries regarding the level of social reforms; b) the countering of the macroeconomic component in the analysis of the economic governance process; c) highlighting the social costs of the policies developed by national governments and the effects of the austerity measures imposed. The Social Justice Index includes six main elements: 1) poverty prevention, 2) equitable education, 3) labor market access, 4) social cohesion and non-discrimination, 5) health, and 6) intergenerational justice. Each component includes a series of sub-components (27 quantitative indicators and 8 qualitative indicators). The used database in the construction of these indicators is Eurostat and the European Union statistics regarding revenues and life conditions. In order to harmonize the data regarding the quantitative and qualitative indicators the reference level fluctuates between 1 (the lowest value) and 10 (the highest value).

If we take into consideration the evolution of the Social Justice Index across the European Union Member States in 2014, we may notice the fact that the highest values corresponding to this indicators are registered across northern members such as Sweden, Finland and Denmark. Despite the fact that these states range above the European Union average, the report highlights a series of deficiencies associated to them. One issue is related to the idea of offering equal working opportunities to all the immigrants but also the support orientated towards young people in obtaining a new job. For example for the case of Sweden, the unemployment rate across young people is 23.5% and in Finland 19.9%. The overall rank is completed by states like Austria, Germany and Luxembourg, states with strong economies and high rates of economic growth. These evolutions were favored especially in the case of Germany by the sustainable development of labor force. Czech-Republic, Estonia and Slovenia, the ex-communist countries, register values above the EU average, being ranked over older member states like France and Belgium.

Greece, Romania and Bulgaria are the three countries that register the lowest values associated to the Social Justice Index with negative evolutions across recent years. The main factors responsible for these evolutions are the increase of the unemployment rate across young people (for the case of Greece is over 60%), the increase of the level of the public debt as a result of the measured
elaborated by the national governments during the recent financial crisis, a deficient health system as well as an increase of the poverty risk. The corroboration of these factors are a strong indicator of the fact that an inefficient management of the economic governance across these states constitute a real threat on their political and social stability.

**Figure 2:** Evolution of the Social Justice Index across European Union Member States in 2014


World Economic Forum publish starting 2005 an annual report regarding the competitiveness level of more than 144 worldwide economies. The interconnection between the level of competitiveness and the level of economic growth is an extremely debated subject across the literature in the field. The World Economic Forum identifies 12 different categories of indicators that influence the level of competitiveness and namely: 1) Institutions; 2) Innovations; 3) The business environment complexity; 4) The market share; 5) The level of absorption of the technologies; 6) Infrastructure; 7) The development of the financial markets; 8) The macroeconomic framework; 9) Health and primary education; 10) Higher education and specialization; 11) The efficiency of the goods market; 12) Labor market efficiency.

The category corresponding to evaluating the process of economic governance is the one referring to institutions. In order to quantify the role that institutions have in promoting economic growth and convergence but also in assuring an efficient economic governance, World Economic Forum distinguish between two main categories of institutions namely public and private ones. Moreover the Competitiveness Report from 2014 highlights the fact that just
the interconnection of these two categories of institutions allows an optimum development of the markets, prevents corruption and excessive bureaucracy as well as a high level of transparency and confidence for the society. The institutions category holds a share of 25% from the total of 12 indicators used to measure competitiveness.

**Table 1**: The structure of the institution pillar from the Competitiveness Index published by World Economic Forum

<table>
<thead>
<tr>
<th>Institutions Pillar (25%)</th>
<th>Private institutions (25%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Institutions (75%)</td>
<td>Ethical corporative (50%)</td>
</tr>
<tr>
<td>Property rights (20%)</td>
<td>Ethical behavior of the companies</td>
</tr>
<tr>
<td>Property rights</td>
<td>Audit (50%)</td>
</tr>
<tr>
<td>Intellectual property</td>
<td>Standards reports</td>
</tr>
<tr>
<td>rights</td>
<td>Efficiency of the management boards</td>
</tr>
<tr>
<td>Excessive influence (20%)</td>
<td>Protection of minority shareholders' interests</td>
</tr>
<tr>
<td>Judicial independence</td>
<td>Investors protection</td>
</tr>
<tr>
<td>Decisions taken by national governments</td>
<td></td>
</tr>
<tr>
<td>Governmental effectiveness (20%)</td>
<td></td>
</tr>
<tr>
<td>Governmental spending</td>
<td></td>
</tr>
<tr>
<td>Governmental protection</td>
<td></td>
</tr>
<tr>
<td>Efficiency of the legal framework</td>
<td></td>
</tr>
<tr>
<td>Governmental policies transparency</td>
<td></td>
</tr>
<tr>
<td>Security (20%) a. Costs of terrorism/violence on business; Organized crime; Confidence in the police service</td>
<td></td>
</tr>
</tbody>
</table>


The analysis of the global competitiveness indicator for the period between 2014 and 2015 detailed in table 1 reflects the fact that the most competitive economies across EU Member States are Finland and Luxembourg. These two states obtained the highest values associated to the quality of institutions being situated on the second and six position. On the opposite pole with the lowest values associated to this indicator are situated Italy (106), Slovakia (110) and Bulgaria (112) from the all 144 analyzed economies.

The factors responsible for these values differ from one economy to another taking into consideration the internal economic, social and political circumstances. For example, Bulgaria register strong short-comings in what concerns the level of confidence in the policy makers, the independence of the judiciary system, governmental efficiency as well as governmental fostering. Italy is con-
fronting with major difficulties in what concerns the efficiency of governmental expenditures as well as the legal system efficiency. For the case of Slovakia the main risks are associated to the judicial independence and governmental efficiency.

**Table 2:** Pillar 1 Institutions from the Competitiveness Index published by World Economic Forum across EU 28

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Austria</td>
<td>5.09087</td>
<td>22</td>
<td>15</td>
<td>Italy</td>
<td>3.37007</td>
<td>106</td>
</tr>
<tr>
<td>2</td>
<td>Belgium</td>
<td>5.07793</td>
<td>23</td>
<td>16</td>
<td>Latvia</td>
<td>4.12583</td>
<td>51</td>
</tr>
<tr>
<td>3</td>
<td>Bulgaria</td>
<td>3.31906</td>
<td>112</td>
<td>17</td>
<td>Lithuania</td>
<td>4.01115</td>
<td>58</td>
</tr>
<tr>
<td>4</td>
<td>Croatia</td>
<td>3.58561</td>
<td>87</td>
<td>18</td>
<td>Luxembourg</td>
<td>5.68762</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Cyprus</td>
<td>4.39003</td>
<td>42</td>
<td>19</td>
<td>Malta</td>
<td>4.46325</td>
<td>40</td>
</tr>
<tr>
<td>6</td>
<td>Czech Republic</td>
<td>3.77052</td>
<td>76</td>
<td>20</td>
<td>Netherlands</td>
<td>5.53328</td>
<td>10</td>
</tr>
<tr>
<td>7</td>
<td>Denmark</td>
<td>5.34506</td>
<td>16</td>
<td>21</td>
<td>Poland</td>
<td>4.01987</td>
<td>56</td>
</tr>
<tr>
<td>8</td>
<td>Estonia</td>
<td>4.96184</td>
<td>26</td>
<td>22</td>
<td>Portugal</td>
<td>4.42681</td>
<td>41</td>
</tr>
<tr>
<td>9</td>
<td>Finland</td>
<td>6.08445</td>
<td>2</td>
<td>23</td>
<td>Romania</td>
<td>3.55711</td>
<td>88</td>
</tr>
<tr>
<td>10</td>
<td>France</td>
<td>4.6756</td>
<td>32</td>
<td>24</td>
<td>Slovakia</td>
<td>3.32941</td>
<td>110</td>
</tr>
<tr>
<td>11</td>
<td>Germany</td>
<td>5.22768</td>
<td>17</td>
<td>25</td>
<td>Slovenia</td>
<td>3.81078</td>
<td>75</td>
</tr>
<tr>
<td>12</td>
<td>Greece</td>
<td>3.64474</td>
<td>85</td>
<td>26</td>
<td>Spain</td>
<td>3.81521</td>
<td>73</td>
</tr>
<tr>
<td>13</td>
<td>Hungary</td>
<td>3.66641</td>
<td>83</td>
<td>27</td>
<td>Sweden</td>
<td>5.43135</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>Ireland</td>
<td>5.40429</td>
<td>15</td>
<td>28</td>
<td>Great Britain</td>
<td>5.44112</td>
<td>12</td>
</tr>
</tbody>
</table>

EU average: 4.47382

**Source:** Authors calculation's based on www.weforum.org, accessed at 24.04.2015

**CONCLUSIONS**

Although economic governance is considered a triggering factor for economic growth/convergence, identifying the most suitable indicators to measure it may be considered a difficult task. This article focused on two main tasks: first of all to summarize the most relevant contributions to the literature in the field of testing the interconnection between economic governance and economic growth/convergence and secondly presenting an evaluation of two main indicators namely, Social Justice Index and the Institution indicator published by World Economic Forum for the case of the Member States of EU. The data indicates that the economic governance is effectively managed across states like Denmark, Great Britain, Finland or Luxembourg at the opposite pole being situated countries like Romania, Greece, Bulgaria or Italy.
In this sense the future measures developed both at national and supra-national level should target a better evaluation of the shortcomings of each states in respect to their economic governance profile as well as assuring a high degree of transparency in what concerns the public policies. Furthermore, tightening the control measures with the main purpose of preventing corruption and conflicts, may constitute a viable instrument in the process of developing an efficient economic governance model across European Union member states.

**Bibliography**


EXTERNAL BARRIERS THAT DISEMPOWER THE INTERNATIONALIZATION OF CROATIAN COMPANIES ON MARKETS IN EASTERN EUROPE

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Abstract

Internationalization is an essential need of every company if it intends to maintain its business on the market in the long run. However, Croatian companies are faced with numerous problems during the expansion of their business on the international market because of the relatively low risk tolerance. In addition to internal obstacles, companies must conform to administrative, political and economic conditions on domestic and foreign markets. Adjustment is sometimes substantially hampered or disabled, especially in volatile and underdeveloped markets. Indeed, most countries of Eastern Europe rank among the transition countries but cooperation with them dominates in Croatian export. This paper identifies external barriers that interfere with Croatian companies’ commerce in the Eastern European market. It has been shown that the greatest problems are caused by the differences within the legal system, particularly the presence of corruption and poor regulation. Another issue that excels is administrative burden. However, language differences conditioned by the culture affect for at least the establishment of cooperation between Croatian and Eastern European companies.

Keywords: External barriers, internationalization, export, Eastern Europe, business result

JEL classification: D4, D47
1. INTRODUCTION

The importance of internationalization is particularly evident in transition-
ing countries of Central and Eastern Europe. Since it comes to a relatively small
market with scarce resources, indispensable need to integrate into the world
economy is expressed. There are several theoretical definitions of Eastern Eu-
rop.e. Eastern Europe undeniably implies differentiated countries in geographi-
cal, political, cultural and socio-economic meaning. According to the European
Union Glossary, Eastern Europe includes the following countries: Albania, Ar-
menia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Montenegro,
Czech Republic, Croatia, Georgia, Kosovo, Macedonia, Hungary, Moldova,
Poland and Romania, European part of Russia, Serbia, Slovenia, Slovakia and
Ukraine. The stated classification was used in this paper.

Croatian tendency towards the countries from the region and interest for
developing and improving cooperation indicates the existence of great potential
which must be utilized. But the remaining fact is that a huge part of Croa-
tian export opportunities is not exploited well. The challenges that are arising
from the international business environment frequently act as barriers to the
enterprises’ readiness to take risks and expand business abroad (Korneliussen
& Blasius, 2008). However, as the flexibility of economies of scale continues
to develop, especially in countries where export capacities haven’t been used
sufficiently, deeper researches about the impacts of international environment
on business performance are recorded. Still, previous studies do not define the
particular impact of each barrier on export result in the (Eastern) European
market. Furthermore, there are no studies on a sample of Croatia in relation to
the bigger geographical entity.

Therefore, the aims of this article are: (i) to highlight a significant propor-
tion of Eastern Europe in Croatian export and point out the importance of
enhancing mutual cooperation, (ii) to present a comprehensive overview of key
external barriers that occur in international business (iii) to provide an overview
of the impact of external barriers on a concrete example – circumstances and
issues faced by Croatian companies.

2. CROATIAN EXPORT TO EASTERN EUROPEAN
   COUNTRIES

Partnerships between Croatia and the countries of Eastern Europe have
been established before Croatian independence. The exchange of goods and
services was carried out continuously, since the establishment of an independent Croatian state, and has successfully evolved. However, Eastern Europe has gained the greatest importance for domestic economy in the 21st century.

Eastern Europe represents the most important trade partner of the Republic of Croatia. The intensity of cooperation has a continuous upward trend and has reached more than 40% of share in total exports of Croatia (Table 1).

Table 1. Export of Croatia in the Eastern European countries in the period from 2010 to September 2015 (in thousands of EUR) and the percentage of their share in the total export of Croatia (%)

<table>
<thead>
<tr>
<th>Country</th>
<th>Croatian export to Eastern European countries</th>
<th>Percentage, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>60.338</td>
<td>58.213</td>
</tr>
<tr>
<td>Armenia</td>
<td>2.008</td>
<td>203</td>
</tr>
<tr>
<td>Azerbaijian</td>
<td>1.889</td>
<td>46.555</td>
</tr>
<tr>
<td>Belarus</td>
<td>10.805</td>
<td>8.314</td>
</tr>
<tr>
<td>Bosnia and Herzegovina</td>
<td>1.033.936</td>
<td>1.228.917</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>35.635</td>
<td>30.343</td>
</tr>
<tr>
<td>Montenegro</td>
<td>81.365</td>
<td>145.495</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>79.996</td>
<td>105.109</td>
</tr>
<tr>
<td>Georgia</td>
<td>14.919</td>
<td>1.422</td>
</tr>
<tr>
<td>Kosovo</td>
<td>54.705</td>
<td>68.289</td>
</tr>
<tr>
<td>Macedonia</td>
<td>199.839</td>
<td>242.945</td>
</tr>
<tr>
<td>Hungary</td>
<td>84.727</td>
<td>97.092</td>
</tr>
<tr>
<td>Moldova</td>
<td>1.278</td>
<td>1.275</td>
</tr>
<tr>
<td>Poland</td>
<td>89.722</td>
<td>98.373</td>
</tr>
<tr>
<td>Romania</td>
<td>61.474</td>
<td>87.781</td>
</tr>
<tr>
<td>Russia</td>
<td>175.008</td>
<td>331.159</td>
</tr>
<tr>
<td>Serbia</td>
<td>70.412</td>
<td>95.930</td>
</tr>
<tr>
<td>Slovenia</td>
<td>697.060</td>
<td>828.232</td>
</tr>
<tr>
<td>Slovakia</td>
<td>349.160</td>
<td>418.232</td>
</tr>
<tr>
<td>Ukraine</td>
<td>31.986</td>
<td>41.473</td>
</tr>
<tr>
<td>Total</td>
<td>3.136.265</td>
<td>3.935.353</td>
</tr>
</tbody>
</table>

Source: Croatian Bureau of Statistics, author’s adaptation

The greatest significance for Croatian economy is/was (ne has) the cooperation with Bosnia and Herzegovina, Slovenia, Slovakia, Macedonia and Russia. On the other hand, trade orientation towards Armenia, Belarus, Georgia and
Moldova was almost non-existent. Even so, in recent years Croatian companies intensified trade with these less known markets.

In terms of export of services, tourism represents the dominant export product of Croatia, which brings new money into the local economy. Tourist from Eastern Europe achieved a total of 3.79 million arrivals and 22.67 million overnight stays. Their share in the total number of arrivals was 32.64% and 36.96% of total overnight stays in Croatia in 2014 (Table 2).

**Table 2.** The number of arrivals and overnight stays of Eastern European tourists in the period from 2010 to 2014 (in thousands) and their share in the total foreign tourists arrivals and overnight stays

<table>
<thead>
<tr>
<th>Year</th>
<th>Arrivals</th>
<th></th>
<th></th>
<th></th>
<th>Nights</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Eastern European tourists</td>
<td>3.328</td>
<td>3.617</td>
<td>3.794</td>
<td>20.289</td>
<td>22.148</td>
<td>22.668</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage, %</td>
<td>36.53</td>
<td>34.88</td>
<td>32.64</td>
<td>39.79</td>
<td>38.50</td>
<td>36.96</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Croatian Bureau of Statistics, author’s adaptation

Despite the acceptable current cooperation, according to the research of Croatian Chamber of Commerce, all countries of Eastern Europe have expressed interest in improving commerce of Croatian goods and services. However, the quality of Croatian industrial sector is significantly lagging. Companies in Croatia are not able to provide sufficient quantities of demanded products and services. Therefore, the Eastern European consumers are being directed to other markets. A particular problem is evident with products that have a high added value, in public infrastructure projects and energy sector.

### 3. EXTERNAL BARRIERS OF EXPORT

External barriers are a complex category of situational factors created by the environment in which the company operates. In essence, these uncertain constraints comprise procedural, governmental and environmental circumstances on domestic and foreign markets (Leonidou, 2004). Although the external barriers are classified into categories, they mutually overlap and affect each other. External barriers are beyond the control of the individual enterprise that is forced to adjust its own business to the imposed framework.

**Procedural barriers** include the challenges arising from the workflow of business practices. Administrative export procedures are often very complex, in-
comprehensible and therefore not clearly defined. Furthermore, a series of documentation and complex agreements and contracts require unrealistic costs and additional time (Mpinganjira, 2011). On the other hand, transparent communication and understanding is essential for unhindered interactive operations. But, since the international business is concerned, geographical and cultural segments often pronounce significant differences (Toulova et al., 2015). Mentioned problems discourage companies because they can produce unacceptable risks such as: a misunderstanding which may lead to lawsuits, the inability to control their own business abroad, problems with executing obligations and debt collection (Pinho & Martins, 2010).

**Governmental barriers** initially appear on domestic market where companies are faced with a lack of economic and political support. Government is of crucial importance for the international collaboration development. Regulations do not frequently contribute towards exporters, and Government agencies don’t act as major promoters of export activities (Kahiya & Dean 2016). Government formulates the export policy and defines trade relations with foreign countries through a variety of programs and support systems, subsidies, incentives or, on the other hand, the loads (high duties, excise taxes, the embargo plugin, the conscious manipulation of exchange rates etc.). The lack of support prevents the achievement of sustainable competitive advantage on foreign market and the possibility of realization of the strategic export plans (Seringhaus & Rosson, 2012; Brouthers et al., 2009).

**Environmental barriers** imply socio-cultural features, political (in)stability and economic conditions in foreign market. Traditionalism and parochialism lead to close and non-market economy that prevents the development of internationalization (Griffith & Dimitrova, 2014). Accustomed socio-cultural patterns of behaviour and etched system of values indirectly define the mode of actions and trade relations (Vogel, 2009). Weak institutional infrastructure also depreciates cross-border economic activity. Companies shrink from doing business in countries that are known for corruption or political and social conflicts (Habib & Zurawicki, 2002). The instability within national borders has more adverse effects on international exchanges than what administrative policies and legal limits can cause (Kneller & Pisu, 2011). Economic barriers are caused by the distribution of wealth, relative purchasing power, high rates of inflation and unemployment in the international market. Lack of natural, financial and human resources, as well as the issue regarding accessing information and knowledge, proportionally increase the risk and form barriers to exports (Waugh, 2010).
4. AN ANALYSIS OF EXTERNAL BARRIERS HAMPERING CROATIAN COMPANIES EXPORTS TO THE MARKET OF EASTERN EUROPEAN COUNTRIES

4.1. PROCEDURAL CIRCUMSTANCES AS THE ORIGIN OF EXPORT BARRIERS

Communication between international business partners is crucial. It has been proven that if two markets have the same features, except linguistic understanding, the establishment of business cooperation will be three times more difficult than in the case where there are no communication barriers (Ghemwat, 2011). However, countries of Eastern Europe belong to the group of Slavic languages, so linguistic differences are at least expressed. Consequently, different languages don’t represent an export barrier as communication can be conducted smoothly.

The application of the policy of protectionism has many defects that materially affect the international competitiveness. Protectionism is most commonly achieved through the introduction of import quotas or customs duties, thus protecting the income of domestic stakeholders (Krugman & Obstfeld, 2006). All countries of Eastern Europe, with the exception of Georgia, have signed bilateral trade agreements and are members of certain economic integration. The European Union (EU) and the Commonwealth of Independent States (CIS) operate on the Eastern European market. The Contract for amendment and accession to the Central European Free Trade Agreement (known as CEFTA) is also significant. Association and agreements have been found in order to establish a political community (Parliament), free trade zone, a single customs union and common market with the ultimate goal of harmonizing economic policies.

However, the nonexistence of trade union is a serious issue for SMEs in Croatia. It is likely that these enterprises are substantially oriented to CEFTA and CIS markets. Obviously, the Croatian accession to the EU made it more difficult for mentioned Croatian companies to proceed cooperation with the Member States under the previous conditions. Namely, acceding to the EU, Croatia was automatically excluded from CEFTA. Croatian declaration caused problems to companies whose export was predominantly focused on CEFTA countries. A drastic decline in export occurred because most companies did not adjust business operations to the new circumstances in a timely manner. How-
ever, the initial crisis was soon successfully resolved. Although with time delay and certain adverse consequences, companies have founded new ways of financing, and some of them moved their product facilities in to CEFTA countries in order to reduce costs.

4.2. Governmental circumstances as the origin of export barriers

A long-standing absence of economic and political support is one of the main problems of Croatian economy. Lack of incentive programs for exporters, poor quality of domestic regulations for exporters and very complex procedures disable companies in achieving a competitive advantage in foreign markets. Fortunately, the countries of Eastern Europe are generally less developed than Croatia, so Croatian companies have the opportunity to take over significant market shares. Competition is not so intense and severe; so many Croatian companies are market and technology leaders.

Corruption is present in countries where the administrative apparatus is quite discreet and where laws and processes are hardly transparent. Also, the lack of economic development and income inequality increase corruption. Corruption in Eastern Europe is quite high since it is mainly composed of transition countries and the differences between layers of society are highly expressed. Most corrupted are Ukraine, Russia and Azerbaijan, while Poland, Slovenia and Hungary stand out as countries where corruption is lowest (Transparency International, 2016).

However, differences in the volatile legal systems of Eastern European countries (corruption, poor regulation etc.) constitute a major obstacle in the export activities of Croatian companies. Yet, due to the geographical proximity, business can be monitored and managed.

4.3. Environmental circumstances as the origin of export barriers

Some cultural characteristics are poorly discernible. However, these features mostly define customers’ values and socio-cultural patterns of behaviour. They can be identified through Indicators of governance and development: HDI Index, Voice and accountability and Rule of law (Hofsted, 2014). According to the data,
six countries in Eastern Europe (Croatia, Czech Republic, Hungary, Poland, Slovakia and Slovenia) have a very high development rate, while others, except Moldova, are in the category of countries with high development index. On the other hand, Eastern European countries have pretty poor Indicators of governance. Political stability and maximum autonomy of populace are present in Poland, Czech Republic and Slovenia. Croatia is ranked in the middle, while more than ten countries have negative values of the indicators, whereby at the very bottom is Russia, Ukraine, Azerbaijan and Belarus (Transparency International, 2016).

Internet facilitates the establishment of cooperation and enables understanding of international business practice. It shows the level of social and knowledge growth, ICT development and the degree of approximation of the overall economy and the internationalization of modern economic trends. More developed countries of Eastern Europe dominate in the access to the worldwide network. Slovakia, Czech Republic, Hungary, Slovenia and Poland are especially emphasized, where population majority use (majority of population uses) the Internet on a daily base. The lowest computer literacy have Moldova, Azerbaijan, Albania and Armenia, in which less than 20 residents, in 100 of them, use the Internet (Transparency International, 2016).

Similar consumer habits also intensify cooperation. In fact, consumers in countries that have a similar value of gross domestic product per capita are likely to have similar patterns of consumption and are exposed to similar marketing strategies. Slovenia has by far the highest GDP per capita, almost 25% higher than the Czech Republic, which is positioned on the second place in the ranking of countries in Eastern Europe. Croatia is also ranked well economically. According to the GDP per capita, Croatia takes the high fourth place, just behind Slovakia (Croatian Bureau of Statistics, 2015).

According to the theories about the impact of GDP per capita on international trade relations, it can be concluded that the intensive trade with the Czech Republic, Slovakia, Hungary and Poland is prompted by the economic power of consumers and similar income per capita. On the other hand, despite the fact that Bosnian GDP per capita is three times lower than Croatian, Bosnia and Herzegovina takes the second place, behind Italy, per share of exports in total Croatian export. The high incidence can be attributed to insufficient input resources of Bosnia and Herzegovina for which the Croatian market represents a resource-rich economy.
5. CONCLUSION

The expansion of Croatian companies on the market of Eastern Europe is a logical sequence of business internationalization. Due to the geographical proximity, related cultural patterns, historical heritage, similar administrative system and political background, hazards which occur and threatening risks are easier to identify and control. Therefore, openness to similar markets in the region is understandable. Additionally, developed countries have a much lower growth rate than transition countries. Thus, Croatian exports should remain significantly directed towards less developed countries – market of Eastern European countries.

However, high risk exposure endangers Croatian companies operations and consequently, cooperation with some Eastern European countries (Albania, Montenegro, Ukraine, Russia and Azerbaijan). High level of corruption and unstable legal systems in these countries represent them as unattractive markets in which companies can easily jeopardize their business. It is indispensable to improve the quality of legislation and the regulatory environment to make it more stable and predictable. Primarily it must be done in Croatia, and then beyond.

Inter alia, the administrative loads and the complexity of administration procedures lead to the fact that business processes have been addressed too slowly and unevenly. Furthermore, many state institutions have not adjusted their commerce to the business characteristics in certain markets. It is essential to implement the reform of the administrative system in order not to suppress competitiveness. The reform should primarily involve numerical reduction and centralization of various agencies and institutions in the field of economic relations with foreign countries. Government should establish a single institution for supporting export, which would represent a dynamic, technologically superior agency with experienced and educated employees that will be made up of specialized departments of each export market or region. In that way the supreme institutional capacities would be reinforced automatically.

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RESEARCH OF THE FACTORS WHICH AFFECT FOREIGN DIRECT INVESTMENT IN THE REPUBLIC OF CROATIA

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Abstract

Foreign direct investments are one of the main factors which affect opening new jobs, higher level of production, greater amount of export, technology transfer and long-term economic growth especially in transition countries. Paper investigates positive and negative impacts and determinants of foreign direct investments in the Republic of Croatia based mainly on the research that has been conducted by the questionnaire. Sample includes foreign Croatian embassy representatives and other relevant respondents. Results of the research indicate how Croatia has numerous facts which discourage foreign investors like huge problems with consistency, bureaucracy and the time which is needed for the realization of the projects. Therefore, potentials of the Croatia as location of foreign direct investments are not still utilized so it should adapt adequate policy in a manner to attract foreign direct investments in the areas and fields where it wants.

Keywords: foreign direct investments, foreign direct investment factors, Croatian economy.

JEL Classification: E2, E22
INTRODUCTION

Countries of Central and Eastern European countries, including the Republic of Croatia, during the 1990s started the process of transformation from centrally planned economies towards free market economies. One of the most important globalization factors for the economic growth are foreign direct investments (FDI) and its development. FDI played crucial role in the process of transforming Central and Eastern Europe as a main source of capital transfers, technology, know-how and managerial skills by facilitating processes of reconstruction companies in private ownership.

Republic of Croatia needs economic growth which will allow faster economic integration with European Union and in order to raise the standard of living. Economic growth and development depends on the amount and quality of investments which has been generated by enterprises. Therefore, the aim of this paper is to examine effects of FDI liberalization on the Croatian economic development. Purpose of the research is to determine factors which are responsible for the lack of FDI according to the observed factors: the impact of economic policies that are carried out and the position of the Croatia in relation to the countries in the region and the world.

In the economic theory is a well-known how FDI are one of the main factors responsible for opening new jobs, rise in productivity, improving exports, technology transfer and long-term economic growth period, especially in the transition countries.

Research has been conducted by interviewing the ambassadors – representatives of foreign countries in the Republic of Croatia. Authors examined ambassador experiences and attitudes about FDI related from their home country to the Croatia while they represent indicators of opportunities and constraints for the increase of FDI.

FDI THEORETICAL FRAMEWORK

FDI is a form of cross-border investment with the objective of establishing a lasting interest that a resident enterprise based in one country might have in an enterprise operating in another country. FDIs can also be classified into horizontal and vertical forms. A company investing in the same business abroad that it operates domestically is a case of a horizontal FDI. On the other hand,
vertical FDI occurs if a company invests in a business that plays the role of a supplier or a distributor (Markusen and Maskus, 2001).

Attracting foreign direct investment (FDI) has been one of the key objectives of the governments of transition economies in the course of transition. They therefore put in place regulatory frameworks (namely, removing legal barriers and regulatory obstacles to foreign capital inflows) and institutional settings (i.e., public agencies to attract FDI) with the agenda of promoting a favorable environment for foreign investors (Mehić et al., 2013).

FDI are an important source of financing the capital needs of the receiving country and are also an effective way of technology and knowledge transfer from more developed countries to countries with a lower rate of economic development. The main motives of certain countries for inflows of FDI are bridging the investment gap, foreign exchange gap, technology gap, and reducing the budget deficit. The availability of capital is certainly one of the factors of economic growth of a particular country which also represents one of the missing growth factors in transition countries. This investment gap may be bridged with an inflow of FDI from developed countries and create conditions for an increase in economic growth (Bezić and Karanikić, 2014).

Multinational corporations own and control production activities within the company in more than one country which means that they mainly carry out FDI (Dunning, 1993). The theory of monopolistic advantages of foreign direct investment, according to Hymer (1976), tells us that multinational companies have assets (eg, know-how) that the parent company gives advantages compared with companies in the domestic market and also domestic companies abroad. Generally, multinational companies own high technology or product differentiation which gives them high competitiveness on the markets worldwide.

The theory of internationalization in the context of the theory of FDI answers the question: why foreign direct investments are more efficient way of using the specific advantages in relation to the export or sale of the license? Dealing with the application of the foreign direct investment theory of costs and multinational corporations, Caves (1982) points out how high transactional costs are the main reason for the internationalization. Internationalization as a business decision means that the company is able to reduce the cost of carrying out tasks within its structure. Dunning (1980) states how company believes that should gain higher business benefit if it acts alone rather than through contract arrangements with local partners through the export or sale of licenses.
Many authors emphasize how the main reasons by which companies decide to invest in foreign countries different rates of return on equity. Furthermore, one of the most common findings is that FDI is a result of a process influenced by factors such as monopolistic advantages and knowledge capital, internationalization and location (Markusen i Maskus, 2001).

Specific advantages of the company provide it secure competitive advantage over companies of the host country or of other companies operating in the host country. Within these capabilities may be considered tangible assets such as technology, better production and marketing system, know-how or financial resources, and intangible assets such as reputation, goodwill, brand, trademarks etc (Dunning, 2001). According to Estrin and Uvalic (2014) FDI generates positive productivity effects for host countries. The main mechanisms for these effects are the adoption of foreign technology and know-how, products by foreign firms, and the creation of linkages between foreign and domestic firms (Sen et al., 2014).

The impact of FDI on the domestic economy can be analyzed through the specific macroeconomic factors such as capital, employment, human capital, export and technology which are closely associated with FDI (Graham and Krugman, 1995).

For the companies in the home country FDI offer entrance on the new markets, chance to expand customer and supplier base and possibilities to gain access to new technologies, products, cheaper or more qualified workforce and finances. For the host country a list of benefits is even longer, and includes not only the transfer of capital, new technologies and management skills, but the positive developments in the field of environmental protection and social values (OECD, 2002).

Perhaps the most important advantage of foreign direct investment in the host country is increased level of technological advancement and dissemination of innovative management methods (Barrell and Holland, 2000).

It is particularly important that the foreign direct investment are caused by multinational corporations, which are considered to be one of the most important sources of innovation and activities in the field of research and development because they have potential to generate significant expansion of technology (World Bank, 1999).
Moreover, increase in industrial production and reduction of unemployment is a positive impact of FDI which contribute in improving human capital through training and learning by doing. In addition to social benefits, FDI can bring environmental benefits for the host country, such as the transfer of “cleaner technologies”. On the other way, FDI can bring potential risks such as old technologies which have been banned in the foreign country of the investor (OECD, 2002).

Numerous empirical studies have shown that in the process of making decisions about investing in a specific location / country investors take into account the potential economic development of certain places / countries. Therefore, investors analyze and compare different indicators which describe current and future economic situation in certain country (Boateng et al., 2015; Kersan Škabić and Orlić, 2007). Table 1 gives an overview of some indicators and their impact on FDI.

**Table 1** Review of the macroeconomic variables and their impact on FDI

<table>
<thead>
<tr>
<th>Authors</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>Janicki and Wunnava (2004); Clausing and Dorobantu (2005); Kok and Ersoy (2009)</td>
<td>Growth of the economies have been reflected through growth of the GDP and has positive impact on FDI</td>
</tr>
<tr>
<td>Hubert and Pain, (2002), Clausing and Dorobantu (2005)</td>
<td>The increase in tax income rates results in lower profits, and thus lower investment incentives.</td>
</tr>
<tr>
<td>Janicki and Wunnava (2004); Clausing and Dorobantu (2005)</td>
<td>The openness of trade reflects the good trade relations with other countries, greater openness to trade affects the growth of FDI inflows</td>
</tr>
<tr>
<td>Tuman and Emmert (1999); Hartman (1985)</td>
<td>The depreciation of the currency of the host country lowers the cost of acquisition of foreign companies. Assuming that companies are able to generate a return regardless of exchange rate changes, result will be an increase in FDI inflows.</td>
</tr>
<tr>
<td>Kok and Ersoy (2009)</td>
<td>The higher level of gross fixed capital formation represents a larger infrastructure and capital stock of the host country, and the result is an increase of FDI inflows.</td>
</tr>
<tr>
<td>Janicki and Wunnava (2004), Cheng, i Kwan (2000); Lansbury, Pain and Smidkova (1996); Bellak, Leibrecht and Riedl (2008)</td>
<td>The increase of the labour cost increases the total cost of the company - the result is reduction of FDI inflows</td>
</tr>
</tbody>
</table>
| Bellak, Leibrecht and Riedl (2008) | The increase in productivity reflects greater efficiency and costs reduction for companies – result is an increase in FDI inflows.
FDI has been considered as one of the main element of European integration and cooperation. It is extremely important for the transition countries, such as Croatia, because they give greater amount of capital necessary to generate higher level of economic development. Also, they are important channel through which Croatia gains access to better management and technological solutions (Clausing and Dorobantu 2005).

In order to attract the FDI, the EU transition countries and the Republic of Croatia should provide to foreign investors a stable macroeconomic environment, non-discriminatory regulatory environment, removal of administrative barriers, adequate infrastructure and human capital (Bezić and Karanikić, 2014).

CROATIAN ECONOMIC REVIEW

Ćorić et al. (2015) state how Croatia can be described as a small, open economy with managed exchange rate and free capital flows. Such characteristics are very important in the context of economic policy as they determine the space and possibilities of policymakers to achieve main policy goals. With approximately 4.5 million people Croatia represents small market.

The real GDP growth in Croatia reached an estimated 4.3% in 2005. However, due to heavy losses in GDP in the period from 1989 to 1993, the level of GDP per capita in the year 2005 reached the level from 1989. The Croatian economy grew at an average rate of 6.4% annually from 1994 - 1997. In 1998 GDP growth amounted to only 2.5%, while a negative growth rate of −1% occurred in 1999. After the year 2000, GDP growth rate was 4.4% a year (Jovančević, 2007).

Macroeconomic stability in Croatia was under strong influence of global financial crisis. From 2009 to 2012 Croatia have been lost 11% of the real GDP, while personal consumption is reduced for 35%, and investments for 11%. Thus, poor results of the Croatian economy in the period from 2008 to 2013 generated increase of unemployment and government debt (Alpeza et al., 2014). However, in 2011 Croatian government started reforms and nowadays faces a rise of GDP in 2015 for the first time after 6 years. Bogdan (2009) by panel analysis concludes how macroeconomic stability and size of the market had the most influence on the FDI inflows. Table 2 shows main Croatian economic indicators from the 2000 to 2014.
Croatia is experiencing excessive macroeconomic imbalances, which require specific monitoring and strong policy action. In particular, policy action is required in view of the vulnerabilities arising from sizeable external liabilities, declining export performance, highly leveraged firms and fast-increasing general government debt, all within a context of low growth and poor adjustment capacity (European Commission, 2014).

Aware of the FDI importance on the economic growth and development, Croatian government actively implements policy of increasing the competitiveness of the Croatian economy, with a strong emphasis particularly on improving the investment climate. The establishment of the Agency for investments and competitiveness and the adoption of the new Law on encouraging investment and improving the investment environment, which greatly increased incentives for investment projects, Croatia has increased its competitive advantage in attracting new investments.

The network of modern and newly built highways that stretch over a thousand kilometers, three Pan-European corridors passing through Croatia, six international airports and three airfields, six of marine and four river ports represent a major competitive advantage of Croatia compared with the countries in the region. Also, Croatia has significant natural resources – important is to emphasize one of the largest reserves and sources of drinking water in the world,
gas fields sufficient for 2/3 of domestic consumption and huge energy potential to the conventional energy sources (hydro and thermal power plants) as well as through alternative (AIC, 2013).

**FDI IN THE REPUBLIC OF CROATIA**

In the last twenty years, foreign direct investment has become the main source of external financing in developing countries, among which European countries have been particularly emphasized. Foreign capital recognizes opportunities and possibilities going towards countries from which it can derive maximum benefit. Croatia has received significant amounts of foreign direct investment over the last fifteen years and makes some effort in order to continue to attract foreign capital.

The transition from planned to market economy in the Croatia has led to rapid financial developments. A strong presence of foreign banks (in the case of Croatia, Italian and Austrian banks feature the most) in those countries in the last decade did not seriously help in reducing interest rates, but it widened the supply of different financial products and services to the government, companies and households (Poghossian 2008 and Festić et al. 2009).

Between 1994 and 2008 Croatian economy expressed relatively high rates of economic growth. One of the main drivers of growth of the national economy was the domestic demand, which in the period between 2001 and 2008 grew more than six percent per year (faster than growth of GDP). One of the signs of progress in the region was the infl ow of direct foreign investments especially before the crisis of 2008 started (Figure 1).

**Figure 1** FDI in Croatia from 2000 to 2014

Source: Made by authors according to the data collected from Croatian Bureau of Statistics
Less encouraging is the fact that the investments were directed more to real estate and financial services, which means less of a probability of realizing export income than if investments were directed towards production. In Croatia, foreign direct investment is concentrated almost entirely in the service sector and mostly in the financial sector while the impact of foreign ownership (especially Austrian) on the banking sector is highly visible (Botrić and Slijepčević, 2008). Inward FDI by economic activity in Croatia from 1993 to 2006 according to Jovančević (2007) shows that the inflows are highly concentrated in three industrial sectors that received almost two-thirds of total FDI. Financial intermediations was the target of strong FDI inflows for the whole period (EUR 3.6 billion) followed by manufacture of chemicals and chemical products (EUR 1.7 billion) and the telecommunications with EUR 1.5 billion. Figure 2 shows FDI according to the first 12 countries which invested the most in Croatian economy in the period from 1993 to 2014.

Figure 2 FDI in the Republic of Croatia according to the countries from 1993 to 2014 (in million €)

![Graph showing FDI inflows by country](image)

Source: Made by authors according to the data from Croatian National Bank

From 1993 until the end of 2012, according to official data of the Croatian National Bank total foreign direct investment in the Republic of Croatia amounted to 26.750.9 million euros. In the period from 1993 to the end of 2003, foreign direct investments were realized through the privatization of companies such as Hrvatske telekomunikacije, Zagrebačka banka, Privredna
banka and Pliva, which had been previously owned by the state. The biggest investment happened in 2003 when Hungarian company MOL bought 25% of INA (oil industry) shares.

According to Sisek (2005) there is a small amount of FDI in Croatia which represents green field investments, which create new jobs, are export-oriented and represent a major impulse for economic restructuring.

Main obstacles in increasing inflows of foreign direct investments in Croatia are high corruption, unsettled land registers, bureaucratic barriers, slow and inefficient judiciary, low legal protection of creditors and improvisation in decision making (Obadić, 2010). High inelasticity of export with regard to individual components of foreign direct investments is the result of unfavorable investment structure which is dominated by services sector which leaves no space for export growth (Jošić, 2008). As a result of low FDI into export industries, Croatia missed opportunities to integrate into global supply chains and did not benefit from positive technological, governance and financial externalities associated with export oriented FDI that ultimately lead to competitiveness gains and support economic growth (European Commission, 2014). The scale of positive effects of FDI in the Croatian manufacturing sector as a whole is almost negligible – FDI failed to significantly increase the employment rate, exports, productivity or competitiveness of the economy (Sohinger et al., 2005).

RESULTS OF THE RESEARCH

The survey has been conducted by the method of interviewing the representatives of the foreign countries in Croatia. Authors try to find out attitudes and opinions of respondents on the basis of their experience and practice. Survey tries to examine barriers and incentives that affect foreign direct investments in Croatia, good and bad examples of investments by companies of foreign countries, industry in which Croatia can have the best chance of attracting foreign direct investment, opinions on possiblities of investing in Croatia, and compare the advantages of investing in the Republic of Croatia in relation to other countries in the region (Slovenia, Serbia, Bosnia and Herzegovina and Montenegro).

Authors distributed 86 questionnaires in total to the embassies in the Republic of Croatia – just 8 of them full filled them (Canadian, Azerbaijan, Philippines, Finland, Switzerland, Netherlands, Poland and Serbian embassy). Be-
sides 8 filled surveys authors received also report with proposals for improvement of foreign direct investment in the Republic of Croatia submitted by the EU Delegation in Croatia and proposals for attracting investors and trade partners (from the ambassador of the United Kingdom, Great Britain, Northern Ireland, Kingdom of Denmark and US).

Respondents generally agree about factors that discourage FDI like: expensive labor due to high taxes and contributions, lack of awareness of business opportunities within the Croatian, excessive length of judicial proceedings, administration, lack of transparency in public procurement procedures, corruption, unresolved property relations, high taxes and macroeconomic instability. Generally, Republic of Croatia should work on informing foreign investors about the incentives that are connected to foreign direct investments.

Among the factors that encourage foreign investors to invest in the Republic of Croatia are trained (well educated) labor force, geographic location, and the Croatian membership in the European Union. Also, it is important to note the economic potential, the possibility of economic activities ranging from tourism to heavy industry, and a good infrastructure.

CONCLUSION

One of the main conclusions from this research is how Republic of Croatia has numerous determinants which discourage foreign investors to invest their capital in Croatia. Each respondent emphasizes almost the same problems and advantages of investing in Croatia. Generally, Croatia has huge problems with consistency, transparency, corruption, bureaucracy and long period which is needed to realize the projects. In a manner to overcome these problems, Croatia needs to create favorable conditions for investors, especially in terms of simplifying existing legislation, public administration reform and the effectiveness of the judicial system. It will be needed systematic approach to overcome these issues because it covers different areas of legal, economic and social systems.

Croatia still does not have an adequate strategy for attracting foreign direct investment which is reflected in the negative trend of FDI inflow. There are some efforts that are still ineffective. In the past, foreign companies invested in the financial sector which has not yielded the desired effect. Without a consistent strategy of economic development it has not been created adequate mac-
roconomic and business environment and stimulating the investment climate for foreign direct investment. Only the country which creates a predictable and stable business environment and systematic deregulation, can count on the inflow of foreign investments.

It passed more than 10 years of the conducted research of the authors Sohinger et al. (2005) which concluded how although Croatian authorities officially support FDI, they haven’t put enough efforts to attract it during the last decade while this research concludes that a significant and effective shift is not generally achieved.

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MANAGING THE AGRICULTURAL PRICE VOLATILITY – A GOVERNMENTAL APPROACH FROM A GLOBAL AND EUROPEAN PERSPECTIVE

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Abstract
The agricultural sector has always occupied a distinctive position in the economy of any country, primarily due to the need to ensure food safety for consumers, and secondly, because of the vulnerability of people involved in this activity in terms of their income’s volatility. Governments have felt, therefore, the need to intervene in this sector more than in others, and they have justified the interventions mainly on social reasons. Decision-making bodies around the world are approaching the issue of agricultural price volatility, seeking solutions for preventing and managing it. They formulate and implement consistent regulatory policies whose international synchronization is an imperative condition for stabilizing the markets. In the current environment, the exorbitant commodity – implicitly agricultural – price fluctuations from the recent years have shown that agricultural systems around the world are increasingly integrated into a global system that requires international governance. The purpose of this
paper is to analyze the manner in which the agricultural price volatility problem is approached and managed from a governmental perspective, paralleling both the global and the European Union’s manner. The results emphasize that the increased volatility and vulnerability caused by the recent turmoil require a very careful consideration for the architecture of governance model for agriculture in order to properly support and propel this vulnerable but vital sector.

Keywords: price volatility, price risk management, agricultural markets, economic governance, Common Agricultural Policy.

JEL Classifications: Q1, Q13

INTRODUCTION

Tackling the problem of price stability – either from a private or a governmental perspective – does not represent an easy matter. Clearly, the difficulty of the incursion arises from the complexity of this phenomenon, the discrepancy between the effects of the numerous intervention mechanisms, but also from the divergence of the interests associated with these effects, interests manifested by entities from private, to regional, national, supranational and up to global level. All these discrepancies raise problems in finding the appropriate formulas to address the price volatility phenomenon and its consequences. Moreover, it is evident, based on a theoretical analysis, but also as a result of the experience gained throughout history, that a general strategy – applicable in any situation – is unrealistic to seek, but also impossible to formulate. This is because the policy mix that will respond best in managing the problem of price volatility or its consequences depends on many factors among which we can particularly mention the following (CEPAL, 2011): the specific characteristics of each nation, the degree of vulnerability of economies to external shocks, the status of the country – net importer or net exporter, the national policy objectives, the availability of resources and so forth.

With regard to commodity markets, stabilizing the prices – by completely eliminating volatility – became undoubtedly an impossible matter, as it was demonstrated once again by the turbulences recently experienced by the global economy. The commodities whose demand has a low elasticity in relation to their price (situation characteristic also for agricultural products) tend to be characterized by a higher volatility. In fact, the agricultural sector has always occupied a distinctive position in the economy of any country, primarily due to the need to ensure food
safety for consumers, and secondly, because of the vulnerability of people involved in this activity in terms of their income’s volatility. Governments have felt, therefore, the need to intervene in this sector more than in others, and they have justified these interventions mainly on social reasons. In a turbulent context like the current one, the interests towards finding the most appropriate manner to tackle price instability becomes a prior point on any governmental agenda.

The purpose of this paper is to analyze the manner in which the agricultural price volatility problem is approached and managed from a governmental perspective, paralleling both the global and the European Union’s perspective. The remainder of the paper is structured as follows. Based on a thorough investigation of the theoretical and empirical literature in the field, section two concentrates on presenting the global approach, seeking to emphasize the quest conducted internationally for finding the most appropriate congruent strategies, while section three exposes the European Union’s position in its quest to always balance the divergent interests of its Member States. The last section offers the conclusions of the investigation, aiming at formulating some policy implications and recommendations.

THE GLOBAL APPROACH – THE QUEST FOR OPTIMAL CONGRUENT STRATEGIES

Price stabilization versus Price risk management

The history has shown that there are no universal recipes for managing price volatility. Over time and in different historical contexts, the manner of dealing with this issue differed considerably, combining both mechanisms based on market fundamentals and mechanisms based on government intervention. In relation to the aim pursued, two major directions of action have been outlined: reducing the instability itself (stabilization) or mitigating the consequences of instability (price risk management). The four mechanisms (market mechanisms for stabilization, market mechanisms for protection, governmental mechanisms for stabilization or governmental mechanisms for protection) have historically stood at the base of outlining various strategies of action, either individually or in a joint approach. Since they often tend to target different sides of the problem, it has been concluded that the mechanisms based on market forces and the government intervention, harmonized accordingly, do not exclude, but rather complement each other.
Arguments (Chapoteo and Jayne, 2009) against the stabilization mechanisms of government intervention are based on the idea that, through their action, they distort price signals and, through their effects on economic agents’ behavior, they cause rather an increase than a reduction in instability. But the purpose of these mechanisms is to protect both producers and consumers and to ensure a certain degree of political and macroeconomic stability. The compliance of these mechanisms to a number of rules can make public and private instruments co-exist and act in a complementary harmony. Governmental mechanisms should not pursue total price stabilization, as this form of intervention would distort the functioning of markets and impose all adjustments to be made through government involvement. They must be constructed such as to only prevent prices to reach “extreme” levels – those levels considered “abnormal” from an economic perspective, or “unacceptable” from a social one (Galtier, 2013). The mechanisms of government intervention should also support the development of tools based on market forces, using internationally harmonized regulations for financial markets. The fulfillment of such conditions may determine the construction of joint intervention strategies able to determine a comprehensive approach of the problem.

Since in a globalized economy and a turbulent environment price volatility is rarely the result of a single cause, we have to bring combined solutions for managing this issue. Available approaches vary, including tools designed to reduce fluctuations in production, to manage any situation of deficit or surplus in supply, instruments designed to ensure viable risk transfer alternatives or to provide support through government subsidies. The implementation of governmental or market instruments is determined by the level of involvement of the public or private sector, and the delivery of efficient results is often conditioned by the structuring and implementation of joint intervention strategies.

**Governmental intervention versus Private hedging**

Governments often need to intervene to reduce the risks to which the population is exposed, and for agricultural policies, the justification of these interventions acquires profound social connotations. Given that the direction of price change has different consequences on different categories of economic actors – price increases affect consumers endangering food security, while price declines threaten the viability of producers – governments seek to balance measures dedicated to producer support with social programs designed for low income consumers.
An essential element to be stressed is that governments cannot determine the complete elimination of price risk, but merely to redirect its negative implications, usually from the private towards the public sector. Thus, government intervention is justified only for ‘catastrophic’ risks (market collapses) that threaten the very viability of the sector and for which operators do not have the necessary capacity or market instruments to manage alone. The literature in the field (OECD, 2009) offers a wide range of manners in which governments can support economic actors in the process to ensure their own protection against price risk. One of these manners involves improving producers’ access to information regarding market developments and advice regarding the techniques of protection that the markets offer (insurance, hedging mechanisms, diversification strategies, etc). Another modality consists in supporting access to financial markets, where producers can benefit from a wide range of hedging mechanisms (forward, futures, options etc.), but also supporting access to credit in times of need, or creating a legal and institutional framework designed to support alliances between producers for risk pooling strategies.

Governmental interventions for supporting producers and consumers should not be included in the category of price stabilization interventions. While stabilization attenuates price fluctuations, thus mitigating the risks both producers and consumers are exposed to, intervention support does not reduce the risk, but confers support to mitigate its impact on market participants (Tangermann, 2011).

**Emergency measures versus Long term strategies**

In turbulent market conditions, many economies tend to implement measures to mitigate the price volatility at least temporarily. Thus, a factor to be considered is to find a balance between emergency measures, taken to alleviate the problem in the short term, and strategies in line with the structural characteristics of markets, intended to ensure the viability of agriculture on long term. During the recent crises, it has been generally remarked (CEPAL; 2011, 26) a tendency to concentrate policy measures towards resolving the situation in the short term, at the expense of tackling structural problems, although the search for solutions to these problems could significantly reduce the country’s vulnerability to price volatility.
THE EUROPEAN APPROACH – STRATEGIES TO BALANCE DIVERGENT INTERESTS

Internal interests versus Global interests

Analyzing the problem from the European Union’s perspective, institutional arguments to address price volatility can be found in the primordial objectives of the Common Agricultural Policy (CAP). Since the Treaty of Rome and still valid today, these objectives were formulated with the stated purpose of stabilizing the agricultural markets and ensuring a fair standard of living for farmers. The policy mix implemented in order to achieve these goals has been adapted over the past decades through some key reforms, in accordance with the requirements of a rapidly changing economic, social and political environment.

The overall importance of the EU’s agricultural sector in the global framework, resulting from the size of its results and trade flows, makes the provisions of the CAP to be regarded with a considerable degree of attention and concern at international level. The policies and protectionist instruments deployed within it over time were strongly criticized by the EU’s trading partners. In this regard, the WTO negotiations on agriculture have always placed a major focus on imposing strict disciplines for CAP. As a result of the Uruguay Round, World Trade Organization’s Agreement on Agriculture had a strong influence over the EU’s agricultural policy, perhaps more than over any other countries’ policies (Daugbjerg and Swinbank, 2009).

As a consequence of its wider trade openness, presently, the world market instability is reverberated more acutely across the EU market, and its agricultural sector is increasingly exposed to world market price signals. This exposure is the result of the previous CAP reforms which increased the market orientation of EU farmers and it was the natural consequence of WTO’s commitments to open the borders and limit export subsidies. Previously, for decades, the CAP measures managed to keep EU’s agricultural prices at a high and stable level. Reducing border protection and eliminating export subsidies determined the decreasing of domestic EU prices and increased their correlation with world prices.

So far, the EU has maintained its trajectory towards an open trade policy, and it has implemented through the Cioloș Reform from 2013 new steps in this regard. It is uncertain, however, whether this course will be continued, because the decision-making bodies of the Community have demonstrated throughout history that they prefer an approach characterized by a higher degree of inter-
ventionism on the markets. Currently, CAP has a lesser impact on world prices than that manifested in the past, and the EU policies have had little impact on the significant volatility recently manifested on the key markets of agro-food products worldwide. Paradoxically, CAP from the 1970s and 1980s would have had a greater ability to counter-fight the problem of high food prices than the current policy configuration could do it. Past reforms, which have reduced the distorting effects on global agricultural markets, also reduced the EU’s ability to rapidly increase exports or to provide food aid in times of crisis. However, despite the higher exposure to global instability, the EU must continue to participate in a coordinated and balanced manner to build a global framework for effective economic governance in agriculture, supporting its own interests, but avoiding to generate distortions on the world market.

**Established mechanisms versus New mechanisms**

The question now is, if in the political and economic context that is emerging on the European and global market, the current CAP instruments have the necessary means to achieve its objectives. Analyzing the major reformatory waves, we may conclude that the regulations and market interventions were very diverse and with varying degrees of complexity. They aimed directly at enforcing proper functioning of markets, at limiting price fluctuations, but also at creating institutions to support competition policies. The CAP mechanisms experienced more or less significant changes over time, adapting to either the interests or the imperatives of the moment in which the reforms were conducted. These changes are visible in Figure 1, which marks the temporal evolution of the main terms of CAP.

**Figure 1. Historical development of the CAP**

![Figure 1](http://ec.europa.eu/agriculture/cap-history/index_en.htm)
Regarding the impact on prices and their volatility, the most relevant measures implemented under CAP are: direct payments, stock management mechanisms, production quotas and generic tools package dedicated to risk management. The core of the latest CAP reforms was the greater emphasis on market orientation, with a decline in price support in favor of farmers’ income support. Effectively, this meant separating the component of income support (through decoupled payments) from the component of market stabilization (through the intervention mechanisms). Direct payments have a clear contribution to stabilizing farmers’ incomes, but they cause volatility spillovers outside the EU market. Decoupled payments – category accepted by the WTO – manifest, at least in theory, a less distortive effect than coupled payments did. Recent studies (European Commission, 2011), based on equilibrium models, have demonstrated a relatively low impact of these forms of payments on production and prices. However, the distorting impact of decoupled payments on production is still debated in the literature (Cantore, 2012), as some empirical research has shown that they provide mechanisms through which they manifest effects on production, consequently affecting price volatility. Currently, though, this form of support still appears indispensable at the EU level. Decoupled direct aid provides a safety net to EU farmers, essential to their economic viability. With regard to stock management mechanisms, the European government fora (Cantore, 2012) still consider them a viable alternative for price stabilization in situations of pronounced imbalances of market fundamentals. Alongside these mechanisms, an important change in terms of the impact on prices is the removal of production quota systems (DID, 2011). As the quotas generate rigidity in production and high price volatility, shocks occurred either from demand or supply are amplified by the fact that the supply cannot adapt to these changes. In a context of stronger market orientation, as the one promoted by CAP post 2013, quota mechanisms cannot be regarded anymore as a market solution to the problems faced by today’s agriculture.

However, risk management should not – in any event – be conducted mainly at government level. Agents’ orientation towards market instruments is essential in hedging disruption caused by a turbulent global economic environment. The market offers a wide range of such mechanisms already successfully implemented in other developed economies. At European level, the interventionist and stabilizing effect the CAP had historically on agricultural prices has not motivated the development of these types of hedging practices among market participants.
But after the reforms which led to increased instability, it can be seen a growing interest for these instruments (CEC, 2009) and a development of numerous commodity markets offering derivatives for key products in European farming (such as sugar, cereals or olive oil) (Matthews, 2010). These types of instruments are joined by others, such as forward contracts or vertical integration, allowing implementation for products which do not have available derivative instruments.

**Uniform strategies versus Regionalized intervention**

Certainly, considering the economic and social discrepancies existent within the Member States, the main challenge faced by legislators when formulating policies is to manage price volatility in a manner as effective as possible, also respecting the specificities of each country. Addressing the problem at Community level offers the benefit of an increased stabilizing effects (possibility to counter supply fluctuations due to exposure to different natural hazards in different geographical areas), contributing at the same time at reducing the spillovers between countries. However, we may note also some disadvantages in the supranational approach, determined by the need to find formulations appropriate for a highly diversified range of interests, which raises major problems in setting up the governance framework (Galtier, 2013).

Due to its supranational size, the CAP is a unique structure, incomparable to other agricultural regimes implemented worldwide. Its specificity results from its historical evolution, the characteristics of decision making process, the financing arrangements and the global importance of the European agricultural sector. The CAP is the policy with the greatest degree of integration, given that Member States have renounced to a consistent part of their national sovereign attributes. Also, the large share this policy has had in the EU’s budget over time shows the importance the Member States conferred it. Hence, CAP was always protected from criticism by a certain degree of political immunity (Tangermann and Von Cramon-Taubadel, 2013).

Most probably, given the current social, economic – and agricultural – diversity, the design of a unique, functional and effective strategy at Community level is very difficult. The policy mix must, however, aim at promoting inclusion policies and at supporting less developed economies. It also should target long term strategies for environmental and sustainable development, in a unified ap-
proach, but at the same time permissive towards shaping policies that take into account the divergent nature of agriculture in a highly heterogeneous Union.

CONCLUSIONS, POLICY IMPLICATIONS AND RECOMMENDATIONS

The key conclusion that emerges as a result of this research is that one of the main limitations in better targeting agricultural price instability is given by the absence of a global governance structure designed to optimally coordinate the actions of various international actors, which often manifest conflicting interests. Thus, we do not identify a shared global perspective upon how to best address the issues of agricultural markets. Also, we find in the literature criticism directed towards stabilization policies, those policies designed to insulate domestic markets from price volatility manifested on international market, considering that such stabilization merely determines the export of price fluctuations on the world markets – which further deepens the international volatility.

Dealing with the effects of rising price volatility implies the need to stabilize incomes. However, price stabilization is not a prerequisite for income stabilization, which can be achieved through the design of effective safety nets. In developed countries with well-established agricultural policies, many programs already contain instruments to support income stabilization. In such situations, it is important that income support is decoupled from production, to minimize distortion. Following the price increases of 2007-2008, the present proposals address the volatility on an ad-hoc basis, suggesting mainly stock management mechanisms.

Thus, we consider that the central pillar for the successful management of price volatility of agricultural commodities should be strong institutions and a framework built on the principles of good economic governance that – in a more imperious or a more indicative manner – help to regulate the context in which the economic actors operate. The compliance of the national and supranational fora to general principles of good governance when formulating and implementing policies for the agricultural sector can confer the harmonization and effectiveness required by their actions and thus to support the process of building the global framework of coherent governance, meant to make life easier for market participants in an increasingly volatile world.
REFERENCES


SEASONALITY IN TOURISM DEMAND: PANEL MODELS WITH CENSORED DATA

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Abstract
Seasonality is a frequent and important occurrence in the tourism economy, with simultaneous effects on supply structure and employment flows in the same industry. This paper studies the seasonality patterns and determinant impact on it across numerous countries in the Europe in 1995-2014. This article estimates panel model with censored data to learn spillover effects of seasonality in tourism demand. Using seasonal rate, this study investigates the seasonal concentration of demand for tourism, assuming that spillover effects of seasonality extend in tourism are linked to various economic problems.

Keywords: seasonality; tourism demand, censored panel regression; countries

JEL Classification: Z3, Z32
1. INTRODUCTION

The following research question is asked in this paper in an effort to analyze the main problem: what determinants explain and predict the probability that a chosen set of country in Europe have unequal tourism seasonality rate.

The paper is organized as follows. The next section begins by mapping out the research strategy, including the conceptual framework, the summary of dataset, the model specification and the variables. The subsequent section presents and discusses the empirical results, and the final section concludes by providing implications for tourism policy and further research.

2. CONCEPTUAL FRAMEWORK

Before a statistical analysis examining the relationship between seasonality and the various economic problems linked to seasonality can be performed, conjointly with the other variables identified as affecting seasonality in our presumption need to be addressed. These control variables which represent co-variates in this paper are: capital size, overcrowding, occupancy rate, part time employment, micro-criminality and earning risk.

We start with a narrative from the literature (Candela & Figini, 2012, p.218-238.) and then relate it to a modeling strategy consequent upon. We now discuss the first one of our variables.

The increasing level of inventories during the slack season is impossible in hospitality industry. That is deriving from following consideration: tourism is a service per excellence and a service cannot be stored: it is not possible to produce and stock services (like hotel rooms or restaurant seats) in period of low demand to sell them when the demand is higher. Unlike cyclical fluctuations, seasonal fluctuations in tourism flow generally conform to a steady pattern (ski tourism, sun & see tourism are mainly mono-seasonal). Thus, after the investment has been realized and the capital immobilized in the long run, the seasonality places a number of serious issues also in the short run, involving both the production side and profitability. If the size of capital (saying, units of hotel in terms of number of rooms) is chosen according to the high season, it becomes impossible to store production as inventories during low season. This is why many restaurants and hotels often reduce their activity (or even shut down) off-season, when the costs of a running business are not justifiable by the low num-
ber of tourists. Similarly, if the size of capital is chosen according to low season, the tourism structure may be facing an excess of demand during the high peaks of the season. Although this may partially compensate the insufficient use of the structure during the low season, it often implies serious problems of overcrowding, overbooking, and higher operational costs and, ultimately, a lower degree of tourist's satisfaction. The relationship between size and seasonality becomes crucial for the tourist firm's investment. Thus, countries with higher levels of mono-seasonal tourism tend to construct bigger overall tourism capacity in order to meet swelling seasonal demand. We assume that the destination receives a mono-seasonal type of tourism, in which the number of stays during the high season is much higher than the number of stays during the rest of the year (low season). In this study, capital size is proxied by: number of room per accommodation object. Therefore, it is hypothesized that:

H1: The higher the number of room per accommodation object, the higher the difference between high and low season in terms of overnight stays.

From above considerations, follow the destinations specialized only in a single type of tourism are the ones that are mostly stressed by the effect of seasonality. Namely, seasonality is the systematic, although not necessarily regular, intra-year movement of a variable (Hylleberg, 1992, p.4). For example, the Mediterranean resorts host sea and sun tourism predominantly in the summer months. In these months excessive arrivals of foreign tourists have as a consequence the overcrowding and overbooking. Thus, we can presume, stronger the presence of mass tourism, the higher the impact of seasonality.

H2: The highly involved destination in mass tourism will exhibit more seasonality in tourist overnight stays of non residential tourists.

The small accommodation establishment is possibly suited to address demand in the low season but will face congestion costs and losses for not potential revenue during the high season. Regardless of the decision, the existence of seasonality implies seasonality losses for the entrepreneur in tourism. The aim of the tourism entrepreneur in the investment stage, hence, is to identify the optimal size of the investment in order to minimize the seasonality losses which can be hinder by maximization of occupancy rate. The absence of seasonality is typical for art cities and, more in general for cultural destinations; visits to destinations that offer historical sites, churches, buildings, museums, in the short heritage are less plagued by seasonality problem, and hence tourist stake-hold-
ers in cultural destinations enjoy better occupancy rates on hotel investments. According to this standard accommodation occupancy rates, in this paper can be expressed through the relationship between the number of beds occupied by guests and accommodation establishment capacity, which is the number of beds that can be offered to accommodation inmates.

H3. In this connection, an interesting hypothesis that suggests itself is the following: the greater the occupancy rate the lower is seasonality.

The seasonality effects on the labor market should be ascribed to the temporary inflow of workers when the seasonal demand cannot be satisfied by the supply of local workers; migrating workers are usually coming from peripheral labor markets. Those individuals, often take part time job, and can easily find a temporary occupation in the tourism sector (at coastal region or ski resorts) a far distance from they cite of permanent living, just during seasonal duration. Afterwards when the season is terminated they move back.

H4. Hypothesis predict the positive relationship between part time work status proxied by seasonal versus permanent employee ratio and seasonality rate.

Sutherland and Cressey (1978, p.82), states that statistical studies show very uniformly that crimes against property reach a maximum in winter months, and crimes against the person and against morals in the summer months. The excessive seasonality either in tourism or in criminality occurrence also, we assume generates a number of negative effects for residents of a tourism country. In this paper, special attention would be paid to the correlation between tourism overcrowding linked to seasonality, as we mentioned before, and the increase in the level of micro criminality as a negative externality.

H5. Hypotheses allege when more seasonality in a country persist, we except people living there to be more likely victimized by some kind of micro related crime.

In addition to reducing the profitability of the investment, since the hotel is open only 3 month out of 12, that is, one forth of the years, the seasonality also increases its level of risk. Any negative event that may hit the destination during the (short) peak season would not find any compensation during the low periods of low season.

H6. We assume that the risk associated to the tourism activity and subsequently earning from that is higher in the country in which there is higher seasonality.
3. ECONOMETRIC MODEL

Censored regression model for panel data was used to estimate the relationship between dependent variable $y_i$ (seasonality rate) and a vector of explanatory variables $x_i$ (determinants of seasonality intensity). For the ith country, the censored regression model for panel data can be defined as follows:

$$
\begin{align*}
  y_{it}^* &= \beta x_{it} + u_{it} + \nu_i \\
  y_{it} &= \begin{cases}
    a & \text{if } y_{it}^* \leq a \\
    y_{it} & \text{if } a < y_{it}^* < b \\
    b & \text{if } y_{it}^* \leq b
  \end{cases}
\end{align*}
$$

The dependent variable is the seasonality rate, which is censored at 4 (hence $a = 6.5$ times or about the mean of that variable) from below and at 25 ($b=25$ times) from above. This motivates the use of the estimation procedures proposed in this paper. If the censored constraints are slightly different (below or left-censored at zero), than for the ith country, the Tobit model for panel data can be applied:

$$
\begin{align*}
  y_{it} &= \begin{cases}
    0 & \text{if } y_{it}^* \leq a \\
    y_{it} & \text{if } a < y_{it}^* < b \\
    1 & \text{if } y_{it}^* \leq b
  \end{cases}
\end{align*}
$$

Here the subscript $i = 1, \ldots, N$ indicates the country, subscript $t = 1, \ldots, T_i$ indicates the time period, $T_i$ is the number of time periods observed for the ith country, $u_i$ is a time-invariant country effect, and $v_{it}$ is the remaining disturbance.

4. RESULTS

4.1. Data and descriptive statistics

In this study, the censored regression model for panel data are estimated for a sample of 29 countries whose data for years 1995-2014 are completely available from the Eurostat Source Site for the determination of time series that affect seasonality. The countries used in the analysis are based on European countries (incl. AT, BE, BG, CH, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HR, HU, IS, IT, LT, LU, MT, NL, NO, PL, PT, RO, SE, SI, SK, UK). Table 1 & 2 provide a summary of all data used in the analysis and correlation matrix.
Table 1: Descriptive statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>min</th>
<th>max</th>
<th>range</th>
<th>mean</th>
<th>std.dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEASON_RATE</td>
<td>2.246</td>
<td>79.738</td>
<td>77.492</td>
<td>6.586</td>
<td>8.235</td>
</tr>
<tr>
<td>OVERNIGHT_NONRES</td>
<td>503519</td>
<td>25963800</td>
<td>259132300</td>
<td>33379400</td>
<td>33379400</td>
</tr>
<tr>
<td>BED_A/OBJECT_A</td>
<td>10.686</td>
<td>548.573</td>
<td>537.887</td>
<td>126.684</td>
<td>88.484</td>
</tr>
<tr>
<td>OVERNIGHT_TOT/BED_A</td>
<td>7.001</td>
<td>201.280</td>
<td>194.279</td>
<td>44.120</td>
<td>37.139</td>
</tr>
<tr>
<td>EMP_P/EMP_F</td>
<td>0.023</td>
<td>1.024</td>
<td>1.004</td>
<td>0.226</td>
<td>0.226</td>
</tr>
<tr>
<td>CRIM</td>
<td>2.100</td>
<td>30.000</td>
<td>27.900</td>
<td>12.981</td>
<td>5.460</td>
</tr>
<tr>
<td>RISK_E</td>
<td>1.002</td>
<td>4.370</td>
<td>3.368</td>
<td>0.224</td>
<td>0.463</td>
</tr>
</tbody>
</table>

Source: Author's calculations based on Eurostat data

Notes: definition of variable. SEASON_RATE = Nmax/Nmin, where Nmax is the highest peak in overnight stays and Nmin referred to the minimum number of overnight stays built on the monthly distribution of tourism flows; OVERNIGHT_NONRES = nights spent by non-residents at tourist accommodation establishments - annually data; BED_A = Number of bed-places in hotels, holiday and other short-stay accommodation, camping grounds, recreational vehicle parks and trailer parks- annually data; OBJECT_A = Number of establishments- annual data; OVERNIGHT_TOT = nights spent by residents and non-residents at tourist accommodation establishments- annually data; EMP_P = Employed persons by full-time activity - annual data for selected tourism industries; EMP_F = Employed persons by part-time activity - annual data for selected tourism industries; CRIM_T = Crime, violence or vandalism in the area, percentage of total population - annually data; RISK_E = the 3-year rolling standard deviation of expenditure on tourism trip for 4 nights or over in thousand Euro.

Table 2: Correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>SEASON_RATE</th>
<th>OVERNIGHT_NONRES</th>
<th>BED_A/OBJECT_A</th>
<th>OVERNIGHT_TOT/BED_A</th>
<th>EMP_P/EMP_F</th>
<th>CRIM</th>
<th>RISK_E</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEASON_RATE</td>
<td>1</td>
<td>0.11</td>
<td>-0.23*</td>
<td>0.029</td>
<td>-0.192*</td>
<td>0.101</td>
<td></td>
</tr>
<tr>
<td>OVERNIGHT_NONRES</td>
<td>1</td>
<td>0.140*</td>
<td>0.167*</td>
<td>0.19*</td>
<td>0.236*</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td>BED_A/OBJECT_A</td>
<td>1</td>
<td>-0.228*</td>
<td>0.167*</td>
<td>0.19*</td>
<td>0.236*</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td>OVERNIGHT_TOT</td>
<td>1</td>
<td>-0.162*</td>
<td>0.277*</td>
<td>-0.136*</td>
<td>-0.076*</td>
<td>0.076</td>
<td></td>
</tr>
<tr>
<td>TOT/BED_A</td>
<td>1</td>
<td>0.265*</td>
<td>-0.069</td>
<td>-0.087</td>
<td>0.004</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td>EMP_P/EMP_F</td>
<td>1</td>
<td>0.065</td>
<td>-0.334*</td>
<td>0.245*</td>
<td>0.041</td>
<td>0.041</td>
<td></td>
</tr>
<tr>
<td>CRIM</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RISK_E</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author's calculations based on Eurostat data

Notes: italic Spearman’s rank correlation rho* indicates significant correlation at 5. Otherwise, Pearson’s coefficient of correlation; one of the assumptions of the Pearson measure of correlation is normality and the Jacque-Bera test was used to test the normality of each of the variables and, at the 95% confidence level, some variable were found to be non-normal. Thus, the Spearman rank correlation coefficient is used to measure the correlation between those of the variables.
4.2. Regression analysis

Our dependent variable – seasonal rate refers to proportion, bounded at 0 to 100. We intuitively reject the assumption that all the SEASON_RATE data fall in the middle portion, say in the 6.5 to 25 range, in which case GLM can give reasonably good results. We use, instead a censored regression because the proportion, or rate measures a continuous entity (proportion of maximum over minimum night spent).

In this section we investigate if the tourist stake-holders minimize the seasonal rate as a response to the changes in control variables. To test the hypotheses, three separate regression models are estimated.

Theoretically, the fixed-effects panel Tobit (as a special kind of censored panel model) is affected by the incidental parameters problem (Neyman and Scott 1948; Lancaster 2000), i.e. the estimated coefficients are inconsistent unless the number of time periods (Ti) approaches infinity for each individual i. So, we choose to estimate the random-effects model instead of fixed in both variants for all specifications. However, primarily, we use the classical linear panel estimations. Following Wooldridge (2010) and Drukker (2003), we test for panel autocorrelation and find no evidence for first order autocorrelation. There could be a concern about heteroskedasticity across countries; we use Breusch-Pagan/Cook-Weisberg test and find no evidence of heteroskedasticity.
Table 3: Random Effects Censored Regression Estimates Of The Seasonality Rate

| Source: Author's estimations based on Eurostat data |
| Notes: Coefficients in bold indicate null hypothesis rejected; $0^{***}$ $0.001^{**}$ $0.01^{*}$ $0.05^{*}$; Numbers within parentheses () denote asymptotic t-values, and within [ ] p-values. All variables are logged. The data set as a basis of regression is an unbalanced panel, since some data are missing, especially in model 3 & 4. |

The first regression, or baseline model, is a regression of control variables on seasonal rate and is defined.
Table 3 presents the parameter estimates from estimating random effects Tobit and random effects censored regression models for the ratio of seasonal rate. We have regressed seasonal rate on the number of logged bed places per accommodation establishment, and the overnight spend by non-residents. The coefficients of correlation between variables SEASON_RATE vs. BED_A/OBJECT_A (Pearson’s $r = 0.14$), SEASON_RATE vs. OVERNIGHT_NONRES (Spearman’s $\rho = 0.11$) point to a very weak direct linear relationship between pairs of variables. Yet, the estimated parameter on the logged bed places per accommodation establishment is positive and significant when it is Tobit regression run. The higher the accommodation capacity in the chosen set of country, the higher the difference between high and low season in terms of overnight stays, e.g. seasonality rate. Regression analysis estimated the dependence of seasonality rate on selected mass tourism independent variable – logged number of nights spent in accommodation establishments; we find by estimating random effects Tobit as expected in theoretical considerations a positive link among those variables, also. Pointed original model was re-estimated according to the results obtained and estimated anew by Panel random effects censored regression. In the present form of the same proposed model an individual coefficients of the regression were not statistically significant and that was the reason why finding with only those variables should take into account with suspicion. The significance level to test the parameters was set at 0.05 p-values.

Given the support for the baseline model, a second regression that include the occupancy rate as an additional regressor, is defined as:

$$SEASON\_RATE_y = \beta_0 + \beta_1 \log(BED\_A_y - OBJECT\_A_y) + \beta_2 \log(OVERNIGHT\_NONRES_y) + \beta_3 \log(OVERNIGHT\_TOT_y - BED\_A_y) + \epsilon_i + \nu_y \quad (2)$$

Although the inverse relationship displayed in Table 2 is far from perfect (Spearman’s rank correlation $\rho = -0.23$), one can discern a general tendency toward lower occupancy rates as the seasonality rate per country increases. This relationship has an interesting implication. The demand for hospitality accommodations generated by a destination area can be met more economically if beds are concentrated in a few large hotel companies than if they are dispersed in a bunch of small tourist companies. To bring the impact of occupancy rate on
seasonality rate into clearer focus, the result given by Tobit estimation in Table 3 displays the occupancy rate parameter consistent with our theory that country with lower seasonality problem has successively higher average occupancy rates.

To reflect employment in tourism sector issue we use the part-full time employment ratio.

\[ \text{SEASON RATE}_u = \beta_0 + \beta_1 \log(\text{BED}_A - \text{OBJECT}_A) + \beta_2 \log(\text{OVERNIGHT}_\text{NONRES}_A) + \beta_3 \log(\text{OVERNIGHT}_\text{TOT} - \text{BED}_A) + \beta_4 \log(\text{EMPTYU}_F - \text{EMPTYU}_P) - u_i - v_i \]  

(3)

We consider a country that experiences seasonal influx and outflow of part-time worker because a country is a resort area, vacation spot, or because it relies heavily on seasonal occupations such as tourism, traveling and so on. We except that the demand for tourism trip generated by such a country will, no doubt, exhibit considerable seasonal fluctuations. Yet, our empirical test result by Tobit with significant value that is in contrary to our prediction and that is in opposite to aforementioned conventional wisdom.

A testing of working hypothesis for this paper, taking the totality of our knowledge of the seasonality of crime and tourism into account, as well as earning risk, might be the following.

\[ \text{SEASON RATE}_u = \beta_0 + \beta_1 \log(\text{BED}_A - \text{OBJECT}_A) + \beta_2 \log(\text{OVERNIGHT}_\text{NONRES}_A) + \beta_3 \log(\text{OVERNIGHT}_\text{TOT} - \text{BED}_A) + \beta_4 \log(\text{CRIM}_u) + \beta_5 \log(\text{RISK}_E) - u_i - v_i \]  

(4)

The seasons are related to the likelihood that less serious crimes will become publicly known, in particular, known to the police or statistical authority. Hence, the direct effect of the number of micro crimes occurring on the seasonal rate is nonexistent for our set of countries, because CRIM parameter is insignificant. A strong statistically significant positive correlation coefficient of (0.101) between SEASON_RATE and RISK_E as the two variables is one which the values of one variables increases so as the other variable. By Tobit result it was proved that the country with a higher volatility of tourism earning have sharper tourism fluctuations within a year.

5. CONCLUSION

Seasonal fluctuations not only affect fixed capital requirement but also create operating problems for the tourism industry. A tourism industry can’t follow a policy of level production, irrespective of seasonal changes in order to utilize
its resources to the fullest extend. Such a policy will mean accumulation of inventories during off-season and their quick disposal during the peak season. In this paper we find that the higher the accommodation capacity and overcrowding in the peak season are linked to the higher seasonality rate in our sample. Those spillover effects of tourism seasonality transmit profitability problem. If the destination country builds a tourist supply that is big enough to face tourism flows in the peak season, it must also bear higher costs during the low season, that is, when the hotels, auto-camps remain substantially empty, with very low occupancy rates. We find that the occupancy rate as an indicator of profitability is consistent with our theory that country with lower seasonality problem has successively higher average occupancy rates. That brings us to end and we find that the country in our sample with a higher volatility of tourism earning may have the higher seasonality rate. Prolonging the tourism season is often viewed as being important for reducing the challenges associated with seasonal demand for tourism but in order to develop counter-seasonal strategies, it is necessary to have an understanding of the seasonal concentration of demand for tourism and its significant spillover effects described in this paper.

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Eurostat Source Site http://ec.europa.eu/eurostat
Financial Economics
Abstract

The numerous products offered by Google are aimed at connecting people and ensuring accessibility of diverse information on the Internet. The core business of Alphabet is offering free-of-charge Internet applications, whereas revenue comes from advertisers. In February 2016, with its worth of over $500 billion, Alphabet dethroned Apple as the world’s most valuable company.

Keywords: Stock price, Google, Fundamental analysis, Global analysis

JEL Classification: E6, E62

1. UNTERNEHMENSPROFIL DER TEUERSTEN AKTIE DER WELT


2. FUNDAMENTALANALYSE: SUCHEN NACH EINER FAIREN BEWERTUNG

Die Fundamentalanalyse untersucht die Bewertung eines Wertpapiere und versucht einen fairen Preis unter Verwendung externer und interner Rahmenbedingungen und Daten zu finden. Die Fundamentalanalyse untergliedert sich in eine Global-, Branchen- und Unternehmensanalyse.1 Anhand einer Fundamentalanalyse wird nachfolgend versucht, Alphabet einer differenzierten Bewertung zu unterziehen.

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2.1. Globalanalyse

Die Weltwirtschaft folgt Konjunkturphasen, denen sich ein global agierendes Unternehmen kaum entziehen kann. An der Börse wird die Zukunft gehandelt, weshalb nicht die aktuelle Konjunkturphase von Interesse für den Analysten ist, sondern die zukünftigen Erwartungen. Eine vielbeachtete Prognose durch befragte Experten, veröffentlicht das ifo Institut quartalsweise im ifo Weltwirtschaftsklimabericht.²

Der Aktienkurs eines Unternehmens wird in mehrfacher Weise vom Zinsniveau beeinflusst. Bei fallenden Zinsen steigen die Opportunitätskosten am Rentenmarkt, weshalb mehr Anleger von Zinspapieren in risikoreichere Wertpapiere umschichten.³ Die zunehmende Nachfrage nach Aktien treibt deren Kurse. Sinkende Zinsen haben aber auch einen positiven Effekt auf die Finanzergebnisse eines Unternehmens, weil sich das Unternehmen günstiger refinanzieren kann und den rechnerischen Wert des Unternehmens (als Summe aller abgezinsten zukünftigen Gewinne) steigert.⁴


Auch Wechselkursänderungen können erhebliche Auswirkungen auf die Ertragslage haben. So hat der starke Dollar bei Alphabet bereits in den vergangenen Geschäftsjahren zu Fremdwährungsverlusten geführt. Zur Absicherung der prognostizierten Gewinne setzt Alphabet zwar Devisenoptionen ein, aber

⁵ Vgl. Plenk u. a. S. 21-23.
⁶ Der internationale Währungsfonds rechnet mit einem Wachstum der Weltwirtschaft von über 3 %.
dessen Erträge konnten die Wechselkursauswirkungen unterm Strich nicht ganz eliminieren.\(^7\)

### 2.2. Branchenanalyse

Die Internetbranche zeigt ein seit Jahren stetiges Wachstum.\(^8\) Eine Trendwende ist nicht zu beobachten. Ebenso ist die Werbebranche, in der Google etwa 90 % seiner Umsätze generiert, in den vergangenen Jahren stetig um durchschnittlich 20 % pro Jahr gewachsen (vgl. Abb. 1).\(^9\)

Die Werbung auf mobilen Geräten hat in der Vergangenheit zu starken Zuwächsen geführt und die Prognose für die nächsten Jahre (Abb. 1) rechnet mit einer weiteren Umsatzsteigerung von 200 %. Wegen der kleineren Bildschirme sind mobile Geräte fürs Werbeformat weniger geeignet als Desktop PCs, weshalb sich für einen Klick auch nur 50 bis 66 % der stationären Preise durchsetzen lassen.\(^10\)

Abb. 1: Wachstum der Internetnutzung und Onlinewerbung

\(^8\) Stats (2015).
\(^9\) Google\_Inc. S. 24.
2.3. Unternehmensanalyse

2.3.1 Aktienbezogene Kennzahlen

Aktienbezogene Kennzahlen haben für sich genommen wenig Aussagekraft. Die Ergebnisse sind vergangenheitsorientiert und geben nur im Zeitvergleich oder im Verhältnis zu anderen Unternehmen der Branche Auskunft über die Unternehmensentwicklung beziehungsweise die Stellung gegenüber Wettbewerbern.

Kurs-Gewinn-Verhältnis: Zentrale Größe der Unternehmensbewertung ist der Gewinn, die häufigste Bewertungskennzahl ist das KGV. Es zeigt die Relation an zwischen dem, was eine Aktie kostet (Kurs) und dem Gewinn, den das Unternehmen je Aktie erzielt.


<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>KGV</td>
<td>22,3</td>
<td>21,4</td>
<td>21,6</td>
<td>28,9</td>
<td>24,8</td>
<td>18,2</td>
</tr>
<tr>
<td>KBV</td>
<td>4,1</td>
<td>3,6</td>
<td>3,3</td>
<td>4,3</td>
<td>3,5</td>
<td>4,1</td>
</tr>
<tr>
<td>KGV (operativ)</td>
<td>17,2</td>
<td>14,4</td>
<td>14,0</td>
<td>20,2</td>
<td>16,1</td>
<td>19</td>
</tr>
</tbody>
</table>

Abb. 2: Kennzahlen, berechnet aus den Daten des Geschäftsberichts 2014 und nach Bloomberg


13 Schmidlin (2011), S 141.
14
15 Analytisch könnte man auch die PEG-Ratio nehmen. Dann ist Alphabet/Google noch preiswerter.
Kurs-Cashflow-Verhältnis: Neben dem Gewinn kann der Cashflow (CF) auch als Kriterium für die Ertrags- und Finanzlage dienen, da dabei nur die tatsächlichen Zahlungsströme berücksichtigt werden.\(^{16}\) Der CF ist weniger anfällig für bilanzielle Manipulationen und international besser vergleichbar.\(^{17}\) Dem Cashflow entsprechen die erwirtschafteten flüssigen Mittel mit denen Investitionen und Dividenden gezahlt, Kredite getilgt und wie im Fall von Alphabet, Akquisitionen gestemmt werden können.\(^{18}\) Sowohl Umsätze, Nettogewinne als auch der Cashflow aus der laufenden Geschäftstätigkeit sind in den letzten Jahren stetig gestiegen.\(^{19}\)

Kurs-Buchwert-Verhältnis: Der Buchwert drückt aus, welcher Aufschlag auf das Reinvermögen gezahlt werden muss.\(^{20}\) Sollte eine Aktie unter dem Buchwert gehandelt werden, könnte man theoretisch alle Aktien kaufen und das Unternehmen anschließend risikofrei zerschlagen und gewinnbringend verkaufen. Für Alphabet ist das 3,5 fache des Buchwertes zu zahlen.\(^{21}\) Im Vergleich zu den Wettbewerbern liegt Alphabet damit günstig (KBV-Vergleich: Apple (5,8), Facebook (6) und Microsoft (4,3)).

Dividende und Rendite: Eine Ausschüttung (Dividende) hat Alphabet bisher noch nie gezahlt. Nach dem Geschäftsbericht ist das auch in absehbarer Zeit nicht zu erwarten.\(^{22}\) Dabei belaufen sich die flüssigen Mittel inzwischen auf 64 Mrd. $;\(^{23}\) 38,7 Mrd. $ davon befinden sich allerdings bei ausländischen Tochterunternehmen.\(^{24}\) Sobald dieses Geld in die USA transferiert wird, muss es beim amerikanischen Finanzamt versteuert werden. Um diese Steuern zu sparen und das Wachstum anzutreiben soll die freie Liquidität reinvestiert werden.\(^{25}\)

\(^{20}\) Schmidlin, S. 150
\(^{21}\) Hier vor Goodwill.
\(^{23}\) Vgl. Google_Inc. (2015), S. 34
\(^{24}\) Vgl. Google_Inc. (2015), S. 34.
\(^{25}\) Vgl. Google_Inc. (2015), S. 34.
Alphabet erwirtschaftete 2014 eine Eigenkapitalrendite von 13 %. Im Vergleich zu Apple (35 %), Baidu (26 % im Jahr 2013), Facebook (8 %) und Microsoft (25 %) hat Alphabet damit eine unterdurchschnittliche Eigenkapitalverzinsung.26


2.3.2 SWOT-Analyse von Alphabet

2.3.2.1. Stärken


Diese Daten sind der Schatz des Konzerns! Mit diesen Daten kann Google passgenau Werbung schalten! Der Nutzer bezahlt mit seinen eigenen Daten und merkt wenig oder gar nichts davon. Das ist das Geheimnis des Geschäftsfolg von Alphabet (bzw. Google)!

Auch ist Google seit Jahren eine der bekanntesten und wertvollsten Marken der Welt und rangierte 2014 mit einem Markenwert von 158,8 Mio. $ erstmals auf dem ersten Platz.27 Im Vergleich zum Vorjahr hat Google den Wert seiner Marke erneut um 40 % steigern können.28 Die hohe Bekanntheit dürfte sich auch in Zukunft positiv auf die Produktnutzung auswirken.

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Besonders wichtig für den werbebasierten Umsatz von Google ist seine Suchmaschine, die bei stationärer Nutzung einen weltweiten Marktanteil von 68% beträgt.29 92% aller Suchanfragen von mobilen Internetnutzern (Februar 2015) zeigen eine sehr dominante Marktstellung (Quasimonopol, vgl. Abb. 3).30

Abb. 3: Marktanteile der Suchmaschinen weltweit nach Nutzung (Februar 2015)31

2.3.2.2. Chancen

Alphabet ruht sich auf seinen bereits erreichten Erfolgen nicht aus, sondern investiert die Gewinne in neue, zum Teil auch risikoreiche Projekte, anstatt die Gewinne auszuschütten. Neben organischem Wachstum, angetrieben durch hohe Forschungs- und Entwicklungsausgaben, wächst Alphabet auch anorganisch durch die Übernahme von Technologieunternehmen wie Nest Labs, Motorola, Titan Aerospace und Boston Dynamics und in der Medizintechnik.

Boston Dynamics ist ein Hersteller von Robotern, deren autonom agierende Systeme in der Zukunft möglicherweise für Lagerarbeiten, Paketzustellung, militärische Operationen oder sogar für die Betreuung von Behinderten und Senioren eingesetzt werden könnten.32 Dieses Unternehmen passt deshalb so gut zu Alphabet, weil Alphabet bereits viel Erfahrung im Bereich der com-

29 Maier (2015).
computergesteuerten Fahrzeuge hat und seine Ressourcen rund um intelligent gesteuerte Maschinen besser bündeln kann.33

Titan Aerospace ist ein Hersteller von solarbetriebenen Drohnen, die auch die entlegenen Gebiete der Erde mit einer Internetverbindung versorgen sollen. Den dafür benötigten Netzstandard G5 soll das ebenfalls übernommenen Unternehmens „Alpental Technologies“ zur Verfügung stellen.34 Das Projekt passt sehr gut in die Strategie von Alphabet, alle Menschen zu vernetzen und die nächsten fünf Milliarden Menschen mit Onlinewerbung zu erreichen.35

Mit Thermostaten von Nest Labs wird die Temperatur automatisch nach den Gewohnheiten ihrer Nutzer geregelt und in Zukunft könnten alle Geräte im Haushalt durch die künstliche Intelligenz der Firma gesteuert werden.36 Mit diesem Unternehmen könnte es Alphabet gelingen sich konjunkturunabhängiger aufzustellen und gleichzeitig seine Kompetenz aus selbstlernenden Algorithmen zu bündeln und stärker voranzutreiben.

Die Anwendungen in der Medizintechnik sind (fast) grenzenlos. Zusammen mit dem Schweizer Novartiskonzern entwickelt die Alphabet-Tochter Verily eine Kontaktlinse, mit der Diabetiker ihren Blutzuckerspiegel besser kontrollieren können. Ein anderes Team entwickelt Roboterassistenzsysteme für Operationen, ein weiteres Team baut zusammen mit Sanofi aus Frankreich eine Datenbank auf, die alle Patientendaten zusammenführen soll.

Geschäftsprinzip von Alphabet ist es, alle Gewinne zu reinvestieren, um auf möglichst vielen wegweisenden Gebieten Technologie- beziehungsweise Innovationsführer zu werden.37

2.3.2.3. Schwächen

Google generiert 90 % seiner Umsätze durch im Internet platzierte Werbung. Sinken die Werbebudgets in einem wirtschaftlichen Abschwung, sinken auch die Umsätze und Gewinne von Google. Eine weitere Gefahr für das werbebasierte Geschäft auf mobilen Geräten ist der zunehmende Trend hin

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36 Stöcker (2014).
37 Paukner (2014).
zu werbefreie Apps. Um diese Schwäche zu reduzieren, diversifiziert Alphabet sein Geschäft zunehmend.

2.3.2.4. Risiken

Alphabet hat eine ganze Reihe namhafter, wie auch innovativer Konkurrenten, die im Geschäftsbericht auch namentlich genannt werden. Schärfste Konkurrenten sind die Suchmaschinenbetreiber Microsoft (Bing), Baidu und Yahoo. Durch seine extrem hohen Marktanteile hat Alphabet aktuell noch deutliche Vorteile gegenüber den Mitbewerbern.


Auch die Messenger von Facebook und Whatsapp sind deutlich beliebter und erfolgreicher als das Googleprodukt Hangouts. Weil jeder seine Freunde und Bekannte auf den Plattformen der Konkurrenz trifft, wird die Marktstellung von Alphabet auch hiervon betroffen.

Abb. 4: Marktanteile der Smartphones- Betriebssysteme am Absatz weltweit von 2009 bis 2014

39 StatCounter (2015)


\(^{41}\) Vgl. Langley (2015).
\(^{42}\) Anmerkung: In 2015 hat der Finanzvorstand gewechselt, der bei Innovationen/ Zukäufen einen Fokus auf Kostencontrolling setzt.
3. EIN ERSTES ZWISCHENERGEBNIS


Abb. 5: Wertentwicklung der Alphabet (vormals Google) seit 2010

Die Kennzahlen prognostizieren bis 2017 deutlich bessere Kennzahlen für Alphabet, die auch im Vergleich zur Konkurrenz günstig sind. Sollten sich diese Erwartungen erfüllen, dürfte sich der Aktienkurs von Alphabet bis dahin absolut und relativ zur Branche besser entwickeln und deshalb auch absolut gut behaupten.

<table>
<thead>
<tr>
<th>Kennzahlenprognose</th>
<th>2014</th>
<th>2015</th>
<th>2016e</th>
<th>2017e</th>
</tr>
</thead>
<tbody>
<tr>
<td>KGV Alphabet</td>
<td>24,8</td>
<td>18,2</td>
<td>15,5</td>
<td>13,3</td>
</tr>
<tr>
<td>KGV Apple</td>
<td>17,1</td>
<td>15,9</td>
<td>14,4</td>
<td>13,9</td>
</tr>
<tr>
<td>KGV Baidu</td>
<td>37,3</td>
<td>24,4</td>
<td>17,9</td>
<td>14,6</td>
</tr>
<tr>
<td>KGV Facebook</td>
<td>69,7</td>
<td>40,7</td>
<td>30,3</td>
<td>24,5</td>
</tr>
<tr>
<td>KCV Alphabet</td>
<td>16,1</td>
<td>14,9</td>
<td>12,5</td>
<td>9,8</td>
</tr>
<tr>
<td>KCV Apple</td>
<td>11,3</td>
<td>12,0</td>
<td>11,1</td>
<td>9,5</td>
</tr>
<tr>
<td>KCV Baidu</td>
<td>25,9</td>
<td>17,7</td>
<td>13,2</td>
<td>10,6</td>
</tr>
<tr>
<td>KCV Facebook</td>
<td>40,0</td>
<td>31,6</td>
<td>25,2</td>
<td>-</td>
</tr>
</tbody>
</table>
4. ZUSAMMENFASSUNG

Google ist eine der wertvollsten Marken der Welt, die zum Gattungsbegriff für die Internetsuche wurde. In diesem Kerngeschäft wird Alphabet auch in der nahen Zukunft von den Wachstumsraten der Internetbranche stark profitieren.


LITERATURVERZEICHNIS


MEASUREMENT AND (E) VALUATION OF INTELLECTUAL CAPITAL – A COMPETITIVE ADVANTAGE INTELLECTUAL – INTENSIVE INDUSTRIES

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Saša GRAVORAC, MSc. “Subotica Town Development Magistry PE”

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Abstract

With their practical and organizational experiences, working habits, interpersonal relations and motivation, people influence a company’s business performance and activities. It is very difficult though to measure the influence of knowledge, i.e. to quantify and express it in figures. Measuring intellectual capital has another very significant dimension that enables a better business management. Only if we know the basic values of a company, we will be able to manage them and to maximize their growth as the greatest values of the business activities are not always visible in financial reports. Numerous scientists and managers are searching for effective methods that will enable monitoring IC flows and managing IC efficiently in order to attain better business performances and long-term competitiveness. It is very hard to identify and organize IC effectively, but when a company has found and explored IC, it wins on the global market. We describe the process of building a new method for measuring intellectual capital in intellectual property rights intensive industries and then
testing in selected industry cluster. The resulting method exhibits a new unique approach to the IC measurement and potentially even larger field of application. Intellectual capital has become the primary resource for creating wealth and value in intellectual-intensive industries, surpassing the contributions of traditional resources.

Keywords: intellectual capital, measurement, knowledge, intangible assets
JEL Classification: D8, D83

1. INTRODUCTION

The term “intellectual capital” has been taking an increasing amount of space in the literature of countries with developed market economies. Also, numerous studies are being conducted with the aim of its maximum possible objective quantification. The value of intellectual capital has relatively the largest share in industrial branches that are intellectual property rights intensive. In a knowledge-based society, management is focused on the company’s knowledge resources and skills – intellectual capital – and its development. Of late, intellectual capital has many complex connotations and as such can be the final “result of process of knowledge transformation or knowledge itself, which is transformed into the company’s intellectual assets or intellectual property” (Dzinkowski, 2000, 33). The Society of Management Accountants of Canada (SMAC) defines intellectual assets as follows: “In balance sheet terms, intellectual assets are those knowledge-based items, which the company owns, which will produce a future stream of benefits for the company” (Society of Management Accountants of Canada, 1998, 6.).

2. INTELLECTUAL CAPITAL – MEASUREMENT AND EVALUATION

In the modern business conditions, when market competition is increasingly manifest, and the turbulence of the environment is the constant accompanying phenomenon of the development of companies, the traditional, generally accepted, i.e. conventional measurement methods are no longer acceptable, which requires the necessity of conceiving a new measurement methodology, focused on intellectual capital, as a key resource of development of contemporary companies. The currently existing generally accepted factors of production are be-
coming obsolete, because without people and their knowledge as the key resources of company development there is no secure perspective on the market, that is, we can freely state that knowledge is the most significant strategic component of market existence, survival, growth and development of companies.

For this purpose, it is necessary to develop a project-based approach to the implementation of intellectual capital and focus the entire company in the development via project model. Given that companies do not have sufficient assets to develop their own models in developing intellectually oriented approach to business, they can use the experiences of other companies through benchmarking.

“Most of the companies generate higher rate for revenues and profits due to the implementation of projects. In many cases, the revenue from projects exceeds the revenue that is achieved through the implementation of routine processes... The increasing number and diversity of projects of an organization make it necessary to compare the efficiency and effectiveness of all the projects in the organization and to learn from this experience. In such a situation, benchmarking could be an effective method.” (Grau, 2013, 163 – 164).

Due to increasing need for quantification of intellectual capital, numerous measurement models of intellectual capital have been developed, as shown in the following graphic representation:

**Figure 1. Intellectual capital measurement models**

Source: www.cimaglobal.com, retrieved on March 10, 2016
In order to understand the above intellectual capital measurement models better, and due to their unconventionality, we shall try to state the essential characteristics and specific features of the given quantification models from our aspect, all for the purpose of their practical implementation and incorporation in regular operation of domestic companies, appreciating their individual characteristics:

A. IC measurement generic models

1. **BSC (Balanced scorecard)** represents a set of causal relationships between the output and creators of performance viewed from four aspects: financial measures (money flow, profitability); measures viewed from the clients’ aspect (prices compared to competitors, product rating); internal process performance (production cycle length and waste level); degree of learning and effects on performance enhancement (growth of sales percentage based on new products).

2. **Performance prism** focuses on the holistic approach to companies’ operation, viewing not only investors, but also clients, intermediaries, employees, suppliers, regulatory framework and the environment in which the company operates. The objects of its scope are the requirements of the above mentioned stakeholders, and the company’s attempts to provide all the stakeholders with what they require.

4. **Knowledge assets map approach** requires observing the company from the aspect of the knowledge it possesses. The reasons for their creation lie in the companies’ efforts to create and identify the knowledge base at their disposal, and its contribution to the total development, or creation of new value.

B. IC measurement generic models

1. **Skandia navigator.** The essence of this intellectual capital quantification model is placing human resources in the focus, as the most significant resource in the model alongside financial resources, resources of buyers, resources of renewal and development, and resources of processes existing in the company.

2. **Ericsson’s cockpit communicator** relies on the balanced scorecard and was developed on the experience of the Swedish telecommunication, which constructed a commercial product called cockpit communicator,
focussed on the observation of five aspects of each company: innovation, employees, process, buyers, and financial aspect. Each of the observed aspects was represented as one of the alternatives of choice and each aspect has its indicator. Each of the alternatives is observed in terms of whether it matches the organization’s strategy, and its effects on the company’s development perspective.

3. **Celemi’s intangible assets monitor** focuses on three key categories, such as: the buyers (the external factor), people and their responsibilities, and organization with its internal structure. The observed categories are matched to the areas of growth/renovation, efficiency and stability. This intellectual capital quantification model is used as a route for conducting training which combines intangible assets, managerial thinking and accounting.

4. **Ramboll’s holistic company model** consists of holistic view of the company, identical to other Nordic models, incorporating key area managed by means of certain indicators. The key areas comprise three sets: results – buyer, employee and social. The mix of these three key areas achieves effects on the companies’ financial results. In addition to these key areas, value and management, strategic processes, human resources, structural resources and consultancy services are also observed. Performances for each of the listed areas are defined within the observed areas, which are monitored so that the constructed objectives in each area can be achieved efficiently according to the defined plan.

5. **Bates Gruppen Company IQ measurement system.** The essence of this intellectual capital quantification model is reflected in priority observation of non-financial performance. The company uses exclusively its achieved knowledge as comparative advantage in the competitive race.

C. **Valuation of IC**

1. **Value added approach.** This intellectual capital quantification technique was developed by Robinson and Kleiner. This model incorporates two components: Porter’s value chain concept, starting from the premise that raw materials enter the production process, resulting in final product with value added, whereas the second component rests on the theory of economic value added, which is based on the assumption that any project should be realised only on the condition that the return on capital is larger than the price of capital.
2. **Value creation index.** The essence of this model is in developing a series of metrics enabling the creation of company value also taking into consideration the criteria that are not defined by the manager himself. Under this intellectual capital quantification model, the main production drivers of corporate value include: innovation, ability to attract talented employees, creation of business alliances, degree of quality of main processes, that is, products or services, effects of operation on the environment, types of investment, technologies and client satisfaction.

3. **Market or value-based approach** is a simple way of calculating the value of an organization’s intellectual capital as a difference between market value which is obtained by multiplying the number of shares and their market value and the net value of assets at its disposal. It has resulted from the fact that a company has a significant share of value contained in intellectual capital, which is not the object of quantification in financial reports.

4. **Tobin’s Q** as an intellectual capital quantification method was initially envisaged for forecasting the behaviour of investment, and later turned out to be a good indicator when comparing intellectual capital between business entities. It uses the value of reproduction costs of a business entity’s assets to predict the investment decision of the business entity, independent of interest rates. Tobin’s Q is the relationship between the market value of a business entity (share price multiplied by number of shares) and the reproduction costs of its assets.

5. **Calculated intangible value** calculates the excess return on hard assets, then uses this number as a basis for determining the proportion of returns that can be ascribed to intangible assets. The intellectual capital is calculated in relation to the achievements of an average competitor, i.e. with the average of the given industry; however “the prerequisite must be met that the data are available on the profit of the entire capital within their own operation”.

6. **Matching assets to earning – the Baruch Lev method** consists of matching the earnings with the assets that create them. This method is based on establishing revenue earned by knowledge – the so-called knowledge-based earnings.
7. **Human resource accounting (HRA).** The essence of this method is reflected in quantifying the economic value of human resources aimed at viewing their contribution to decision making planning and process control. It is in the basis of this model to calculate the contribution made by each employee to creating the organization value.

8. **Value added intellectual capital coefficient.** The task of this quantification method is to establish the efficiency of a company in the use of intellectual capital. It is calculated as a ratio between sales and all inputs (except labour costs) divided by the value of intellectual capital which is estimated based on total labour cost. The higher the ratio of the observed categories, the more efficient the company in using intellectual capital.

   In order to use intellectual capital as well as possible it is necessary that “...the intellectual capital directly integrates all participants in complex and stochastic traffic system...” (Jakopič, 2012, 124) as a prerequisite for the use of all benefits yielded by intellectual capital.

3. **EMPIRICAL RESEARCH**

   The base of this empirical research comprises the corporate financial reports of about 10,000 companies in IT industry operating in more than 200 countries in the world. Given the type of information required, this model used Thomson Reuters Datastream database containing the financial reports of more than 100,000 companies, but as we decided to analyse only the financial reports of companies in IT industry, we opted for the above mentioned sample. The constituents of this empirical research were the basic components of intellectual capital comprised of three basic categories: human capital, organizational capital, and relational capital observed over a defined time period of 2010-2014.
Table 1. Constituents of intellectual capital and their indicators from 2010 to 2014 viewed through the prism of IT industry in the Republic of Serbia and IT industry worldwide

<table>
<thead>
<tr>
<th>Constituents of intellectual capital</th>
<th>Indicator</th>
<th>* Coefficients</th>
<th>** 2010</th>
<th>** 2011</th>
<th>** 2012</th>
<th>** 2013</th>
<th>** 2014</th>
<th>IT industry in the Republic of Serbia ***</th>
<th>IT industry worldwide ****</th>
<th>Benchmark ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human capital</td>
<td>Labour / Training and development</td>
<td>0.33</td>
<td>65.68</td>
<td>67.78</td>
<td>62.22</td>
<td>61.63</td>
<td>64.33</td>
<td>24.32</td>
<td>64.33</td>
<td>37.81</td>
</tr>
<tr>
<td></td>
<td>Labour / Employment quality</td>
<td>0.33</td>
<td>55.62</td>
<td>52.95</td>
<td>50.28</td>
<td>46.63</td>
<td>51.37</td>
<td>26</td>
<td>51.37</td>
<td>50.61</td>
</tr>
<tr>
<td></td>
<td>Result – Performance / Employee cost</td>
<td>0.33</td>
<td>52.16</td>
<td>51.62</td>
<td>53.12</td>
<td>54.98</td>
<td>52.97</td>
<td>27.33</td>
<td>52.97</td>
<td>51.6</td>
</tr>
<tr>
<td>Organizational capital</td>
<td>Research and development cost/Total assets</td>
<td>0.35</td>
<td>0.070</td>
<td>0.070</td>
<td>0.071</td>
<td>0.069</td>
<td>0.070</td>
<td>0.04</td>
<td>0.070</td>
<td>57.14</td>
</tr>
<tr>
<td></td>
<td>Brand + patents / Total assets</td>
<td>0.45</td>
<td>0.013</td>
<td>0.015</td>
<td>0.026</td>
<td>0.025</td>
<td>0.020</td>
<td>0.007</td>
<td>0.020</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>Other intangible assets / Total assets</td>
<td>0.2</td>
<td>0.06</td>
<td>0.059</td>
<td>0.063</td>
<td>0.068</td>
<td>0.063</td>
<td>0.014</td>
<td>0.063</td>
<td>22.22</td>
</tr>
<tr>
<td>Relational capital</td>
<td>Goodwill / Total assets</td>
<td>0.5</td>
<td>0.23</td>
<td>0.22</td>
<td>0.21</td>
<td>0.20</td>
<td>0.22</td>
<td>0.07</td>
<td>0.22</td>
<td>31.82</td>
</tr>
<tr>
<td></td>
<td>Business revenue / Total employees</td>
<td>0.5</td>
<td>199.48</td>
<td>271.46</td>
<td>296.63</td>
<td>355.54</td>
<td>280.78</td>
<td>26.54</td>
<td>280.78</td>
<td>9.45</td>
</tr>
</tbody>
</table>

Notes to Table 1

*Coefficient based on which eight-dimensional model of intellectual capital is transformed into tri-dimensional model of intellectual capital (human capital, organizational capital, and relational capital).
**Thomson Reuters Datastream database
***Authors’ research based on data from relevant institutions (Serbian Chamber of Commerce, Serbian Bureau of Statistics and data contained in specialized journals in the IT area)
****Data produced based on eight-dimensional model of intellectual capital for the purpose of projection of benchmark ratio.
Table 2. Comparison of the benchmark ratio of IT industry on the example of Google and the benchmark ratio of IT industry in the Republic of Serbia in 2014 based on the tri-dimensional model of intellectual capital by using coefficients from Table 1

<table>
<thead>
<tr>
<th>Constituents of intellectual capital</th>
<th>Benchmark ratio of IT industry on the example of Google*</th>
<th>Benchmark ratio of IT industry in the Republic of Serbia**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human capital</td>
<td>84 %</td>
<td>46 %</td>
</tr>
<tr>
<td>Organizational capital</td>
<td>169 %</td>
<td>40 %</td>
</tr>
<tr>
<td>Relational capital</td>
<td>67 %</td>
<td>21 %</td>
</tr>
</tbody>
</table>

Notes to Table 2
*Data for Google were obtained based the authors’ calculation based on data contained in Thompson Reuters Datastream database
**The authors’ calculation

Based on defined indicators in Table 2 that were the subject range of this research, we concluded in Table 3 that there is a segment of human capital in the IT industry of the Republic of Serbia which is represented at a significantly lower percentage than it is the case in the IT industry worldwide, and which is identical for organizational and relational capital.

Remarks on empirical research

In Table 1, which represents intellectual capital viewed through eight-dimensional prism by using indicators incorporated in the table, intellectual capital synthesized from eight constitutive elements was given. By synthesizing the first three indicators, we get human capital as an integral element of intellectual capital. Organizational capital is obtained by completing the following three indicators, while the last two indicators give relational capital as a constituent element of intellectual capital. In the column of IT industry worldwide in 2014, average data were given for IT industry viewed at the global level through the prism of eight-dimensional model of intellectual capital. The objective of the conducted research is to compare the intellectual capital of IT industry existing worldwide viewed through the mosaic of the eight-dimensional model of intellectual capital. The basis for comparing the intellectual capital of IT industry in the Republic of Serbia and intellectual capital of IT industry at the global level is the calculated benchmark ration which was obtained by placing into relationship the average values of intellectual capital through the focus of
eight dimensions concluded in Table 1 into average values of intellectual capital through the focus of eight dimensions contained in Table 1 into average values of intellectual capital of the IT industry of the Republic of Serbia viewed based on identical dimension like in Table 1. Based on the benchmark ratio and coefficients from Table 1 we reduced the eight-dimensional to three-dimensional model of intellectual capital, which is constructed from three elements: human capital, organizational capital and relational capital, which is presented in Table 2. Relating the three-dimensional model of intellectual capital of IT industry in the Republic of Serbia and the value of three-dimensional model of intellectual capital of the world leader in the area of IT industry – Google – our intention was to point to the existence of gap of value of tri-dimensional model of intellectual capital in the Republic of Serbia and the value of tri-dimensional model of intellectual capital at the global level.

4. CONCLUSIONS

Intellectual capital contributes to the creation of value, and it is therefore necessary to foster its development. Contemporary business conditions point out the importance of companies’ intellectual resources in achieving and maintaining competitive advantage on the market and stimulating innovation as a sure pathway to the creation of wealth. The three components of intellectual capital are mutually conditioned and cannot function independently, each one for itself. Many instances of business success can be explained owing to intellectual resources and it is important here to emphasize the necessity to achieve a synergetic effect, i.e. interaction, and combination of these resources, rather their individual action. Practice shows and it can be stated that each successful company leaves more or less deep trail of intellectual capital. When it comes to intellectual capital, the system of doing business is quite different, because it emphasizes that only a satisfied employee is a productive employee, and if there are no satisfied employees, there are no satisfied clients and, consequently, satisfied company owners. In defining their strategic avenues of development and becoming involved in the international flows of capital, companies working on the territory of the Republic of Serbia should direct their focus to intellectual resources as a base of comparative advantage, and also the basic prerequisite of competitiveness on the turbulent international market, which is exactly what
this empirical research has shown, and which should be a lesson to companies in Serbia down which avenue they should direct their future strategic decisions.

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ACCOUNTING INFORMATION FOR PLANNING OF BUSINESS GOALS IN SOLICITORS’ PRIMARY PROFESSIONAL INDEMNITY INSURANCE

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Abstract
Planning of annual income based on insurance premiums is of significant importance in the insurance company business. Adequate income planning is a prerequisite for the realisation of planned financial goals. Accounting information about realised financial values of the annual premiums for insurance company contracted products represents a starting point for the plan and the analysis. Realistic planning of accounting values is a precondition for realisation of the planned business goals.

Creation of new business models is becoming a necessity for more precise planning of insurance company business. By combination of accounting information, mathematical and statistical methods, through scientific research and study, a new model has been created which, apart from a scientific component, also contains an applicative component for insurance companies which, in their offer, have solicitors’ primary professional indemnity insurance. The illustrated model provides information about the planned market opportunities, as well as information about business opportunities and planned values for insurance companies.

Keywords: income from insurance premiums, accounting information, solicitors’ primary professional indemnity insurance, insurance companies, insurance policies.

JEL Classification: M4, M41
1. INTRODUCTION

The insurance companies’ goal is to contract as many insurance policies as possible, with reasonable underwriting risks. The insurance company business stability depends on the amount of collected premiums and adequate risk management. The insurance premium is a monetary amount which the insured person pays to the insurer for the taken risk upon contracting the insurance (Andrijanić & Klasnić; 2002, 27). From the premiums paid, insurance companies settle claims according to the cover provided as well as their business overhead costs. The accounting information is important as it plays a key role in the decision making process and business system management (Ponisciakova et al.; 2015, 431).

The characteristics of compulsory insurance are that they are legally required and statutory, imposing the obligation of policy contracting. From the aspect of insurance companies, this means that all those who are subject to the legal obligations will have to choose an insurance company and take out an insurance policy.

By application of the illustrated model information is obtained, as required for the planning of business goals in the segment of solicitors’ primary professional indemnity insurance. The information which is generated by the model is applicable to the planning of national market values, as well as to the planning of insurance companies’ business income and goals.

2. THEORETICAL POSTULATES

Planning and decision making requires assessment and prediction of the market parameters by the insurance company management. For optimal decision making, an adequate combination of information input and output is needed in business systems (Jarraya & Bourib; 2014, 70). Accounting and financial models are considered to be the key elements in business decision making (Salisteanu & Oros; 2015, 273). For that reason, a series of statistical and mathematical methods are used in business analysis. By analysing two or more occurrences, a relationship is determined or, on the basis of relationships, future values are planned and predicted (Dumičić, K. et al.; 2011, 322). The regression analysis is one of the statistical methods which are used to determine the relationship between the observed occurrences, as well as to plan the future value trends.
In the regression analysis, relationships are analysed between two and several occurrences, which are presented as dependant and independent variables. The independent variable affects the dependent variable variation and the values of the dependent variable change due to the changes in the values of the independent variable (Aczel & Sounderpandian; 2009, 408). With the application of the regression analysis, a regression model is formed which, among other things, facilitates the prediction of the dependent variable due to the change of the independent variable. In this research, the categories of the realised annual premiums and the number of contracted insurance policies have been linked, both at the national market and insurance company levels and a model for planning and decision making has been formed.

The starting point in the shaping of the model is the determination of the interrelationship between the amount of realised annual premiums and the number of policies of solicitors’ primary professional indemnity insurance in the national market. By application of the accounting information, the realised income is considered, as well as the number of contracted insurance policies. By application of the statistical method of double logarithmic regression analysis, the interrelationships are obtained between the realised income and contracted insurance policies. The double logarithmic model of regression has a standard form of equation (Šošić; 2006, 430):

\[ \hat{Y} = ax^b \]  

(1)

\[ b = \frac{\sum_{i=1}^{n} \log x \log y - \frac{1}{n}(\sum_{i=1}^{n} \log x)(\sum_{i=1}^{n} \log y)}{\sum_{i=1}^{n} \log^2 x - \frac{1}{n}(\sum_{i=1}^{n} \log x)^2} \]  

(2)

\[ \log a = \frac{1}{n} \sum_{i=1}^{n} \log y - b \left( \frac{1}{n} \sum_{i=1}^{n} \log x \right) \]  

(3)

\text{Y} – dependent variable  
\text{x} – independent variable  
\text{a} – constant member  
\text{b} – regression coefficient

In this research, the independent variable \( x \) represents the realised value of the contracted insurance policies and the dependent variable \( y \) the income from realised premiums at the annual level. By the obtained regression model, the prediction is facilitated of the planned trends in the income from premiums
according to the relevant insurance, as opposed to the planned increase in the number of insurance policies.

Starting from the postulate of further relationships in the trends of the observed values in the planned period, by application of the quoted regression model, planned accounting information about the evaluation of the trends in income from insurance premiums, depending on the planned increase in the number of insurance policies in both the national market and insurance companies, are obtained.

By application of the regression analysis, the relationships are also analysed between the observed occurrence, as a dependent variable, and the unit of time, as an independent variable (Žužul, J. et al.; 2008, 139). A prediction trend model is obtained by application of the regression analysis in this way. Trend can be defined as a statistical rule of movement of an analysed occurrence (Žužul, J. et al.; 2008, 139). The application of this model is used for prediction of a change in the observed occurrence of a dependent variable in the unit of time. With such models, the unit of time is an independent variable which affects the change in a dependent variable, i.e. in the observed occurrence. Using the linear trend prediction model, occurrences which have linear movement can be predicted, i.e. when an observed occurrence changes linearly in the unit of time (Šošić; 2006, 427). The linear trend prediction model is expressed with:

\[
\hat{Y}_t = a + bx_t
\]  

\[
b = \frac{\sum_{i=1}^{n} x_i y_i - n \bar{x} \bar{y}}{\sum_{i=1}^{n} x_i^2 - n \bar{x}^2}
\]  

\[
a = \bar{y} - b \bar{x}
\]

\(\hat{Y}\) - regression value of the dependent variable in the observed time  
\(a\) - constant member for the time evaluation  
\(b\) - average increase in the value of the dependent variable over time  
\(x_t\) - time unit

The double logarithmic models and the trend prediction models are used for the creation of a model for application in the segment of solicitors’ primary professional indemnity insurance. Using information about realised amounts and values and, by applying them to the model, planned values, for the needs of the decision making process, are formed.
3. RESEARCH METHODOLOGY IN THE MODEL DEVELOPMENT

Insurance companies plan annual amounts of income from insurance premiums according to types and numbers of insurance policies. Management needs information in order to determine company performance, as well as for decision making on future activities (Rus; 2014, 675). Planned values must correspond to the situation in the market and to the insurance company capacity. The plan should be prepared in accordance with the objective future values which are assessed on the basis of the accounting information about the realised financial effects. The planning begins with the analysis of the position so far and movements in the national insurance market, as well as with the insurance company business analysis.

In this model, the prediction of the annual premiums and the number of insurance policies in the national market is evaluated by application of the trend prediction model and the regression analysis. The application of the linear trend prediction is used for evaluation of solicitors’ primary professional indemnity insurance in the national market in the years to come. The linear trend prediction is formed by the use of the data about the trends in the number of insurance policies in the observed time periods. The function of the linear trend prediction reads:

\[ \hat{Y}_{pm} = a_1 + b_1x_t \]  

\( \hat{Y}_{pm} \) - planned number of policies in the national market  
\( a_1 \) - constant member for evaluation of the number of insurance policies  
\( b_1 \) - average increase in the number of insurance policies in the unit of time  
\( x_t \) - time unit – one year

After the completed evaluation of the number of insurance policies, we enter into the formation of the double logarithmic regression model for determination of the planned amount of insurance premiums in the national market. The relationship between the observed variables, the dependent variable of the total annual insurance premiums and the independent variable of the number of insurance policies is expressed by application of the regression model for the national market. The regression model for determination of the planned total premiums in the national insurance market of solicitors' primary professional indemnity insurance has the following expression:
\[ \hat{Y}_{im} = a_2 x_{pm}^{b_2} \]  
\[ \hat{Y}_{pm} = X_{pm} \]  
\[ \hat{Y}_{im} = a_2 (a_1 + b_1 x_i)^{b_2} \]

\( \hat{Y}_{im} \) - planned premium in the national market
\( b_2 \) - average increase in premiums in the national market
\( X_{pm} \) - planned annual number of insurance policies in the national market
\( a_2 \) - constant member for evaluation of the amount of annual premium

Based on the obtained information about the predicted number of insurance policies, by implementation of the regression model, information is obtained about the estimated value of the total insurance premium in the national market. The information about the market potential facilitates a realistic planning of this business segment in insurance companies.

The next step refers to the analysis of the movement of income from premiums and the number of insurance policies in the analysed insurance company. The accounting information about realised annual premiums from solicitors’ primary professional indemnity insurance and the number of insurance policies indicates realised annual values. The regression model is formed by application of this information, as well as the double logarithmic regression analysis. The regression model shows the growth in the insurance company planned income due to the increase in the number of insurance policies.

In insurance companies, the annual amount of income from premiums is planned by analysing the position and movement in the national market. On the basis of the obtained estimates for the national market, the analyses of the insurance company business performance so far and its business strengths, the planned income is determined for the following year. The aim is to obtain a model which shows how many insurance policies should be contracted per annum in order to realise the planned income from premiums. The procedure is carried out in the following way:

\[ \hat{Y}_{ic} = a_3 x_{pc}^{b_3} \]  
\[ x_{pc}^{b_3} = \frac{\hat{Y}_{ic}}{a_3} \]
\[ x_{pc} = \frac{b_{ic}}{\sqrt{a_{3}}} \]  

\( \hat{Y}_{ic} \) - planned amount of income from insurance company premiums  
\( b_{3} \) - average increase in income from insurance company premiums  
\( X_{pc} \) - planned number of insurance policies  
\( a_{3} \) - constant member for evaluation of the amount of income from premiums

A model which shows the number of solicitors’ primary professional indemnity insurance policies needed for the realisation of the planned annual income in the insurance company is obtained by transformation and by means of an equation with one unknown factor.

The aim of the model is to provide a quality information basis for planning and decision making in managing this type of insurance. The planning information which this model provides is the number of insurance policies and the amount of the annual premium in the national market in the coming period, the movement of the amount of income from premiums in relation to the number of policies in the insurance company and the planned number of annual insurance policies which an insurance company needs to contract in order to realise the planned income from premiums.

4. MODEL APPLICATION FOR SOLICITORS’ PRIMARY PROFESSIONAL INDEMNITY INSURANCE

The initial data for the model formation is the movement of realised annual income from insurance premiums and the number of annual insurance policies in the national market of solicitors’ primary professional indemnity insurance. The data for the Republic of Croatia’s market in the period between 2005 and 2015 is used for illustration of the model.
Table 1. Illustration of the number of insurance policies and the total premium of solicitors’ primary professional indemnity insurance in the Republic of Croatia’s market between 2005 and 2015.

<table>
<thead>
<tr>
<th>Year</th>
<th>xt</th>
<th>Number of insurance policies</th>
<th>Total premium</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>0</td>
<td>2,844</td>
<td>4,774,000</td>
</tr>
<tr>
<td>2006</td>
<td>1</td>
<td>3,041</td>
<td>5,089,000</td>
</tr>
<tr>
<td>2007</td>
<td>2</td>
<td>3,442</td>
<td>5,878,681</td>
</tr>
<tr>
<td>2008</td>
<td>3</td>
<td>3,507</td>
<td>5,817,654</td>
</tr>
<tr>
<td>2009</td>
<td>4</td>
<td>3,708</td>
<td>6,249,227</td>
</tr>
<tr>
<td>2010</td>
<td>5</td>
<td>3,857</td>
<td>6,703,988</td>
</tr>
<tr>
<td>2011</td>
<td>6</td>
<td>4,066</td>
<td>7,320,927</td>
</tr>
<tr>
<td>2012</td>
<td>7</td>
<td>4,177</td>
<td>6,760,830</td>
</tr>
<tr>
<td>2013</td>
<td>8</td>
<td>4,496</td>
<td>7,440,510</td>
</tr>
<tr>
<td>2014</td>
<td>9</td>
<td>4,523</td>
<td>7,118,227</td>
</tr>
<tr>
<td>2015</td>
<td>10</td>
<td>4,768</td>
<td>7,519,775</td>
</tr>
</tbody>
</table>

Source: http://www.huo.hr/hrv/statisticka-izvjesca/18/ (25.02.2016)

On the basis of the illustrated data, an estimate is made of the number of insurance policies in the coming year in the Republic of Croatia’s market. The estimate of the number of insurance policies is made using the application of the linear trend prediction model. Using the data from the table, the trend model equation is created, which reads:

\[
\hat{Y}_{pm} = 185.53x_t + 2929.5
\]

\[r^2 = 0.9868\]

Using the obtained trend model, the number of insurance policies in the year 2016 is predicted, in the way that for \(x_t\), a transformed value is used for the required year.

\[x_t = 2016 - 2005 = 11\]

\[
\hat{Y}_{pm} = 185.53 \times 11 + 2929.5 = 4,970
\]

The expected number of compulsory insurances in the year 2016 is 4,970 policies in the national market. The data about the number of movements of insurance by years and the amount of insurance premiums in the national market is used for the creation of the double logarithmic regression model, in which the independent variable is the number of insurance policies and the dependent variable is the annual premium. The purpose of that regression model is to eval-
uate the amount of premium in the Republic of Croatia’s national market in the year 2016. Using the regression analysis between the number of insurance policies and the income from premiums, the double logarithmic regression model has been obtained of the following expression and associated values:

\[
\hat{Y}_{im} = 3641.1 x \quad 0.9054 \\
r^2 = 0.9441
\]

The expected number of policies in the national market in the year 2016 is applied in the regression model equation as an independent variable for prediction of the total premium amount in the market.

\[
\hat{Y}_{im} = 3641.1 x \quad 0.9054 \\
X_{pm} = 4,970 \\
\hat{Y}_{im} = 3641.1*4970^{0.9054} \\
\hat{Y}_{im} = 8,089,351 \text{ kn}
\]

From the above it appears that the predicted premiums for solicitors’ primary professional indemnity insurance in the national market for the year 2016 equals 8,089,351 kunas. It is therefore estimated that, in 2016, the demand for solicitors’ primary professional indemnity insurance in the Republic of Croatia’s market will be 4,970 policies, with a total premium of 8,089,351 kunas.

Following the evaluation of the national market values, it is necessary to adequately plan the income from premiums for compulsory insurance in the insurance company, as well as the number of insurance policies needed to achieve the planned income. A large insurance company in the Republic of Croatia was selected for illustration of application of the formed model. The data required for preparation of the regression model is shown in the table.
Table 2. Illustration of income from premiums and number of solicitors’ primary professional indemnity insurance policies in the analysed insurance company between 2005 and 2014.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of insurance policies</th>
<th>Income from premiums</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>431</td>
<td>720,083</td>
</tr>
<tr>
<td>2006</td>
<td>463</td>
<td>775,860</td>
</tr>
<tr>
<td>2007</td>
<td>528</td>
<td>904,711</td>
</tr>
<tr>
<td>2008</td>
<td>540</td>
<td>897,173</td>
</tr>
<tr>
<td>2009</td>
<td>576</td>
<td>971,736</td>
</tr>
<tr>
<td>2010</td>
<td>604</td>
<td>1,051,835</td>
</tr>
<tr>
<td>2011</td>
<td>639</td>
<td>1,153,023</td>
</tr>
<tr>
<td>2012</td>
<td>664</td>
<td>1,070,711</td>
</tr>
<tr>
<td>2013</td>
<td>711</td>
<td>1,184,471</td>
</tr>
<tr>
<td>2014</td>
<td>723</td>
<td>1,138,183</td>
</tr>
<tr>
<td>2015</td>
<td>767</td>
<td>1,210,683</td>
</tr>
</tbody>
</table>

Source: data obtained from the insurance company.

Using the regression data analysis about annual amounts of income and number of contracted insurance policies, a double logarithmic regression model is formed for the insurance company. In the regression model, the independent variable is the number of insurance policies and the dependent variable is the income from premiums. The regression model shows how many potential incomes from premiums would be realised for each contracted compulsory insurance policy.

Starting from the presumption that the insurance company has a projection of the planned income, which it creates on the basis of the planned market demand and the planned amount of premium from solicitors’ primary professional indemnity insurance in the national insurance market, the planned number of insurance policies needed for realisation of the planned income is determined. By reshaping the regression model, the expression is obtained, by means of which the required number of contracted policies needed for realisation of the planned income, is estimated.

\[
\hat{Y}_{ic} = 2804.7X_{pc}^{0.9189} \\
r^2 = 0.9533
\]
Assuming that, through market analysis, an income from insurance premiums of 1,315,000 kunas is planned for the following year, the number of insurance policies needed to achieve the goal can be estimated using the obtained model.

\[ x_{pc} = \frac{0.9109 \sqrt{\hat{Y}_{ic}}}{2804.7} \]

\[ \hat{Y}_{k} = 1,315,000 \text{kun} \]

\[ x_{pc} = \frac{0.9109 \sqrt{1,315,000}}{2804.7} = 807 \]

By contracting 807 insurance policies in the year 2016, the insurance company will realise the planned income from premiums. The feature of this model is provision of additional information which supplements the existing information data bases for planning and decision making. This particularly refers to planned accounting information about the amount of the targeted income for the insurance company and is associated with the number of insurance policies, as well as to the estimate of the national market value.

5. CONCLUSION

In the insurance company, the income from premiums for solicitors’ primary professional indemnity insurance policies are associated with the number of contracted insurance policies. In the planning of the insurance company financial results, adequate income planning and the planned number of policies which need to be contracted in order to achieve the set goals, have considerable importance.

By applying historical accounting information about the achieved market amount of premium and the number of insurance policies in the national market, the market potential for the insurance in question is planned for the coming periods. Based on the market potential, insurance companies' income is planned, as well as the number of insurance policies needed to achieve the set goal.
The presented model facilitates prediction of the amount of demand for this type of insurance in the national market through a planned amount of premium and the number of insurance policies. Looking from the aspect of the insurance company, the application of the model, apart from the above quoted, also facilitates the planning of the amount of income from premiums and the number of solicitors’ primary professional indemnity insurance policies in the insurance company.

The feature of the illustrated model is its ability to adapt to different business scenarios in income planning. The relationship between the planned income and the number of insurance policies enables correction of planned income from premiums and number of insurance policies in keeping with insurance company changeable market opportunities. The created model supplements the processes of planning and decision making and provides additional information to all the consumers interested in this segment of insurance.

**Literature**


Abstract

The paper presents the hedging strategy made by some Polish exporter endangered with EUR/PLN risk. As an important part of the risk management process is the valuation of financial instruments used, the author presents the results of valuations made with different methods, depending on the kind of an instrument applied. Characteristic features of the hedging strategy in comparison to the speculation were emphasized from the point of view of the company bearing currency risk and using the zero-cost collar to decrease it. The paper shows that there is a need to remodify the definition of hedging in order to reflect the problems of risk management in companies.

Keywords: derivatives, zero-cost collar, options, risk management, hedging

JEL Classification: E6, E60

1. PROBLEMS OF USING ZERO-COST COLLARS AS HEDGING INSTRUMENTS BY COMPANIES

Hedging transactions aim at risk reduction or its elimination. However it is only on type of risk which is usually got rid of when a company applies one hedging instrument. Besides, at the same time, some other kinds of risk may be created. One of the methods which can be used in risk mitigation are derivatives. These are especially those non-standard derivatives which let fulfill company’s needs because of their tailor made structure. They also give a rise to certain problems deriving from the lack of knowledge by companies managers who apply some derivatives in an awkward way and instead of using them as hedging instruments, they build speculative strategies which endanger their...
enterprises with risk of losing capital or even bankruptcy. Generally, as R.W. Kolb emphasizes, if an investor buys derivatives without having a position in an underlying asset, the transaction is not a hedging strategy. It means that it is necessary for a hedger to adjust the notional amount of derivatives to the value of his cash flow at risk. It is especially difficult if there is a so called zero-cost collar in question because it requires taking both long and short positions. What’s more, if it is asymmetric and the short position notional value is higher than the long position notional value, it raises the problem which of the two values should be equal to the company’s cash flow at risk.

There are two possibilities of taking positions in zero cost collars:  
- A short position in a zero-cost collar consists of a long position in a put option with a low exercise price and a short position in a call option with a high strike price. The literature also calls it a short-range-forward.
- A long position in a zero-cost collar consists of a short position in a put option with a low exercise price and a long position in a call option with a high strike price.

Both options in a zero-cost collar should have the same expiration date and the same underlying asset. It is also popular to construct such vehicles with one strike price instead of two different ones. However, the whole idea of any zero-cost collar is always the same. It is assumed that the premium paid for the long position which plays the role of the hedging instrument should be equal to the premium received for taking a short position which generates risk to the seller. If everything goes well and the underlying asset market price behaves in such a way that the option seller is not obliged to exercise it, the long option position turns out to be a good hedging strategy. However, if suddenly the underlying asset market changes in a different direction than the one expected by the hedger, the risk realizes and he must pay to another party of the contract. This payment is treated as the cost of the hedging strategy. The zero-cost collar does not require paying any money for the hedging strategy when the contract is signed, however, if the market situation is not favorable for the hedger, he will have to pay later. The important thing is that he must be aware of this fact. Many company managers are surprised when such a situation appears and do not realize where these liabilities come from.

1 R.W. Kolb, Futures, options, and swaps, Blackwell Publishing, USA 2003, s. 111.
2. THE RANGE OF THE RESEARCH PRESENTED IN THE PAPER

The empirical research shows the real transaction conducted between a bank and a company on the Polish financial market. Its idea is described beneath together with the valuation which is an important part of the risk management process. Both zero-cost collars were used here and barrier, standard and binary options.

The Company is the Polish exporter which is endangered with EUR/PLN risk. It hedged against this risk by conducting different derivative transactions with a Bank. In order not to pay for its hedging strategy, it also bought some financial instruments generating risk. The transactions are described beneath, each of them in a separate part of the paper.

The author also conducts the market valuation of company’s rights obtained thanks to the derivatives transactions conducted on the 21 August 2007 and the valuation of the call option bought by the Bank at the same day.

Data used in the valuation:

Current currency rate on 21.08.2007 used by the Bank in the analyzed documentation: 3,8460

As a domestic risk-free interest rate, WIBOR (close) was used after having interpolated it for the periods being analyzed. As a foreign interest rate EURIBOR was applied and it was also recalculated for analyzed periods.

Table 1. Wibor values.

<table>
<thead>
<tr>
<th>WIBOR</th>
<th>21.08.2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIBOR 2W</td>
<td>4,73%</td>
</tr>
<tr>
<td>WIBOR 1M</td>
<td>4,79%</td>
</tr>
<tr>
<td>WIBOR 3M</td>
<td>4,95%</td>
</tr>
<tr>
<td>WIBOR 6M</td>
<td>5,14%</td>
</tr>
<tr>
<td>WIBOR 1Y</td>
<td>5,40%</td>
</tr>
</tbody>
</table>

Source: www.stooq.com

Table 2. Euribor values.

<table>
<thead>
<tr>
<th>EURIBOR</th>
<th>21.08.2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>EURIBOR 1M</td>
<td>4,438%</td>
</tr>
<tr>
<td>EURIBOR 2M</td>
<td>4,557%</td>
</tr>
<tr>
<td>EURIBOR 3M</td>
<td>4,664%</td>
</tr>
<tr>
<td>EURIBOR 6M</td>
<td>4,67%</td>
</tr>
<tr>
<td>EURIBOR 1Y</td>
<td>4,676%</td>
</tr>
</tbody>
</table>

Source: www.stooq.com
Please find beneath average values of volatility on 21 August 2007 for standard periods. After being interpolated, they can be used to value all options which are the subject of the contract conducted on 21.08.2007.

**Table 3. Volatility values.**

<table>
<thead>
<tr>
<th>Volatility</th>
<th>21.08.2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volatility 1W</td>
<td>7.38</td>
</tr>
<tr>
<td>Volatility 1M</td>
<td>6.51</td>
</tr>
<tr>
<td>Volatility 2M</td>
<td>6.41</td>
</tr>
<tr>
<td>Volatility 3M</td>
<td>6.27</td>
</tr>
<tr>
<td>Volatility 6M</td>
<td>6.13</td>
</tr>
<tr>
<td>Volatility 9M</td>
<td>6.11</td>
</tr>
<tr>
<td>Volatility 1Y</td>
<td>6.14</td>
</tr>
</tbody>
</table>

*Source:* author’s own calculations using data from Bloomberg and DMK-ALPHA FINANCIAL SERVICES S.A.

### 3. TRANSACTIONS WITH THE LIMITED AMOUNT OF THE PROFIT GENERATED BY THE COMPANY

It is a series of 44 transactions. Each of them can be treated as a single zero-cost collar made from the point of view of the Company of a long position in a put option with the nominal value of 40000EUR each and of a short position in a call option. The first ten put options transactions have the nominal value equal to 40000EUR and the rest of them to 60000EUR each. Options have maturity dates specified in table 4 (first every 7 days and next every 14 days). Additionally, the contract limits the profit with the maximum value realized by the Company equal to 24000 PLN. It means that after achieving it, the Bank will not send cash flows to the Company anymore. However, the obligation of the Company stays to realize cash flows for the Bank if they appear. Exercise prices of all options are depicted in Table 4.

- **Company position value = put option value – call option value**
- **Bank position value = call option value – put option value**

Although generally the options in questions are standard options, one cannot use Garman-Kohlhagen model for their valuation because of the profit limit for the Company stated in the contract. The valuation can be done by conducting the Monte Carlo simulation. The results of simulations are presented in table 4.
Table 4. Transaction parameters and the value of the Bank’s position.

<table>
<thead>
<tr>
<th>Transaction Number</th>
<th>Transaction Value/Currency</th>
<th>Additional Transaction Value/Currency</th>
<th>Exercise Price</th>
<th>Exercise Date</th>
<th>Call option – put option (Bank’s position Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>40000EUR</td>
<td>40000EUR</td>
<td>3.96</td>
<td>28.08.2007</td>
<td>-3762.71</td>
</tr>
<tr>
<td>2</td>
<td>40000EUR</td>
<td>40000EUR</td>
<td>3.95</td>
<td>04.09.2007</td>
<td>-3378.15</td>
</tr>
<tr>
<td>3</td>
<td>40000EUR</td>
<td>40000EUR</td>
<td>3.94</td>
<td>11.09.2007</td>
<td>-2208.29</td>
</tr>
<tr>
<td>4</td>
<td>40000EUR</td>
<td>40000EUR</td>
<td>3.93</td>
<td>18.09.2007</td>
<td>334.2</td>
</tr>
<tr>
<td>5</td>
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<td>40000EUR</td>
<td>3.92</td>
<td>25.09.2007</td>
<td>-807323</td>
</tr>
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<td>6</td>
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<td>40000EUR</td>
<td>3.91</td>
<td>02.10.2007</td>
<td>54.16</td>
</tr>
<tr>
<td>7</td>
<td>40000EUR</td>
<td>40000EUR</td>
<td>3.90</td>
<td>09.10.2007</td>
<td>257.1</td>
</tr>
<tr>
<td>8</td>
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<td>40000EUR</td>
<td>3.89</td>
<td>16.10.2007</td>
<td>506.696</td>
</tr>
<tr>
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<td>40000EUR</td>
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<tr>
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<td>40000EUR</td>
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<td>13.11.2007</td>
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<td>60000EUR</td>
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<td>27.11.2007</td>
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<td>60000EUR</td>
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<td>22.01.2008</td>
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<td>17</td>
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<td>60000EUR</td>
<td>3.80</td>
<td>05.02.2008</td>
<td>5216.608</td>
</tr>
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<td>18</td>
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<td>60000EUR</td>
<td>3.80</td>
<td>19.02.2008</td>
<td>5420.388</td>
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<td>60000EUR</td>
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<td>04.03.2008</td>
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<td>60000EUR</td>
<td>3.80</td>
<td>18.03.2008</td>
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<tr>
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<td>60000EUR</td>
<td>3.80</td>
<td>01.04.2008</td>
<td>5852.548</td>
</tr>
<tr>
<td>22</td>
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<td>60000EUR</td>
<td>3.80</td>
<td>15.04.2008</td>
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<tr>
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<td>60000EUR</td>
<td>3.80</td>
<td>29.04.2008</td>
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<tr>
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<td>60000EUR</td>
<td>3.80</td>
<td>13.05.2008</td>
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</tr>
<tr>
<td>25</td>
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<td>60000EUR</td>
<td>3.80</td>
<td>27.05.2008</td>
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<tr>
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<tr>
<td>27</td>
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<td>24.06.2008</td>
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<td>28</td>
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<td>08.07.2008</td>
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<tr>
<td>29</td>
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<td>60000EUR</td>
<td>3.80</td>
<td>22.07.2008</td>
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<td>31</td>
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<td>60000EUR</td>
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<td>02.09.2008</td>
<td>7830.792</td>
</tr>
<tr>
<td>33</td>
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<td>60000EUR</td>
<td>3.80</td>
<td>16.09.2008</td>
<td>7944.328</td>
</tr>
<tr>
<td>34</td>
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<td>60000EUR</td>
<td>3.80</td>
<td>30.09.2008</td>
<td>8062.448</td>
</tr>
<tr>
<td>35</td>
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<td>60000EUR</td>
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<td>14.10.2008</td>
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</tr>
<tr>
<td>36</td>
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<td>60000EUR</td>
<td>3.80</td>
<td>28.10.2008</td>
<td>8312.764</td>
</tr>
<tr>
<td>37</td>
<td>40000EUR</td>
<td>60000EUR</td>
<td>3.80</td>
<td>12.11.2008</td>
<td>8427.828</td>
</tr>
<tr>
<td>38</td>
<td>40000EUR</td>
<td>60000EUR</td>
<td>3.80</td>
<td>25.11.2008</td>
<td>8528.148</td>
</tr>
<tr>
<td>39</td>
<td>40000EUR</td>
<td>60000EUR</td>
<td>3.80</td>
<td>09.12.2008</td>
<td>8636.184</td>
</tr>
<tr>
<td>40</td>
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<td>60000EUR</td>
<td>3.80</td>
<td>23.12.2008</td>
<td>8736.444</td>
</tr>
<tr>
<td>41</td>
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<td>60000EUR</td>
<td>3.80</td>
<td>06.01.2008</td>
<td>8841.468</td>
</tr>
</tbody>
</table>
Source: Author’s own calculations based on the documentation of the analyzed Bank.

The total Bank’s position value is 220162,5 PLN.

4. TRANSACTIONS WITH BINARY OPTIONS

It is a series of 18 transactions. Each of them consists of two options. The Company has a short option position and the Bank has a long one. For every transaction the Bank has the right to buy 80000 EUR on the exercise date (see table 5) at 3,87 PLN for 1 EUR on condition that the market price on the exercise date is equal or higher than 4,02. In particular:

- if, on the exercise date, the current market currency rate is equal or lower than 3,87, the option is not worth being exercised by the Bank, so the Company is not obliged to make any payments

- if, on the exercise date, the current market currency rate is higher than 3,87 and at the same time lower than 4,02 (see table 5), the Bank cannot exercise the option

- if, on the exercise date, the current market currency rate is 4,02 or more, the Bank has the right to buy 80000 euro at 3,87.

Table 5. Standard and binary options parameters.

<table>
<thead>
<tr>
<th>Transaction Number</th>
<th>Transaction Value/Currency</th>
<th>Exercise Date</th>
<th>Conversion Currency Rate</th>
<th>Exercise Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>80000EUR</td>
<td>3,87</td>
<td>4,02</td>
<td>24.12.2007</td>
</tr>
<tr>
<td>2</td>
<td>80000EUR</td>
<td>3,87</td>
<td>4,02</td>
<td>07.01.2008</td>
</tr>
<tr>
<td>3</td>
<td>80000EUR</td>
<td>3,87</td>
<td>4,02</td>
<td>21.01.2008</td>
</tr>
<tr>
<td>4</td>
<td>80000EUR</td>
<td>3,87</td>
<td>4,02</td>
<td>04.02.2008</td>
</tr>
<tr>
<td>5</td>
<td>80000EUR</td>
<td>3,87</td>
<td>4,02</td>
<td>18.02.2008</td>
</tr>
<tr>
<td>6</td>
<td>80000EUR</td>
<td>3,87</td>
<td>4,02</td>
<td>03.03.2008</td>
</tr>
<tr>
<td>7</td>
<td>80000EUR</td>
<td>3,87</td>
<td>4,02</td>
<td>17.03.2008</td>
</tr>
<tr>
<td>8</td>
<td>80000EUR</td>
<td>3,87</td>
<td>4,02</td>
<td>31.03.2008</td>
</tr>
<tr>
<td>9</td>
<td>80000EUR</td>
<td>3,87</td>
<td>4,02</td>
<td>14.04.2008</td>
</tr>
<tr>
<td>10</td>
<td>80000EUR</td>
<td>3,87</td>
<td>4,02</td>
<td>28.04.2008</td>
</tr>
<tr>
<td>11</td>
<td>80000EUR</td>
<td>3,87</td>
<td>4,02</td>
<td>12.05.2008</td>
</tr>
<tr>
<td>12</td>
<td>80000EUR</td>
<td>3,87</td>
<td>4,02</td>
<td>26.05.2008</td>
</tr>
</tbody>
</table>
From the point of view of the valuation, every transaction out of 18 can be treated as the combination of the following instruments:

- standard call option with the exercise price of 4,02 and the notional value equal to 80000 EUR

- binary call option with the exercise price of 4,02 and the payoff equal to 0,15 PLN for 1 EUR (12000).

Bank’s position value = sum of long positions in 18 standard call options and long positions in 18 binary call options

Standard options were valued by the Garman-Kohlhagen formula and binary options were valued with analytical formulas available in the literature. The results of all valuations are presented in table 6.

Table 6. Values of positions in standard and binary options from the Bank’s point of view.

<table>
<thead>
<tr>
<th>Transaction Number</th>
<th>Exercise Date</th>
<th>Standard call Option Position</th>
<th>Binary Cash-or-nothing CON call Option Position</th>
<th>The Total Value of Bank’s Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>24.12.2007</td>
<td>664,48</td>
<td>1363,18</td>
<td>2027,66</td>
</tr>
<tr>
<td>2</td>
<td>07.01.2008</td>
<td>795,2</td>
<td>1510,07</td>
<td>2305,27</td>
</tr>
<tr>
<td>3</td>
<td>21.01.2008</td>
<td>927,92</td>
<td>1644,32</td>
<td>2572,24</td>
</tr>
<tr>
<td>4</td>
<td>04.02.2008</td>
<td>1026,96</td>
<td>1773,52</td>
<td>2800,48</td>
</tr>
<tr>
<td>5</td>
<td>18.02.2008</td>
<td>1166,16</td>
<td>1877,85</td>
<td>3044,01</td>
</tr>
<tr>
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<td>03.03.2008</td>
<td>1300,8</td>
<td>1986,51</td>
<td>3287,31</td>
</tr>
<tr>
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<td>17.03.2008</td>
<td>1435,36</td>
<td>2087,12</td>
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</tr>
<tr>
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<td>31.03.2008</td>
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</tr>
<tr>
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<td>14.04.2008</td>
<td>1702,96</td>
<td>2267,36</td>
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</tr>
<tr>
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<td>28.04.2008</td>
<td>1835,68</td>
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<td>4218,86</td>
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<tr>
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<td>2460,91</td>
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</tr>
<tr>
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<td>09.06.2008</td>
<td>2272,24</td>
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<tr>
<td>14</td>
<td>23.06.2008</td>
<td>2404,48</td>
<td>2666,44</td>
<td>5070,92</td>
</tr>
</tbody>
</table>

Source: Based on the documentation of the analyzed Bank’s.

The total value of the Bank’s position is **73,425,35PLN**.

### 5. STANDARD CALL OPTIONS TRANSACTIONS

From the point of view of the valuation, the transaction can be treated as the series of 48 call options which were bought by the Bank. Each option gives the Bank the right to buy 85000 EUR at 3.87 on exercise date (see table 7) if the current market currency rate on this day is higher than 3.87. Such financial instruments can be classified as standard European call options. They can be valued with the Garman-Kohlhagen model. The results of valuations conducted by the author are depicted in table 7.

**Table 7.** Bank’s position value for standard call options.

<table>
<thead>
<tr>
<th>Transaction Number</th>
<th>Nominal Value/Currency of the Call Option</th>
<th>Exercise Price</th>
<th>Exercise Date</th>
<th>Bank’s Position Value</th>
</tr>
</thead>
<tbody>
<tr>
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<td>22.10.2007</td>
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<td>05.11.2007</td>
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<td>19.11.2007</td>
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<td>03.12.2007</td>
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<td>25.03.2008</td>
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<td>07.04.2008</td>
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**Source:** Author’s own calculations based on the documentation of the analyzed Bank.

The total Bank’s position value is **368.372,7 PLN**.

### 6. STANDARD PUT OPTIONS TRANSACTIONS

This is a series of 78 put options which were bought by the Company (the Company has a long positions in these instruments). Each options gives the Company the right to sell 85000 EUR or 55000 EUR at 3,87 on exercise date (see table 8) if the current the current market currency rate on that day is lower than 3,87. These are standard European currency put options. They can be valued with the Garman-Kohlhagen model. The results of calculations (Company’s position value) are shown in table 8.
Table 8. Company’s position value for standard put options.

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<th>Exercise Date</th>
<th>Company’s Position Value</th>
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Source: Author’s own calculations based on the documentation of the analyzed Bank.

The total Company’s position value is 535402 PLN.
7. BARRIER CALL AND PUT OPTIONS

This is a series of 26 transactions. Each of them consists of a call option with the exercise price of 3.87 which was bought by the Bank and of a put option with the exercise price of 3.87 that was bought by the Company. Additionally, these instruments have an in-barrier equal to 3.87 that is monitored during just one day, i.e. on 18 August 2008. At the same time, the transaction has an out-barrier at the level of 99. This barrier has no significance for the Contract as it is not possible to be achieved. It means that if on 18 August 2008 the current market currency rate is higher than 3.87, the Company has the right to sell 80000EUR at 3.87 PLN on condition that, the current market currency rate EUR/PLN on exercise date (see table 9) is lower or equal to 3.87 and the Company is obliged to sell 80000EUR at 3.87, if the current market currency rate EUR/PLN on exercise date is higher than 3.87. However if on 18 August 2008 the current market currency rate is equal or lower than 3.87, options expire. It means that the Company loses the right to exercise options and at the same time it is not obliged to exercise short positions anymore. Each option has a European in-barrier monitored during one given day which activates obligations both of the Company and of the Bank. Thus, it will decrease the amount of liabilities both of the Company and of the Bank. Such instruments can be valued with the Monte Carlo simulation.

Bank’s position value = call option value – put option value

Results of simulations are summed up in table 9.

Table 9. Values of barrier zero-cost collars.

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<th>Transaction Number</th>
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<td>16.02.2009</td>
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<tr>
<td>14</td>
<td>80000EUR</td>
<td>80000EUR</td>
<td>02.03.2009</td>
<td>1385.2</td>
</tr>
</tbody>
</table>
15 80000EUR 80000EUR 16.03.2009 1461,76
16 80000EUR 80000EUR 30.03.2009 1537,92
17 80000EUR 80000EUR 09.04.2009 1592,24
18 80000EUR 80000EUR 27.04.2009 1689,52
19 80000EUR 80000EUR 11.05.2009 1764,8
20 80000EUR 80000EUR 25.05.2009 1839,92
21 80000EUR 80000EUR 08.06.2009 1914,64
22 80000EUR 80000EUR 22.06.2009 1989,04
23 80000EUR 80000EUR 06.07.2009 2063,2
24 80000EUR 80000EUR 20.07.2009 2137,12
25 80000EUR 80000EUR 03.08.2009 2210,64
26 80000EUR 80000EUR 17.08.2009 2283,92
TOTAL 34775
Source: Author’s own calculations based on the documentation of the analyzed Bank.

Total value of the Bank’s position = 220162,5 + 73425,35 + 368372,7 + 34775 – 535402 = **161333,55 PLN**

Total value of the Company’s liabilities: 18×80000 + 48×85000 + 26×80000 + 10 × 40000 + 34 × 60000 = 10.040.000 EUR. This amount is equal to 38.613.840 PLN when it is recalculated at the current market currency rate (3,8460). Thus, the difference between Bank’s and Company’s liabilities for all positions valued in the research paper is 0,42% of the Company’s liabilities nominal value.

All in all, the transaction valued in the paper turned out to be a zero-cost strategy after having taking into consideration the Bank’s commission. Options used to build such a hedging strategy were of different types that is barrier options, binary options and standard ones. The degree of its complexity was quite high which raises the question if companies managers who conduct such transactions with banks are really aware of the risk which they are accompanied by. If one looks at this special case study, it is obvious that this hedging strategy turned out later to be a speculative one because when the Polish currency weakened suddenly, the company was obliged to exercise short options positions and generated losses. It shows that the definition of hedging present in the literature should be remodified.

**Bibliography:**


SIMULATION OF POPULATION GROWTH AND EFFECTS ON CONSUMPTION POTENTIAL IN FOOD AND BEVERAGES SEGMENT IN TOURIST SEASON (AUGUST) IN THE COASTAL COUNTIES IN CROATIA

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Abstract

Tourism is of vital importance for Croatia, since the country's economy is heavily dependent on the impacts of tourism. For example, the labour force market starts to recover in March or April as a reflection of preparatory activities for the tourist season. It should also be noted that the value of foreign currency receipts from tourists amounts to more than 17% of the Croatian GDP, which is significantly higher than in any other EU country. Moreover, it has been estimated that tourism has a share of 12.5% in Croatia's GDP.

Since the main tourist season is very short (60% of tourist nights are recorded in July and August) and is concentrated in the coastal part of Croatia (2/3 of total tourist nights in 2015 were recorded in only three counties and 94.5% of the total number of tourist nights in August were recorded in 6 coastal counties) the economy should get the most from tourism-related activities in this short period of time and in these few counties in Croatia. For this reason, it is crucial for certain segments of the Croatian economy to anticipate the behaviour of tourists and their spending habits.
This paper analyses the spending habits of tourists in the specific segment (food and beverages consumption), together with the growth in population/the number of consumers in coastline counties during the peak tourist season (in August). These two elements combined give an answer to certain segments of the Croatian economy (e.g. retail chains) on the growth in the number of consumers in certain Croatian counties in the food and beverages segment.

First, it includes a simulation of population growth in all six Croatian coastal counties based on tourist nights during August. However, since the average tourist spends 2.4 times more on food and beverages than the domestic consumer does, it is added to the simulation. The simulation of population growth then becomes the simulation of consumption growth in the segment of food and beverages and it can be used for, e.g., retailers to prepare themselves for the peak tourist season anticipating food and beverages consumption, not only in a specific county, but even on the level of a specific town and, potentially, targeting the consumption of specific tourists (arriving from a specific country of residence).

**Keywords:** food and beverages consumption, tourism, population growth simulation

**JEL Classification:** Z3, Z32

1. INTRODUCTION

The importance of tourism for the Croatian economy is rising. In 2015, a record number of foreign tourist arrivals and a record number of total tourist nights were achieved. The ratio of foreign currency income from tourism in the GDP may be one of the indicators of the importance of tourism. In Croatia, this percentage is over 17% in 2014 (and over 18% in 2015, according to the latest estimates of the Croatian National Bank), which places Croatia at the top of the list in EU countries, followed by Malta and Cyprus. In the EU, this ratio is 2.3%. The high dependence on tourism can also be a sign of weakness, since tourism is highly dependent on natural disasters and geopolitical instability.

The tourist season in Croatia is relatively short – the peak season being in August, which represents more than 30% of total tourist nights. Moreover, tourism is concentrated in the coastal regions of Croatia (in 6 out of 20 counties in Croatia), where 94.7% of all tourist nights were recorded in 2015.
Because of this concentration of tourism in the coastal counties in Croatia in the summer season, it is important for economic activity to accurately anticipate consumer habits of foreign tourists because of their higher spending potential while on holidays. In this respect, in this paper a simulation of population growth in the coastal counties in Croatia in August has been made. However, calculating only population growth is not sufficient to estimate the consumption potential of foreign tourists, since on average they spend more than the domestic consumer in Croatia does. In this paper, a specific segment of food and beverages consumption has been chosen for analysis. For this specific segment, it has been estimated that a foreign tourist spends on average 2.4 times more than a domestic consumer. This is an important element for estimating the spending potential for the segment of food and beverages in August in the coastal counties in Croatia. The analysis has been made through the simulation of population growth multiplied by higher spending by foreign tourists on food and beverages. Finally, the results show that in the most developed tourism county in Croatia, Istria County, the potential for spending in the segment of food and beverages in August is 4.5 times (350%) higher compared to the rest of the year. For the remaining 5 coastal counties, this multiplier ranges from 2.76 (175.9% in Split-Dalmatia County) to 3.29 (228.6% Zadar County).

2. IMPORTANCE OF TOURISM FOR THE CROATIAN ECONOMY

Tourism plays a significant role in the Croatian economy, and its importance is growing. Although tourism is statistically monitored as “Accommodation and food service activities”, and as such, it has its share in the GDP of only 3.8% (data for 2012), the importance of tourism as complementary activity is much higher.

The effect of tourism is evident through a series of economic variables, which is particularly emphasised during the tourist season, when employment increases, the exchange rate of kuna strengthens and retail turnover is the highest precisely in these summer months of the year.

For instance, according to the report of the World Travel & Tourism Council for Croatia, in 2014, tourism contributed to the GDP “directly” (travel and tourism spending of domestic and international visitors for personal and busi-
ness reasons) with 12.5%, and “fully” (the contribution that comprises, for instance, investment in the tourism sector) contributed 28.3% to the GDP.

In Croatia, 2015 was the record year in terms of international tourist arrivals (12.7 million of foreign tourists) as well as according to the number of total tourist nights (71.6 million). In terms of structure, this is the result of the record level of 65.8 million foreign tourist nights, while in domestic tourists, the record level of this indicator has not been achieved.

The ten most important outbound markets in the structure of foreign tourist nights for the past three years consist of tourists from the same countries: Germany, Slovenia, Austria, Czech Republic, Italy, Poland, Slovakia, Netherlands, United Kingdom and Hungary. The largest absolute increase in the number of nights last year was recorded in tourists from Germany (+1.02 million, almost equal to the number of the nights of tourists from Sweden), Austria (+498.9 thousand) and Slovenia (+441.8 thousand). Tourists from the ten above mentioned countries account for about 79% of foreign tourist nights, while only tourists from Germany, Slovenia and Austria together account for 43% of foreign tourist nights, which speaks in favour of the homogeneity of the outbound market, negative aspects and dependence.

2.1. FOREIGN CURRENCY INCOME FROM TOURISM

Foreign currency income from tourism, as one of the components generated by tourism activity, is certainly essential in any tourism-developed country in the world because it is one of the sources of foreign currency.

The analysis of the importance of foreign currency income from tourism, published in August 2014 by the Croatian Chamber of Economy (CCE) proves the importance of tourism. The analysis estimates that foreign currency income generated from tourism in Croatia ranges at the level of over 17% of GDP, according to which Croatia is the leader in the EU, followed by island countries, Malta and Cyprus. This percentage of the share has been constantly rising since 2011, i.e. as the result of the upward trend of foreign currency income and the downward trend of the GDP. This indicator suggests a high dependence of the economy on tourism and indicates the insufficiently diversified economic structure of Croatia.

The level of foreign currency income relative to the GDP in Croatia in 2014 is considerably above the world level, i.e. foreign currency income from tourism
in the world is generated at the level of about 1.6% of GDP, in the European Union at the level of 2.3% of GDP. In Austria, for example, it is generated at the level of 4.7% of GDP and in Italy at the level of 2.1% of GDP. It is an indisputable fact that tourism and foreign currency income from tourism contribute to the economic growth and economic stability and that there is still room for development. Nevertheless, the rhetorical question is raised of whether the calculation of foreign currency income is real, how much grey economy is present and if the prosperity of national economy may be based on the variable whose value is about one fifth of the GDP, and it is highly risky because the trend of development is subject to various influences, such as different natural disasters and geopolitical instability, and similar.

In the period from 2000 to 2008, a constant growth in the number of tourist nights was recorded and the level of realised nights in 2008 was about 45% relative to 2000. As a result of the increase of the level of material indicators in the observed period, a continued trend of the increase in foreign currency income from tourism was recorded. In 2008, the level of foreign currency income from tourism (expressed in euros) was about 147% higher from 2000. A considerably faster dynamics of growth in foreign currency income from tourism relative to tourist nights is partially the result of the increase in the level of the prices of restaurants and hotels (about 30%), the appreciation of the kuna versus the euro (about 5%). In addition, it is possible that parallel with the recorded increase in personal consumption at the level of the European Union there was an increase in consumption by tourists from the European Union accounting for 87% of total foreign tourist nights in Croatia.

With the intensification of the economic crisis in 2009, the above-mentioned decrease in the number of tourist nights was recorded, as well as the decrease in foreign currency income from tourism. However, already in 2010, the number of nights grew, but foreign currency income from tourism did not grow, decreasing by 2.4%. In 2011, a new record level of tourist nights was recorded over the past twenty years or so, and foreign currency income from tourism increased by 6.2%. This marked the beginning of a continuous trend of growth of foreign currency income from tourism, i.e. primarily because of more favourable economic circumstances in the European Union.

After four years of upward trend, in 2014, the level of foreign currency income from tourism, from now record 2008, was almost achieved. In other
words, income in 2014 was by 0.8% lower relative to 2008, which is partly the result of the fall in the kuna to euro ratio (–5.6%). The increased tourism consumption is also confirmed by two TOMAS surveys of the Institute for Tourism. The 2014 TOMAS survey recorded an increase in the average daily expenses of 14% relative to the 2010 TOMAS survey. Similar tendencies in the trends of tourist turnover in the observed period, in terms of the negative effect of the economic crisis, were also recorded at a global level.

2.2. SEASONALITY OF TOURISM

However, tourism remains of very seasonal, but limited geographic character. Only in three most developed tourism counties: Istria, Split-Dalmatia and Primorje-Gorski kotar, 66% of total nights in Croatia were realised in 2015. The order of these counties has always been the same, but last year, after several years of a faster dynamics of growth, for the first time more nights were realised in Split-Dalmatia County (13.29 million) than in Primorje-Gorski kotar County (13.07 million).

In terms of calendar, most nights during the year are realised in August – over 30%. In August 2015, 22.3 million foreign tourist nights were recorded, and as high as 94.7% of this number was recorded in six coastal counties, in the following order: Istria County 6.69 million, Split-Dalmatia 4.34 million, Primorje-Gorski kotar 4.19 million, Zadar County 2.69 million, Šibenik-Knin 1.60 million and Dubrovnik-Neretva 1.59 million foreign tourist nights. In all of the above counties, the number of foreign tourist nights increased relative to August 2014, i.e. total by about 5.3%.

3. POTENTIAL OF TOURISM CONSUMPTION – FOOD AND BEVERAGES SEGMENT

The mentioned pronounced geographic-seasonal concentration of the tourist season is essential for the assessment of the consumption potential in retail (but also in hotels and restaurants), i.e. the simulation of the consumption potential based on the increase in the population in an area (county) due to the foreign tourist arrivals and nights.
According to the data of some of the leading retail chains in Croatia, it has been observed that at the peak of the tourist season, in August, the average monthly turnover in the food and beverages segment in the above mentioned three most important tourist counties (Istria, Split-Dalmatia and Primorje-Gorski kotar), is higher by 70-130% relative to the average annual monthly turnover in these counties. The food and beverages segment is taken into account because, for this segment, there is the assessment of the average daily expense per tourist. According to the data of the Institute for Tourism, the average daily tourism consumption during summer months is about EUR 66. Of EUR 66, 55% is allocated for accommodation, 18% (about EUR 12, i.e. about HRK 91) on food and beverages outside the accommodation and 27% for all other services (See: Table 1).

Table 1: Tourism consumption – distribution

<table>
<thead>
<tr>
<th>Average daily expenditure, EUR per person</th>
<th>66</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation (55%)</td>
<td>36</td>
</tr>
<tr>
<td>Food and beverages outside accommodation (18%)</td>
<td>12</td>
</tr>
<tr>
<td>Other services (27%)</td>
<td>18</td>
</tr>
</tbody>
</table>

Source: Institute for Tourism: Attitudes and Expenditures of Tourists in Croatia, tomas summer 2014, author’s elaboration

Since the approximate assessment of daily consumption of a domestic customer in the food and beverages segment is below HRK 40 (according to the data of some of the leading retail chains, it is estimated at slightly above HRK 37), the purchasing power, i.e. tourism consumption (12 EUR in the food and beverages segment outside the accommodation) compared with the domestic non-tourist customer (below HRK 40 in the food and beverages segment) is about 2.4 times higher.

The above data on the difference in consumption may serve, for instance, to retail chains for the assessment of whether and how much their seasonal turnover in the food and beverages segment is following the increased purchasing power/consumption in the tourist season.

4. SIMULATION OF THE INCREASE IN CONSUMPTION IN THE FOOD AND
BEVERAGES SEGMENT IN COASTAL COUNTIES

The simulation of the increase in the population number in Istria County based on foreign and domestic tourist nights in August gives the calculation that the population at the level of the county is more than doubled (it grows by about 105.4%; See: Table 2.1, line 9; See: Table 3). In addition, based on the assessment that tourism consumption in the food and beverages segment is about 2.4 times higher than the consumption of the domestic customer, in Istria County the consumption potential in the food and beverages segment in August, due to tourism consumption, is about 4.5 (about 350.5%) higher relative to the consumption realised by the population in the out-of-season period.

It is worth noting that for the simulation, i.e. for the assessment of the population growth in a county under the effect of tourist nights, the method of assessment based on the realised nights was used. If, in theory, in August only 31 tourist nights were recorded (for instance, in Istria County), this implies that one tourist stayed in the area of the County for the whole month, i.e. the population of the county increased by one person for that month (See: Chart 1). Since the purchasing power/tourist consumption in the food and beverages segment is about 2.4 times higher relative to the consumption of the domiciled residents, the simulation of the population growth may be defined as the simulation of growth of consumption in the food and beverages segment, in which one tourist is “worth” as 2.4 domiciled residents. In other words, the increase in the number of foreign tourists by one in August means the increase by 2.4 consumers in the food and beverages segment.

Since in Istria County, 6.69 million of foreign tourist nights was realised in August 2015, and the population in this county, according to the 2011 census, was 208,055, the simulation of the total consumption potential in the food and beverages segment outside accommodation is given in Table 2.1.

A comparative simulation may be made for the remaining coastal counties (See: Table 2.1; Table 2.2). For instance, Split-Dalmatia County in August, under the effect of the tourist season, records the increase in population at the level of the county by about 32.8% (See: Table 2.1, line 9). However, due to the higher tourism consumption in the food and beverages segment, the effect was as if the population (consumers in this segment) increased by over 175% (See: Table 2.1, line 15; See: Chart 2). In other words, in Split-Dalmatia County, the
potential of food and beverages consumption in August is over 2.7 times higher relative to the year average.

The same calculation may be applied to other counties (See: Table 2.1; Table 2.2; See: Chart 2). In Primorje-Gorski kotar County, the increase in the consumption potential of food and beverages would stand at 212%, in Zadar County over 228%, Šibenik-Knin by about 220% and in Dubrovnik-Neretva by over 203%.

**Table 2.1: Simulation of the total consumption potential in the food and beverages segment outside accommodation, by county**

<table>
<thead>
<tr>
<th></th>
<th>Istria</th>
<th>Split-Dalmatia</th>
<th>Primorje-Gorski kotar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Population</td>
<td>208,055</td>
<td>454,798</td>
</tr>
<tr>
<td>2</td>
<td>Foreign tourist nights, August 2015</td>
<td>6,686,992</td>
<td>4,340,987</td>
</tr>
<tr>
<td>3</td>
<td>Domestic tourist nights, August 2015</td>
<td>108,920</td>
<td>288,822</td>
</tr>
<tr>
<td>4</td>
<td>Number of possible nights, August</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>5=2/4</td>
<td>Increase in population based on the number of foreign tourist nights</td>
<td>215,709</td>
<td>140,032</td>
</tr>
<tr>
<td>6=3/4</td>
<td>Increase in population based on the number of domestic tourist nights</td>
<td>3,514</td>
<td>9,317</td>
</tr>
<tr>
<td>7=5/1</td>
<td>Increase in population in the county based on foreign tourist nights</td>
<td>103.7%</td>
<td>30.8%</td>
</tr>
<tr>
<td>8=6/1</td>
<td>Increase in population in the county based on domestic tourist nights</td>
<td>1.7%</td>
<td>2.0%</td>
</tr>
<tr>
<td>9=7/+8</td>
<td>Increase in population in the county based on domestic and foreign tourist nights</td>
<td>105.4%</td>
<td>32.8%</td>
</tr>
<tr>
<td>10=5* coefficient 2.4</td>
<td>Assessment of the number of consumers in the food and beverages segment in the county due to foreign tourist arrivals, August 2015</td>
<td>517,703</td>
<td>336,076</td>
</tr>
<tr>
<td>11=10/1</td>
<td>Increase in the number of consumers in the food and beverages segment in the county due to foreign tourist arrivals, August 2015</td>
<td>248.8%</td>
<td>73.9%</td>
</tr>
<tr>
<td>12=6</td>
<td>Assessment of the number of consumers in the food and beverages segment in the county due to domestic tourist arrivals, August 2015</td>
<td>3,514</td>
<td>9,317</td>
</tr>
<tr>
<td>13=12/1</td>
<td>Simulation of the increase in the number of consumers in the food and beverages segment in the county due to domestic tourist arrivals, August 2015</td>
<td>1.7%</td>
<td>2.0%</td>
</tr>
<tr>
<td>14=1+10+12</td>
<td>Total number of consumers in the food and beverages segment, domiciled population + domestic and foreign tourists</td>
<td>729,271</td>
<td>800,191</td>
</tr>
<tr>
<td>15=14/1</td>
<td>Simulation of the increase in the total consumer potential in the food and beverages segment in the county in August compared to the out-of-season period</td>
<td>350.5%</td>
<td>175.9%</td>
</tr>
</tbody>
</table>

*Source: CBS, author’s elaboration and calculation*
### Table 2.2: Simulation of the total consumption potential in the food and beverages segment outside accommodation, by county

<table>
<thead>
<tr>
<th></th>
<th>Zadar</th>
<th>Šibenik-Knin</th>
<th>Dubrovnik-Neretva</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Population</td>
<td>170,017</td>
<td>109,375</td>
</tr>
<tr>
<td>2</td>
<td>Foreign tourist nights, August 2015</td>
<td>2,692,568</td>
<td>1,597,788</td>
</tr>
<tr>
<td>3</td>
<td>Domestic tourist nights, August 2015</td>
<td>316,610</td>
<td>220,753</td>
</tr>
<tr>
<td>4</td>
<td>Number of possible nights, August</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>5=2/4</td>
<td>Increase in population based on the number of foreign tourist nights</td>
<td>86,857</td>
<td>51,541</td>
</tr>
<tr>
<td>6=3/4</td>
<td>Increase in population based on the number of domestic tourist nights</td>
<td>10,213</td>
<td>7,121</td>
</tr>
<tr>
<td>7=5/1</td>
<td>Increase in population in the county based on foreign tourist nights</td>
<td>51.1%</td>
<td>47.1%</td>
</tr>
<tr>
<td>8=6/1</td>
<td>Increase in population in the county based on domestic tourist nights</td>
<td>6.0%</td>
<td>6.5%</td>
</tr>
<tr>
<td>9=7+8</td>
<td>Increase in population in the county based on domestic and foreign tourist nights</td>
<td>57.1%</td>
<td>53.6%</td>
</tr>
<tr>
<td>10=5*</td>
<td>Assessment of the number of consumers in the food and beverages segment in the county due to foreign tourist arrivals, August 2015</td>
<td>208,457</td>
<td>123,700</td>
</tr>
<tr>
<td>11=10/1</td>
<td>Increase in the number of consumers in the food and beverages segment in the county due to foreign tourist arrivals, August 2015</td>
<td>122.6%</td>
<td>113.1%</td>
</tr>
<tr>
<td>12=6</td>
<td>Assessment of the number of consumers in the food and beverages segment in the county due to domestic tourist arrivals, August 2015</td>
<td>10,213</td>
<td>7,121</td>
</tr>
<tr>
<td>13=12/1</td>
<td>Simulation of the increase in the number of consumers in the food and beverages segment in the county due to domestic tourist arrivals, August 2015</td>
<td>6.0%</td>
<td>6.5%</td>
</tr>
<tr>
<td>14=1+10+12</td>
<td>Total number of consumers in the food and beverages segment, domiciled population + domestic and foreign tourists</td>
<td>388,687</td>
<td>240,196</td>
</tr>
<tr>
<td>15=14/1</td>
<td>Simulation of the increase in the total consumer potential in the food and beverages segment in the county in August compared to the out-of-season period</td>
<td>228.6%</td>
<td>219.6%</td>
</tr>
</tbody>
</table>

**Source:** CBS, author’s elaboration and calculation
Table 3: Assessment of the increase in population in the county due to tourist arrivals and nights, August

<table>
<thead>
<tr>
<th>County</th>
<th>Population increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primorje-Gorski kotar</td>
<td>48.8%</td>
</tr>
<tr>
<td>Zadar</td>
<td>57.1%</td>
</tr>
<tr>
<td>Šibenik-Knin</td>
<td>53.6%</td>
</tr>
<tr>
<td>Split-Dalmatia</td>
<td>32.8%</td>
</tr>
<tr>
<td>Istria</td>
<td>105.4%</td>
</tr>
<tr>
<td>Dubrovnik-Neretva</td>
<td>44.4%</td>
</tr>
</tbody>
</table>

Source: CBS, author’s calculations

Chart 1: Increase in population of the county due to tourist arrivals, August, in %

Source: CBS, author’s elaboration and calculation.

Chart 2: Assessment of the increase in food and beverages consumption in counties due to tourist arrivals, August, in %

Source: CBS, author’s elaboration and calculation.
5. POSSIBILITIES OF SIMULATION OF FOOD AND BEVERAGES CONSUMPTION AT MICRO-LEVEL

The simulation elaborated in the chapter 4 shows that during the peak tourist season the potential of food and beverages consumption outside the tourist accommodation facility increases significantly.

This simulation may be “lowered” from the level of the county to the level of the individual town and may take into account different amounts of expenses of tourists (because they have different consumption tendencies with regard to the country from which they come from).

Precisely by lowering to this micro-level, the simulation of consumption may also yield approximate assessments of consumption potential of a specific target group, which eventually may contribute to the improvement in the planning of operation of retail chains, but also of hotels and restaurants.

The data of the Institute for Tourism show that the average daily consumption per person (i.e. tourist at destination) in euro stands at EUR 66.36, of which 18% (EUR 12.18, or about HRK 91) is allocated to food and beverages outside the accommodation. Most of the consumption is allocated only to accommodation (55%, i.e. about EUR 36.22) (See: Table 4).

However, the range of consumption depends considerably on the tourism outbound country. For instance, the below-average consumption per person is recorded by Italians (EUR 66), Dutch (EUR 65), Hungarians (EUR 63) and Germans and Polish (EUR 62 respectively).

Austrians (EUR 72), French (EUR 95) and British record the above-average daily consumption per person in euros (EUR 122). Precisely this wide range of estimated consumption, combined with the data on foreign tourist nights by the country of origin and by individual tourist destination (town), enables a rather precise assessment at which tourist destination precisely intensified demand, i.e. consumption in the food and beverages segment, may be expected.
Table 4: Tourism consumption – average daily expenditure, EUR per person

<table>
<thead>
<tr>
<th>Country</th>
<th>Average Expenditure (EUR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Britons</td>
<td>122</td>
</tr>
<tr>
<td>Russians</td>
<td>99</td>
</tr>
<tr>
<td>French</td>
<td>95</td>
</tr>
<tr>
<td>Austrians</td>
<td>72</td>
</tr>
<tr>
<td>Italians</td>
<td>66</td>
</tr>
<tr>
<td>Dutch</td>
<td>65</td>
</tr>
<tr>
<td>Hungarians</td>
<td>63</td>
</tr>
<tr>
<td>Germans</td>
<td>62</td>
</tr>
<tr>
<td>Poles</td>
<td>62</td>
</tr>
<tr>
<td>Average</td>
<td>66</td>
</tr>
</tbody>
</table>

Source: Institute for Tourism: Attitudes and Expenditures of Tourists in Croatia, tomas summer 2014, author’s elaboration

The simulation may also be made at the level of the individual tourist destination, for example, in August. The highest number of nights realised by domestic tourists in August 2015 were recorded in Crikvenica, Vodice, Šibenik, Mali Lošinj, Biograd na Moru, Zadar, the City of Zagreb, Novalja, Rab and Vir, which made 30.3% of the total number of domestic tourist nights. The highest numbers of nights realised by foreign tourists in August 2015 were recorded in Rovinj, Medulin, Poreč, Dubrovnik, Mali Lošinj, Novalja, Umag, Crikvenica, Tar-Vabriga and Pula, which made 27.6% of the total number of foreign tourist nights. Considering that Rovinj is pointed out as the strongest destination for foreign tourist arrivals, according to the simulations made in this paper, the population is tripled (by 222.7%) in August, under the effect of (primarily) foreign tourist arrivals and nights.

However, if it is taken into account that the purchasing power, i.e. foreign tourism consumption in the food and beverages segment outside the accommodation is about 2.4 higher than the consumption of domiciled population, the increase in the population in Rovinj in August is not three times, but over seven times higher (630.6%) if the increase in the consumption potential is observed and the simulation is used, such as in the case of counties. In other words, the consumption in the food and beverages segment is potentially over seven times higher in Rovinj relative to the average out-of-season consumption.
6. CONCLUSION

The above calculations and simulations of consumption potential in the food and beverages segment based on the increase in the population in an area (county) due to the foreign tourist arrivals and nights in August might help, for instance, Croatian retail chains to prepare for the forthcoming tourist season, i.e. to additionally direct consumption to the specific segments of retail. The data showing that the level of real turnover in retail is still about 14% lower than the level from the pre-crisis 2008 proves the importance of the total growth in retail in Croatia.

This is also important from the aspect of anticipation of another record tourist season. This year, the growth in tourist nights and arrivals, relative to 2015, is also expected because of more favourable security conditions compared to the Croatian tourism competition.

It is for this reason it is good to anticipate in advance the preferences of tourism consumption so that the interested segments of the Croatian economy could be directed at their consumption (in the event elaborated in this paper – the food and beverages consumption segment) and to those segments in which Croatia has competitive production (e.g. food industry), which would additionally boost the so far slight economic recovery.

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World Travel & Tourism Council: Travel & Tourism economic impact Croatia, 2015
Financial involvement of student population is closely connected to financial education as well as status of student. In this paper author represents results of the research conducted at Karlovac University of Applied Sciences related to financial involvement of student population enrolled in economic and non-economic studies, as well as full-time and part-time students. The research was conducted to compare results of similar research made on the territory of eastern Croatia in January 2015, with the focus on reasons for the entrance of student population into the financial system, the amount of their use of financial institutions’ services and their motives for choosing a certain financial institution.

Keywords: financial education, students, financial system

JEL Classification: E6, E60

1. INTRODUCTION

The role of financial institutions in financial system is primarily to intermediate between those that provide funds and those that need funds (OECD). They supply their clients with numerous different products, depending on the level of development of the system. In financial system of Croatia banks traditionally play dominant role, they are the most active institutions in payment system, as well as in money market, foreign exchange market and capital market (Croatian National Bank).
Financial involvement as a basic starting point of social participation of every individual is increasingly gaining in importance (Matić, Serdarušić, Vretenar Cobović; 2013, 504). The right to have a basic bank account, as one of the fundamental rights for all individuals in the European Union, has been managed and acknowledged by the Directive 2014/92/EU on the comparability of fees related to payment accounts, payment account switching and access to payment accounts with basic features (Matić, Serdarušić, Vretenar Cobović; 2015, 468).

A basis for financial involvement of individuals as well as legal entities is owing a bank account. A formal account makes it easier to transfer wages, remittances, and government payments. It can also encourage saving and open access to credit (Demirguc-Kunt, Klapper; 2012, 11). People have myriad reasons for maintaining an account at a formal financial institution. Some use their account to do little more than receive wage payments. Others see their account as an essential tool for transferring financial support to or from relatives living elsewhere. And still others are interested mainly in having a safe place to save (Demirguc-Kunt, Klapper; 2012, 24).

The reason for financial exclusion of individuals is possible to seek at their marginal participation in the financial system. Some of the reasons for this are insufficient personal and household income, changed circumstances on the income at a given time (loss of part or total income) or insufficient knowledge of financial principles, low education in the field of personal finance and attitudes of individuals with regard to personal finance (Matic; 2010, 93). Worldwide, by far the most common reason for not having a formal account (cited by 65 percent of adults without an account) is lack of enough money to use one (Demirguc-Kunt, Klapper; 2012, 2).

The relationship of the individual to personal finances in substantially reflects its level of financial education (Matić, Serdarušić, Vretenar Cobović; 2013, 504). Financial involvement is therefore closely connected to financial education. Financial literacy is a combination of awareness, knowledge, skill, attitude and behaviour necessary to make sound financial decisions and ultimately achieve individual financial wellbeing (Atkinson & Messy; 2012, 14).

Financial education of the population is increasingly gaining in importance and has become an important factor in choosing financial products in everyday life and in making long-term financial decisions that affect the lives of every individual. (Matić, Serdarušić, Vretenar Cobović; 2013, 509). Therefore, to in-
crease financial involvement of student population, a lot of effort has to be made in educational institutions to make their financial knowledge better. It is expected that students enrolled in economic studies have better financial knowledge and therefore are more involved in financial system, in comparison to those enrolled in non-economic studies. Full-time students are expected to have lower financial knowledge in comparison to part-time students (and therefore are less involved in financial system) because they don’t have experience in personal finance management while they receive pocket money from their parents.

Because of the obligation of having a bank account to get a salary or to run business, most people in Croatia are involved in banking system. Involvement in other segments of financial system like non-banking services is lower, especially within student population. In this paper author represents results of survey conducted during February 2016 at student population of Karlovac University of Applied Sciences regarding their involvement in financial system.

2. FINANCIAL INVOLVEMENT OF STUDENT POPULATION AT KARLOVAC UNIVERSITY OF APPLIED SCIENCES – RESEARCH RESULTS

Research was conducted with the aim of collecting information about financial involvement of students at Karlovac University of Applied Sciences enrolled in economic and non-economic studies, as well as full-time and part-time students. The research was conducted to compare results of similar research made on the territory of eastern Croatia in January 2015 (Matić, Serdarušić, Vretenar Cobović; 2015), with the focus on reasons for the entrance of student population into the financial system and the amount of their use of financial institutions’ services.

The research was conducted in February 2016 on a representative sample of 409 examinees. Examinees were full-time and part-time students enrolled in different bachelor and master studies at Karlovac University of Applied Sciences: economic (bachelor study of Hospitality Management and Master study of Business Administration) and non-economic (bachelor study of Food Processing Technology, Safety and Protection, Mechanical Engineering and Mechatronics).
The target group included student population, while the survey itself consisted of four parts. The first part of the survey collected some basic information about the sample (gender, age, year of study, type of study, student status and residence); the second part dealt with the students’ participation in the banking system; the third dealt with the state of current monthly income, period and reasons for opening bank account, whereas the fourth part dealt with questions related to use of other financial institution’s services.

Gender, type of study and student status of student population are shown in Table 1.

Table 1: Gender, type of study and status of student population in the sample

<table>
<thead>
<tr>
<th>Gender, type of study &amp; student status</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>177</td>
<td>43,3</td>
<td>43,3</td>
</tr>
<tr>
<td>Female</td>
<td>232</td>
<td>56,7</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>409</td>
<td>100,0</td>
<td></td>
</tr>
<tr>
<td>Type of study</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor</td>
<td>385</td>
<td>94,1</td>
<td>94,1</td>
</tr>
<tr>
<td>Master</td>
<td>24</td>
<td>5,9</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>409</td>
<td>100,0</td>
<td></td>
</tr>
<tr>
<td>Student status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>340</td>
<td>83,1</td>
<td>83,1</td>
</tr>
<tr>
<td>Part-time</td>
<td>69</td>
<td>16,9</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>409</td>
<td>100,0</td>
<td></td>
</tr>
</tbody>
</table>

Source: author

There were 56,7% of female student examinees and 43,3% male student examinees who were questioned in the total sample of 409 examined students. Most of student examinees are students enrolled in bachelor study (94,1%), and only 5,9% are enrolled in master study. According to their student status, there were 83,1% full-time students and 16,9% part-time students questioned. The survey was conducted among students at the Karlovac University of Applied Sciences, an institution of higher education, and the biggest number of survey participants are residents of Karlovac County (41,1%), the City of Zagreb (21,8%) and Zagrebačka County (18,8%).

Financial involvement of student population was monitored through their participation and their use of banking services, shown in Table 2.
Table 2: Use of banking services

<table>
<thead>
<tr>
<th>Used banking services</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>362</td>
<td>88,5%</td>
<td>88,5%</td>
</tr>
<tr>
<td>No</td>
<td>47</td>
<td>11,5%</td>
<td>100,0%</td>
</tr>
<tr>
<td>Total</td>
<td>409</td>
<td>100,0%</td>
<td></td>
</tr>
<tr>
<td>One bank</td>
<td>312</td>
<td>76,3%</td>
<td>76,3%</td>
</tr>
<tr>
<td>Two banks</td>
<td>45</td>
<td>12,4%</td>
<td>88,7%</td>
</tr>
<tr>
<td>More than two banks</td>
<td>5</td>
<td>1,4%</td>
<td>100,0%</td>
</tr>
<tr>
<td>Total</td>
<td>362</td>
<td>100,0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: author

It is possible to conclude that most of the student population questioned in the survey participate in the banking system by using banking services. Most of them (88,5%) are using banking services stating some of the reasons:

- obligation to open a bank account for receiving a salary, income earned as a student (within the Student Job Centre), or some other income (scholarship or family pension)
- because parents are paying their pocket money to bank account (studying in distant place)
- transfer of money is more simpler and faster
- holding money at bank account is more safer than holding cash
- for using internet banking services (shopping at web shops)
- savings.

Most of students are using services of only one bank (76,3%), while 12,4% of them are using services of two banks and only 1,4% are using services of more than two banks. Banking services most commonly used by student population are: card business (63,5%), payment services (19,6%) and savings (14,3%) while certain loans (2,6%) are not much used.

By analysing and comparing data collected from the students about using banking services, regarding student status and type of study, several conclusion can be made:

- there are no differences in financial involvement of full-time and part-time students (88,5% of full-time vs. 88,4% of part-time students are using banking services)
- bachelor students are less involved in the system than master students – 88,0% of bachelor students are using banking services, compared to 95,8% of master students
students enrolled in economic studies are more involved in the system (92,1% of them are using banking services) than those enrolled in non-economic studies (84,5% of them), which can be due to their better financial knowledge.

While most of student population are involved in financial system (basic involvement because most of them own only bank account), there is a certain amount of them who are not using banking services at all (11,5%). Most common reasons for not using banking services are because they don’t need them or they don’t trust banks. Another reason for not using banking services can be a lack of information, or low level of financial education.

Table 3 represents amount of monthly income which students have access to.

<table>
<thead>
<tr>
<th>Amount of monthly income</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 500 kn</td>
<td>156</td>
<td>38,1</td>
<td>38,1</td>
</tr>
<tr>
<td>501-1000 kn</td>
<td>97</td>
<td>23,8</td>
<td>30,9</td>
</tr>
<tr>
<td>1001-3000 kn</td>
<td>102</td>
<td>24,9</td>
<td>86,8</td>
</tr>
<tr>
<td>3001-5000 kn</td>
<td>24</td>
<td>5,9</td>
<td>92,7</td>
</tr>
<tr>
<td>5001-7000 kn</td>
<td>15</td>
<td>3,7</td>
<td>96,4</td>
</tr>
<tr>
<td>over 7000 kn</td>
<td>8</td>
<td>1,9</td>
<td>98,3</td>
</tr>
<tr>
<td>unanswered</td>
<td>7</td>
<td>1,7</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>409</td>
<td>100,0</td>
<td></td>
</tr>
</tbody>
</table>

Source: author

Based on the given table data, the highest amount of student’s monthly income is up to 500 kunas (38,1%) and within the span of 1.001 to 3.000 kunas (24,9%). On the third place is the span of 501 to 1.000 kunas (23,8%). Only 5,9% of students have monthly income from 3.001 do 5.000 kunas, only 3,7% from 5.001 to 7.000 kunas, and only 1,9% of them have monthly income higher than 7.000 kunas. Among part-time students the situation is slightly different: most of them have income within the span 3.001 to 5.000 kunas (26,1%) and from 1.001 do 3.000 kunas (21,8%), because a lot of them are employed and get monthly salary. Most of full-time students have monthly income lower than 500 kunas (42,1%).

Master students also have bigger amount of monthly income because most of them are employed – non of them has income lower than 500 kunas. Most of them are within the span of 3.001 to 5.000 kunas (29,2%), within 5.001 to
7.000 kunas (29,2%) and within 1.001 do 3.000 kunas (25%). Only 12,5% of them have income higher than 7.000 kunas and only 4,2% of them within 501 to 1.000 kunas.

Student’s income usually comes from their pocket money (44,3%) received from their parents or some other person, or the combination of pocket money and their own earning by working as a student (13,2%). Also, 13,2% of them are getting salaries (mostly part-time students) and 16,6% of them are only receiving their own income by working as a student (16,6%). Other types of income students receive are scholarships and family pensions. They usually receive their monthly income in their bank account (68,5%) no matter if it comes from income that has to be transferred via bank account or from parent’s pocket money (a lot of parents are using bank accounts for giving their children pocket money).

Table 4 represents transactional account types most commonly used by student population.

**Table 4: Transactional account types used by students**

<table>
<thead>
<tr>
<th>Transactional account type</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>kuna current account</td>
<td>92</td>
<td>22,5</td>
<td>22,5</td>
</tr>
<tr>
<td>kuna and foreign currency current account</td>
<td>5</td>
<td>1,2</td>
<td>23,7</td>
</tr>
<tr>
<td>kuna giro account</td>
<td>126</td>
<td>30,8</td>
<td>54,5</td>
</tr>
<tr>
<td>kuna and foreign currency giro account</td>
<td>1</td>
<td>0,2</td>
<td>54,7</td>
</tr>
<tr>
<td>kuna current and giro account</td>
<td>121</td>
<td>29,6</td>
<td>84,3</td>
</tr>
<tr>
<td>kuna current, kuna giro account and foreign currency current account</td>
<td>8</td>
<td>1,9</td>
<td>86,2</td>
</tr>
<tr>
<td>kuna current, kuna giro account, foreign currency current account and foreign currency giro account</td>
<td>1</td>
<td>0,2</td>
<td>87,1</td>
</tr>
<tr>
<td>not owning a transactional bank account</td>
<td>46</td>
<td>11,2</td>
<td>98,3</td>
</tr>
<tr>
<td>unanswered</td>
<td>7</td>
<td>1,7</td>
<td>100,0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>409</td>
<td>100,0</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** author

Based on the data above, students most commonly use a kuna giro account (30,8%), both kuna current and giro account (29,6%) and only kuna current account (22,5%). Few students use two types of current accounts (kuna and foreign currency – 1,2% of students) and two types of giro accounts (kuna and foreign currency – 0,2% or only one student). Only few students use more than two types of accounts (kuna current, kuna giro, foreign currency current or for-
eign currency giro account) – 2,1% of students. There is a certain amount of students who don’t own a transactional bank account (11,2%).

Another aspect of involvement of students in financial system is the influence students had when they were opening bank account. Most students (64,2% of them) have opened their bank account because of the obligation to receive income. Some of them have opened their account because their parents are giving them pocket money via bank account (18,1%) or because they were influenced by member of their family, who also have an account at that certain bank (16,1%). Only 1,1% of students were influenced by marketing activities of banks. Time of opening a bank account is shown in table 5.

Table 5: Time of opening a bank account by students

<table>
<thead>
<tr>
<th>Gender</th>
<th>Student status</th>
<th>Frequency</th>
<th>Percent</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full-time</td>
<td></td>
<td></td>
<td>Part-time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>When I turned 18</td>
<td>62</td>
<td>44,6</td>
<td>8</td>
<td>50,0</td>
</tr>
<tr>
<td></td>
<td>When I entered the university</td>
<td>34</td>
<td>24,5</td>
<td>1</td>
<td>6,3</td>
</tr>
<tr>
<td></td>
<td>As a student, when I started working within the Student Job Center</td>
<td>24</td>
<td>17,3</td>
<td>2</td>
<td>12,5</td>
</tr>
<tr>
<td></td>
<td>When I got a job</td>
<td>12</td>
<td>8,6</td>
<td>5</td>
<td>31,2</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>7</td>
<td>5,0</td>
<td>0</td>
<td>0,0</td>
</tr>
<tr>
<td>Male</td>
<td>Total</td>
<td>139</td>
<td>100,0</td>
<td>16</td>
<td>100,0</td>
</tr>
<tr>
<td>Female</td>
<td>When I turned 18</td>
<td>71</td>
<td>42,8</td>
<td>16</td>
<td>34,8</td>
</tr>
<tr>
<td>Female</td>
<td>When I entered the university</td>
<td>41</td>
<td>24,7</td>
<td>4</td>
<td>8,7</td>
</tr>
<tr>
<td>Female</td>
<td>As a student, when I started working within the Student Job Center</td>
<td>30</td>
<td>18,1</td>
<td>10</td>
<td>21,7</td>
</tr>
<tr>
<td>Female</td>
<td>When I got a job</td>
<td>6</td>
<td>3,6</td>
<td>15</td>
<td>32,6</td>
</tr>
<tr>
<td>Female</td>
<td>Other</td>
<td>18</td>
<td>10,8</td>
<td>1</td>
<td>2,2</td>
</tr>
<tr>
<td>Female</td>
<td>Total</td>
<td>166</td>
<td>100,0</td>
<td>46</td>
<td>100,0</td>
</tr>
</tbody>
</table>

Source: author

Based on the data in the table 5, it is noticeable that students usually open their bank account when turning 18, regardless of their gender or student status. Full time students have opened their bank account also when they entered university (24,5% of male and 24,7% of female students), and part-time students when they got a job (31,2% of male and 32,6% of female students). There is also a certain amount of full-time students who have opened their bank account when they started working as a student, within the Student Job Center (17,3% of male and 18,1% of female students).
The last considered aspect of involvement of students in financial system is their usage of product and services of other financial institutions. While having a bank account is often obligatory, the usage of other institution’s products is voluntary. Furthermore, using products of other financial institutions means that individuals are more financial educated and interested in financial system involvement. Table 6 shows involvement of students in other financial institutions.

Table 6: Financial product types used by students

<table>
<thead>
<tr>
<th>Financial product type</th>
<th>Student’s answers</th>
<th>Corrected data</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percent</td>
</tr>
<tr>
<td>Life insurance</td>
<td>52</td>
<td>13,4</td>
</tr>
<tr>
<td>Householders insurance</td>
<td>15</td>
<td>3,8</td>
</tr>
<tr>
<td>Travel insurance</td>
<td>18</td>
<td>4,6</td>
</tr>
<tr>
<td>Supplementary medical insurance</td>
<td>241*</td>
<td>61,6*</td>
</tr>
<tr>
<td>Voluntary pension insurance (pillar 3)</td>
<td>5</td>
<td>1,3</td>
</tr>
<tr>
<td>Securities</td>
<td>13</td>
<td>3,3</td>
</tr>
<tr>
<td>Investment funds</td>
<td>6</td>
<td>1,5</td>
</tr>
<tr>
<td>Leasing</td>
<td>0</td>
<td>0,0</td>
</tr>
<tr>
<td>Housing savings</td>
<td>41</td>
<td>10,5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>391</td>
<td>100,0</td>
</tr>
</tbody>
</table>

*Source: author*

According to data in table 6, students use a few types of financial products outside typical banking products: life insurance (52 students), householders insurance (15 students), travel insurance (18 students), supplementary medical insurance (241 student), voluntary pension insurance (5 students), securities (13 students) and housing savings (41 students). Suprisingly big number of students stated that they are using supplementary medical insurance (198 full-time and 43 part-time students), although full-time students don’t need to pay those insurance type (they are already insured because of student status). A reason for those answers is probably the lack of information and poor financial knowledge. If we exclude full-time students from total number of students who are using supplementary medical insurance, we will get more realistic number of 43 students really using it. According to corrected data, frequency of using other financial products is 193, and mostly used products are: life insurance policies (26,9%) at first place, supplementary medical insurance on the second (22,3%) and housing savings at the third place (21,3%).
Total of 131 student stated that he/she doesn’t use any other financial product (32%), but if we also exclude full-time students who stated that they use supplementary medical insurance (and no other financial product), we get total number of 322 students who are not involved in non-banking products of financial system (78.7% of total student population in the sample).

3. CONCLUSION

Financial involvement of student population at Karlovac University of Applied Sciences is based on using basic banking products such as current and giro account. Some of the reasons for not using more financial products are connected to low income of individuals (or no personal income at all, for students who receive only pocket money from their parents) and low financial education. The survey results of financial involvement among student population on the territory of Karlovac County, the City of Zagreb and Zagrebačka County, point out following:

- most of student population enters the banking system (opens a transaction account) when they turn 18, regardless of their gender or student status, or when necessary
- the most common reason for opening bank account among student population is because of the obligation to receive income
- student’s monthly income is pretty low – most of them have monthly income up to 500 kunas, within the span of 501 to 1,000 kunas and within the span of 1,001 to 3,000 kunas.
- student’s income usually comes from their pocket money, student job and salaries (for part-time students)
- there are no differences in involvement in banking system of full-time and part-time students
- bachelor students are less involved in banking system than master students
- students enrolled in economic studies are more involved in banking system (92.1% of them are using banking services) than those enrolled in non-economic studies
- amount of students that are not using banking services is 11.5%
- most of students are using services of only one bank
- within other financial products, mostly used are: life insurance policies, supplementary medical insurance and housing savings
- due to low financial knowledge a lot students don’t even know which products are they using
- most students are not involved in financial system other than banking system (78,7%)

Similar research was conducted on the territory of eastern Croatia, but based on different sample. In our sample there is 83,1% of full-time students and only 16,9% of part-time students. On the territory of eastern Croatia there was 59,0% full-time students and 41,0% part-time students. In comparison to results of previous research, few conclusions can be made:

- most students enter the financial system by opening a transactional account when they enter a university or while studying at the university in eastern Croatia, while in our research most of them enter the financial (banking) system when they turn 18
- lower amount of student population of eastern Croatia than in our sample is not involved in banking system (which can be due to higher proportion of part-time students in the survey in eastern Croatia)
- in our sample most students have monthly income up to 500 kunas and within the span of 501 to 1,000 kunas, while in eastern Croatia most of them have monthly income within the span of 1,001 to 3,000 kunas (this can also be due to higher proportion of part-time students who are employed)
- at the previous research, most of students are influenced by members of their family when they were opening their first bank account, and in our research the most common reason is because of the obligation to receive income

A lack of financial knowledge of student population is causing exclusion of them from financial system. This is not so typical for banking sector, as for other financial institution’s products and services where 78,7% students don’t use any product. Financial education is becoming more and more significant because of the expansion of new banking and financial products and services in the territory of Croatia and should be implemented in educational institutions, not only for students enrolled in economic, but also in non-economic studies.
References:


Public Economics
Abstract

In strategic design of development trends more cities and municipalities in Serbia must represent a quality place to live, for economy and investment. The local governments, despite the economic crisis must find a number of options that will enable an above-average inflow of domestic and foreign capital. Undoubtedly, the local governments have become aware that in the harsh competition the investors become more selective and the municipalities will only with stable political institutions, competitive workforce, highest standards of business, simplest procedures and most competitive packages of financial support be able to equally enter the game. In the future, cities and municipalities must use the strategic development plan as an “umbrella document” for the realization of the objectives. The measurement of efficiency in achieving the objectives is necessary to analyze, (because precisely is not known what purpose should serve the achievement of standards), and especially because the goals cannot be defined without establishing the mechanisms for achieving those goals. The purpose of analysis is the possibility of high-quality and efficient internal development checkup and identification of improvement opportunities.

Keywords: local development, institutional framework, local self-governments, integrated quality system, panel survey

JEL Classification: G1, G18
INTRODUCTION

In Serbia, more municipalities are quality places to live, for economy and investment. In all local self-governments, despite numerous difficulties, when the investors are becoming more selective, have to build stable institutions with a workforce for the business according to the highest standards in the best equipped investment sites and the best package of additional financial incentives.

The task of the municipalities must be a preparation of sustainable development strategies and the design of development priorities with synchronized and coordinated planning actions, in order to on the level of cities strengthen enough the administrative capacities for the absorption of assets from all components of available funds. The importance of such planning is reflected in the realization of participatory strategic planning with social cohesion and thus in easier implementation and better realization of the objectives of strategic projects.

INSTITUTIONAL FRAMEWORK FOR SUSTAINABLE LOCAL DEVELOPMENT

It is expected that the local governments appropriately organize the implementation of sectoral development strategies and through training strengthen the local institutional capacities for that purpose. Today it is clear that the local strategies should contain clearly defined and concretized operational part of the task with elaborated and developed indicators and measures for monitoring success in multidisciplinary work, from an economic, social, demographic, environmental, cultural, health and educational aspects, which are directed in two directions. The first is to encourage the development potential with the increasing competitiveness of districts, and the other direction is action aimed at local governments, which are in terms of development below the average, in order to prevent their further backwardness and further deepening of structural problems, while reducing the regional differences, stop the negative demographic movements and building the regional infrastructure institutions. Interesting is the issue of investments and the issue of stimulating the capital inflows, with rational utilization of productive resources, preservation and further development of social cohesion.

With strategic planning the municipalities and cities define the basic directions of development and local action in the field of commercial and economic
sphere, infrastructure, environmental protection, social activities and others. The impact of globalization and deregulation of economic life force the local communities to direct their strategic goals toward competitiveness increasing because only in this way can adapt to the dynamic conditions of the national and international market economy. The logical connection of the key elements of strategic plan interprets the movement from mission, through the values and vision, which is illustrated in more detail in Figure 1.

Each strategic objective defines the projects that create conditions for achieving this goal. The indicators for monitoring the projects success must provide:

- Establishment of mechanisms for quality control of jurisdiction exercise of institutions and public enterprises founded by the city or municipality,
- More intensive use and realization of inter-municipal and regional projects,
- Municipal construction investment planning and
- Application of information and communication technologies in order to increase the efficiency of administration (for example certificates issuance, cases tracking, problem report, websites, etc.).

Routing the processes and harmonization of sectoral and strategic priorities should be performed through a number of sectors and the most important are economical, social and urban development, transport development, institutional development, development of technical infrastructure, energy sustainability and environment, etc.

Observing the adopted strategies can be concluded that in the future the same highlights the need for expanding and improving the transport and utility infrastructure (water supply, waste water treatment and management of municipal waste streams, etc.) and encouraging the regional development initiatives, achieving different opportunities of cooperation of private and public sector and ensure the sustainable development of energy infrastructure in accordance with the expected dynamic economic growth compatible with EU standards.
Figure 1. The logical connection of the key elements of a strategic plan

Source: Center for Regionalism, Novi Sad, Brochure for strategic planning and management of local development in the Republic of Serbia (www.centarzaregionalizam.org.rs, www.fes.rs, 15.01.2016.)

It can be concluded that it is more than obvious that the poor regions will become even poorer if continue the domination of almost exclusively market principles. All comparative advantages are on the side of development centers. The underdeveloped regions are engaged in traditional production, with no special skills and adequate workforce which could serve other types of production. This disparity is by construction of communal and economic infrastructure necessary to reduce, so the less developed regions can contribute and equally participate in regional development.

METHODOLOGICAL BASIS FOR SUSTAINABLE DEVELOPMENT IN THE LOCAL SELF-GOVERNMENT UNITS

Convergent aspect of quality system management, in addition to all other forms of business organizations, in particular can be seen and implemented in the local self-government units. This is due to the fact that the results of business processes incurred in solving the claims and cases have a specific connotation, which is reflected in the achieved level of customer satisfaction. Citizens, businesses entities, other levels of government, investment and non-governmental sector in its constellation shape but also affect the system of (local) public ad-
ministration. So far, in Serbia a very few local government units recognized and approached the concept of quality system management, and it is certainly a field that in the future should be consolidated and fixed by the public sector reform.

Although the working method and functioning of local self-government in Serbia are regulated by law (Zakon o teritorijalnoj organizaciji R Srbije, Sl. glasnik R Srbije 129/2007), the municipalities and cities have the option to in different ways improve their business: attracting foreign funds, developing the project management, strategic orientation, training of staff and their competencies, creating an adequate business environment and building an effective administrative infrastructure. In recent years, for the same goals use a quality management system, proving that well-designed and properly implemented ISO 9001 standard in organization leads to costs reduce and creation of functional and efficient administration. Modern development trends are increasingly oriented towards quality and achieving a high level of customer satisfaction, which slowly, but surely leads to the application of the concept of excellence in business.

Since the local government unit is responsible for quality and efficient exercise of its and delegated competencies (article 6. of the Law on local self-government), the systemic approach to quality management is ideal methods which application in the long term can provide a better quality of life and work with the creation of a positive climate at the local level and therefore in the region. By territorial, sectoral and structural programming and operationalization of local economic development projects, the local authorities create conditions for the improvement of business environment and general framework for economic activity in their territory.

The role of public management and administration in the overall economic development and in state organization takes on an increasingly important place. The responsible, effectively organized and systematized administration is the only answer to the current requirements set by the business community, final users (citizens), state and beyond, primarily the requirements set by the region and the European and international community.

Observing the Republic of Serbia, municipalities and cities are on time, but still not to a sufficient extent, understood the need and opportunities for the modernization of their work which greatly contributes to increasing the competitiveness of all available capacities, as a significant actor in economic de-
velopment. Increasing the competencies, the local governments explicitly place themselves in a position of equal “market competition” actor (Kalač E, 2011), competing with each other for larger and better quality investment, job creation and employment, better billing and earning an income, creating a better business environment and overall indicators that lead to positive valorization of economic and social indicators in its territory. In this way, by applying the principles of balanced regional development, coherence of territorial and sectoral policies, creates a functional and sustainable state system within which will reproduce the appropriate growth rates.

To this, in recent time, increasingly contribute the apply of quality management system, and this will be observed in more details in this paper. The general requirements come down to the fact that the local government should fulfill certain principles and requirements, and establish, document, implement and maintain the quality system and continually improve its effectiveness and efficiency (Jovetić et al, available online). The concept of quality management is establishing by applying the principle of quality management in all business segments. The main feature of this system is in the fact that it is based on a continuous improvement (Orbanić J, 2014). In some way it makes and represents the “philosophy of work” and all the employees should work on it on a daily basis, while the final and key role in the organization set like this (local self-government) give the final services users - citizens, businesses entities and other organizations and institutions. More broadly, ISO 9001 Standard processes the quality management system with general requirements and requirements relating to documentation. This standard is used to demonstrate the organization’s ability to meet the demands of consumers and legislation as well as to constantly implement continuous improvements that are needed. Since today every management is striving for quality system management, there is a need of its implementation in the organization and functioning of local self-government. Following the increasingly stringent requirements placed upon them, galloping trends, rapid changes in the legal framework and unified procedures, the municipalities and cities in recent years have redirected their organizations in the direction of certification and standardization of their business. Generally, the system operates by transforming each input in the processes taking place in the local government unit into an appropriate output, or solution/service designed for user and in accordance with the requirements of ISO Standards. It can be concluded that in Serbia, this process started relatively late, not until 2008. One
of the first municipality that has successfully passed the verification of application of the quality management system is the city of Sabac, which officially confirmed that the city of Sabac with its services, work organization and efficiency fully meets all the requirements of ISO 9001:2000.

The intense effect on the profiling of local governments for local development and serving the economy and potential investors provides NALED’s certification (Business Friendly Certification South East Europe). BFC SEE is applied as a unique program for creating a good business climate and the introduction of standards of efficient and transparent local administration (NALED, Brochure for local governments, available online). Of the 2012 the program covers the region of more countries of Southeast Europe and the quality of the local business environment estimates based on 12 demanding criteria and over 80 indicators. So far, in practice proved to be an important standardized mechanism for assessment of local business conditions suggesting – which municipalities in the region have a favorable climate for investment. Up to now, in this process participated 31 local self-government from Serbia, while some of them are, according to “Financial Times” for many years classified as the best European destinations for investment (municipalities Indjija, Sremska Mitrovica, Vranje, Zajecar, Subotica) (NALED, Brochure for local governments, available online). During the period of seven years, the certified municipalities have managed to attract more than six billion euros of direct investments.

In addition, in AP Vojvodina, the emphasis is placed on achieving the “Vojvodina standard”. In a way it is the strategic orientation of the Government of AP Vojvodina, which is at the local level of municipalities in Vojvodina widely implemented. It is composed of a uniform application and fulfillment of three conditions on which is based the modern and efficient local government, in terms of: making (adoption and direct application) umbrella strategic documents, creating and establishing functional work of offices for local economic development, and establishing the municipal service centers. It is considered that this is the initial concept of the institutional administrative harmonization that in the future should multiply and run the generators for local economic development. The standard was assessed positively and in practice gave results.

Since the large cities and concentrated centers have a privileged position and easier access to investors, the authors believe that it is extremely important to recognize how and in what way, in the age of fast-growing trends of deve-
opment and galloping development of innovative sectors of economy, attract more new investments in small communities. Smaller regional centers and local communities were viewed which are actively engaged in the investment game competing with their resources, qualifications, administrative procedures and incentives for domestic and foreign investment capital.

In a time of economic stagnation, the struggle for investor is ruthless. The local governments in Serbia associate insufficiently, not showing the real resource strength of the region, the public-private partnership is not sufficiently implemented and used model, and the local communities usually appear independently in front of investors. Practically proved that an insufficient number of communities have a sufficient knowledge, experience and capacity to adequately devote to economic development and promotion of conditions for investments. This leads to poor organization and a lack of presence of serious funds with a significant investment capital in small communities. Individually, all of the participants of this large investment match encourage investments and launch of economic activities in their territories by a variety of subsidies and other forms of financial incentives. These forms of “benefits” are practiced from the state strategic platform to specifically informed decisions of municipalities and cities intended for investors (land development fee, etc.).

We analyzed 40 local governments in the Republic of Serbia, in the area of the quality management system application, by a method that allowed the combination of comparative data and time series. Panel analysis included a data on a large number of the same units in a specific number of time points (Mitrović, 2002). In relation to the total number of local self-governments, established by the Law on Territorial Organization of the Republic of Serbia (Sl.glasnik R Srbije” 129/2007), the analyzed sample and collected data provide a reliable picture of the situation in this area (Figure 2). The evaluation of the collected data was performed by using descriptive statistical methods. The assumptions of performed analysis required the cooperation with competent representatives of local self-government, responsible and professional people in daily work involved in monitoring, control and enforcement of procedures in the public sector.
In summary, the interpretation of research results is given below:

- Local self-government units that do not have a standardized work, largely present false information in order to show it and contribute to successful functioning of their work (63% of respondents)

- Municipalities and cities that in their work apply the quality management system (ISO 9001 standard) largely agree that the application of it in some part contributed to improvement of municipal procedures and overall performance (59% of respondents), and that the introduction of standards largely increased satisfaction of municipal services users.

- ISO standard apply to 20% of by analysis covered municipalities and cities in Serbia, while 15% is currently in the procedure of introducing this standard.

- Standardized local self-governments units, explicitly expressed the fields (segments) of work in which, in their opinion can make further improvements in the already introduced standards. These are, according to the expressed importance the following areas:
  - monitoring and control of the implementation of decisions and of actual performances;
  - communication with citizens;
  - decision making and adoption of other legal acts;
  - application processing procedures;
  - internet services and
  - another.
Launching the initiatives and a proactive approach to attracting investment is the only way that will allow the local self-government units not only the administrative, but also the development role. Local communities are maximally dedicated to attracting and retaining the resources that are necessary for economic and social prosperity, and should insist on it in reform action of the state and its authorities. In this the crucial role has the institutions (development agencies and foundations to support investment promotion), which through modern tools and marketing approach work on: establishment of channels of communication with investors, promotion, implementation of “marketing location” and differentiation and positioning of the municipalities on the investment map of the region.

From the above can be concluded that the key success factors should be sought in changing the mode of functioning of “civil service system” in local self-governments (unwillingness to solve the issue of redundant workers, issues of outdated management organization and the politicization of the recruitment process). Standards establishment and restore the trust of citizens in local self-government are critical to achieve success, and should insist on them and persist in their realization.

CONCLUSION

New development policy perspectives in Serbia are oriented to two directions. The first is to encourage the development potential of already developed local self-governments, which are usually also the county seat, so that they allow the rapid development of district as a whole and encourage regional competitiveness of district, and the second is directed to local self-governments, which are in terms of development below average, in order to prevent and slow their development and reduce further deepening of regional and structural development problems.

The work standardization of local self-governments in Serbia should be the imperative. This segment needs a full attention in order to accredit the local self-governments for operation in the system of European values to which we aspire. It is a wrong understanding that standardization is an expense. Achieving and maintaining a stable level of satisfaction of citizens and all interested parties contribute to increasing confidence in the system, and still cumbersome administration. The application of the integrated quality system management
in the public sector contributes to the increase of overall competencies and reaching the level “best-in-class”. This is, for sure, multiplied reflected in their investment capacity and credibility.

It is necessary to establish an adequate functional monitoring and control over the execution of tasks and by the implementation of procedures in the public sector, with greater transparency and depoliticizing of work. The quality must be conceivable with continuous work on improving its performance.

A good business climate as well as a boldness and determination to make a first steps is a necessity because if you never start, you will never get anywhere, you newer know till you try should be the guideline for further successful development.

References

Abstract

With the adoption of legislation in the field of financial management and control, Bosnia and Herzegovina follows the nearby states in the sphere of internal financial control and establishes management and control of financial flows from the budget and in the budget. However, managing the process of planning, budget drafting and adoption, actually management of budgetary resources should continue to evolve. We have witnessed a number of audit findings that indicate the need for changing the existing management practice of public resources, but also the public demands for changes in the community management, that lead us to constant rethinking in process improvement, in order to achieve strategic objectives. The perceived weakness of the public administration functioning, primarily in the disposal of its own budgetary resources as well as an inadequate reaction to the possibility of using the international community funds, are not solvable without adequate managerial managers skills.
The authors point to the perceived weaknesses in the functioning of public administration and indicate the need for greater transparency of its work in order to achieve the proclaimed policy.

JEL Classification: D8, I2

1 COMPLEMENTARITY OF LEGAL PRINCIPLES AND DECISION-MAKING PROCESS

The question of putting the public authorities in the context of the law rules and the rule of law is especially important. The political authorities should be given powers to be able to operate efficiently and to implement certain measures of economic and social policy. However, the question is to what extent should be those authorities, or when and which of these authorities should be limited, as with public authorities would not be manifested by voluntarism and misusage of the authorities in favor of certain groups or individuals, or adopt decisions that are to the detriment of public interest. There is no doubt that the decision-making process as a process of adoption of legal acts by the political authority essential to define and identify the determinants that determine it. There is no doubt that in addition to the authorities that have been established for the public-political bodies, there are no legal acts that determine the other elements of the decision making process of public authorities. In this sense, there is a certain voluntarism which ultimately can be socially destructive. It is of crucial importance for the constitutional and administrative law. They are defined by the authorities who decide, their competence and position in the hierarchy as well as the situation in the field of separation of authorities, administrative proceedings, acts of administration and their decision making process. It is notable how it is in a political system established an institutional framework for decision making. The Constitution, as a legal act of the highest order does not define normative-legal aspects of the decision making process, which in the structure of the political system presents a real empirical content of explicit decision. In most constitutions in the modern world, there are provisions on the principles and procedures of decision-making and in rare constitutions one can find procedural norms on how the adoption decisions. Since the mid-19th century, those procedures were laid down in separate legal acts, called the Rules. Since then, there were numerous attempts to define certain general rules and principles in terms of concretization of decision making process. It is
necessary to mention that a legal act that establishes the terms and procedures of decision-making can be a barrier against arbitrariness and an agent of order and security decision-making. However, strictly defined rules and procedures with the definition of qualified majority for the work and decision-making, can be to a large extent the legalization of abuse or nuisance to take decisions that are necessary for certain social processes.

2 BASIC LEGAL PRINCIPLES IN FUNCTIONING OF PUBLIC AUTHORITIES’ DECISION-MAKING

It should be noted that we can sign the three fundamental principles which public authorities should adhere when making strategic decisions, in particular decisions on the use of public revenues. The first is the principle of efficiency and economy. According to it, the administrative authorities and political authorities must take into account that in addition to the legality of decisions they should make special consideration that when making decisions on the use of public revenue budget funds they should be used in the most efficient manner and thereby to ensure the economy of the fiscal system. In order to fulfil this principle it is necessary to establish the existence of control mechanisms for decisions taken by the executive political and administrative bodies. Transparency of political authority is not by itself sufficient to ensure the correction mechanism of draft decisions which are either made by executive political body or draft decisions proposed by the executive legislative and political authorities. The public work of political and administrative bodies is a prerequisite for transparency and a requirement for better decision-making on the use of public revenues. However, if the public had been informed that the decision of the executive body would have been politically contrary to the principle of efficiency and economy on the other than demonstration or public announcement, one could not significantly influence the decisions inning. There are no legal influence mechanisms on the executive to make their decision agree with the principles of efficiency and economy. Central European countries have a practice in which state secretaries for certain areas exercise control of political decisions and administrative bodies at the national level and they are to a lesser or greater extent authorized to temporarily suspend some decision making process that would jeopardize the principles of efficiency and economy. The second principle on which the public authority for making decisions should take into account is
the principle of *iura quaesita salva esse debent* (interference with acquired rights). The decisions of political and administrative bodies shall not have retroactive effect. In addition, they should not interfere with the acquired rights, actually they may grant only greater rights than those at the time of redistribution of rights belonged to the subjects of law, and they can do so only in the situation that they are protecting the common good. In applying this principle, a special responsibility lies in the political bodies that they do not confer more rights than those given by the economic constellation, and that they may not be realized by the state of public revenues. In such cases, the law becomes merely declarative or causes higher consumption of realistically possible. This raises the question of legal mechanisms in audit rights that are assigned. Each legally conducted legal action and proceedings cannot be subject to review from the aspect of the constitutionality and legality. The mere condemnation of public opinion is not sufficient to satisfy the social injustice that unfair decision caused by some governments. The principle of fairness is particularly important when making decisions about the use of public revenues. Legal fairness is of true utopian-philosophical nature. The law must strive to turn into a just law. This is the law which through the system of legal values and the content of legal norms respect the subject equality and guarantees equality before the law, legal certainty and the other values that do not go to the detriment of individuals and collectives. Legal fairness is contained in most documents on human freedoms and rights and is part of the legal theory of natural laws. A special segment in justice law makes the justice administrative law. It is guaranteed by the administrative law principles and the principles of the administrative procedure. Due to the cogency of administrative and legal norms, hierarchical and subordinating position of administrative authority, in relation to individuals’ citizens, there was a need to incorporate a number of legal principles in the system of administrative law. So they created the principles of administrative law, and particularly are important the principles of administrative procedure. In more than ten principles of administrative proceedings legislator gives the character for administrative procedures that later follows in the law normative part. However, they are built into the system of administrative procedures of governing bodies, and not political bodies. This raises the question whether there are principles in the field of administrative law relating to the actions of public authorities and their bodies. The answer is simple, there are not concretized, and neither have featured in previous administrative and legal science.
3 THE PRINCIPLES OF EUROPEAN DECENT RULE

From our presentation, it follows that the public authorities in the field of decision making in general, and especially in the area of decisions on the usage of public revenues is relatively free and independent in decision-making. From the viewpoint of public authorities that have to be granted, it indisputable seems that someone has to decide on this segment of society. The question is how and on what principles, and with what aims and consequences. This issue is complicated by the fact that the legal system has no special norms which are in the course of decision-making and after this process directs the decision-making process, especially in those that raise the level of responsibility for made decisions and the usage of public revenues. Although in formal terms there is no European public administration during the last two decades certain principles allocated resulting from the administrative law of certain Member States and praxis of the European Court of Justice. Apart from that, a key document was established by which was set out the guiding principles of responsible government “White Paper on European ruling system”, as the starting point in the construction and functioning of institutions of public authorities in the European Union, which assumes model of “good governance” through the openness of government, participation of voters in government or impact on the public authority, compliance policies, effectiveness of implementation and accountability controls. From implied principles we single out the liability of managers as a key component in the decision-making processes concerning the use of public revenues. Public authority should, on legal norms established way, respect this principle. It is necessary to establish legal and political mechanisms of control over decisions in the field of public revenue and from the point of view of the volume of obtaining financial resources and their proper usage and implementation effectiveness, as well as important principles of the mentioned document. This need is particularly emphasized in the transition countries which still hold models of economically irresponsible disposal of state capital. The Constitution, laws and decrees with the legal force that prescribe the work of the government, as the executive branch should include provisions on the liability of public authorities, the principles of their organization and control mechanisms. These are normative assumptions of appropriate public authorities function. However, one need functional, and in particular the assumption of procedural and supervisory character. Thus, the decision-making procedures used by pub-
lic revenues and control mechanisms can significantly affect on their efficiency and expediency.

4 THE PUBLIC ADMINISTRATION ACTIVITIES....

The complex structure of the country, which includes government institutions with the Council of Ministers, a bicameral Assembly and the tripartite Presidency, then the two entities, the Republic of Serbia with the government, parliament and the president, and the Federation of Bosnia and Herzegovina with the government, a bicameral parliament and ten cantons, each with its own government and Assembly, Brcko District and one hundred forty-three municipalities, require adequate coordination mechanisms and significant financial resources, which are counted in the billions of Euros annually. The limited capacity of the budget is conditioned and unrealistic revenue planning and the political will of the executive branch, lead to the fact that the only entity budget of the Federation of BiH makes over 1.3 billion Euros. Nevertheless, insufficient budgetary resources are provided by conflicting decisions on the management with strictly earmarked funds. The most obvious example are the accumulated funds earmarked for civil protection, which the Federation Government reallocated by different decisions for the purpose of filling the budget deficit. When making decisions they did not take into count emergency situations, for which the funds are basically allocated. For three years in a row terrible natural disaster occur, catastrophic flooding, snow and fires, with great material damages and demands of the community for dedicated budgetary resources. Non-purpose use of funds has led to even greater absurdity. Threats of possible floods, earthquakes and fires are becoming more serious with outdated and missing equipment and inadequate trained personnel. The situation can be best described by commentary of one sufferer during the May floods in 2014: Neither can we go anywhere, nor do we have any information. We have no electricity, no telephones, cell phones are low. We do not know how we will fill them. Minute by minute, the water level is increasing. We’re just waiting, God, please give a little rain stop, but the situation is really alarming. Ignoring all facts except the need for missing budget funds, the Government of the Federation of BiH for years has made decisions on the disposal of assets from the special purpose transaction accounts. Despite the Decision on the conditions and how the money should be realized from special fees for protection against natural and other
disasters, from January 2012, which establishes the responsibility of the Federal Administration of Civil Protection, Cantonal Administration of Civil Protection and the municipal civil defence services, in the way that funds special fees are collected and maintained in a special dedicated transaction account open as a sub-account under the Single Treasury account, in accordance with the instructions on the opening special-purpose account, the method of planning, collecting, recording and usage of funds from the special-purpose transaction accounts opened as a sub-account within the Single Treasury account, or on a separate dedicated account in municipalities that have not switched to treasury operations, the Federation Government inappropriately and contrary to the decision dispose with the available funds from special purpose account. It is absurd that at the same meeting, the Federation Government adopts a Decision of approving the transfer of funds from special-purpose transaction accounts, among other things from a special purposed transaction account funds for the protection and rescue, as a loan with a repayment period of 6 months, for whose realization is debited only The Federal Ministry of Finance, without legal beneficiary, the Federal civil protection. After the deadline for repayment of loans, the Government of the Federation BiH held a telephone emergency session, on which makes the decision to prolong the repayment of loans by the end of the budget year? It is indicative that all the decisions of approving the transfer of funds from the special-purpose transaction account were made at the beginning of the month, when the Federation Government has the obligation to pay social rights, military and civilian war victims. By fulfilling their social obligations, the government undermines the safety of life of citizens and their property. The Audit institutions office in the Federation gives a negative opinion on the Audit Report on the implementation of the Budget of the Federation of BiH for 2013, specifying the procedures for the usage of funds from the dedicated account “Means for protection and rescue.” It is multiple postponed repayment period earmarked funds, so that the obligations are transferred to the next budget year. Then, in just two days, the government returned the loan, then the next day, again passes a new loan, but now plus additional 4,000,000 KM with maturity of six months, without the justification of the used funds. Considering these facts, it can be concluded that there is asymmetry of the same decision of the Government, on the conditions and how the money gained from special fees for protection against natural and other disasters, and the Plan of using resources of special fees for protection against natural and other disasters in 2013. There is evident lacking of Procurement Procedures in long planned and much-need-
ed equipment for the functioning of the protection system and rescue of people and property. The Federation Government adopts a decision which defines the special purpose transaction account under the Single Treasury Account under the name the Plant protection and rescue. Only during 2013, over twenty million convertible marks were implemented. At the same time the Federal Parliament from 2011 does not bring The Development Protection programme and rescue of people and material goods from natural and other disasters in the Federation. Without program it could not be transparent and legally could not be carried out activities related to the planning and spending of fees for protection and rescue of people and material goods from natural and other disasters, and as a consequence, by the end of 2013, it was accumulated 20,272,003 KM earmarked funds from the fees for protection and rescue of natural and other disasters. After the May floods in 2014, above mentioned impose problem, which caused major consequences, natural disaster or institutional inefficiency? The organization and functioning of protection and rescue did not work on any level of the organization, before, during and after natural disasters. During major rainfall and immediately after the spill of rivers in cities across BiH, it was visible the complete disorganization and confusion of relevant institutions, ministries, Civil Defense and the general lack of coordination. Then the Federation Government allocates only 2,000,000 KM from budget reserves for the year 2014 to protect against natural and other disasters and to instruct the relevant city, municipal and cantonal organs to activate their commission to assess the damage. Three months later, the damages are not even counted, let alone repaired, new floods appear and landslides and declares condition of natural and other disasters in the Federation. Two weeks later, the Government of the Federation makes a decision on declaring the termination of the state of natural disaster in the Federation of BiH and instructs the Federal Commission for damage assessment, within sixty days from the date of submission of reports by the cantonal government and cantonal commission for assessment of damages caused by heavy rainfall.

Prime Minister of the Federation of BiH and the Minister of Finance are under public pressure, not only because of the inability to take concrete and visible actions to repair the damage to tangible property of the population, but also due to lack of funds in the special-purpose transaction accounts, which were inappropriately spent by making short-term sustainable budget. Then the Prime Minister in his public appearance on federal television declares: “No one has the
funds in the account and there were not any separate budgets in a special vault for civil protection, especially for the Ministry of Finance, or in particular for any state authority. So these were no funds for civil protection, which are in a special vault or somewhere special. All funds are diverted; they are Treasury funds and therefore not marked funds that came here. „Then he continues to play the public, all for the purpose of harmonizing public statements, through the response from the Federal Ministry of Finance: “The funds in the amount of 16 million convertible marks, which are by the Decision of the Government of the Federation from 03.01.2013. were transferred as a loan to the bank account of the Federal Ministry of Finance are returned on a special purpose bank account “Plant protection and rescue” early in 2014 “and at the same time they admit the fact:” Funds from special purposed transaction account for the Protection of the Federation of BiH in the amount of 20 million KM have been taken as a six-month loan by the Decision of the Government of the Federation from 05.02.2014. year and should be returned by 05.08.2014. year. „It is avoided to say that the funds returned and at the same day again taken with a special dedicated transaction account, which is evident from the Decision of approving the transfer of funds from special-purpose transaction accounts, or from the Audit report. Avoiding of the facts presentation is not surprising to those knowledgeable of political life and the situation in the country, and thus the fact that the media did not insist on the truth and the whole truth about the transaction conceals the purpose of opening new questions about the justification as well as taking responsibility for the lawful operation of these deposits, with the aim of the objective of informing the public. Then the Government of the Federation of BiH passes the Law on the financing support for the elimination of consequences of natural disasters and reconstruction of areas affected by natural disasters and establishes Federal funds to support the affected areas of natural disasters on the territory of the Federation of BiH and a number of by-laws to regulate the financing of support for the elimination of consequences of natural disasters and reconstruction of areas affected by natural disasters. The public is not presented with information about the real damage caused by floods, caused by heavy rains that only in a few days damaged roads, bridges, factories and residential buildings, with no reports of casualties, despite the fact that in Maglaj, a city northeast of Sarajevo, most of the buildings were under water. Immediately after the completion of the state of natural disaster, the commission to assess the damage were to intensify its activities in order to provide information on incurred damages and routing of ten million convertible marks of available funds. Total damages were created in the 78 local
government units and exceed 4 billion convertible marks. It is the damage of the road and railway infrastructure, residential business buildings as well as social and municipal infrastructure. Requests for help suggest to different, while despite of expectations from victims as potential beneficiaries of those funds, even after several calls from the Federal Commission for damage assessment, reports on the state of the damage does not point to an institution that should make a proposal to the Government of the Federation of BiH for the allocation of financial help. There is no information on implementation of the donated funds, as well as the amount of financial and other interests of the citizens to deal with damage, nor precise data on the basis of which could provide rating about accountability and efficiency of government by repairing the damage and the usage of donor funds. The efforts of responsible institutions and public companies at preventing the formation, mitigating and alleviating of the consequences of natural disasters were absent. There were no activities taken of what to do in the future interaction of available power and capacity of the fire service, ambulance, police, army and all public authorities in order to achieve prevention and security resources to protect the occurrence of emergency situations.

5 CONCLUSION

The paper, in its gradation course, pointed to some functioning shortcomings of the public authorities from the point of view of normative and factual responsibility for decisions in which budgetary funds are used. Namely, the paper begins with the issues of the existence of conditions for normative, specific operational binding public authorities to basic administrative principles of economy and efficiency. This problem does not come to the fore in a stable economic and legal systems, but only in the transition models of planning public authorities where there are conditions for the allocation rights that are either non-economic viable or disrupt social stability of society. It was concluded that in transition countries there are no concretized legal principles that would apply to the domain of public authorities responsibility, and that in this context the most current White Paper on European ruling system by which the effectiveness of implementation and accountability of rulers should be incorporated in the legal system that should determine the work and functions of the public authorities. The second part of the paper confirmed dysfunction treatment of public authorities in the system of public revenue in particular from the point of view.
of adequate acquisition and usage of public resources, and even pointed to the reluctance of public authorities and administrative bodies to procure existing funding for specific purposes. Budget users, usually due to a lack of coordination system for resources distribution and asymmetry of needs and possibilities and conditions and ways of using budgetary funds do not create an appropriate environment for the responsible management for the required funds. The paper, in the end points out to the weaknesses of control over the usage of funds and the need to strengthen the legal mechanisms to protect the public interest and limit the arbitrariness of public authorities.

**References**


Odluka o uvjetima i načinu korištenja sredstava ostvarenih po osnovu posebne naknade za zaštitu od prirodnih i drugih nesreća („Službene novine Federacije BiH”, broj: 04/12)

Odluka o odobravanju prijenosa sredstava sa posebnih namjenskih transakcijskih računa („Službene novine Federacije BiH”, broj: 04/12)

Odluka o izmjeni odluke o odobravanju prijenosa sredstava sa posebnih namjenskih transakcijskih računa („Službene novine Federacije BiH”, broj: 55/12)


FISCAL POSITION OF COUNTIES AS REGIONAL SELF-GOVERNMENTAL UNITS IN REPUBLIC OF CROATIA

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Abstract

The system of local and regional self-government in Croatia consists of two levels. The level of local self-government is made of cities and municipalities, while the level of regional self-government is made of counties. There are 428 municipalities, 127 cities, and 20 counties, with the City of Zagreb, having special status of simultaneously being the city and the county. Therefore, the Croatian system of local and regional self-government comprises 576 self-governmental units in total.

Since the inception of the system in 1990s, there are constant discussions in public between different interested parties about its functionality and appropriateness. A highly fragmented system of 576 self-governmental units in a country of 4.2 mil citizens, by default, is characterized by mostly economically weak units that are dependent on the central government and often unable to fully deliver public services in their jurisdiction. Sixty cities have less than 10.000 inhabitants, what makes about 42% of all cities, while 220 municipalities have less than 2.500 inhabitants, what makes about 51% of all municipalities. Additionally, the counties are also very diverse in terms of population and area, as well as in terms of their economic strength. The City of Zagreb plays in its own league, making 19% of the total population and 33% of total GDP in 2012, and having a large share in the public finances of self-governmental units, thus...
influencing and distorting the results of every local and regional government analysis.

The responsibilities and duties of the self-governmental units (which translate into public expenditures) are prescribed by the law, as well as their financing (the sources of local and regional public revenues). Although the process of fiscal decentralization started in 2001 with the transfer of certain so-called decentralized functions and corresponding financial funds from the central level to local and regional governments, it has not been continued as expected in following years. The fiscal decentralization should distribute financing sources between central, regional and local level differently, ensuring a larger share of public revenues for self-governmental units in order to deliver needed public services. The role of counties has been especially highly debated in ongoing discussions. Therefore, the paper discusses the position of counties in terms of their legal definition, financing sources, territorial and other characteristics, fiscal capacities, as well as it analyzes their public revenues and expenditures in past periods.

**Keywords:** local and regional self-government, public revenues and expenditures of counties, fiscal position of counties, fiscal capacity

JEL Classification: E6, E60

1. **INTRODUCTION**

Since the inception of the system of the local self-government in 1990s, there are constant discussions in Croatia about its functionality and appropriateness. Although the system was redesigned in 2000s into the system of local and regional self-government (LRSG), with the counties being introduced as regional self-government units (SGUs), along with the beginning of the fiscal decentralization process and other related changes, the debate has only intensified and continued to present days. The current system consists of two levels. The local level is made of cities and municipalities, while the regional level is made of counties. The responsibilities and financing sources of the SGUs are prescribed by the law. The duties and sources translate into the public expenditures and public revenues in the budgets of the LRSG units. If the LRSG units are economically weak and unable to collect sufficient revenues, they can't provide necessary public services in their jurisdiction. The fiscal decentralization process of 2001 aimed at transferring public functions and funds from the central
to the local and regional level, thus ensuring a larger share of revenues for their proper functioning. Unfortunately, the process did not continue as planned in following years, thus leaving the issues of financing and territorial organization unresolved. The role of counties has been especially highly debated in ongoing discussions. Therefore, the paper discusses the position of counties in terms of their legal definition, financing sources, territorial and other characteristics. Additionally, it analyzes fiscal capacities of the counties, as well as their public revenues and expenditures in the period between 2010 and 2014.

2. CONCEPTUAL AND LEGAL DEFINITION OF THE COUNTIES IN THE SYSTEM OF THE LRSG

The system of the LRSG in Croatia is determined by the Croatian Constitution and corresponding laws. The Constitution of 1990 (NN 56/90) defined municipalities, cities and counties as units of LSG, with counties simultaneously being local government units, administering some functions on behalf of the central government. The amendments to the Constitution in 2000 (NN 113/00) abolished dual status of the counties and defined them only as units of regional self-government. The status of municipalities and cities remained the same. The territorial structure of the LRSG is determined by the Act on the territories of Counties, Towns and Municipalities. First Act (NN 90/1992) divided the territory into the 20 counties, City of Zagreb (having a dual status of city and county), 68 cities and 418 municipalities. Despite numerous modifications of the Act, the number of counties has not been changed over the years, while the number of cities (without Zagreb) and municipalities has increased to 127 and 428 (NN 45/13). The result is a highly fragmented system of 576 SGUs in a country of 4,2 mil citizens, with mostly economically weak SGUs, dependent on the central government and often unable to fully deliver public services in their jurisdiction. Sixty cities (42% of all cities) have less than 10,000 inhabitants, while 220 municipalities (51% of all municipalities) have less than 2,500 inhabitants. The City of Zagreb makes 19% of the total population and 33% of the total GDP in 2012, and has a large share in the public finances of SGUs. Data in table 1 show territorial organization of the LRSG. The average county, excluding City of Zagreb, covers an area of 2.798 km², it has 174,744 inhabitants and a population density of 62,46 inhabitants per km². The SD County has 8,93 times more inhabitants compared to the LS County, which is
the largest county by surface area. The number of local SGUs per county differs notably, ranging from 16 (SDC) to 2 cities (BPC), and from 39 (SDC) to 5 municipalities (PSC). The SD County has in total 55 local units, while the PSC has only 10 units.

Table 1. Territorial organization of the LRSG in Croatia (2011)

<table>
<thead>
<tr>
<th>#</th>
<th>County</th>
<th>Surface area (km²)</th>
<th>Population</th>
<th>Pop. density per km²</th>
<th>Cities</th>
<th>Munic.</th>
<th>Settlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>City of Zagreb (ZG)</td>
<td>641</td>
<td>790.017</td>
<td>1232.48</td>
<td>1</td>
<td>-</td>
<td>70</td>
</tr>
<tr>
<td>2.</td>
<td>Splitsko-dalmatinska (SDC)</td>
<td>4.540</td>
<td>454.798</td>
<td>100.18</td>
<td>16</td>
<td>39</td>
<td>368</td>
</tr>
<tr>
<td>3.</td>
<td>Zagrebačka (ZC)</td>
<td>3.060</td>
<td>317.606</td>
<td>103.79</td>
<td>9</td>
<td>25</td>
<td>694</td>
</tr>
<tr>
<td>4.</td>
<td>Osječko-baranjska (OBC)</td>
<td>4.155</td>
<td>305.032</td>
<td>73.41</td>
<td>7</td>
<td>35</td>
<td>263</td>
</tr>
<tr>
<td>5.</td>
<td>Primorsko-goranska (PGC)</td>
<td>3.588</td>
<td>296.195</td>
<td>82.55</td>
<td>14</td>
<td>22</td>
<td>510</td>
</tr>
<tr>
<td>6.</td>
<td>Istarska (IC)</td>
<td>2.813</td>
<td>208.055</td>
<td>73.96</td>
<td>10</td>
<td>31</td>
<td>655</td>
</tr>
<tr>
<td>7.</td>
<td>Vukovarsko-srijemska (VSC)</td>
<td>2.454</td>
<td>179.521</td>
<td>73.15</td>
<td>5</td>
<td>26</td>
<td>85</td>
</tr>
<tr>
<td>8.</td>
<td>Varaždinska (VC)</td>
<td>1.262</td>
<td>175.951</td>
<td>139.42</td>
<td>6</td>
<td>22</td>
<td>302</td>
</tr>
<tr>
<td>9.</td>
<td>Sisačko-moslavačka (SMC)</td>
<td>4.468</td>
<td>172.439</td>
<td>38.59</td>
<td>6</td>
<td>13</td>
<td>456</td>
</tr>
<tr>
<td>10.</td>
<td>Zadarska (ZDC)</td>
<td>3.646</td>
<td>170.017</td>
<td>46.63</td>
<td>6</td>
<td>28</td>
<td>229</td>
</tr>
<tr>
<td>11.</td>
<td>Brodsko-posavska (BPC)</td>
<td>2.030</td>
<td>158.575</td>
<td>78.12</td>
<td>2</td>
<td>26</td>
<td>185</td>
</tr>
<tr>
<td>13.</td>
<td>Karlovačka (KC)</td>
<td>3.626</td>
<td>128.899</td>
<td>35.55</td>
<td>5</td>
<td>17</td>
<td>649</td>
</tr>
<tr>
<td>14.</td>
<td>Dubrovačko-neretvanska (DNC)</td>
<td>1.781</td>
<td>122.568</td>
<td>68.82</td>
<td>5</td>
<td>17</td>
<td>230</td>
</tr>
<tr>
<td>15.</td>
<td>Bjelovarsko-bilogorska (BBC)</td>
<td>2.640</td>
<td>119.764</td>
<td>45.37</td>
<td>5</td>
<td>18</td>
<td>323</td>
</tr>
<tr>
<td>16.</td>
<td>Koprivničko-križevačka (KKC)</td>
<td>1.748</td>
<td>115.584</td>
<td>66.12</td>
<td>3</td>
<td>22</td>
<td>264</td>
</tr>
<tr>
<td>17.</td>
<td>Medimurska (MC)</td>
<td>1.229</td>
<td>113.804</td>
<td>156.11</td>
<td>3</td>
<td>22</td>
<td>131</td>
</tr>
<tr>
<td>18.</td>
<td>Šibensko-krnska (ŠKC)</td>
<td>2.984</td>
<td>109.375</td>
<td>36.65</td>
<td>5</td>
<td>15</td>
<td>199</td>
</tr>
<tr>
<td>19.</td>
<td>Virovitčko-podravska (VPC)</td>
<td>2.024</td>
<td>84.836</td>
<td>41.92</td>
<td>3</td>
<td>13</td>
<td>188</td>
</tr>
<tr>
<td>20.</td>
<td>Požeško-slavonska (PSC)</td>
<td>1.823</td>
<td>78.034</td>
<td>42.81</td>
<td>5</td>
<td>5</td>
<td>277</td>
</tr>
<tr>
<td>21.</td>
<td>Ličko-senjska (LSC)</td>
<td>5.353</td>
<td>50.927</td>
<td>9.51</td>
<td>4</td>
<td>8</td>
<td>255</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>56.594</td>
<td>4.284.889</td>
<td>75.71</td>
<td>127</td>
<td>429</td>
<td>6.756</td>
</tr>
</tbody>
</table>

Note: Current number of SGUs differs from data in table 1. Municipality of Popovača is declared as a City in 2013. Therefore, there are 20 counties, 127 cities, the City of Zagreb and 428 municipalities in 2016.

Source: Census 2011. Available at: www.dzs.hr. Accessed: (01-03-2016)
3. JURISDICTION AND FINANCING SOURCES OF THE COUNTIES

The LRSG units, their scope and organization, governing bodies and their way of work, as well as other issues of importance for the operations of LRSG units, are regulated by the Act on local and regional self-government (NN 33/01 – 137/15). According to the Act, the county is defined as a unit of regional self-government whose territory represents a natural, historical, transit, economic, social and self-governmental unit. It is organized for the purpose of performing tasks of regional interest. Since 2005 the self-governmental scope of the county has included performing the tasks of regional importance that especially refers to the (1) education, (2) medical care, (3) spatial and urban planning, (4) economic development, (5) transit and traffic infrastructure, (6) maintenance of public roads, (7) planning and development of the network of educational, medical, social and cultural institutions, (8) issuing of construction and location permits, of other documents related to construction and implementation of spatial planning documents for the county area except for the so-called large cities with more than 35,000 inhabitants, and (8) other tasks according to special laws (NN 129/05). Additionally, the law stipulates that the mandatory and optional tasks of the county will be regulated by special laws dealing with above activities. The county will be able to perform optional tasks only if it has ensured necessary conditions for their performance. Generally, the self-governmental scope of the LRSG units has not been changed significantly over time. Nevertheless, the distribution of responsibilities and duties in providing of public services between central, regional and local level has not been clearly defined (Budak et. al; 2013, 13), thus resulting in quite significant overlapping of jurisdictions between different governmental levels (Alibegović Jurlina; 2015, 3). In order to finance public services in their jurisdictions, the counties must have necessary financing sources at their disposal. The financing sources of the LRSG units are regulated in general by the Constitution and the Act on the LRSG. The specific law that regulates financing of SGUs units in detail is the Act on the financing of local and regional self-government units (NN 117/93 – 100/15). According to the Act, the LRSG units acquire public revenues from own sources, shared taxes and grants that come from the state and county budgets. The own financing sources of the county are (1) revenues from own assets, (2) county taxes, (3) fines and confiscated assets for the offenses prescribed by the county, and (4) other revenues according to the special laws.
The county taxes include (1) inheritance and gift tax, (2) road motor vehicle tax, (3) boat tax, and (4) slot machine tax. Additionally, the counties participate in sharing of revenues collected from personal income tax (PIT), alongside with the state and local SGUs. The corresponding shares related to PIT revenues have changed multiple times over the years, thus greatly influencing the fiscal position of the LRSG units. For example, the last changes of the Act from 2015 envisaged smaller general-purpose county share in the PIT on behalf of the larger share for specific units in the hill and mountain areas that were classified into groups III and IV according to the economic development index (EDI), thus probably negatively influencing the fiscal position of some counties and further disrupting fiscal relations (Bajo & Primorac; 2015). The county share of the PIT revenues depends on the model of the PIT distribution and type of the SGUs. At the moment, the county gets 16.5% share of the PIT in the standard distribution model, 12% share when local SGUs are located in the assisted area (SGUs classified in groups I and II according to the EDI), 16.5% when SGUs are on the island, and 12% when SGUs are located in the hill and mountain areas (SGUs in groups III and IV according to the EDI). Additionally, there is a share of the PIT designated to finance the so-called decentralized public services (DPS) that central government transferred to the LRSG units in 2001 when the process of fiscal decentralization started. The PIT share for specific expenditures in areas of primary and secondary schools, social care (social care centers and elderly persons homes), health care and firefighting has also varied over time. It was 12% between 2007 and 2014, and it has been 6% since 2015. The SGUs that are not able to finance the DPS are entitled to grants out of the so-called equalization fund, which is again financed from the PIT revenues.

4. THE FISCAL POSITION OF THE COUNTIES – PUBLIC FINANCES AND FISCAL CAPACITY

According to financing sources stipulated in the law, the counties collect public revenues and make public expenditures to provide public services in its jurisdiction. Data on the public finances of the 20 counties in the period between 2010 and 2014 are shown in table 2 (due to its specific position the City of Zagreb has not been included in considerations). According to data, it is obvious that operating revenues are higher than operating expenditures. Both positions increased by 10% over the period (index 2014 to 2010), with similar
yearly compound average growth rates (CAGR). The resulting surplus was used to finance expenditures for acquisitions of non-financial assets, the so-called capital investments, that had a yearly average volume of almost 500 million. Revenues from sale of non-financial assets were practically insignificant, making only 0.6% of total revenues. Similarly, receipts from financial assets and borrowing, as well as expenses for financial assets and loan repayments were not important for the overall county finances. Since 2012 the counties have had higher expenses than receipts, which indicated a decreased borrowing ability and deleveraging of the counties.

**Table 2.** Public revenues and expenditures (in mil kn) of the 20 counties, 2010-2014

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Operating revenues</td>
<td>3,394.30</td>
<td>3,370.63</td>
<td>3,391.65</td>
<td>3,644.69</td>
<td>3,728.91</td>
<td>3,506.04</td>
<td>110</td>
<td>2.38</td>
</tr>
<tr>
<td>2.</td>
<td>Operating expenditures</td>
<td>2,850.45</td>
<td>2,900.40</td>
<td>2,933.91</td>
<td>3,121.49</td>
<td>3,128.50</td>
<td>2,986.95</td>
<td>110</td>
<td>2.35</td>
</tr>
<tr>
<td>3.</td>
<td>Surplus/deficit (1-2)</td>
<td>543.85</td>
<td>470.23</td>
<td>457.74</td>
<td>523.20</td>
<td>600.41</td>
<td>519.09</td>
<td>110</td>
<td>2.50</td>
</tr>
<tr>
<td>4.</td>
<td>Revenues from sale of non-fin. assets</td>
<td>15.30</td>
<td>34.25</td>
<td>28.77</td>
<td>20.15</td>
<td>8.02</td>
<td>21.30</td>
<td>52</td>
<td>-14.91</td>
</tr>
<tr>
<td>5.</td>
<td>Expend. for acquisitions of non-fin. assets</td>
<td>576.82</td>
<td>456.03</td>
<td>419.31</td>
<td>538.34</td>
<td>484.06</td>
<td>494.91</td>
<td>84</td>
<td>-4.29</td>
</tr>
<tr>
<td>6.</td>
<td>Surplus/deficit (3-4)</td>
<td>-561.53</td>
<td>-421.77</td>
<td>-390.54</td>
<td>-518.19</td>
<td>-476.05</td>
<td>-473.61</td>
<td>85</td>
<td>-4.04</td>
</tr>
<tr>
<td>7.</td>
<td>Total revenues</td>
<td>3,409.59</td>
<td>3,404.88</td>
<td>3,420.42</td>
<td>3,664.85</td>
<td>3,736.93</td>
<td>3,527.33</td>
<td>110</td>
<td>2.32</td>
</tr>
<tr>
<td>8.</td>
<td>Total expenditures</td>
<td>3,427.27</td>
<td>3,356.42</td>
<td>3,353.23</td>
<td>3,659.83</td>
<td>3,612.57</td>
<td>3,481.86</td>
<td>105</td>
<td>1.33</td>
</tr>
<tr>
<td>9.</td>
<td>Receipts from financial assets and borrowing</td>
<td>109.34</td>
<td>101.81</td>
<td>115.17</td>
<td>41.86</td>
<td>71.17</td>
<td>87.87</td>
<td>65</td>
<td>-10.18</td>
</tr>
<tr>
<td>10.</td>
<td>Expenses for fin. assets and loan repayments</td>
<td>91.58</td>
<td>96.96</td>
<td>137.98</td>
<td>116.36</td>
<td>132.42</td>
<td>115.06</td>
<td>145</td>
<td>9.66</td>
</tr>
<tr>
<td>12.</td>
<td>Total rev. &amp; receipts</td>
<td>3,518.94</td>
<td>3,506.69</td>
<td>3,535.59</td>
<td>3,706.70</td>
<td>3,808.11</td>
<td>3,527.33</td>
<td>110</td>
<td>2.32</td>
</tr>
<tr>
<td>13.</td>
<td>Total exp. &amp; expenses</td>
<td>3,518.84</td>
<td>3,453.39</td>
<td>3,491.21</td>
<td>3,776.19</td>
<td>3,744.99</td>
<td>3,481.86</td>
<td>105</td>
<td>1.33</td>
</tr>
</tbody>
</table>

Source: authors’ calculation according to the data of the Ministry of finance

If county revenues are rearranged into the four groups as shown in table 3, it is clear that tax revenues and grants are the main financing sources. They are making on average 47.67% and 40.58% of total yearly revenues, respectively.
Capital revenues showed biggest increase and growth rate in the period, although they made on average only 6.16% of total revenues. Non-tax revenues had the average share of 5.57% of total revenues, as well as they also increased throughout the period.

**Table 3.** County revenue structure (in mil kn) according to fin. sources, 2010-2014

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tax revenues</td>
<td>1,622,29</td>
<td>1,595,67</td>
<td>1,691,45</td>
<td>1,734,76</td>
<td>1,760,23</td>
<td>1,680,88</td>
<td>109</td>
<td>2,06</td>
</tr>
<tr>
<td>2.</td>
<td>Grants</td>
<td>1,521,34</td>
<td>1,405,31</td>
<td>1,290,45</td>
<td>1,410,39</td>
<td>1,525,24</td>
<td>1,430,55</td>
<td>100</td>
<td>0,06</td>
</tr>
<tr>
<td>3.</td>
<td>Non-tax revenues</td>
<td>142,30</td>
<td>192,58</td>
<td>186,94</td>
<td>272,74</td>
<td>191,62</td>
<td>197,24</td>
<td>135</td>
<td>7,72</td>
</tr>
<tr>
<td>4.</td>
<td>Capital revenues</td>
<td>123,66</td>
<td>211,31</td>
<td>251,58</td>
<td>246,96</td>
<td>259,84</td>
<td>218,67</td>
<td>210</td>
<td>20,40</td>
</tr>
</tbody>
</table>

*Source: authors’ calculation according to the data of the Ministry of finance*

If the structure of county tax revenues and grants are closely analyzed, it is clear the PIT is the most important tax revenue (table 4). The PIT, as a shared tax, makes 90% of total tax revenues, while own county taxes make another 10%. Among own county taxes only road motor vehicle and boat taxes have some, but still, very limited importance for county finances. The structure of grants shows that equalization grants for DPS are the most important, making almost 74% of total grants. Additionally, the counties were receiving general-purpose grants in average yearly volume of 328,33 mil (23% of total grants). Data indicate that the counties would have been unable to deliver their services properly without grants from the central level. The problem of insufficient revenues can be solved by further decentralization of funds and/or by territorial reorganization that would result in economically stronger counties.

**Table 4.** Structure of county tax revenues and grants (in mil kn), 2010-2014

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Personal income tax</td>
<td>1,448,52</td>
<td>1,423,48</td>
<td>1,518,00</td>
<td>1,574,96</td>
<td>1,602,58</td>
<td>1,513,51</td>
<td>111</td>
<td>2,56</td>
</tr>
<tr>
<td>2.</td>
<td>Inheritance and gift tax</td>
<td>2,27</td>
<td>3,47</td>
<td>3,82</td>
<td>4,01</td>
<td>5,11</td>
<td>3,74</td>
<td>225</td>
<td>22,48</td>
</tr>
<tr>
<td>3.</td>
<td>Slot machine tax</td>
<td>10,74</td>
<td>9,32</td>
<td>8,54</td>
<td>7,29</td>
<td>6,23</td>
<td>8,42</td>
<td>58</td>
<td>-12,74</td>
</tr>
<tr>
<td>4.</td>
<td>Road m.v. &amp; boat tax</td>
<td>155,34</td>
<td>154,13</td>
<td>155,80</td>
<td>148,49</td>
<td>146,27</td>
<td>152,01</td>
<td>94</td>
<td>-1,49</td>
</tr>
<tr>
<td>5.</td>
<td>Other taxes on goods and services</td>
<td>5,38</td>
<td>5,26</td>
<td>5,29</td>
<td>0,00</td>
<td>0,00</td>
<td>3,18</td>
<td>0</td>
<td>-100,00</td>
</tr>
</tbody>
</table>
Table 5. Indicators of fiscal capacity of the counties (per capita), 2011-2014

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Average</th>
<th>St. dev</th>
<th>Median</th>
<th>Min</th>
<th>Max</th>
<th>AVG ZG</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Operating revenues</td>
<td>1,042,91</td>
<td>113,00</td>
<td>952,39</td>
<td>1,045,50</td>
<td>1,105,87</td>
<td>8,201,44</td>
</tr>
<tr>
<td>2.</td>
<td>Tax revenue</td>
<td>437,02</td>
<td>155,09</td>
<td>327,43</td>
<td>427,31</td>
<td>493,76</td>
<td>6,172,11</td>
</tr>
<tr>
<td>3.</td>
<td>Personal income tax</td>
<td>392,17</td>
<td>144,03</td>
<td>293,87</td>
<td>382,43</td>
<td>447,10</td>
<td>5,776,69</td>
</tr>
<tr>
<td>4.</td>
<td>Grants</td>
<td>474,17</td>
<td>182,89</td>
<td>396,32</td>
<td>463,02</td>
<td>555,90</td>
<td>87,29</td>
</tr>
<tr>
<td>5.</td>
<td>Equalization grants for DPS</td>
<td>334,40</td>
<td>131,75</td>
<td>295,22</td>
<td>343,98</td>
<td>367,97</td>
<td>0,00</td>
</tr>
<tr>
<td>6.</td>
<td>Revenues from assets</td>
<td>64,77</td>
<td>43,47</td>
<td>32,12</td>
<td>60,38</td>
<td>73,66</td>
<td>522,89</td>
</tr>
<tr>
<td>7.</td>
<td>Revenues from admin., fees and special regulations</td>
<td>48,86</td>
<td>39,52</td>
<td>24,41</td>
<td>30,05</td>
<td>59,96</td>
<td>1,277,24</td>
</tr>
<tr>
<td>8.</td>
<td>Operating revenues less grants</td>
<td>568,75</td>
<td>175,19</td>
<td>446,96</td>
<td>550,40</td>
<td>627,59</td>
<td>8,114,15</td>
</tr>
<tr>
<td>9.</td>
<td>Total revenues</td>
<td>1,049,69</td>
<td>111,70</td>
<td>960,61</td>
<td>1,048,70</td>
<td>1,126,08</td>
<td>8,347,04</td>
</tr>
</tbody>
</table>

Source: authors’ calculation according to the data of the Ministry of finance
Differences between FC of the specific counties are clearly visible in figure 1. The FC in terms of selected revenues from own financing sources is calculated for each county, with amounts of grants separately presented.

**Figure 1.** Selected budget revenues by county (per capita), 2011-2014

According to data, the highest FC per capita has Istarska County (1.011,11 kn), while Vukovarsko-srijemska County has the lowest FC (316 kn). Only seven counties have selected revenues over 600 kn per capita, while 13 counties have total grants more than 400 kn per capita. Eight counties received grants higher than selected revenues. The FC of eastern counties was especially weak, reflecting low amounts of selected revenues and high amounts of grants simultaneously. Between five worst counties in terms of the FC, there is only Ličko-senjska County not being the eastern one.

5. CONCLUSION

The system of the LRSG is a subject of constant discussions due to its concept, functionality and appropriateness. There is a heated debate about its territorial structure and related size of the SGUs that would be suitable for providing local and regional public services. A total of 576 SGUs in a country of 4,2 million inhabitants results with too many economically weak SGUs, especially if their jurisdictions and financing sources are compared. Analyzed data on public finances of 20 counties and their fiscal capacity between 2010 and 2014 clearly pointed to problems of territorial organizations, insufficient financial funds and low fiscal capacity of most counties. The shared personal income tax is the main financing source, while own county taxes are almost irrelevant. Grants make more than 40% of total revenues, which indicates inappropriate fiscal relations.
and dependence of the counties on funds from central government. The fiscal capacity per county showed that eight counties received grants higher than their selected tax and other revenues. Generally speaking, the system should be territorially, fiscally and functionally decentralized in order to enable and improve its everyday operations and overall effectiveness.

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FINANCING OF POLITICAL PARTIES FROM PUBLIC SOURCES: CAUSES, FORMS AND CONSEQUENCES

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Abstract

The structure of the political parties financing is one of the central problems of modern democratic states functioning and efficiency. Modern political parties were established in the 19th century as associations of citizens who wanted to promote their interests through the political parties, and these associated citizens financed activities of their parties themselves. Opposite to this classic liberal conception which sees political parties as private associations, in the 1950's there was introduced financing of political parties from public sources. The aim of this paper is to analyze the causes, forms and consequences of this type of party financing. The causes of public party financing are numerous, but the most important are increase of parties’ operational costs and raised awareness about the dangers of political corruption. Thus, the parties are supported from public sources through a number of ways, of which the most important is direct public funding, but also through free access to the media and through tax relieves. Regardless of the obvious advantages of public party funding, excessive public funding can lead to “etatisation” of political parties and their alienation from the public, since political parties that have a safe financing from the public sources can easily lose interest to build and maintain relationships with their sympathizers and citizens in general.

Keywords: financing, political parties, public sources, corruption

JEL Classification: E6, E60
1. INTRODUCTION

Although modern political parties were formed in the 19th century, the issue of financing political parties became a matter of intense debate and scientific research in the last third of the 20th century (Casas-Zamora; 2005, 1). Money has a “symbolic and practical value in political competition” (Burnell; 1998, 7) and just because money is important in politics, it can threaten democracy if its role is not adequately regulated. Collecting and spending political money has several possible consequences:

1) The electoral equality is often influenced by money in politics - if its distribution is uneven, uncertainty of elections will likely be compromised.

2) The inevitability and indispensability of money in politics gives donors possibility to acquire political influence, which may endanger the equality of citizens if economic power becomes a major factor in the electoral competition, only those who have the economic power will be able to gain political power.

3) Political contributions are opening a multitude of possibilities for finding dishonest or illegal “common interests” between donors and politicians, which finally can lead to privatization of policy maker’s decisions (Casas-Zamora; 2005, 2).

According to the classical liberal understanding political parties are associations of citizens who promote their interests in the state through parties. Considering political parties in this way, it seems appropriate that these associated citizens bear the costs of the parties functioning themselves, since they promote their interests though these parties (Prpić; 2004, XIX). This solution favours large and wealthy parties or parties that represent the interests of wealthy citizens, and the poor strata of society or minority groups can hardly or cannot at all seriously participate in politics, especially since the 1950s, when significant financial resources have been required thus having prevented political pluralism. To allow all relevant political actors to participate in political life under the same conditions, but also to prevent donations from inappropriate sources which expect a counter-service for their donation, in the 1950s began introduction of parties funding from public sources. Public party funding, which first appeared in South America and then spread around the world, beside positive effects has also negative: in countries which too intensively financed political parties from public sources there appeared financial dependence on the state on one side, and alienation from party members and sympathizers on the other,
since public funds made their help and support unnecessary. In this paper we will discuss the causes, but also the consequences of party funding from public sources.

2. PRIVATE FUNDING OF POLITICAL PARTIES

The classic liberal approach has seen political parties as voluntary social associations, and held that they should be fully financed by their members and sympathizers, so until 1950s private party funding was quite common. Parties were seen as “intermediary organizations” and their finances rest on private sources: contributions of their members and revenues from organizations and companies (Brändle; 2002, 3). Private party funding was traditionally to a greater extent supported by the right wing than the left parties, and for them money obtained from private sources was always more preferable than funding from the state or local budgets. Private party funding has undoubted advantages, but the most important is that “this form of resources acquiring encourages larger participation of party activists, and thus also more efficient party organization” (Kregar et al.; 2003, 10).

Membership fees are the most traditional source of political parties funding. The fact that the parties should be primarily financed by members contributions clearly come out from the parties character as a social associations or from its state-political functions (Schefold et al.; 1990, 832), and contributions from individuals who are not party members may arouse suspicion that party is under foreign persons or institutions influence (Beyme; 1999, 118). However, lifestyle changes in mid-20th century made party membership look less attractive, but also the development of mass media like radio and television had far-reaching consequences for the communication processes within political parties (Bartolini; 1983, 181). Most European countries, with the exception of Belgium, Germany and Austria, experienced the decline in the number of members in the period from the 1960s to the 1980s, and the direct consequence of a smaller number of members was the smaller amount of money collected from membership fees (Ware; 1998, 232). Recent studies have shown that, in general, the share of membership fees is decreasing in total party income, and that membership fees generally amount less than a quarter of the total party income (Kregar et al.; 2003, 11). Size of political party also affects the amount of collected membership fees, and only large parties which usually have many
members were able to collect a significant share of party funds from membership fees (about a quarter of total revenue), while in the medium and small parties share from membership fees usually amounts less than ten percent of their total income (Nassmacher; 2000, 251).

One of private sources of party income are the so called “party taxes”. Party taxes include payments to a political party from people who have been, due to party support, elected to various bodies or have been appointed to certain positions, and represent a fixed percentage of their salary (ibid., 254). Parties justify party tax saying that “MPs must honour their election in the Boards” (Drysch; 1998, 89). The amount of these apparently voluntary contributions is different, and it depends on the type of party and on the type of functions that members perform; in Germany parties take from their city councillors from a quarter to a third of their salaries, and from representatives on regional or federal level from 5 to 20 percent of their salary (Nassmacher; 2000, 256). In countries where fractions are particularly strong MPs were trying to resist this giving to party so, for example, in the Netherlands even socialists had difficulties to take modest amount of 2 percent (Beyme; 2002, 113).

Donations have always been an important source of revenues for European right-wing and center parties, and they consider individual donations as well as companies donations as their traditional source of funds (Nassmacher; 2000, 252). The private sector motives for money donation to political parties may be very different; the desire to participate, as a good citizen, in the political process or, in specific cases, to affect the direction of public policies (Gunlicks; 2000, 5). Private financing, with very personalized or clientelist orientation will facilitate the reproduction of various clientelistic cliques (Burnell; 1998, 7). In societies with very large differences in income, a few very wealthy individuals can fully control the political scene. Brändle claims that “the larger the dependence of parties on large incomes from influential interest groups, the higher the risk of corruption and abuse” (Brändle; 2002, 3).

Left-wing parties are in some countries, particularly in the United Kingdom, financially supported by the unions. Unions contribute significantly to Labour finances and financially assist the party in various ways, through gifts and ad hoc donations, sponsoring candidates and MPs, sending union members to the Labour summer schools and a wide range of other various payments (Fisher; 1996, 78). Since donations are the most controversial form of private party
funding, over time there have been developed legal mechanisms to precisely regulate various forms of donations to political parties (Kregar et al.; 2003, 12), in order to limit the impact of (wealthy) individuals or special interest groups on political parties and to prevent potential conflicts of interest (ibid., 13).

3. PUBLIC FUNDING OF POLITICAL PARTIES

The idea of financing political parties from public funds became possible only after the political parties were legally and constitutionally accepted and were no longer seen as “disruptive factor in the parliamentary system, which is designed on power-sharing” (Beyme; 2002, 117). From the second half of the 20th century, political parties are seen as “important subjects of pluralist democratic regimes which citizens must have equal opportunity to participate in shaping of political will” (Prpić; 2004, XIX), and their functioning is also constitutionally regulated. Awarding political parties with this kind of financial benefits, in relation to other organizations and interest groups, was certainly favoured with the transfer of new functions from the political system to political parties (Beyme; 2002, 117).

Public financing of political parties was introduced to achieve several goals:

a) Introduction of public party funding intended to provide equal opportunities for all political parties and public funds contribute to the removal of different conditions between the parties. This principle is ignored if, for example, smaller parties or those who are not in power are excluded from public funding.

b) Public funding should reduce parties’ dependence on strong financial donors “from the shadows”, and thus reduce or even completely eliminate the impact of different lobbies on parties;

c) The next goal is to eliminate corruption, since corruption encourages political cynicism and contributes to undermining of public confidence in the legal system (Drysch; 2000, 158).

Public party funding was introduced in almost all European countries, but at different speed and intensity, so Naßmacher (in Brändle; 2002, 14) differentiates three stages through which public party funding was introduced:
a) “Experimental phase” represents the first step towards public funding, where it will “carefully begin this new way of public financial support for this voluntary private law organizations”.

b) In “Expansion phase” party’s requirements for public support are being spread (for example, covering expenditures of electoral campaigns) and new areas of parties’ activities will be financed, which until then were not covered by the public support (for example, such as education).

c) The last phase is “adjustment phase”, in which new forms of public support are not being introduced, but rules for the adjustment of public support on inflation are being established. Since public funding was introduced with different dynamics in different countries, some of which were kept for a long period of time in each stage, and some of them rather quickly passed from one phase to another; this speed depends on specific conditions in each country.

3.1. Causes of public party funding

One of the basic causes of political parties financing from public funds is a strong increase of party costs in the second half of the 20th century, with rise of election campaigns costs, as well as parties functioning costs.

For example, in Germany, in the period from 1953 to 1965 the increase in the election campaigns costs was amounted to 300%, and the sum of the total cost of all the parties and candidates was increased from 10 million DEM in 1949 to 120-130 million in 1969 (Schleth & Pinto-Duschinsky; 1970, 27). When we look at individual political parties, the CDU total cost in the period from 1968 to 1987 increased from 34 million to 193 million DEM, and the total cost of SPD in the same period increased from 48 million on 214 million DEM (Landfried; 1994, 91). In the United Kingdom the amount that the Conservative party spent on election campaigns increased from 135,000 GBP in 1950 to 8,7 million GBP in 1988, thus increasing 63 times (Johnston & Pattie; 2000, 136). Significant growth was also evident at the Labour Party: in the election year 1950 there was spent 292,000 GBP and 202,000 GBP in 1952 which was non-election year, and that amount has grown to 10 million GBP in the election year (1987) and to 6,1 million GBP in 1986, which was non-election year (Beyme; 1999, 139).
Party costs were significantly increased by modernization of the electoral battle, i.e. professionalisation of services which were previously mostly performed by party members and sympathizers: election campaigns are now prepared and implemented by advertising agents; people for posters printing and pasting are also professionals, as well as marketing companies and media consultants. In their direction parties organize carefully arranged events (conferences, large events) that are primarily aim at journalists and their positive television reports. Advertising means also follow trends in consumer goods advertising: print media (ads in newspapers, flyers, posters) have lost somewhat in importance, and audio-visual media (TV, and lately the Internet) are becoming an essential part of the election campaigns, thereby causing significant costs (Nassmacher; 2002, 11).

In countries where broadcasting of political advertising spots on television is paid according to market prices, such as for example, in Australia, Canada and the United States, causes of the party costs increase could be seen as a demand for a multitude of commercials, therefore, in literature a hypothesis has been made that electoral advertising on private television stations causes an explosion of election expenses. However, in the United Kingdom where the election advertising on radio and television is prohibited by law, election campaign expenses increased significantly, i.e. nine times in the period from 1983 to 1997. In Austria, where the costs of election campaign doubled in the period from 1975 to 1990, until 1997 there was no private television station, so advertising on television could not be the cause of this increase (Nassmacher; 2002, 9). Extent of election costs is also affected with the characteristics specific to each country; for example, shorter period between election cycles (two or three years) require more resources than longer (four or five years), and it should be also taken into account that in addition to national parliamentary elections there are presidential election, European and local elections, which also require significant financial resources (ibid., 10).

In addition to the election campaign costs, political parties must cover cost for maintenance of the party organisation, and this includes office and communication costs and personnel costs. Office expenses cover the use of a party headquarters and branch offices, equipping them with furniture and equipment, supplies and minor printing costs, and throughout longer period of time this cost will depend on the volume of technical equipment and its modernization. Communication costs which are mainly related to communication within the party are
difficult to estimate, since they are different in certain time periods and differences are also significant among various countries and “party families” (ibid, 12).

Another cause for introduction of public party funding is the necessity to allow all relevant political forces to participate in the political game under equal conditions. The classical liberal view that political parties are citizens associations for promotion of their interests and therefore citizens should finance them from their own resources, prevents small or new parties to participate under equal terms in political life and reach out to potential voters, because large parties or those in power can more easily secure financial resources than smaller parties or those just entering the political arena (Falguera; 2014, 348). During the 1950s in Germany, being the first country in Europe which introduced public party funding, the main topic of discussion about party finances at that time was whether the parties which were not represented in the federal parliament were to receive public financial support and favourable tax treatment of donations (Scarrow; 2004, 660).

One of the fundamental causes for the introduction of public party funding is corruption, i.e. corruption offences connected with political parties. The consequences of corruption can be very serious because the corruption, especially political corruption, “undermines the core values of social relations of democratic and civil society” (Mršić; 2006, 111). Political corruption is not exclusively a phenomenon of the modern society, since the initial forms of the electoral competition in the 19th century were characterised with corruption and various forms of bribery; in England, during the early stages of the Queen Victoria reign, it was possible to buy a place in the House of Commons (Pinto-Duschinsky 1981, 15). In 1832, 850 out of 1,000 voters from Stamford constituency were bribed. In the period of 25 years (from 1832 to 1857) the public was presented 443 petitions that tried to challenge the results of the parliamentary elections due to a variety of election abuses (Johnston & Pattie; 2000, 124).

Today, the public perceives political parties rather negatively and numerous public opinion polls conducted in very different countries have generally shown very low level of trust in political parties. Average citizens in the political parties do not see promoters of democracy, they are bothered by their connections with powerful economic lobbies, and their confidence was also shaken with numerous misuses of money for political purposes (Rose-Ackerman, 2001). Corruptive acts related to the political parties financing are the following: the undue
influence of wealthy individuals or groups in the political decision-making; entry of illicit funds in the politics; the influence of business interests on politics; misuse of public funds and vote buying (Ohman; 2014, 20).

Corruption scandals that have erupted several times even in well-regulated countries such as Germany have shown that the risk of plutocracy is “very direct and practical” (Kregar; 2003, 13). When obtaining funding from large donors there is a risk that parties will forget that “the financing of party activities or ‘goal’ is one of the ways to secure and maintain the relationship between leaders and followers” (Nassmacher; 2003, 7) and they will no longer feel the necessity to work in the field and to intensively collect membership fees and “small” donations from party members and supporters. This certainly contributes to the weakening of trust in party democracy, already shaken with numerous corruption scandals and clientelistic relationships, which have turned away citizens from “interest for stronger identification with political parties” (Milardović; 2007, 18). Except on relations with voters, big donors can also affect on the relations within the parties so that the party donors who repetitively donate large sums of money start to interfere in the intra-party issues, especially in appointment of candidates on electoral lists (Greven; 1977, 278).

3.2. Forms of public party funding

Support for political parties appears in several different forms. The most important is direct public funding, but it is also important an indirect support, so parties receive assistance through subsidies, tax deductions and free access to the media.

In most of European countries legislation does not stipulate expenses on which direct public funding can be spent, and in countries where spending is regulated purpose of the funds is described in a very general way like “campaign spending” or “ongoing party activities” (Piccio; 2014, 224). However, this funding is really spent mostly on the cost of maintaining of the party functioning and election campaigns. Qualifying for direct public funding and the way of their distribution (allocation criteria) can be determined in several ways. In a small number of countries, all registered political parties receive public support, but this way of fund distribution is associated with the risk of founding political parties only in order to receive public support or that public funds will be wasted on parties which do not have the support of the electorate (Ohman; 2014, 23).
However, most of the countries allocate funds on the basis of votes obtained in the elections (this limit is averagely 3.5%), or support is given only to the parties represented in the parliament, or combine both of these criteria (ibid., 24).

Table 1: Introduction of direct public party funding

<table>
<thead>
<tr>
<th>Year</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>1954</td>
<td>Costa Rica</td>
</tr>
<tr>
<td>1955</td>
<td>Argentina</td>
</tr>
<tr>
<td>1957</td>
<td>Puerto Rico</td>
</tr>
<tr>
<td>1959</td>
<td>West Germany</td>
</tr>
<tr>
<td>1965</td>
<td>Sweden</td>
</tr>
<tr>
<td>1967</td>
<td>Finland</td>
</tr>
<tr>
<td>1970</td>
<td>Norway</td>
</tr>
<tr>
<td>1973</td>
<td>Israel</td>
</tr>
<tr>
<td>1974</td>
<td>Italy, Canada</td>
</tr>
<tr>
<td>1975</td>
<td>Austria</td>
</tr>
<tr>
<td>1977</td>
<td>Spain, Portugal</td>
</tr>
<tr>
<td>1984</td>
<td>Greece</td>
</tr>
<tr>
<td>1986</td>
<td>Denmark</td>
</tr>
<tr>
<td>1988</td>
<td>France</td>
</tr>
<tr>
<td>1989</td>
<td>Belgium</td>
</tr>
<tr>
<td>1991</td>
<td>Cyprus</td>
</tr>
<tr>
<td>1997</td>
<td>Ireland</td>
</tr>
<tr>
<td>1999</td>
<td>Netherlands, Luxembourg</td>
</tr>
<tr>
<td>2006</td>
<td>Iceland</td>
</tr>
</tbody>
</table>

Source: Brändle; 2002, 12; Piccio; 2014, 222.

Subsidies are common in the most of European countries; providing certain forms of support for political parties, it helps them to expand their basis in society and to develop organizational and mobilization capacity. Subsidies are provided in the form of financial assistance to specific activities such as the education of citizens, strengthening of research capacity or political work with women and youth (Johnston; 2005, 14).

The possibility of tax deductions for donations to political parties is not very often in Western democracies (Drysch; 2000, 170), and it is implemented in Germany, the Netherlands, France and Canada. If this measure is carefully conducted, tax incentives can encourage party competition and strengthen the party’s capacity for mobilization, but it should be moderate since exceedingly generous tax policy can weaken the interest of the parties to be organized in different areas.
Ensuring political parties with free access to television, radio and other media in some countries is associated with the prohibition of using funds for advertising in private and party media. Despite the fact that free access to the media is a common practice in many countries, Johnston points out that free access to media, a measure which should help reduce political corruption is very overrated, but has certain advantages as “a way to open up political debate to more parties and viewpoints” (Johnston; 2005, 16). The basic question is how to assign, in a fair way, free media time to various parties. Regulation of this issue should be especially careful, because if the distribution of free media time is based on the results of previous elections, the party whose support has increased since the last elections and new parties that emerged on the political scene will be denied. If free media time is equally distributed to all the parties, then minor parties, which are in fact not interesting to the public, will get the significance which is disproportional to their real impact and in this way media space could become congested (Petak; 2001, 42).

3.3. Consequences of public party funding

Besides the indisputable advantages of this method of financing parties, what also needs to be taken into account is that generous public funding, especially exceedingly generous direct public funding can lead to addiction of parties on public funds. Public funding is the most important income source for parties in most of the Western European countries, and in a sample of 17 countries it amounts an average of 67% of the total party income. The share of public funds in the parties’ total revenues is very different among countries, ranging from 22 per cent in the United Kingdom and up to almost 90 percent in Spain. Between these poles is Germany with 35% and the Netherlands with 42%, as well as Belgium, Italy and Portugal, where public funding amounts more than 80% of the total party income (Piccio; 2014, 224-225).

Direct public funding, with secure funds from public sources, can weaken the interest of the parties for closer integration with citizens through their mobilization and building ties with the society. With introduction and gradual increase of direct public funding, donating parties as a way of expressing political views significantly lost its power, which can finally lead to the creation of a small number of wealthy parties separated from citizens and society, which will, instead working on the ground with members and potential “small” donors, pre-
fer to turn to mutual cooperation in order to preserve the financial status quo (Johnston; 2005, 16). Thus, in the most extreme cases it can lead to the cartel parties system (Katz & Mair; 1995) where the parties ensure their own survival, to a larger or smaller extent, secretly cooperating on various issues and thereby colonizing segments of the state. Cartel parties “become agents of the state and exploit state funds (of party state) to ensure their collective survival” (ibid, 5) on the basis of mutual agreement between the parties, in which large opposition parties are also included, but new or small parties are excluded, which are with legal constraints disabled to fight in political arena. Although the cartel members compete in elections and dispute about different issues, however, they are willing to cooperate on issues of common interest; they refuse to compete in issues that can initiate changes in the institutional framework and thereby harm the party in power, but also the parties in opposition. (Scarrow; 1997, 455).

4. CONCLUSION

Parties funding from public sources has obvious advantages, since it ensures equal opportunities for all parties in the electoral arena, and also reduces parties’ financial dependence on donations from wealthy individuals or interest groups, who often expect a counter service for their donation. However, too intensive public funding can lead to financial dependence on the state, which will result in the parties’ dissociation from its members and supporters, since they are no longer needed as a source of funding or manpower. Therefore, the best solution is a mixture of moderate public and private financing; so public funds will ensure financial stability and independence of political parties, and through private donations there will be maintained ties with the society, i.e. with members and sympathizers. Germany has introduced an interesting mechanism of so-called matching funds, according to which public support cannot be higher than the funds collected by political party (Falguera; 2014, 354). This mechanism has two positive effects: as the level of public funds depends on the amount of funds collected by the parties from private sources, parties are forced to connect with citizens and to attract as many members and supporters who are willing to donate to the party, and in addition parties are forced to record all donations in their financial reports (‘Toplak, 2003, 53). This could be a good way for other countries that want to avoid parties’ financial dependence on the country, but at the same to time preserve their connections with the society.
Literature


Health, Education and Welfare
WHAT STUDENTS REALLY EXPECT FROM ACCREDITED HIGHER EDUCATION INSTITUTIONS?

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Abstract

The increasing number of undifferentiated universities and faculties offering similar programs, alternative forms of academic systems, life-long learning, and process of internalization created the new paradigm of teaching and learning in the higher education environment. In order to face the highly competitive environment, higher education institutions began to adopt market-based practices by placing a greater emphasis on the quality. Perhaps, the most important pillar in quality assurance in higher education is the accreditation of education institutions through specialized accreditation agencies. However, these agencies are viewing quality as “fitness for purpose” (i.e. meeting or conforming the standards defined by accreditation body/agency) not necessarily meeting the stu-
dent’s expectations. Thus, the purpose of this study is to identify an appropriate factor structure that may be effectively utilized to measure service quality of accredited higher educational institution from its students’ viewpoint. Of 1,000 distributed questionnaires, a total of 697 valid surveys were returned, representing a response rate of 69%. Respondents were recruited from the prominent public sector university in Bosnia and Herzegovina using non-probability convenience sampling method. The findings revealed that students evaluate the quality of accredited higher education institution along the four dimensions: (1) quality of teaching process, interaction and communication (QTIC), (2) quality of program and business link (QPBL), (3) quality of academic facilities (QAF), and (4) quality of academic environment (QAE). Furthermore, research found that being recognized higher education institution by national or international accreditation body is fifth most important factor influencing students’ choice. The overall findings of this study facilitate the comprehension of different attributes based on which students derive their expectations about accredited higher education institution. Thus, this study provides valuable information for higher education administrators (e.g. deans, department heads) that are committed to continuous improvement in the area of designing and delivering educational services.

Keywords: accreditations, higher education, students’ expectations, Bosnia and Herzegovina.

JEL Classification: M5, M54

1. INTRODUCTION

Quality assurance and accreditation in higher education (hereafter HE) became an important issue and research topic during the past decade (Roller, 2003). Higher education institutions (hereafter HEIs) have to offer the values that society perceives in the skills and abilities of its graduates (Lawson, 1992). Also, these institutions have to meet expectations of their students and think how their students feel about their educational experience (Bemowski, 1991). These new perspectives draw attention to the management processes within the institution as an alternative to the traditional areas of academic standards which were exclusively related to the performance indicators of teaching and research (Firdeus, 2006). HEIs have to account for the quality of education that they provide as well as for all other support services. This led to the increase of competitiveness in the field of higher education and need for accreditation as a
way of quality assurance of HEIs and programs that they offer. Accreditation is, formally, “the process by which an academic program holds itself out for review by an external organization, to be measured against a set of predetermined standards” (Sciglimpaglia et al., 2007).

The purpose of this study is to identify an appropriate factor structure that may be effectively utilized to measure service quality of accredited higher educational institution from its students’ viewpoint. Thus, this study is driven by the following research questions:

1. What are the salient factors surrounding students’ service quality expectations of accredited higher education institution?
2. Do such expectations differ between students of internationally accredited HEI on the one hand, and students of nationally accredited HEI at the other hand?
3. Do student expectations of educational service differ as they progress from lower to upper class status?

This paper is structured as follows. Following a theoretical framework to define the concepts of accreditation, we present a brief overview of the approaches in the field of service quality. Then, we explain the research methodology, process of data collection and sample characteristic. After that, results of EFA are presented in order to identify factors structure underlying students’ service quality expectations of accredited HEI, and CFA results which is conducted to check unidimensionality, validity and reliability of obtained factors structure. Furthermore, results of independent sample t-test are presented showing comparison of student expectations of four service quality factors (dimensions) among students enrolled at internationally accredited HEI and students enrolled and nationally accredited HEI as well as results of one-way ANOVA test for estimation of the difference in expected service quality provided by accredited HEI between lower and upper class students. At the end, we conclude with a discussion of the results highlighting their implications and suggesting future lines of research.

2. THEORETICAL BACKGROUND

The significant amount of confusion surrounding the concept of quality in higher education and the issue of its evaluation (Calvo-Porral et al.,
2013; Doherty, 2008; Harvey, L. & Green, 1993; Mizikaci, 2006; Venkatraman, 2007)”


There is a rich quantum of theoretical and empirical knowledge in the field of quality of services provided by HEIs. Diverse instruments of measurement such as SERVQUAL (Parasuraman et al., 1988), SERVPERF (Cronin and Taylor, 1992), EP (Teas, 1993) and HEDPERF (Firdeus, 2005) have contributed significantly to the knowledge and literature in the study of service quality. SERVQUAL operationalises service quality by comparing the perceptions of the service received with expectations. On the other hand, SERVPERF maintains only the perceptions of service quality. EP scale measures the gap between...
perceived performance and the ideal amount of a feature rather than the customer's expectations (Firdeus, 2006). HEDPERF offers performance-based measuring scale that attempts to capture the authentic determinants of service quality within higher education sector. When it comes to the accredited institutions, the previous theoretical and empirical studies on the quality of accredited institutions is mainly engaged in monitoring the quality of services in the context of fulfilling the standards that are defined by the national or international accreditation agencies. Consequently, a relatively small number of studies deal with the quality of services provided by accredited HEIs from the perspective of the end user - the student. Student experience in HEIs should be a key issue of which performance indicators need to address (Firdeus, 2005). Therefore, this study examines determinants or the salient service quality factors from the standpoint of students, ie. students' service quality expectations of accredited higher education institution.

HEIs face three layers of increasingly stringent authorization: state level approval to operate and accreditation, regional university-wide accreditation and disciplinary accreditation. Most national quality assurance systems include accreditation of HEIs and accreditation of specific study programs. These systems are based on the four-stage model of external evaluation compromising a coordinating agency, submission of self-evaluation report, a peer visit, and a public report (Ramadan et al., 2011). Although there are some difference among the national quality assurance systems, their common role is to guarantee to the general public that the HEI achieves the minimum quality require to operate (Urgel, 2007). Thus, an accreditation can be viewed as reliable and credible signal of the quality of the services offered by HEI (Marconi, 2013). However, these agencies are viewing quality as “fitness for purpose” (i.e. meeting or conforming accreditors’ expectations) not necessarily meeting the requirement defined by accreditation body/agency. However, with the expansion of the international activities of universities in volume, scope, and complexity, a need for international quality assurance of HEIs in form of international accreditations was developed. International accreditors or quality guarantors support internationalization of the HEIs which results with flow of students (Altbach & Knight, 2007). Consequently, this paper aims to compare attitudes and expectations between students of internationally accredited HEI and students of nationally accredited HEI.
3. METHODOLOGY

3.1. DATA COLLECTION, SAMPLE AND SURVEY INSTRUMENT

The sample of the study comprised students from prominent public sector university in Bosnia and Herzegovina. Non-probability convenience sampling method was employed in this study. The paper-based survey was carried out over the two-month period (February and March 2015). It was targeted at students from three nationally accredited HEI (Faculty of law, Faculty of Philosophy, and Faculty of political sciences), and from one HEI that has been accredited by both national and international accreditation agencies/bodies (Faculty of economics and business). After taking permission from different class teachers, questionnaires were distributed at the beginning of the selected lecture and they were collected after participants have completed them. Of 1,000 distributed questionnaires, a total of 697 valid surveys were returned, representing a response rate of 69%.

Table I Sample characteristics

<table>
<thead>
<tr>
<th>No. of students</th>
<th>%of students</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>487</td>
</tr>
<tr>
<td>Female</td>
<td>200</td>
</tr>
<tr>
<td>No answer</td>
<td>10</td>
</tr>
<tr>
<td><strong>Faculty of study</strong></td>
<td></td>
</tr>
<tr>
<td>Faculty of economics and business</td>
<td>351</td>
</tr>
<tr>
<td>Faculty of law</td>
<td>159</td>
</tr>
<tr>
<td>Faculty of philosophy</td>
<td>154</td>
</tr>
<tr>
<td>Faculty of political sciences</td>
<td>33</td>
</tr>
<tr>
<td><strong>Year of study</strong></td>
<td></td>
</tr>
<tr>
<td>First-year undergraduates</td>
<td>282</td>
</tr>
<tr>
<td>Second-year undergraduates</td>
<td>236</td>
</tr>
<tr>
<td>Third-year undergraduates</td>
<td>76</td>
</tr>
<tr>
<td>Graduate students</td>
<td>101</td>
</tr>
<tr>
<td>No answer</td>
<td>2</td>
</tr>
<tr>
<td><strong>Study mode</strong></td>
<td></td>
</tr>
<tr>
<td>Traditional face-to-face</td>
<td>580</td>
</tr>
<tr>
<td>Distance learning</td>
<td>26</td>
</tr>
<tr>
<td>Mixed/blended</td>
<td>87</td>
</tr>
<tr>
<td>No answer</td>
<td>4</td>
</tr>
<tr>
<td><strong>Monthly household income</strong></td>
<td></td>
</tr>
<tr>
<td>250 – 500 EUR</td>
<td>195</td>
</tr>
<tr>
<td>501 – 1000 EUR</td>
<td>255</td>
</tr>
<tr>
<td>1001 – 1500 EUR</td>
<td>115</td>
</tr>
<tr>
<td>Above 1500 EUR</td>
<td>92</td>
</tr>
<tr>
<td>No answer</td>
<td>40</td>
</tr>
</tbody>
</table>
As shown in Table I, about 70% of respondents were male students and 40% of respondents were sophomores. With the respect of educational program of study and faculties, 85.2% of respondents were enrolled for undergraduate programs and 50.4% of them were from the Faculty of economics and business. The majority of students (83.2%) were enrolled in traditionally offered face-to-face courses. The average age of respondents was 20.5 years.

A survey instrument was developed based on an extensive review of literature on different aspects of service quality measurement in higher education setting (Abdulah, 2006; Aghamolaei & Zare, 2008; Arambewela & Hall, 2006; de Oliveira & Ferreira, 2009; Joseph, Yakhou & Stone, 1995). The questionnaire items were worded to make them more applicable to the measurement of expected educational quality provided by accredited HEI. The questionnaire consisted of two sections. The first section contained 38 items representing various facets of educational service. The items were written in the form of statements reflecting student expectations of service quality offered by accredited HEI. All items were measured on seven-point Likert-type scale, that ranged from 1 = strongly disagree to 7 = strongly agree. The second section sought information about respondents such as the gender, the age, the faculty of study, the year of the study, the study mode, and the monthly household income.

4. RESULTS AND DISCUSSION

Students were asked to indicate main reasons why they decided to enroll at a particular higher education institution (HEI). Based on the proportion of students indicating a specific reason, reasons were ranked from the most important to the least. Results presented in Table I show that good job opportunities, the quality of academic programs and opportunities for career development are the highest ranked reasons of choosing a particular HEI. These findings suggest that students believe that the purpose of higher education should be more focused on the preparation for future employment through effective curriculum design. Being recognized HEI by national or international accrediting bodies ranked as the fifth most important factor influencing students’ choice. Specifically, research found that the accreditation was considered important reason in decision-making process by 15% of the respondents.

In terms of information sources/advertising, findings of this study show that student’s choice of HEI is influenced more by their parents than by the opinions presented through advertising (TV, newspapers, magazines, social media, etc.). Al-
though advertising is important promotional element of marketing mix, its relative low ranking in this study is in line with previous findings (Dao & Thorpe, 2015).

**Table II** Factor affecting student’s choice of higher education institution (HEI)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Frequency</th>
<th>Percentage</th>
<th>Rank order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family tradition</td>
<td>75</td>
<td>10.76</td>
<td>8</td>
</tr>
<tr>
<td>Friends’ opinions</td>
<td>30</td>
<td>4.30</td>
<td>12</td>
</tr>
<tr>
<td>Parents’ opinions</td>
<td>87</td>
<td>12.48</td>
<td>6</td>
</tr>
<tr>
<td>Former students’ opinions</td>
<td>17</td>
<td>2.44</td>
<td>15</td>
</tr>
<tr>
<td>Program matches with my ….</td>
<td>132</td>
<td>18.96</td>
<td>4</td>
</tr>
<tr>
<td>Accreditation</td>
<td>104</td>
<td>14.92</td>
<td>5</td>
</tr>
<tr>
<td>Good job opportunities</td>
<td>222</td>
<td>31.85</td>
<td>1</td>
</tr>
<tr>
<td>Quality of academic programs offered by this institution</td>
<td>152</td>
<td>21.81</td>
<td>2</td>
</tr>
<tr>
<td>Teaching quality at this institution</td>
<td>78</td>
<td>11.19</td>
<td>7</td>
</tr>
<tr>
<td>Advertising of this institution</td>
<td>43</td>
<td>6.17</td>
<td>10</td>
</tr>
<tr>
<td>Availability of scholarships/financial aids to study at this institution</td>
<td>20</td>
<td>2.87</td>
<td>14</td>
</tr>
<tr>
<td>The opportunity to study abroad</td>
<td>72</td>
<td>10.33</td>
<td>9</td>
</tr>
<tr>
<td>Availability of English language programs at this institution</td>
<td>37</td>
<td>5.31</td>
<td>11</td>
</tr>
<tr>
<td>The number of international students at this institution</td>
<td>3</td>
<td>0.43</td>
<td>16</td>
</tr>
<tr>
<td>The tuition cost of this institution</td>
<td>27</td>
<td>3.87</td>
<td>13</td>
</tr>
<tr>
<td>Opportunity for further career development</td>
<td>146</td>
<td>20.96</td>
<td>3</td>
</tr>
</tbody>
</table>

The exploratory factor analysis (EFA) was used in order to determine the actual number of factors (dimensions) underlying the student expectations with regard the service quality of accredited higher education institution. EFA with maximum likelihood method and Promax rotation was employed since the factors were presumed to be positively correlated (Preacher and MacCallum, 2003). First, we examined weather data are suitable for factor analysis. The Kaiser-Meyer-Olkin measure of sampling adequacy (0.929) and Bartlett’s test of sphericity ($\chi^2 = 8468.792$; $p < 0.001$) showed that correlation matrix was “marvelous” and thus the data suitable for performing EFA (Hair et al., 2010). Initially, factor analysis resulted in a six-factor solution with eigenvalues above 1.00 and more than two items loading significantly on each factor. The factor loadings obtained from EFA were further assessed in order to eliminate the items that performed poorly. An iterative process eliminated items that have factor loadings bellow 0.6 and high cross-loadings above 0.4 was then pursued. The final factor analysis resulted in four factors with eigenvalues above 1.0 explaining 63.368% of total variance among the items. Those four factors could be seen as group of indicators which depicts the quality of teaching process, interaction and communication (QTIC), the quality of program and business link (QPBL), the quality of academic facilities (QAF), and the quality of academic
environment (QAE). For each of four factors, we assessed the internal consistency using Cronbach’s Alpha coefficient and an item-to-total-correlation. Four internally consistence factors that resulted from EFA are presented in Table III.

Table III The results of exploratory factor analysis

<table>
<thead>
<tr>
<th>Factors and items</th>
<th>( \lambda )</th>
<th>Eigenvalue</th>
<th>Cronbach's ( \alpha )</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teaching process, interaction and communication (TIC)</strong></td>
<td></td>
<td>8.470</td>
<td>0.904</td>
</tr>
<tr>
<td>To have high standard teaching with quality lectures</td>
<td>0.761</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have high standard of lecture materials</td>
<td>0.820</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have staff that present materials and content understandably</td>
<td>0.922</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To offer adequate information available to students via internet</td>
<td>0.746</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To inform students concerning the results of examinations</td>
<td>0.738</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To look into student’s problems and try to provide a solution promptly</td>
<td>0.624</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Quality of program and business link (QPBL)</strong></td>
<td></td>
<td>2.198</td>
<td>0.906</td>
</tr>
<tr>
<td>To have faculty members with adequate professional knowledge</td>
<td>0.751</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To offer programs that are designed according to the needs of businesses</td>
<td>0.769</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To prepare its graduates for the employment market</td>
<td>0.977</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To offer appropriate academic courses and content recognized in home country</td>
<td>0.817</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have high image and prestige as a faculty in the home country</td>
<td>0.638</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Quality of academic facilities (QAF)</strong></td>
<td></td>
<td>1.522</td>
<td>0.860</td>
</tr>
<tr>
<td>To have modern buildings, well equipped and appealing classrooms</td>
<td>0.755</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have modern and adequate computer facilities/labs with adequate PCs for all students</td>
<td>0.833</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have innovative study &amp; support electronic facilities (e-library&amp; e-study)</td>
<td>0.747</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have visual appealing teaching tools</td>
<td>0.753</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Quality of academic environment (QAE)</strong></td>
<td></td>
<td>1.279</td>
<td>0.854</td>
</tr>
<tr>
<td>To have academics who monitor and care about the performance of their students</td>
<td>0.696</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To offer respectful treatment of faculty staff with students</td>
<td>0.807</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have silent and convenient place in school for reading</td>
<td>0.757</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have friendly environment with access to many opportunities for interaction with other student groups</td>
<td>0.790</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In an effort to ultimately address the unidimensionality, readability, and validity of the factor structure obtained from the previous EFA, confirmatory factor analysis (CFA) via LISREL version 8.71 was utilized. A four-factor model using all 19 items (indicators) was estimated and the results of goodness-of-fit analysis showed that the model are within acceptable fit \((\chi^2 = 542.92; \text{df}= 146; p<0.001;\)
RMSEA = 0.063; SRMR = 0.0344; CFI = 0.983; NNFI = 0.980; RFI = 0.973; GFI = 0.924). The overall fit of our model provides necessary and sufficient information to conclude that unidimensionality is achieved i.e. measuring items have acceptable factor loadings for the respective latent factor (dimension).

Table IV: Confirmatory factor analysis

<table>
<thead>
<tr>
<th>Factors and items</th>
<th>λ_{cfa}</th>
<th>CR_{cfa}</th>
<th>AVE_{cfa}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of teaching process, interaction and communication (QTIC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have high standard teaching with quality lectures</td>
<td>0.786</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have high standard of lecture materials</td>
<td>0.836</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have staff that present materials and content understandably</td>
<td>0.854</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To offer adequate information available to students via internet</td>
<td>0.795</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To inform students concerning the results of examinations</td>
<td>0.750</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To look into student’s problems and try to provide a solution promptly</td>
<td>0.697</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of program and business link (QPBL)</td>
<td>0.909</td>
<td>0.667</td>
<td></td>
</tr>
<tr>
<td>To have faculty members with adequate professional knowledge</td>
<td>0.784</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To offer programs that are designed according to the needs of businesses</td>
<td>0.824</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To prepare its graduates for the employment market</td>
<td>0.886</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To offer appropriate academic courses and content recognized in home country</td>
<td>0.855</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have high image and prestige as a faculty in the home country</td>
<td>0.725</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of academic facilities (QAF)</td>
<td>0.864</td>
<td>0.613</td>
<td></td>
</tr>
<tr>
<td>To have modern buildings, well equipped and appealing classrooms</td>
<td>0.773</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have modern and adequate computer facilities/labs with adequate PCs for all students</td>
<td>0.842</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have innovative study &amp; support electronic facilities (e-library &amp; e-study)</td>
<td>0.781</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have visual appealing teaching tools</td>
<td>0.733</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of academic environment (QAE)</td>
<td>0.862</td>
<td>0.611</td>
<td></td>
</tr>
<tr>
<td>To have academics who monitor and care about the performance of their students</td>
<td>0.678</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To offer respectful treatment of faculty staff with students</td>
<td>0.850</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have silent and convenient place in school for reading</td>
<td>0.819</td>
<td></td>
<td></td>
</tr>
<tr>
<td>To have friendly environment with access to many opportunities for interaction with other student groups</td>
<td>0.769</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Composite reliability (CR) and average variance extracted (AVE) were used to evaluate the reliability of four dimensions. The results of the reliability analysis are presented in Table IV. CR values were all above the recommended cut-off value of 0.6, and all factors had an AVE at least 0.5, indicating that adequate reliability is achieved (Bagozi & Yi, 1988). Convergent validity was assessed testing the significance and magnitude of standardized factor loadings (Steenkamp & Trijp, 1991). All factor loadings were statistically significant and greater than 0.5,
indicating convergent validity. Discriminant validity was examined by comparing AVE values to the squared correlations between dimensions (Fornell & Larcker, 1981). The results show that all the AVE values exceeded the squared correlation for each pair of dimensions, supporting discriminant validity (Table V).

Table V Discriminant validity: Average variance extracted and shared variance estimates

<table>
<thead>
<tr>
<th></th>
<th>QTIC</th>
<th>QPBL</th>
<th>QUAF</th>
<th>QAE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of teaching process, interaction and communication (QTIC)</td>
<td>0.621</td>
<td>0.376</td>
<td>0.305</td>
<td>0.373</td>
</tr>
<tr>
<td>Quality of program and business link (QPBL)</td>
<td>0.613</td>
<td>0.667</td>
<td>0.148</td>
<td>0.452</td>
</tr>
<tr>
<td>Quality of academic facilities (QAF)</td>
<td>0.552</td>
<td>0.385</td>
<td>0.613</td>
<td>0.159</td>
</tr>
<tr>
<td>Quality of academic environment (QAE)</td>
<td>0.611</td>
<td>0.672</td>
<td>0.399</td>
<td>0.611</td>
</tr>
</tbody>
</table>

Note: Correlations are below the diagonal; squared correlations are above the diagonal; correlations are all significant at level 0.01; AVE estimates are presented in bold on the diagonal.

The evidence of unidimensionality, validity and reliability suggest that four-factor model could be seen as appropriate and simple tool for understanding and measuring students’ expectations of the service provided by accredited HEIs.

In order to compare student expectations of four service quality factors (dimensions) among students enrolled at internationally accredited HEI and students enrolled and nationally accredited HEI, independent sample t-test was performed. Table IV shows the mean difference of students’ responses towards study variables. As shown in Table VI, there were significant differences in student expectations on three dimensions: (1) quality of academic facilities; (2) quality of teaching process, interaction and communication; and (3) quality of academic environment. No differences, however, were found regarding the perceived quality of program and business link.

Table VI Difference in students’ expectations

<table>
<thead>
<tr>
<th>Factor</th>
<th>Internationally accredited HEI Mean</th>
<th>SD</th>
<th>Nationally accredited HEI Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of teaching process, interaction and communication (QTIC)</td>
<td>6.577</td>
<td>0.739</td>
<td>6.437</td>
<td>0.842</td>
<td>2.340*</td>
</tr>
<tr>
<td>Quality of program and business link (QPBL)</td>
<td>6.618</td>
<td>0.795</td>
<td>6.527</td>
<td>0.830</td>
<td>0.142</td>
</tr>
<tr>
<td>Quality of academic facilities (QAF)</td>
<td>6.322</td>
<td>0.836</td>
<td>5.796</td>
<td>1.268</td>
<td>6.479**</td>
</tr>
<tr>
<td>Quality of academic environment (QAE)</td>
<td>6.505</td>
<td>0.835</td>
<td>6.348</td>
<td>0.984</td>
<td>2.279*</td>
</tr>
</tbody>
</table>

Note: Mean difference is significant at the 0.01 level, *Mean difference is significant at the 0.05 level.
One-way ANOVA test was used to estimate the difference in expected service quality provided by accredited HEI between lower and upper class students. There were no differences found in service expectations between lower and upper class students on QTIC, QPBL, and QAE dimensions (p>0.05). However, expectations of upper class students with the regard the quality of academic facilities were found to be significantly higher than that of lower class students (F-value = 2.706; p<0.05).

5. CONCLUSION

Prior research regarding quality assurance of higher education institutions has largely focused on monitoring the quality of services in the context of fulfilling the standards that are defined by the national or international accreditation agencies. A relatively small number of studies have dealt with the quality of services provided by accredited HEIs from the perspective of the end user - the student (Firdeus, 2005). Therefore, main objective of this research was to examine determinants of salient service quality factors from the standpoint of students. The results of exploratory factor analysis unveiled four factors representing students’ service quality expectations of accredited higher education institution. These factors are as follows: “quality of teaching process, interaction and communication”, “quality of program and business link”, “quality of academic facilities” and “quality of academic environment”. First factor, QTIC, is directly related to the lectures and refers to quality of lectures, lecture materials, staff suitability, information availability and communication with students. Second factor, QPBL, is related to the coordination of programs offered by the HEI with labor market needs, as well as recognition of the institution in the domestic market. Third factor referred to visual impression related to academic facilities, technology and equipment. At the end, fourth factor represented students’ expectations regarding environment and friendly communication with staff.

The findings, while limited, have a number of implications for HE institutions and for accreditors. Even if an accreditation can be viewed as reliable and credible signal of the quality of the services (Marconi, 2013), HEIs should take into account the expectations of students as well. It is necessary to analyze compatibility of standards of accreditation institutions with expectations of students, especially when it comes to international accreditation. Students’ expectations can vary in accordance with the cross-cultural differences.
Also, results showed that there were significant differences in student expectations from national and international accredited HEI on three dimensions: “quality of academic facilities”, “quality of teaching process, interaction and communication” and “quality of academic environment”. No differences, however, were found regarding the perceived quality of program and business link. There were no differences found in service expectations between lower and upper class students on “Quality of teaching process, interaction and communication”, “Quality of program and business link” and “Quality of academic environment” dimensions. However, expectations of upper class students with the regard the “quality of academic facilities” were found to be significantly higher than that of lower class students.

The limited findings of our research point to the need for further researches in order to provide a more comprehensive conceptualization of service quality in higher education. This conceptualization would help HE institutions whose missions are primarily teaching to evaluate and monitor their service quality over time as well as to align them with students’ and market needs. Ultimately, the most important metric of success for HE institution whose mission is primarily teaching is the extent to which their students experience career success as a result of their education (Bieker, 2014).

References


Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. Journal of Marketing Research, 382–388.


DIGITAL TECHNOLOGIES AND STUDENT AUTONOMY IN FOREIGN LANGUAGE LEARNING

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Abstract

Current movements in the world of labour assume personal autonomy which is one of the crucial components of autonomy of learning, defined by the European qualification framework, as one of the priorities of aims of education, and as a consequence, one of the aims of foreign language teaching. People are nowadays expected to independently find their way not only “on the familiar ground” but also in completely new situations; in other words, they should be equipped in such a way to independently improve their prior knowledge and skills, as well as to acquire new knowledge on their own. The appearance and intensive development of modern IT has opened up new possibilities for independent learning of students. This is especially true for the domain of foreign language learning, where informational technologies have offered unbelievable opportunities not only for independent learning and practice, but also for self-evaluation and self-estimation of the acquired knowledge, thus significantly improving student autonomy. However, these possibilities have not been fully used, which is confirmed by the findings of explorative research carried out at the Teacher Training Faculty in Belgrade and Preschool Teacher Training College “Mihailo Palov” in Vrsac. The aim of the paper is to, relying on the findings of the mentioned empirical research, provide arguments in favour of possibilities offered by digital technologies in the field of autonomy development in learning through mastering of foreign language, as well as to suggest certain ideas for their implementation.

Keywords: foreign language, learning autonomy, digital technologies.

JEL Classification: D8, D85
Modern educational context and the so called “knowledge explosion” (Schmidt, 2005: 1), as well as shift of perspective and focus from teaching to learning, emphasizing active and constructive role of learning individual independent from the teacher and teaching conditions (Friedrich, 2002: 2), have led to the need to adjust teaching and learning to new circumstances, imposing itself as a significant issue of discussions within pedagogy, psychology, educational politics and teaching methodology. Due to the shift to extracurricular, institution independent learning of adults in Western industrial countries (Friedrich, 2002: 2), learning autonomy, i.e. ability of an individual to dedicate him/herself to new tasks and responsibilities and to permanently and self-responsibly acquire new knowledge (Thissen, 1999:1) has become a current issue in the discussion. Modern authors (Friedrich, 2002: 3) draw our attention to the fact that there has been increasing pressure of society, politics and economy on schools to dedicate their attention to practical empowerment of autonomy of learning, considered a key competency of the third millennium (Thissen, 1999: 1).

Learning autonomy refers to a complex form of activities rich in facets while the learner can to a significant extent contribute to making essential decisions, i.e. if, when, what, how and why he or she should learn (Weinert, 1982: 102); in other words, a person who learns can significantly influence the decisions on the aims, place, time, facilitation and control, and especially on the learning contents and learning management (Breuer, 2001: 88). Nevertheless, such a high level of self-regulation of one’s own learning process cannot be confused with complete rejection of external management, usually identified as establishment of aims, methods, ways and resources of learning (Noß & Achtenhagen, 2000: 235). In this sense certain authors (Tough, 1989: 433) call for caution, reminding us of the fact that neither extreme forms of self-regulation nor external management in learning are efficient; as a consequence, teacher’s guidance is a significant component of self-regulated learning, since any intentionally initiated process of learning is, according to theoreticians (Friedrich, 2002: 4), is related not only to activities of a learner, but also to didactic activities of others. Therefore the role of a teacher as a person with competencies in the domain of contents and didactics can be considered a significant component of self-regulated learning (Schmidt, 2005: 3). In this sense the role of a teacher has to be adjusted, i.e. they have to shift from those who transfer knowledge to those who facilitate learning, who organize and prepare it, counselling and encouraging a learner in the process of learning, placing their competencies at learners’ disposal when needed (Schütz & Wessel, 2002: 5).
The findings of an exploratory research presented in the present paper are in favour of the above statements. The research was conducted according to the method of systematic non-experimental observation on a purposive sample of 300 students studying at the Teacher Training Faculty in Belgrade and Preschool Teacher Training College “Mihailo Palov” in Vrsac. A questionnaire (DTSJ1) was construed for the purpose of the research aiming at testing a hypothesis according to which the possibilities of digital media for foreign language learning are not used to satisfactory extent. Research findings undisputedly imply that there is a need for more engaged involvement of teachers who are probably a decisive factor, since only few advantages of digital media is used if a teacher is not properly engaged in the process of learning facilitation.

It seems that possibilities offered by electronic media are particularly suitable for homework and independent learning, so that the use of these possibilities often remains in the shadow and there are few data on the extent learner use them. Poor and slow progress of 1st year students aroused suspicion that the possibilities of IT are not sufficiently used and in order to shed light on the issue the above mentioned research was carried out with students anonymously expressing their attitudes and experiences in regard to implementation of digital media in foreign language learning.

The Internet nowadays seems to be the most significant and the most used of all modern electronic media for foreign language learning, since it enables fast access to unthinkably large amount of information which are more up to date and comprehensive than all traditional educational media (Rademann, 1999: 251). What is even more important for foreign language learning is that they are authentic, i.e. they have not undergone any adaptation. Furthermore, contents are often presented in a multimedia manner on the Internet, which can have positive effects on learning success (Weidenmann, 2002); it also offers interconnectedness between different Internet pages, facilitating associative strategies of learning guided by interests, which is especially important for self-regulated learning (Stadelhofer & Marquard, 1998: 45). On the other hand, even though there is abundance of contents for all fields on the Internet, it is necessary to be able to find one’s way in often excessive number of pieces of information among which there are wrong and incorrect ones, and this is one of the key competencies (Stadelhofer & Marquard, 1998: 19). In foreign language learning internet is mostly used as a source for small-scale research projects which are supposed to be assigned by a teachers and which are a supplement to
traditional teaching and learning (Schmidt, 2005: 9), but it can be also used in order to fulfil the tasks which are in the spirit of an action approach (Polovina, Dinić, 2012). The availability of material on any potential subject on the internet opens up unlimited space for learning, but what is most important in these open and learner oriented tasks is to formulate assignments in such a way to prevent superficial Internet surfing and transform it into guided research with a clear aim significant for foreign language learning, resulting in presentation of the acquired knowledge. In order to fulfil such a task a learner is required to deal with authentic and fresh material, assuming filtering, documentation and structuring information significant for problem solving in order to present a material in a foreign language; all these activities are from the perspective of didactics make the Internet valuable for the process of foreign language learning (Schmidt, 2005: 9), while the possibility for the results of students’ work to be posted on the Internet can be an additional motivational potential (Leuthen und Kuhn, 1998:18).

Having in mind that the contemporary “digital generations” search through the Internet even while walking on the street and it is sometimes difficult to distract their attention from their mobile phones during classes, it is often assumed that they easily find their way in electronic world and that they use the possibilities it offers in all fields, as well as in the field of foreign languages. Nevertheless, research results have only partially confirmed this assumption, since when asked how often they use digital technologies for foreign language learning, only 18,6% of the subjects responded that they used them frequently, while significantly higher percentage (46,2%) claimed that they used it sometimes; even one fourth of the subjects said that they used them rarely.

Graph 1: Frequency of using digital technologies in foreign language learning

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Graph 2: Estimation of contribution of digital technologies to achievement level in foreign language learning

It seems rather significant that only 3.8% of the students use digital technologies for foreign language learning on a regular basis, while 6.1% had never implemented them in this process. Such findings open a new perspective for consideration of possibilities of digital media not only in foreign language learning, but for learning in general.

It was considered once that in order to ensure good conditions for self-regulated learning processes it is necessary to provide a learner with a learning environment abundant with a variety of resources, today assuming a wide range of possibilities offered by electronic media, suitable for encouragement and development of self-regulated learning, having in mind that they facilitate access to resources and enable flexible processes of learning and communication in sense of space and time (Friedrich, 2002:7). They also bring along new experiences and new fields of interest, they can follow and support learning process, offering new forms of learning through the form of media presentation, interactive dealing with learning material, possibilities of communication with learning partners, counsellors and experts worldwide, possibilities of forming one’s own network and team for learning, broadening possibilities for self-regulation of learning process, prolific choices of materials and methods in learning process, facilitating monitoring of one’s own learning development, which is no longer determined in a linear manner, and opening up a possibility to present what had been learnt in such a way that it becomes visible to broader audience (Stadelhofer & Marquard, 1998).

However, research results imply that the assumption is deceiving, since they indisputably show that mere provision of possibilities is not sufficient, due to the finding that a low percentage of subjects actually use these possibilities on
regular basis, while for the rest of them they are invisible. In other words, in spite of the presence of IT in their lives, students are not aware of their advantages in learning. Previous graph shows that there is rather small number of students who believe in the possibilities of IT and their contribution to foreign language learning. However, it was found that there is positively oriented basis (apart from 8.5% who believe that contribution of digital technologies to foreign language learning is extraordinary, there are 43.6% who think that this contribution was significant), i.e. half of the students who should be further guided in order to further improve their use of the existing possibilities of informational technologies. There is a large number of subjects (32.2% of students believe that IT have slightly contributed to their foreign language learning while 14.8% claim that there was no such contribution) who expressed a negative attitude to IT, imposing a new task on teachers. In the first place, the causes of such attitude should be revealed (lack of prior-knowledge, IT illiteracy, fear of the new…) in order to take appropriate actions to make IT closer and acceptable to this part of population.

**Graph 3:** Students’ opinion on the place of digital technologies in foreign language learning

**Graph 4:** Which IT forms helped the most
The finding gained according to students’ responses to the question which IT forms (electronic tools, services, applications, contents) they use the most in foreign language learning, is in favour of the assumption that teachers have a decisive role to play. Namely, relevant literature review shows that there are numerous new media to be applied in foreign language learning, i.e. computer games and simulations, electronic dictionaries, author programs and electronic tools for text processing, the Internet, multimedia encyclopaedia, forums, e-mail and chat (Neudecker, 2000), as well as programs designed for foreign language aimed learning, practice and assessment of language skills which are particularly suitable for the field of acquisition, revision and reinforcement of new vocabulary and grammar, especially in the domain of homework (Schmidt, 2005: 8). Research findings show that the most significant number of subjects (65,5%) use the existing applications for translation, whose function in foreign language learning is disputable, while lower number of students (36,7%) used electronic dictionaries. Furthermore, 15,5% of the subjects use contents existing on the sites specialized for foreign language learning, and 14% of students consulted the sights which are of their interest and with contents in a foreign language. Only 4,9% of the subjects use digital technologies (mostly email) for real communication in foreign language. What is encouraging though is the finding that 44,3% of the subjects watch TV programs, films and shows in a foreign language which is at the same time rather surprising, having in mind that this activity is much more demanding than reading texts on web sights in a foreign language. On the other hand, it seems that such foreign language materials are much more interesting and attractive for students. Graph 4 shows students’ opinions on the usefulness of certain forms of digital technologies and the shown results might raise a question if the stated technologies are used because they are considered most efficient for foreign language learning or it is the opposite, i.e. they are considered useful because they are the only ones used. As a consequence, we are facing a dilemma if students are actually equipped for independent learning in the world of digital technologies, i.e. do they possess media competence as one of the key assumptions of learning autonomy.

Another finding is in favour of the above stated assumption: Chi-Square Independence Test has established statistically significant correlation at the level of 0,05 ($\chi^2(12) = 22,570, p= 0,03$) between the variables year of studies and attitude towards digital technologies in foreign language learning. There is a mean influence ($V=0,17, k=3$) of the years of studies and opinion that digital
technologies are useful for foreign language learning; at the same time there is a pretty small number of students who think that digital technologies are completely useless (1.5% of all students on the average) while even 37% of first year students think that they can be used but they are not necessary for foreign language learning (most frequent opinion of first year students). Unlike them, students of second, third and fourth year of studies mostly consider that digital technologies are very important for foreign language learning. Consequently, it might be concluded that only during their studies (not before in their primary and secondary school) students actually become introduced to possibilities of IT and get to know their potentials. This is confirmed by the single factor analysis of variance according to which statistically significant difference was established between the rank level for the period of studies between students of various years of studies at the level $p<0.05$, the rank level attributed by students of various academic years to contribute of digital technologies to foreign language learning. Eta-squared value of 0.07 implies moderate influence of the established difference.

**Graph 5:** Contribution of digital technologies to foreign language learning according to years of studies

The results might imply that only during studies the subjects start complementing standard with electronic sources and tools. As a consequence, we are facing the need for students to be guided in this direction at earlier stages of their education. It is necessary for teachers to take more energetic steps in guidance and training of students, as well as in motivating them to empower their learning processes through the use of electronic media. Otherwise, not only
that a great benefit for foreign language learning will be lost, but also students will not become properly equipped for self-regulated learning.

References:


TOWARDS CREATING A QUALITY CULTURE WITHIN VOCATIONAL EDUCATION AND TRAINING: CROATIAN EXPERIENCE

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Abstract

Vocational education and training institutions play an active role in the world of work by continuously updating technologies they use and by adapting professional skills they deliver to the labor market needs. In vocational education quality can be explained as specific form of culture which includes a long-term process of continuous improvement towards perceived standards of excellence. While quality assurance is important for accreditation and certification of studies, it is not enough to ensure these institutions continually strive to improve quality, unless accompanied by effective internal quality management. In contrast to quality assurance, which is the subject to monitoring and is enforced by legal frameworks, the quality management implies quality culture, which includes improvement of demands through loyalty of all employees, with the purpose of satisfying the necessities of all partakers.

Despite the policy specific regulations, the question whether quality management can be applied in Croatian VET or not has become an important issue. This paper provides the discussion of quality assurance in Croatian VET and focuses on the impact of improvement and implementation of quality management practices. The goal of the empirical research has been to study the efficacy
of quality assurance system in vocational education in the Republic of Croatia. A longitudinal research was carried out suggesting the presence of changes in vocational school students' attitude towards the quality of vocational education in the 6-year-long period, from 2008 until 2014. Two opinion polls were carried out in the monitored period, the results of which pointed out the decline in students' contentment with the educational service in 2014 in comparison to 2008, although the school had been conducting all legally regulated procedures of quality attainment. It is suggested to implement modified quality management principles as a basis for achieving excellence in VET.

**Keywords:** vocational education and training, quality assurance, quality management, quality culture

**JEL Classification:** M5, M54

1. INTRODUCTION

Modern society is oriented to achieve success, and vocational education in such a social environment occupied an important place in the preparation of young people for further education or the labor market. All members of the vocational education are interested in great achievements and therefore are the debates about the ways of evaluation of the quality of vocational education more important, due to the interactive relationship of the education system and society.

The concept of vocational education and training (VET) is a multidimensional concept and it is constantly changing. Because its relation to the other parts of education system and working life differs among countries and changes over time, it is not possible to give one definition. European Centre for the Development of Vocational Training (CEDEFOP;2014,292) defined vocational education as “education and training which aims to equip people with knowledge, know-how, skills and/or competences required in particular occupations or more broadly on the labor market”. Despite many European countries maintain a large vocational schooling system as a part of their upper-secondary education, they generally differ with respect to how the vocational system is operated (Lamza Maronić et al.;2014, 701-705). Only few countries have well-developed dual training systems which are basically apprenticeship systems. By linking training with workplaces these systems have the advantage that they are able to impart competences needed in the world of work.
Evidence available from cross-country comparisons in Europe (Woessmann; 2008, CEDEFOP; 2013) points to several systematic elements of VET success:

- to ensure relevance of curricula, all stakeholders (government, employers, social partners, educational institutions) are involved in its development,
- to maintain a close contact to the labor market, a system of continuous feedback from employers and private-sector institutions is required,
- to maintain a high level of training quality, a decentralized system of accreditation and quality assurance is important.

At the EU level there is an approach to procedures for quality assurance and quality management which are being developed in order to meet the goals of education policies of member countries. The validity and effectiveness of the system for monitoring and evaluation of education is one of the most important indicators of the quality of the national vocational education system.

Despite the policy specific regulations, the question whether quality management can be applied in VET has become an important issue. Recent authors (Lunenburg;2010, Ahuja;2011) have shown increasing interest of quality management in the education sector and the application of different models of total quality management (TQM) at all levels of the educational hierarchy. Their researches are focused on assessing the performance of the entire educational process with a focus on customer satisfaction education services. The school is part of the community and as such it must comply with the requirements focused on social responsibility and meeting higher standards of quality. Thus, TQM supports responsible behavior by promoting the objectives and measurable indicators, and schools are required to provide the best service to their customer, which is achieved by improving the quality of the educational process.

2. THEORETICAL FRAMEWORK

Quality is a subjective category which is differently understood. Because of the characteristics of subjectivity it is difficult to measure the quality of educational services. In educational organizations quality can be explained as specific form of culture which includes a long-term process of continuous improvement towards perceived standards of excellence. The concept of quality education includes simultaneous and balanced focus on educational goals, users, educational process and its results.
2.1. Quality implementation in vocational education

According to the traditional understanding of “good schools”, high-quality school is one that has a high level of resources, or the school in which the transformation processes are intensive and in which there is a lot of learning (Glasser; 2004). Those schools with a higher level of resources and intensive processes were considered to achieve better academic achievements than those with lower levels of resources and less intensive processes.

Modern understanding of the quality of education (Bezinović; 2010) focuses on the cognitive and affective achievements and outcomes. The orientation on the outcomes in the contemporary understanding of quality of education supports the orientation of classes on students (child oriented teaching), as opposed to the traditional approach to teaching-oriented subject (subject oriented teaching).

Bezinović (2010, 24) observes the term of quality of schools features as an institution that organizes and conducts the processes of education depending on its internal capacity and ability to satisfy its function. The quality of education is a multidimensional concept that refers to:

• the type of education,
• institutional mission and its goals or whether the institution realizes its meaning of existence,
• specific standards of the system, institution, program or discipline.

Improving and assuring the quality best takes place in an atmosphere that Bezinović (2010, 31) called culture of quality. The cultural component of quality refers to the social-psychological element of shared values, beliefs, expectations and the pursuit of quality in the school collective. This aspect of quality according to the author is crucial because it determines the quality of school mostly determine the schools personnel, students, the school council, parents and the local community. The concept of culture quality refers to the dominant position and value in educational practice which is characterized by a permanent tendency of improvement of work and excellence in its own operations. It refers to a common system of values, attitudes, habits, common behaviors, traditions and beliefs of the working collective. Therefore, at school level it is important to adopt a common attitude that the quality of education is a common, superior value and the collective responsibility of all stakeholders. By convention, the acceptance of a common system of such values, attitudes and behavior makes the educational community more focused and more effective.
In order to create the preconditions for a quality education, only with regular feedback from all stakeholders of the education system it is possible to find out their needs and requirements. According that, schools need feedbacks from students, parents and public, the school administration needs feedback from teachers, while local authorities should recognize the needs of the school. The achievement of quality cannot be accidentally nor can it be determined by the management, there are changes necessary in behavior and attitude of all school staff in creating quality educational services.

Implementation of TQM approach depends of several factors such as organizational structure and culture, employee involvement and organizational communication. And for another, the community increasingly requires that the schools are also efficient in use of resources so as to achieve the best results possible. TQM means that without strongly accepting the need for change with employees’ involvement and management support as key elements for implement, there is no successful adopting of TQM in educational organizations. According to Ahuja (2011,42) there are some points to a growing interest in applying TQM in vocational education. He emphasizes a direct relationship of human resource management, TQM and customer focus with technical education. In context of technical education TQM will mean continuous learning, innovation, quality in care of students, industrial and governmental customers, human training and development, providing leadership and performance planning. The emphasis is on doing the right things (effectiveness) plus doing things right (efficiency).

2.2. Quality in European vocational education and training

In the last two decades the awareness of the importance of quality vocational education and training is growing in the member states of the European Union. According to ASOO (2011: 6) the quality in vocational education and training does not involve only the quality of teaching but also the sense of purpose and compliance of vocational education with the needs of students and labor market needs.

Since the ratification of the first European Common Quality Assurance Framework for VET in May 2004 by the European Commission1, quality as-

urance and quality improvement have become increasingly important for institutions providing vocational education and training throughout Europe. In particular self-assessment, combined with external evaluation, is a promising instrument of quality assurance and development for VET institutions. Self-assessment can build on quality activities already in place at a VET institution, and it fosters partnerships and exchange between VET providers and the local community and labour market.

Quality assurance of vocational education and training plays an important role for stakeholders of the educational politic of the European Union for solving the challenges, which are presented in the document Europe 2020 (European Commission, 2010). The most common quality assurance in this case refers to overcome skills of mismatches and improving the employability of young people. Efforts encountered by member states are directed towards a common understanding of the excellence of VET to facilitate the mutual recognition of education acquired in different countries and allow more mobility and better respond to the economic and social challenges.

The systems of VET around the world are developing ways of ensuring and improving the quality of services offered, and at European level to create and propose models of quality assurance which the Member States can use as a part of the overall strategy of lifelong learning.

The final objective measure of quality in VET is the quality of learning outcomes and acquiring good professional and transversal skills. The member states were invited to devise a national approach for improving quality assurance systems at national level, to appoint a national reference center for Quality Assurance and participate in the European network EQAVET (European Parliament and the Council of the European Union, 2014). Achievements in quality assurance in vocational education and training towards EQAVET relates to the level of:

• vocational education system,
• providers of vocational education and
• the award of qualifications.

At the system level the excellence of VET entails a strategy of continuous development of skills, the achievement of learning outcomes of high quality, mutual recognition and throughput, as well as the implementation of policies based on evidence to improve the efficiency and effectiveness of the system. The excel-
lence of the system implies cooperation, joint investment and integration of vocational education and training in the system of general education and training. Today most of the national system of VET has defined quality standards for providers of vocational education and training, which are mainly used as conditions for funding and accreditation. In almost all member states data is collected to improve the efficiency and effectiveness of their systems and there are appropriate methodologies designed for data collection, e.g. questionnaires and indicators and benchmarks. The use of certain indicators varies in practice between the member states. The rate of participation and completion of VET system is used by most of the member states, while the key indicators directed towards outcomes, such as the use of skills in the workplace or the share of employed learners at some point after the end of training is less used, although they could provide key information to ensure better compliance with labor market needs.

Quality assurance is carried out in procedures of external evaluation and self-evaluation. The most common form of external evaluation is inspection. In some European countries, the law determines that providers of vocational education and training must systematically evaluate their activities, quality and efficiency. In Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Hungary, Romania, Slovenia and Slovakia there is an obligation of compiling reports on self-assessment and plans for improvement. Self-evaluation procedures are commonly conducted by employees of schools in collaboration with other stakeholders such as students, parents, local communities and employers. However, participants are not specified and there are countries where self-evaluation is conducted by the employees of the educational institution. Except these mechanisms at the system level and vocational education institutions it has been shown that the potential of EQAVET has not been used.

The Republic of Croatia is in the process of adopting the European institutional framework in the area of quality assurance in vocational education. The Law on Vocational Education in 2009 (Narodne novine, 30/2009) introduced the obligation of self-evaluation and external evaluation of all VET institutions. Thus, the Vocational Education Act of 2009 establishes a legal institutional framework for the development and implementation of a framework of quality assurance at the level of the vocational education system and institutions of the Republic of Croatia.
3. QUALITY IN VOCATIONAL EDUCATION AND TRAINING: CROATIAN EXPERIENCE

The chapter presents the results of a longitudinal study conducted on a sample of students of Economic school Ivana Domca Vinkovci, during two different measurements: the first in May and June 2008 and the second in April 2014.

3.1. The research methodology

This research tested the differences in the attitudes of students on the quality of vocational education before and after the introduction of the obligation of quality assurance in Croatian vocational education and training. The aim of the empirical research was to investigate the impact of quality assurance system implementation on students satisfaction with vocational education services.

Defined the basic set, consisting of students of Economic school Ivana Domca Vinkovci in the school year 2007/2008 and 2013/2014. In the school year 2007/2008 in school were registered a total 983 students, and 2013/2014 the 948 students. From basic set was selected a sample of 240 students in the school year 2007/2008 and 240 students in the school year 2013/2014. Conducted a survey of students first, second, third and fourth grades in the various programs of education and occupations. Data were collected by the method of interviewing. As an instrument of research in both periods used the questionnaire of 10 questions, which are structured so that the respondent chooses only one of the answers. In the first part of the survey respondents expressed the intensity of agreement with the following statements in Likert scale from 1 to 5.

Placed claims respondents evaluated by: 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree and 5 = strongly agree.

The second part of the questionnaire consists of questions which were collected general data on the respondents. Before made the questionnaire all respondents are familiar with the purpose and objectives of the research, but also all voluntarily agreed to participate in the study. Operating time was not limited, although most respondents took about ten minutes to complete the questionnaire. After being informed of anonymity tests, read their instructions, which is located at the beginning of the questionnaire. In a study conducted in 2014, in accordance with the provisions of the State Pedagogical Standard for Secondary Education (Narodne novine;63/2008), it was necessary for its
implementation to obtain the approval of the Ministry of Science, Education and Sports, the approval of the director of high school institutions and written consent of a parent / administrator for student participation in research. The collected data were analyzed using SPSS statistical software and analysis of statistically significant differences in the program INSTAT. It should be noted that generalising the results of this study to the entire population is not methodologically credible and represents his lack and limitation.

3.2. Results interpretation

In the school year 2007/2008 the school has registered a total of 983 students, and the sample was selected 240 students. Of the 240 questionnaires that were filled students, the return of completed questionnaires was 240 or 100%. In the school year 2013/2014 the school has registered a total of 973 students, and the sample was selected 240 students. Of the 240 questionnaires that were filled students, the return of completed questionnaires was 184 or 77.08%. The characteristics of the sample are determined on the basis of answers to the questions on the general data that are set in the second part of the questionnaire (Table 1).

Table 1. Analysis of students in academic year 2007/2008 and 2013/2014

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>Number of</td>
<td>Structure</td>
<td>Number of</td>
<td>Structure</td>
<td>Number of</td>
<td>Structure</td>
</tr>
<tr>
<td></td>
<td>students</td>
<td>in %</td>
<td>students</td>
<td>in %</td>
<td>students</td>
<td>in %</td>
</tr>
<tr>
<td>School class</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st</td>
<td>57</td>
<td>23,8</td>
<td>31</td>
<td>16,8</td>
<td>88</td>
<td>20,8</td>
</tr>
<tr>
<td>2nd</td>
<td>54</td>
<td>22,5</td>
<td>57</td>
<td>31,0</td>
<td>111</td>
<td>26,2</td>
</tr>
<tr>
<td>3rd</td>
<td>73</td>
<td>30,4</td>
<td>66</td>
<td>35,9</td>
<td>139</td>
<td>32,8</td>
</tr>
<tr>
<td>4th</td>
<td>56</td>
<td>23,3</td>
<td>30</td>
<td>16,3</td>
<td>86</td>
<td>20,2</td>
</tr>
<tr>
<td>Profession</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economist</td>
<td>60</td>
<td>25,0</td>
<td>84</td>
<td>45,6</td>
<td>144</td>
<td>33,6</td>
</tr>
<tr>
<td>Administrative Officer</td>
<td>79</td>
<td>32,9</td>
<td>94</td>
<td>51,1</td>
<td>173</td>
<td>41,3</td>
</tr>
<tr>
<td>Business Secretary</td>
<td>50</td>
<td>20,8</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>11,7</td>
</tr>
<tr>
<td>Seller</td>
<td>51</td>
<td>21,3</td>
<td>6</td>
<td>3,3</td>
<td>57</td>
<td>13,4</td>
</tr>
<tr>
<td>Success</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>53</td>
<td>22,1</td>
<td>52</td>
<td>28,0</td>
<td>105</td>
<td>24,6</td>
</tr>
<tr>
<td>4</td>
<td>122</td>
<td>50,8</td>
<td>100</td>
<td>53,8</td>
<td>222</td>
<td>52,1</td>
</tr>
</tbody>
</table>
If we analyze the structure of all students according to years of education, the study included 20.9% of first class, 26.2% of students second class, 32.8% of students in third class and 20.2% of the students from the fourth class. If we observe the structure of students who filled out a questionnaire in two periods by profession, the total number of students is the largest share of Administrative Officers, and at least those in the profession Business Secretary. The largest share in the sample participating students who were the previous year of schooling completed with very good success, while at least students who have been successful enough.

The results are compared within two calibrating points; therefore it has been tested whether the examinees in those two groups can be discerned according to achievements in the former school year. The chart shows the distribution of marks in both samples is balanced, which is also shown in $\chi^2 = 5.338$, ss=3, $p>0.05$.

A factor analysis has been carried out in regard to the questionnaire, and the scales were formed: Career choice satisfaction, School personnel satisfaction, School satisfaction.

An overview of matrix pattern of factor structure is shown in the table 2. 53.12% of the variance is explained, and KMO index of representativeness = 0.78. The extraction of main components and acute angle oblimin rotation which allows correlations between the factors was chosen. Although the results suggest forming of two scales, it was decided to form three, in a way that the first factor gets divided into two subscales.

Statements “After graduating I will enrol in a desirable university or find a good job,” “I chose this school and profession because I want to study or work in that field.” and “School subject matter is interesting and all subjects will be of good use in my future studies or work.” make up the scale of Career choice satisfaction.

Statements “I’m satisfied with my school teachers,” “There are good and high quality relations between teachers and students, and students’ opinions are appreciated.” and “The atmosphere in the classroom is relaxing, working and mo-
tivating, therefore I am not absent from classes too often.” make the scale School personnel satisfaction.

Statements “I’m satisfied with school choice and would recommend it to others.” and “My school is the best vocational school in the county.” make the scale School satisfaction.

In the analysis weren’t used statements: “My parents are satisfied with my achievements.” and “Vocational schools better prepare students for work and grammar schools for university.” because those statements are not substantially close to other questions and therefore can’t form an individual scale.

The difference was questioned by means of a t-test for independent samples.

Table 2. Matrix pattern of factor analysis over the questionnaire

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’m satisfied with school choice and would recommend it to others.</td>
<td>.700</td>
<td></td>
</tr>
<tr>
<td>After graduating I will easily enrol in a desirable university or find a good job</td>
<td>.698</td>
<td></td>
</tr>
<tr>
<td>I chose this school and profession because I want to study or work in that field</td>
<td>.695</td>
<td></td>
</tr>
<tr>
<td>My school is the best vocational school in the county</td>
<td>.617</td>
<td></td>
</tr>
<tr>
<td>School subject matter is interesting and all subjects will be of good use in my future studies or work.</td>
<td>.508</td>
<td></td>
</tr>
<tr>
<td>There are good and high quality relations between teachers and students, and students’ opinions are appreciated.</td>
<td>- .857</td>
<td></td>
</tr>
<tr>
<td>I am satisfied with my teachers.</td>
<td>- .804</td>
<td></td>
</tr>
<tr>
<td>The atmosphere in the classroom is relaxing, working and motivating, therefore I am not absent from classes too often</td>
<td>- .642</td>
<td></td>
</tr>
</tbody>
</table>

Source: author’s calculations

Descriptive statistics is quoted in the table 3. With Career choice satisfaction a statistically significant difference can be perceived t=3,519, ss=424, p<0,01 the same as for School satisfaction t=4,937, ss=424, p<0,01, whereas for School personnel satisfaction there wasn’t any significant difference t=1,457, ss=424, p>0,05.

The overview of chart results shows the results for School satisfaction and Career choice satisfaction were lower in 2014 in comparison to 2008.
Table 3. Descriptive questionnaire data according to student groups

<table>
<thead>
<tr>
<th>Scale</th>
<th>Generation</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Se</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career choice satisfaction</td>
<td>2013/2014</td>
<td>186</td>
<td>8,32</td>
<td>2,09</td>
<td>153</td>
</tr>
<tr>
<td></td>
<td>2007/2008</td>
<td>240</td>
<td>9,11</td>
<td>2,42</td>
<td>157</td>
</tr>
<tr>
<td>School satisfaction</td>
<td>2013/2014</td>
<td>186</td>
<td>6,29</td>
<td>1,97</td>
<td>145</td>
</tr>
<tr>
<td></td>
<td>2007/2008</td>
<td>240</td>
<td>7,23</td>
<td>1,94</td>
<td>125</td>
</tr>
<tr>
<td>School personnel satisfaction</td>
<td>2013/2014</td>
<td>186</td>
<td>9,43</td>
<td>2,46</td>
<td>180</td>
</tr>
<tr>
<td></td>
<td>2007/2008</td>
<td>240</td>
<td>9,07</td>
<td>2,63</td>
<td>170</td>
</tr>
</tbody>
</table>

Source: author’s calculations

Since the results were unexpected, a correlation analysis with formatted scales from the questionnaire was conducted, as an additional analysis to further investigate the problem. All three scales mutually statistically and significantly correlate on a level of p<0,01. Career choice satisfaction is correlated with School satisfaction (r=0,496) and School personnel satisfaction (r=0,327), and School personnel satisfaction is in correlation with School satisfaction (r=0,419).

4. CONCLUSION

The introduction of quality management systems is one of the most important global changes in the education sector and it can be assumed that this trend will mark the education of the 21st century. In education it is necessary to define quality as a meaning that is in the same way as understandable to all users. Modern understanding of the quality of education focuses more on student achievement and educational outcomes, and less on input, resources and processes in an educational institution. Quality culture in education implies a common position that the quality of education the responsibility of all stakeholders. Although the quality of subjective, it can not be imposed either by management or by the legislative structure. In order to create conditions for the achievement of quality culture, needs and requirements of all stakeholders, it is possible to find out only with regular feedback.

The main difference between the quality assurance system and the system of total quality management stems from the fact that the system of total quality management is not imposed from the outside and is not subject to the inspection. Unlike systems and quality assurance procedures, the implementation of total quality management in education includes a new culture of behavior of all
stakeholders of the educational process, as well as application sharing the same values within the organization based on a common goal.

Although it is assumed positive impact of implementation of quality assurance systems that are in the system of vocational education of the Republic of Croatian applied in accordance with legal regulations, the results of empirical research suggests just the opposite. Specifically, as a result of this research expected to change in the attitudes of students on the quality of secondary education in a positive way after the introduction of a quality assurance system. So, there is the assumption that students will be more satisfied in 2014 education in the vocational education of students who have expressed their views in 2008 while school is not applicable quality assurance procedures. The results indicate a decrease in the level of satisfaction of users of educational services to the fall in satisfaction occupation. The questions that make up the scale of satisfaction occupation relate to faith in easier employment after their education in vocational education. The measurement of 2008 and 2014 has shown that the conditions for the possibility of employment have significantly changed. In that case, it is not an unusual result of the Career choice satisfaction in 2014 compared to 2008. Possible explanations include the assumption that implemented a quality assurance system of vocational education is not efficient. It can be concluded that VET institutions are obliged to ensure quality educational service to its customers, with excellence can be achieved only by implementing total quality management system.

References


Zakon o strukovnom obrazovanju, Narodne novine 30/2009
COMMUNICATION IN TEACHING IN HIGHER EDUCATION—COMPARISON OF EXPERIENCES IN PUBLIC AND PRIVATE COLLEGES

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Abstract

Reflections about quality teaching in higher education as a prerequisite of developing students’ skills necessary for efficiently adjusting to varying life circumstances, employment and better socioeconomic outcomes often rely on the need of strengthening teacher competences. University teachers’ communication competences are the basis for developing other teacher competences. This paper starts from the idea that it is necessary to identify and become aware of advantages and disadvantages of communication in teaching (from the perspective of students, as they are the ones who most efficiently steer changes in teachers) with the ultimate goal being improvement of quality in teaching in higher education. This research was conducted using an on-line questionnaire and snowball sampling technique with 227 research participants – undergraduate and graduate students. The aim of this research was to determine differences in estimations of students attending private and public higher education institutions regarding teacher characteristics effecting their communication in teaching, communication styles, features of interpersonal communication, frequency of student-teacher communication, and communication-fostering party (these could be detected as predictors of satisfaction with communication in teaching). Research results generally indicate that students attending private colleges are more satisfied than students attending public colleges in relation to all the ex-
amined variables. At this point, it is irrelevant whether private institutions rec-
ognized the importance and encouraged communication competences of their
teachers sooner than public institutions, or were they simply responding to the
satisfaction of their self-funded students. It is, however, important to recognize
the factors contributing to quality student-teacher communication and improve
the quality of the overall teaching process by improving teachers’ communica-
tion competences and making them aware of their roles and communication
styles, and changing their roles and communication styles.

Keywords: communication, teachers, higher education teaching

JEL Classification: M5, M54

1. INTRODUCTION

The strategy of Education, Science and Technology of the Republic of Croa-
tia (2014) in accordance with the Strategic Framework for European coopera-
tion in education and vocational training, promoted empowerment, adoption
and support of the concept of lifelong learning, of improving the quality and
effectiveness of education and training at all levels and within all types of edu-
cation. The strategic framework of the European Commission for Education
(Rethinking Education; 2012, 20,21) emphasized the importance of investing
in education and development of skills needed to adapt to the changing cir-
cumstances of life, for employment and better socio-economic outcomes and in
difficult economic circumstances. One of the most important prerequisites for
quality higher education was the quality of teachers, with the emphasis on the
necessity of strengthening the teaching competencies in order to achieve these
outcomes. Communicative competency of university teachers were the basis for
the development of all teacher competencies. College teachers had a unique op-
portunity to support the academic and social development of students at all
levels of education and to direct their progress (Baker et al.; 2008, O'Connor
et al.; 2011). A teacher’s communication indicated the level of his profes-
sonalism, but also the ethical dimension as a part of his professional and human
responsibility.

In terms of strengthening the social rights of the population, the principle of
equality of opportunity promoted education as a measure of justness in adopt-
ing the educational capital. The private market represented a counterpart to
education as a public good. “The efforts of the market economy to increase ef-
ficiency in all areas of social activity, stimulated gaining better results in the college system. The market competition between the public and private education affected the emergence of many innovations and adaptations that could not have happened in the context of traditional forms of “production” of educational services under state control and excessive standardized system “(Barić, Obadić; 2013, 62). In the last ten years the number of private colleges increased three times. At the moment, there are around 6 percent of the total student population divided in three private universities, three colleges and 23 private colleges.

According to the research by Educentar (2014), about the ratio of quality of public universities and private colleges that involved more than 400 students, 68% of students are satisfied with public university teachers and 95% of students were satisfied with the private college teachers. Public university students were the most satisfied with teachers (68%), communication (67%) and quality of teaching (61%), and the private colleges students are quite satisfied with communication with teachers (97%), with teachers (95%) and preparation that their study provides for their later involvement in the labor market (92%). The Croatian public was often triggered by the debates on the relationship between the quality of state and private universities. It’s very difficult to set the estimation parameters, but the purpose of this paper was not the comparison of quality, competency of students and teachers of both faculties, but an insight into possible differences in the manner and quality of communication between teachers and students (given the estimated difference from the above-mentioned research, with the satisfaction with communication with teachers). In colleges, students were asked to assess the communicative competence of their teachers and the results could serve as guidelines for college teachers to improve their communication competency.

2. COMMUNICATION AS AN EDUCATIONAL COMPETENCE OF A TEACHER

Communication was a process of transferring messages from one person to another, while it’s important for the information to be understood. It’s more than a word exchange, because our whole behavior conveyed a message and affected the person with whom we’re in a relationship (Delors et al.; 1998, Hargie and Dickson; 2004). In order to better understand the concept of communication, Vodopija (2004) pointed out its 6 features: variety of reasons for human
communication, intentional and unintentional effects of the communication, mutuality of communication, involvement of at least two people, the existence of successful and unsuccessful communication and the use of symbols. All of those features strongly affected the formation of the concept of “communicative competence”.

According to Bagarić and Mihaljević Djigunović (2007, 84), “communicative competency” was a phrase that consisted of two words that, when combined, meant “competence to communicate.” Lexicosemantic analysis revealed the fact that the fundamental word in that phrase was the word “competence.” The authors observed the communicative competence from a linguistic discourse, and they considered the term “competence” to be one of the most controversial terms in the field of general and applied linguistics, but if we looked at the notion of pedagogic discourse and settled it in the everyday environment, the concept of competence could be interpreted as a dynamic combination of knowledge, skills and abilities. Communicative competence is a skill that all teachers should and could learn and practice. Rudduck and Flitter (2000) pointed out that teachers must improve their communicative competence by consulting available literature, but even more by following and respecting the students and their needs because they’re the ones who most effectively directed the changes of teachers, and they changed communication making it more efficient.

In university teachings, it’s important to remove those forms of communication that emphasized the hierarchical structure of power between students and teachers and replace them with an approach that contributed to individual and collaborative learning. Social competence of teachers resulted in their behavior in the classroom, and were reflected in the individual characteristics (empathy, fairness, consistency, reliability), social skills (collaborate, teamwork, courtesy, kindness) and the skills to establish relationships with students (authority, accessibility, respect, communication, sense of humor ...) (Jurčić; 2012). Interpersonal communication competence referred to the quality of communication and included the adequacy and effectiveness (Reardon, 1998). In university teaching cooperation was the key link, regarding the appropriateness and effectiveness, and Grice (1975), the advocate of a conclusion derived principles of conversation, generally assumed that the principle of cooperation was the most important thing for the interpretation of utterances. In university teaching, it was possible to include a partnership in communication which removed hierarchical structure, in which the partners learn critically, with a constructive exchange of
ideas (Mercer, 2000). Every human interaction has an emotional subtext. Young people were inferior in relation to the natural power teacher-student imbalance. When a pedagogical relationship became the exercise of power or manipulation, the process of teaching was turned into a farce (Van Manen; 1991, 168). Therefore, a teacher in the communication process had to demonstrate those qualities, skills and dispositions that could be called tact, and which strongly affect the communication style of the teacher.

Peek Richmond et al. (2009) listed 9 types of communication styles: dominant, dramatic, contentious, animating, impression-making, relaxed, attentive, open, friendly and precise style. A teacher’s communication style was his ability of verbal and non-verbal, effective and affective communication with students so that they would have an opportunity to improve the optimum academic success and behavior. Although each teacher had their primary communication style, it could be changed depending on the situation or a student group. All those styles were positively associated with teaching and communication outcomes and effectiveness of teachers.

3. METHODOLOGY

Scientifically relevant researches about the comparison of communication between teachers and students in public and private higher education institutions were bibliographically limited. In assessing communication skills in research, some of the processing and perceptual skills aimed at interaction and communication activities for teachers and students were assessed (Maguire, Pitceathly; 2002), which affected the communicative competency of teachers, while the type associated with the content weren’t examined because our premise was that it might be more difficult for students to objectively evaluate the academic facilities that their teachers communicated.

The aim of the research was to examine differences between the estimates of students of private and public institutions of higher education about teachers’ traits which influenced their instructional communication, communication styles, features of interpersonal communication, frequency of communication between student - teacher, and the side that encouraged communication. The following hypotheses were defined: H1 Students of private schools assigned higher grades to communicative competency of teachers in relation to students of state universities; H2 Private and state college students noticed the differ-
ence in the role and the communication style of the teacher; H3 Students of private schools assigned, on average, higher grades for the characteristics of interpersonal communication in relation to the students of state universities; H4 At private colleges, communication with students was generally prevalent and often encouraged by teachers, than at the state universities.

The research was conveyed among students of undergraduate and graduate studies at the Faculty of Philosophy, Teacher Education, Faculty of Economics in Osijek, Department of Physics in Osijek (hereinafter - “state colleges”, N = 112), VERN in Zagreb, ZŠEM in Zagreb and the ACMT in Dubrovnik (hereinafter - “private universities”, N = 115). There were 50 male and 177 female participants, with the average age of 23.73 years (M = 23.73, SD = 4.122) from 18 to 51 year of age. It should be noted that the research included the private colleges which got their working license, after being in the accreditation process (Agency for Science and Higher Education). Gathering data was conducted by a questionnaire (Buljubašić and Rebrina; 2013), which contained closed questions and Likert scale of 5 degrees for quality, satisfaction and frequency. Online questionnaire contained questions about teaching communication (assessment of quality and competency, role and communication style of teachers, characteristics of interpersonal communication, frequency and direction of encouraging communication. A descriptive statistics and t - test for independent sample were also used. Data was analyzed with the use of statistical program SPSS.

4. RESULTS AND DISCUSSION

4.1 Communication competency of teachers

While assessing communication skills of teachers, private college students showed a greater presence of the following qualities and competencies of their teachers (t = 2.397, df = 225, p = 0.017): accessibility, openness, warmth, positive feedback, responding to and pointing to errors, asking sub questions, interest in course content, interest in the content of other courses, observing students as people with certain desires and needs, designing classes so they were applicable to other colleges and clarifying unclear content. The study evaluated teachers’ behavior, and not the individual characteristics of teachers because Brophy (1986) suggested that the indicators of the global impact with students were measurable when individual characteristics were replaced by more direct measures of achievement. One of
the categories of variables in Huitt’s transactional model of the teaching process - learning (Huitt; 2003), referred to the characteristics of the teacher and his behavior in the classroom (values, knowledge, thinking skills, communication skills ...). According to this model, individual characteristics of teachers had an impact on their behavior, but also affected the behavior of students. Researches (Darling-Hammond; 2000) showed significant correlation between student achievement and teacher’s verbal abilities. Higher percentage of private schools (in relation to the state) had the possibility of individual approach to students, working in small groups, and was itself the interaction between teachers and students at a better level. That confirmed the first hypothesis.

4.2 The roles of teachers and communication styles

Peek Richmond et al. (2009) distinguished 5 teaching strategies: lecture, discussion, interpretation skills, group activities, and giving instructions. Each of these strategies used different communication style. In accordance with the strategies, teachers’ role might vary, and they were: teacher as a speaker, as a facilitator, coach, manager, coordinator and innovator. Those roles were assessed by students (Table 1).

| Table 1. Attitudes of students in relation to the assessment of the role of teachers |
|----------------------------------|--------|--------|--------|------|------|------|
| Type of university              | N      | M      | SD     | t    | df   | p     |
| Teacher’s traits                |        |        |        |      |      |       |
| private                         | 115    | 3.89   | 0.67   | 4.76 | 225   | .000  |
| state                           | 112    | 3.45   | 0.70   |      |      |       |
| Teacher - trainer               |        |        |        |      |      |       |
| private                         | 115    | 3.78   | 0.92   | 5.00 | 225   | .000  |
| state                           | 112    | 3.11   | 1.10   |      |      |       |
| Teacher - manager               |        |        |        |      |      |       |
| private                         | 115    | 3.78   | 0.91   | 7.23 | 225   | .000  |
| state                           | 112    | 2.83   | 1.06   |      |      |       |
| Teacher coordinator and innovator|       |        |        |      |      |       |
| private                         | 115    | 3.82   | 0.874  | 4.258| 225   | .000  |
| state                           | 112    | 3.29   | 0.974  |      |      |       |

Author’s calculations

Assessments of the qualities of teachers as speakers and moderators didn’t show a statistically significant difference. Students of private colleges reported a statistically greater presence of teachers’ traits as coaches, managers and coordinators and innovators. Private colleges more often had students work in small groups, in which these qualities of teachers got more expressed. Researches proved that cooperative learning could produce teaching of better quality,
develop critical, creative and logical thinking and communication skills (Cota-Bekavac; 2002, Peck Richmond et al.; 2009).

**Table 2** Assessments of students in relation to the assessment of the components of a teacher’s communication style (Peck Richmond et al (2009))

<table>
<thead>
<tr>
<th>Type of university</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Style of communication</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>private</td>
<td>115</td>
<td>3.93</td>
<td>0.59</td>
<td>5.43</td>
<td>225</td>
<td>0.000</td>
</tr>
<tr>
<td>state</td>
<td>112</td>
<td>3.50</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friendly approach in communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>private</td>
<td>115</td>
<td>4.17</td>
<td>0.78</td>
<td>5.11</td>
<td>225</td>
<td>0.000</td>
</tr>
<tr>
<td>state</td>
<td>112</td>
<td>3.63</td>
<td>0.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accuracy, precision in communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>private</td>
<td>115</td>
<td>4.24</td>
<td>0.74</td>
<td>3.48</td>
<td>225</td>
<td>0.001</td>
</tr>
<tr>
<td>state</td>
<td>112</td>
<td>3.9</td>
<td>0.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The teacher is attentive and helpful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>private</td>
<td>115</td>
<td>4.17</td>
<td>0.77</td>
<td>5.72</td>
<td>225</td>
<td>0.000</td>
</tr>
<tr>
<td>state</td>
<td>112</td>
<td>3.55</td>
<td>0.83</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher is lively and involved</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>private</td>
<td>115</td>
<td>3.84</td>
<td>0.80</td>
<td>4.16</td>
<td>225</td>
<td>0.000</td>
</tr>
<tr>
<td>state</td>
<td>112</td>
<td>3.38</td>
<td>0.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The relaxation in communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>private</td>
<td>115</td>
<td>4.09</td>
<td>0.79</td>
<td>3.39</td>
<td>225</td>
<td>0.001</td>
</tr>
<tr>
<td>state</td>
<td>112</td>
<td>3.71</td>
<td>0.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The drama in communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>private</td>
<td>115</td>
<td>3.1</td>
<td>1.09</td>
<td>1.97</td>
<td>225</td>
<td>0.049</td>
</tr>
<tr>
<td>state</td>
<td>112</td>
<td>2.83</td>
<td>0.91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Author’s calculations

Table 2 indicated that in assessing styles of teachers’ communication in teaching, there was a statistical significance for each of the components of communication styles that were important for effective and affective communication style of a teacher. That could be explained by the fact that teachers and students of private colleges were more inclined to informal consultations that created a relaxed and friendly atmosphere. The aforementioned confirmed the second hypothesis.

### 4.3 Interpersonal communication

Communication at college level had an interpersonal component, within which were some relations. The most prominent was the power relation between teachers and students. It’s closely linked to the concept of hidden curriculum, based on which the educational institution were identified as institutions that were inextricably linked to the issues of power and control in society and thus mediated a legitimate social and cultural reproduction of class, race and gender relations in society.
Table 3 Attitudes of students of private and state universities in relation to the assessment of the characteristics of interpersonal communication in a teaching process

<table>
<thead>
<tr>
<th>Characteristics of interpersonal communication</th>
<th>Type of university</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>private</td>
<td>115</td>
<td>3,89</td>
<td>0,64</td>
<td>3,51</td>
<td>225</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>state</td>
<td>112</td>
<td>3,61</td>
<td>0,56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The presence of spontaneous behavior in communication</td>
<td>private</td>
<td>115</td>
<td>3,90</td>
<td>0,90</td>
<td>3,66</td>
<td>225</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>state</td>
<td>112</td>
<td>3,48</td>
<td>0,82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication is developing</td>
<td>private</td>
<td>115</td>
<td>4,08</td>
<td>0,80</td>
<td>3,32</td>
<td>225</td>
<td>.001</td>
</tr>
<tr>
<td></td>
<td>state</td>
<td>112</td>
<td>3,71</td>
<td>0,84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The presence of feedback and coherence in communication</td>
<td>private</td>
<td>115</td>
<td>4,04</td>
<td>0,83</td>
<td>3,71</td>
<td>225</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>state</td>
<td>112</td>
<td>3,64</td>
<td>0,79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Author’s calculations

Students of private colleges reported a significantly greater presence of features of interpersonal communication in relation to the students of state universities. Sternberg and Williams (1996) noted that precisely those features of communication represented one of the key elements in encouraging the creativity of pupils/students (as private colleges in their curricula often stood out as the imperative of working and as their comparative advantage). The presence of a more significant estimate of a feedback in communication lead to better interaction and the explorations of the teacher-student interaction showed that the quality of established interactions was associated with the achievement of learning outcomes (Hewitt; 2003). That confirmed the third hypothesis.

Table 4 Attitudes of students of private and public universities with regards to the frequency of communication with teachers

<table>
<thead>
<tr>
<th>The frequency of communication [before or after class]</th>
<th>Type of university</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>private</td>
<td>115</td>
<td>3,32</td>
<td>1,16</td>
<td></td>
<td>5,91</td>
<td>225</td>
<td>.000</td>
</tr>
<tr>
<td>state</td>
<td>112</td>
<td>2,47</td>
<td>0,98</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The frequency of communication [during class]</td>
<td>private</td>
<td>115</td>
<td>3,57</td>
<td>1,17</td>
<td>7,92</td>
<td>225</td>
<td>.000</td>
</tr>
<tr>
<td>state</td>
<td>112</td>
<td>2,29</td>
<td>1,27</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Author’s calculations

Students of private colleges, more often than students of state universities (Table 4), achieved communication with teachers through consultations before/after/during teaching hours, while other forms (official consultations, e-mail)
did not prove a statistically significant difference. In researching the phenomenon of communication motivation had an essential role. 73.1% of students in private colleges believed that communication was motivated by the professor, while only 22% of students of state universities agreed. The assumption was that a teacher who successfully encouraged and directed communications with students, also more successfully identified their needs and balances between waking intrinsic motivation and “manipulating” the factors that promoted extrinsic motivation. This part of the research confirmed the fourth hypothesis.

5. TOWARDS CONCLUSION

Both public and private colleges had very similar programs. The universal answer to the question about the differences in quality between private and state studies was impossible to answer, because there was too vast of a differences between them. It applied to teachers, facilities, equipment and the approach to students. However, as mentioned in the introduction, the purpose of this work was not to compare the quality of any segment of work, but to give an insight into possible differences of communication between teachers and students in order to improve the work of all university teachers. According to the already mentioned research by Educentar (2014) about the ratio of the quality of public universities and private study, 67% of students were satisfied with the communication with teachers at state universities, and 97% of students were satisfied with communication with teachers at private universities. The results of our research supported the greater satisfaction with communication during class by students at private colleges in relation to the state, but the goal of this paper was to point out certain factors that students of state and private universities perceived to be different. Our study confirmed all the initial hypotheses according to which the students of private schools assessed with higher grades the communicative competence of teachers in relation to students of state universities; at private and state universities, students noticed the difference in the role and the communication style of teachers; students of private schools assessed higher the characteristics of interpersonal communication; communication with students at private colleges was generally prevalent and more often encouraged by teachers.

Colleges were increasingly under pressure by the authority, students and the public to show the optimal ratio of outputs they achieve and the money they
receive in return. As a result, there were processes of monitoring the quality of faculties, attempts of institutions to improve education, but also the application of modern business strategies, concepts and techniques in the management of higher education (Melewar, Akel; 2005). Regardless of who started the premise, good communication was a prerequisite for the success of the teaching process, as well as other parameters of the assessment of an institution’s efficiency. Did the private institutions recognize that importance sooner than the governmental ones, or were they just happy with the satisfaction of students who were financing their studies independently (and therefore “had to” be satisfied), is irrelevant at this point. It was important to identify factors that contributed to the quality of communication, and thus the entire teaching process (which in its essence represented the communication process). University teachers had to accept changes in the way of communication which are, among other things, caused by the changes in the method of studying in terms of the increasing emphasis on small groups and mentoring (Parry et al.; 2008). The above certainly lead to the changing role of university teachers ranging from traditional ones – teaching, to teachers as facilitators, managers, motivators, innovators...

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ANALYSIS OF LABOUR MARKET BY LEVEL OF EDUCATION IN THE SELECTED MEMBER STATES OF EUROPEAN UNION

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Abstract

The quality of human resources is mostly determined by the quality of the education system, which is determined by the quality of life and standard of living, investments in education and participation in education. Education is a subsystem of society whose structure, economic and social benefits and contents depends on the characteristics of its environment. Transfer and application of knowledge is essential for the adoption and implementation of important manufacturing and other social decisions. But the objective of education should not only be acquisition of new competencies that will enable employment but also those which will enable them for active participation in the society. The quality can be measured according to dynamics of employment of educated citizens who finished a certain level of education.

For the purpose of the work it has been conducted a detailed analysis of the labour market by level of education in selected EU Member States in the period from 2001 to 2013. It has been analyzed the labor force, employed and unemployed. The analyzed countries are the Republic of Austria, the Czech Republic, the Republic of Bulgaria and the Republic of Croatia as associate member of the European Union.

Keywords: labour market, level of education, European Union

JEL Classification: E2, E24
1. INTRODUCTION

Investing in human capital leads to the possibility of restructuring of the economy, reducing the problems of poverty, unemployment and social exclusion. Basic methods of measuring of human capital are achieved by level of education of the population, the educational structure of the working age population, and the return on investment in human capital, and employment of citizens according to the level of educational attainment. It is considered that for entering into the labour market should be develop different competencies, and it should be a combination of cognitive and met cognitive skills, knowledge and understanding, interpersonal, intellectual and practical skills and ethical values. This should be the goal of any educational program.

2. ANALYSIS OF THE LABOR MARKET

“A labour market is the place where workers and employees interact with each other. In the labour market, employers compete to hire the best, and the workers compete for the best satisfying job.” (http://economictimes.indiatimes.com/definition/labour-market)

For the purpose of the work it has been analyzed the labour market by level of education. Analysis of labour market included an analysis of the labor force, analysis of unemployed and analysis of employed in Croatia and selected EU Member States.

2.1. ANALYSIS OF THE LABOR FORCE

“The labor force is defined simply as the people who are willing and able to work.” (http://www.econport.org/content/handbook/Unemployment/Define.html) Labor force is made up of the total number of employed and total number of unemployed.

Labor force with primary education is the share of total labor force that attained or completed primary education. Labor force with secondary education is the share of total labor force that attained or completed secondary education. „Labor force with tertiary education is the share of total labor force that attained or completed tertiary education as the highest level of education.” (http://data.worldbank.org/indicator/SL.TLF.ZS)
The following graphs show the share of labor force by achieved level of education.

**Graph 1** Labor force in Austria in the period from 2001 to 2013 (in 000)

Source: made by author according to data of the International Labour Organization

The structure of the labor force by education in Austria showed that in the observed period, the share of the labor force with primary education decreased, thus in the 2001 the share was 20%, and in 2013 it fell to 16%. In the same period, the share of the labor force with secondary education slightly fluctuated from 63 to 64%, while the share of the labor force with tertiary education recorded significant growth, thus in 2001 was 16%, and in 2013 even 20%. This proves the fact that Austria recognized the importance of investing in human capital.

**Graph 2** Labor force in Bulgaria in the period from 2001 to 2013 (in 000)

Source: made by author according to data of the International Labour Organization

In Bulgaria, the share of the labor force with primary education during the observed time decreased, thus in 2001 was 22%, and while in 2013 it was only 13%. Share of the labor force with secondary education increased from 55% (in 2001, 2002, 2003 and 2004) to 60% (in 2010, 2011 and 2012). Share of the labor force with tertiary education increased significantly, thus in 2001 it was 23%, while in 2013 was 28%. Accordingly, Bulgaria also recognized the importance of investing in human capital.
Graph 3 Labor force in Croatia in the period from 2002 to 2012 (in 000)

The decreasing trend of labor force with primary education is also noted in Croatia, thus the share of labor force with basic education in 2002 was 22%, while in 2012 fell to 14%. Share of labor force with secondary education didn’t significantly change and it fluctuated from 59 to 63%. Share of labor force with tertiary education increased from year to year, thus in the 2002 was just 17% while in 2010, 2011 and 2012 was 21%. Accordingly, Croatia recognized the importance of investing in human capital.

Graph 4 Labor force in Czech Republic in the period from 2001 to 2013 (in 000)

The analysis of Czech labor force by education, it concluded that the Czech Republic during the period had the most of its labor force with secondary education if it is put in relation with the previously analyzed countries. In the period from 2001 to 2013 the share of labor force with secondary education fluctuated from 79 (in 2002, 2003, 2004, 2005 and 2006) to 73% (in 2013). Share of labor
force with primary education decreased by half, thus in 2001 was 10% of the total labor force and 2013 was just 5%. It is also encouraging that the Czech labor force with tertiary education almost doubled. Namely, in 2001 in the Czech Republic it was 12% of the labor force with higher education, and in 2013 almost 21% of labor force had higher education. Accordingly, the Czech Republic, as previously observed state, recognized the importance of investment in human capital.

2.2. Analysis of the unemployment

The International Labour Office (ILO) defines the unemployed as persons without work, who want a job and who are currently available for work and seeking work. (http://www.economicsonline.co.uk/Managing_the_economy/Employment_and_unemployment.html)

The following graphs show the share of unemployed by achieved level of education.

Graph 5 Unemployment in Austria in the period from 2001 to 2013 (in 000)

Source: made by author according to data of the International Labour Organization

Unemployment in Austria according to education showed that the share of the unemployed with primary education fluctuated over the observed period, thus in 2013 the share was the lowest (30% of unemployed) but in 2007 and 2008 it was the highest, 38%. The share of unemployed with secondary education also fluctuated considerably from 61% in 2002 to 52% in 2007 (while at the same time the share of the unemployed with primary education was the highest). The share of unemployed with higher education unfortunately in-
increased over the years and so in 2002 was 6% of the unemployed, and in 2013 increased to 12%.

Graph 6 Unemployment in Bulgaria in the period from 2001 to 2013 (in 000)

[Graph showing unemployment rates from 2001 to 2013]

Source: made by author according to data of the International Labour Organization

Share of the unemployed with primary education in Bulgaria fluctuated over the time, thus in 2008 it was 43% of the unemployed but since then it started to decrease and in 2012 and 2013 represented 30% of the unemployed. The share of unemployed with secondary education in the early years of the observed period decreased, thus in 2001 it was 54% of the unemployed but in 2008 it fell to 47% of the unemployed and since then recorded an upward trend so in 2013 made up 57% of the unemployed.

Graph 7 Unemployment in Croatia in the period from 2002 to 2012 (in 000)

[Graph showing unemployment rates from 2002 to 2012]

Source: made by author according to data of the International Labour Organization
When it came to the unemployed by education in Croatia, it noticed that the share of the unemployed with secondary education was the largest and fluctuated from 66 to 73% of the unemployed. The share of the unemployed with primary education fluctuated from 23 to 16%. The share of unemployed people with higher education was the lowest in 2003 and 2005 when it was 9% of the unemployed, while the highest was in 2010 with 14%.

**Graph 8** Unemployment in Czech Republic in the period from 2001 to 2013 (in 000)

Source: made by author according to data of the International Labour Organization

Share of the unemployed with primary education in Czech fluctuated during the period and ranged between 20 and 30% of unemployed. Something similar happened with the unemployed with secondary education. In fact, its share was between 65 and 73%. The share of unemployed with higher education fluctuated from 3 to 8%.

### 2.3. Analysis of the employment

“Employment is an agreement between an employer and an employee that the employee will provide certain services on the job, and in the employer's designated workplace, to facilitate the accomplishment of the employer organization's goal and mission, in the return for compensation.” (http://humanresources.about.com/od/glossarye/g/employment-job.htm)

The following graphs show the share of employed by achieved level of education.
Graph 9 Employment in Austria in the period from 2001 to 2013 (in 000)

Source: made by author according to data of the International Labour Organization

It is interesting that the share of employed with higher education in Austria increased by a quarter, i.e. in 2001 it was 16%, while in 2013 it was 21%. Share of employed with secondary education didn’t significantly change and it was between 63 and 65%. Share of employed with primary education fluctuated, so in 2001 it was 19% but in 2012 and 2013 it was 15%.

Graph 10 Employment in Bulgaria in the period from 2001 to 2013 (in 000)

Source: made by author according to data of the International Labour Organization

It is important to emphasize that in Bulgaria the share of employed with higher education was high, and ranged from 25 to even 31%. Share of employed with secondary education fluctuated and ranged from 55 and 61% of employed. Also interesting is the fact that the share of employed with basic education almost halved, thus in 2002 and 2004 it was 19%, while in 2013 it was only 10%.
Graph 11 Employment in Croatia in the period from 2002 to 2012 (in 000)

Analysis of employed by education in Croatia showed that in 2013 the share of employed with higher education had 23% of employed while in 2002 has been at 18%. While the share of employed with higher education increased, the share of employed with primary education fell, so in 2002 about 22% of employed had a primary education, and in 2013 it had only 14%. Share of employed with secondary education fluctuated during the period and ranged from 58 and 63%.

Graph 12 Employment in Czech Republic in the period from 2001 to 2013 (in 000)

Analysis of unemployment by education in Czech showed that the share of employed with higher education during the observed period constantly grew, so in 2001 it was 13%, while in 2013 increased to 22% of employed. Share of employed with primary education was falling. In 2001 about 9% of employed had primary education while in 2013 only 4% of employed had it. The largest
share of employed had secondary education. Their share fluctuated between 74 and 80%.

3. CONCLUSION

Analysis of labor force in the observed countries showed that in Bulgaria, Croatia and the Czech Republic, the share of labor force with primary education during the observed period decreased by half. In all countries the share of labor force with secondary education fluctuated. At the same time, all countries recorded growth of labor force with higher education, and in the Czech Republic the share even doubled. Analysis of unemployment showed that all countries recorded growth of the unemployed with higher education. Meanwhile, analysis of employment showed that all countries recorded growth of the employed with higher education. Therefore, it is necessary to harmonize educational programs with labor market demands.

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INTRODUCTION

Currently, social work is now seen as a practical activity, which is aimed to solve or alterate problems of individual, group or community. In these solutions, there are social workers involved through realization of social services. In our conditions, however, social work is perceived as an activity that focuses on obtaining information about the causes of social need and the needs of social assistance. Various forms of social care are provided through practical social work, but the
focus is also on scientific knowledges, which are addressing different social situations with different options; the form of the organization and provision of social services as well as adequate training of future social workers is also contained here. Theoretical and practical aspects of social work should be complementary and engaged and its main objectives should be improvement the conditions and quality of life of individuals, groups, communities and society (Levicka, 2004). Social work as a separate scientific discipline is currently characterized by multiple authors. Social work can be defined as professional activity, which provides social care on a professional level and with the assistance of special working methods (Striezenec 2001). It is also characterized as an activity that is interested in the optimal functioning of social institutions and focuses on the care of humans, to help individuals, families or groups (Matousek 2003).

MAIN TASKS OF SOCIAL WORK

Effective solution of social problems, continuous progress in social prevention and improvement of social services so that they correspond as much as possible with the social problems of the whole society are considered the main tasks of social work. The aim of social work is to prevent social problems that arose from disorders of physical, psychological and social development of the individual, group, community or social environment. Using professional working methods of social work with the active cooperation of an individual, group or community, social work seeks to integrate and return clients back to the society. Using individual resources, through which is seeking sources of social support and the ability to link individual or family to it.

Some authors consider main aims of social work these:

- support of clients in addressing the problem when adapting to the demands of society and to develop the social personality of the client,
- mediation of the contact between clients and organizations that can help by service, resource or opportunity,
- facilitation and supervision in order to work with clients effectively, humanely and with respect for fundamental human rights and freedoms,
- contributing to the development and improvement of state social policy (Draganova 2006).

Social prevention is an integral part of social work and focuses primarily on the creation of favorable conditions in the community, social, economic, cul-
tural and educational field or in employment. Social prevention has a very broad range of activities, therefore it is essential to constantly cooperate with many resorts, especially with Ministry of Interior, Ministry of Justice, Ministry of Health and Ministry of Education of the Slovak Republic as well as linking to the system of state interventions and solutions in the field of socio-pathological characters at inter-ministerial level. The main objective of social prevention is to prevent statuses of social and material need, eliminating the occurrence and spread of socio-pathological characters, advices when occurrence of physical, psychological, social disorders as well as prevent their deterioration and finally the creation of counseling, educational, correctional and re-socialization activities that aim to influence on individuals, groups, communities that are classified as hazardous or threatened (Schavel, Cisecky, Olah, 2008).

Social counseling is provided mainly for people with social problems, who are in a situation which can not solve themselves whether on their own or with the help of family and friends. These include social problems, such as: problems in marriage, intergenerational issues, problems with children, seniors, disabled, or ex-convicts (Slovak, Veres, 2009).

SOCIAL WORK IN HEALTHCARE

The main object of social work in health care is the client itself - individual patient, group or community. Social work in health care examines process of failure, process of socialization and resocialization of the patient, as well as preventing the occurrence and spread of negative factors. Social work in health care also includes care of patients, ie the sick individuals, but also those with disabilities, children, adolescents and adults with specific social and health needs, as well as the elderly and the dying. Social work as a separate specific activity is used to improve the social status of individuals, families, communities and society in large social environment. The main components of access to social work subjects is the ethical approach, the right choice of social activities as well as support and accompaniment (Mojtova 2009).

Social work in health care is provided regardless of age, gender, race, culture, sexual orientation, religion, social or economic affiliation or other optional demographic differences. In providing of social work in health care first social diagnosis is determined and on its basis the plan of social therapy is developed and finally, evaluation of the results and goals achieved is done (Sustrova, 2012)
The concept of health as a state of complete physical, mental and social well-being is also a fundamental objective of social work in health care, and on this basis is trying to solve a social problem, especially if the patient has the disease, ill-health, disability or old age. An important part of the curative and preventive care is a social service itself that complements medical care so that the most effective, lasting treatment is achieved. In the provision of social services in healthcare, there is a need to communicate with other health and social facilities, such as the Offices of Labour, Social Affairs and Family, Registers, police and courts. Important mission in the health sector has a social medicine division, which deals with social issues in healthcare, such as demography, statistics, health education and bioethics. Social pediatrics, psychiatry, geriatrics and others are also included under social medicine (Sustrova 2012).

**SOCIAL FACTORS AND THEIR IMPACT ON HEALTH**

Currently, each individual is considered to be a bio-psycho-socio-environmental being and the environment in which is located is also composed of biological, social and other factors that have an impact on each other. Nowadays, there is more and more diseases that are caused by other factors than biological, such as social and psychological factors. The environment in which human health is situated is therefore very important and should show signs of biological, psychological and social well-being. Among the biological factors that affect human health belongs an environment, job stress, social relationships, lifestyle, status and quality of environment, genetics, organization of health care of population (Bartlova 2005). Stress and difficult life situations are challenging for everybody and is very important how the organism is able to handle such situations and challenges. Individuals that are able to handle difficult situations better also have less risk that they will develop the disease caused by stress, such diseases are predominantly of somatic origin, such as arthritis, asthma, ischemic heart disease, and more. Employment and education is also affecting mental health a lot (Slovak, 2011). If one has a job and is financially secured, has a feeling of safety and peace and this is reflected in the health. Health also affects the level of education, as evidenced by studies that university educated individuals have lower mortality than those with lower education (Bartlova, 2005).
SOCIAL NEEDS OF HOSPITALIZED PATIENTS

Each member of the medical team who works with hospitalized patients should be aware that it is very important to seriously address the principles of health, because there is no better place to respect the laws of these principles than bed of the ill patient. In serious or even less serious disease of the patient it is important to focus on their needs and respect all the particulars which may contribute to stay in the hospital or to accompany this staying, such as fear, impatience, loneliness, separation and total level of mental balance. One of the primary needs of the patient are social needs, in which we should also supervise the small things such as appropriate lighting in the room, the room air, food and others (Tokarova, 2003).

Needs of hospitalized patients are divided into needs that do not change in the course of disease, are the same as in healthy persons, that means, they are not related to the disease. These include in particular the biological and physiological needs. Then, there are needs that change during the disease. Importance of these needs is that they varies among individuals. Every need is influenced by type, stage and severity of the disease, but also by special factors such as age, sex, occupation and education. One of the most important needs is the need of information not only about the disease itself but also about health facilities, one’s homes, relatives, and happenings in society. Lack of information can lead to the patients bearing hospital environment and overall treatment with more difficulties. The need for active and creative work must be continually encouraged as inpatients don’t want to be a passive objects, but to actively participate in their healing. Another highly desirable need is the need for cultural environment, which includes appropriate aesthetic environment in the hospital, art, correct color scheme of the rooms and the overall neatness of health workers. We can extend this approach to watching television, reading books and magazines, and listening to the radio. Needs incurred in the course of the disease are those that are part of the healing process. These needs arise as a response to environmental changes, the overall change of living conditions or gradual changes of man himself under the influence of disease. The emergence of these needs depends on many circumstances, such as the nature of the disease, the personality and character of the patient, the experience of the disease and the behavior of the environment (Bartlova, 2005).
HEALTHCARE

Healthcare according to Law (576/2004) on health care and services related to health care, is defined as a set of work or activities carried out by health workers, including the provision of medicines, medical devices and dietary foods in order to prolong the life of a persons, increasing the quality of their life and healthy development of future generations. Health care includes prevention, diagnosis, dispensary, treatment, nursing care, midwifery and biomedical research. If we want providing healthcare to be as effective as possible, it is important for each health facility to have a professional multidisciplinary medical team. Health profession is performed by medical professionals (according to Law 578/2004 on health care providers, health workers and professional organizations), which includes doctor, dentist, pharmacist, nurse, midwife, medical or laboratory technician, public health worker, radiology assistant, paramedic, dental hygienist, assistant of hygiene and epidemiology, nutrition assistant, masseuse, health care assistant, then technicians, such as optometrist, dental technician, optician, orthopedic technician and electrician and other health professionals, such as a physiotherapist, speech therapist, psychologist, therapeutic teacher, special education teacher, biologist, physicist, chemist or geneticist. The basic conditions for the provision of health care is that the provider and health workers are providing health care in accordance with the law 578/2004, therefore standard therapeutic and diagnostic procedures must be respected and medical care is provided “lege artis”, is thus consistent with current scientific knowledge. Another very important point in healthcare is an ethical dimension, which includes certain patterns of behavior, as well as addressing the complex ethical challenges faced by independent ethics committees. Currently relationship between doctor and patient is based on the method of informed consent, which means that the patient is informed and educated about the planned procedure on subsequent health care, adverse effects, and possible alternatives before medical treatment can be provided. The law 578/2004 also defines situations where medical treatment can be provided without informed consent (Toth, 2012).
MODELS OF HEALTH

FORMS OF HEALTHCARE PROVISION

Basic forms of healthcare provision prescribed by law 576/2004 on health care, and services related to health care, the outpatient care, inpatient care and pharmaceutical care.

Under that law the outpatient care is provided to a person, whose medical condition does not require the continued provision of health care for more than 24 hours. Outpatient care is also provided at home or in a natural environment of the person receiving outpatient care. General outpatient care is provided by a physician specialized in the field of general medicine or a doctor specialized in pediatrics. Specialized outpatient care is provided by a physician, designated by provider, specialized in a field other than general medicine or dentist with appropriate professional qualifications. Home care is provided by a nurse or midwife is defined as a nursing home care. Public network of providers is formed by publicly available providers, who have contract for provision of healthcare with at least one health insurance company. Health care providers may operate a health facility only by permission.

These facilities are included in outpatient care according to Law 578/2004:

- **Outpatient clinic** - a comprehensive basic unit, designed to provide health care to patients who do not require hospitalization longer than 24 hours.

- **Stationary** - the outpatient medical device that is used for patients whose medical condition requires multiple daily provision of health care in the home environment.

- **Health Center** - a health facility where there is a set of mutually organized clinics, general or specialized.

- **Common treatment and investigative units** - a medical device that provides and performs examinations, analyzes and tests of biological materials.

- **Mobile Hospice** - a medical device that provides health care to patients with incurable diseases, or dying patients in their home environment (Hanzlikova, 2002).

Health facilities with inpatient care for patients are:

- **General Hospital** - provides inpatient care for patients in various specialties.
Specialized Hospital - provides inpatient care for patients in a specialized field.

Sanatorium - providing specialized medical care focusing on chronic diseases with a lengthy treatment.

Nursing home - a health care facility, providing medical care, nursing care and rehabilitation of patients whose condition does not require continuous care, but it can not be provided at home.

Hospice - a medical device that provides specialized medical care aimed at terminally ill patients and patients with end stage diseases.

Biomedical research facility - is a medical facility that provides health care to persons participating in the new biological and medical knowledge, patient’s stay exceeds 24 hours (Hanzlikova, 2002).

SOCIAL WORKER IN MEDICAL FACILITY

Social worker is a basic pillar of social work and therefore his/her characteristics from a theoretical and practical point of view is defined by several authors, such as: social worker is a professional who has specific characteristics and capabilities. Is beneficial in improving the situation of the individual, group, community or society. Is seeking to resolve and eliminate faults and negative factors that affect the client. Leads his client to the full responsibility and personal involvement in solving the problem (Olah, 2009).

Social work without social client would not exist, therefore the social client means a very important part of social work. Definitions of social client are following: social client is defined as a person who is or will be in a care of social worker. Client can be individual, groups which require social care or assistance, have occurred in difficult social situations and have a social problem that needs to be removed or solved. As welfare clients are also referred persons who are in the position of social need (homeless), but also people in other inappropriate social situations, such as the unemployed, persons who are, or returning from imprisonment, persons with antisocial behavior or members of minorities (Schavel, 2008). Social client is an individual who is under the care of social workers. These may be individuals or members of groups who need welfare or social assistance because they were in collision social situations with social problems (Draganova, 2006).
The job description of social workers in a medical facility could be defined in several points. Includes mainly educational and consulting activities, professional social and legal counseling. Social worker represents client in offices, courts, police when necessary, and is trying to look at the global social environment, but also social environment of the client to understand his social or health problem better. Social worker also collaborates with physicians, other health professionals, with the family, the school and employers, as well as with other social workers and institutions in the interest of the client. He/she may participate in surveys or polls in a medical facility, works with clients in meeting the various therapies of a social client. Is also actively increasing his/her education and works according to moral and ethical principles and respects the rights of the client (Levicka, 2004).

SOCIAL WORKER AT THE GERIATRIC DEPARTMENT


According to the Journal of the Ministry of Health no.1-5 2007, geriatrics is characterized as a specialized field dealing with health care for the elderly, therefore a person over 65 years. The provision of comprehensive care for the elderly is based on changes in retired organism, polymorbidity, subsequent fragility and reduced adaptability of the old body.

Work of social worker at geriatric department is very specific and professional activity, because aging and old age is an individual process that occurs in every human body differently, and differently influences the welfare of man, as well as the environment in which the person lives. Social worker at the geriatric department should be aware that the basis of his work lies in properly selected type of communication with seniors. Seniors often have hearing or visual disability, are more more emotional and therefore more vulnerable, what should be taken into consideration when communicating. Social worker is also expected to assist seniors for adapting to different environments, as the adaptive capacity of seniors is significantly reduced. Social worker cooperates very closely with the patient’s family to obtain the maximum of information about the patient as well as the social environment in which he lives, or where the home care is provided (Nemeth, 2009).

Social worker at pediatric ward
Journal of the Ministry of Health no. 17-23 from 2006 defines the Department of Pediatrics as a specialized branch of medicine, which deals with the theories and practical issues of both healthy and diseased child from birth to 18 years of age and subsequent 364 days of life.

Social worker at the pediatric department performs difficult and responsible work as in the pediatric wards we can find children from newborn to children to adolescents, which means a very wide range of social issues. Fundamental pillar of social work in pediatrics is to act always in the interests of the child and often collaborate with other professionals, such as physicians, psychologists, health care workers. Social worker provides social assistance not only the child but also to his parents in the form of advice, for example in social security, social and health insurance, as well as social counseling in legal matters (Mojtova, 2008).

Social worker always defend the rights of the child, if he came into contact with abused, neglected or exploited child and gives suggestions to initiate a court hearing, which should ensure its protection. The social worker also works in the field, where obtains the necessary information about the child and provides consulting and counselling (Sustrova, 2012).

Social worker at psychiatric ward

According to the Journal of the Ministry of Health no. 9-16 from 2006 the psychiatry is defined as a separate specialized field that deals with the prevention, diagnosis, treatment and aftercare of mental and behavioral disorders in persons of all ages.

Social work in the psychiatric unit is very challenging because the symptoms of mental disease in the patients are very diverse and specific. Social worker communicates with the patient using interview method and thus obtains most information about the patient. It also communicates with the family, close persons and also with other members of the health care team. Provides social counseling and various types of social rehabilitation, such as work therapy, art therapy, music therapy, social skills training, but also other, such as sports activities (Sustrova, 2012).

Particular attention should be paid to patients living alone as well as in the elderly, who often tend to be deprived of legal capacity. Very responsible and professional approach is required in patients with suicidal behavior. Social work in patients with psychiatric disorders does not end in the hospital, but continues after releasing from the medical facility where assistance of social worker is very necessary (Mojtova, 2008).
SOCIAL WORKER AT THE DEPARTMENT OF GYNAECOLOGY AND OBSTETRICS

According to the Journal of the Ministry of Health no. 1-5 from 2007, the department of obstetrics and gynecology is characterized as a specialized medical field that deals with the prevention, diagnosis, treatment and dispensarisation of gynecological diseases and with physiological and pathological pregnancies.

Social worker of Gynaecology and obstetrical department provides assistance and care for women, who are in various life situations, such as pregnant women with unwanted pregnancies, single mothers with a child, multiple mothers who are not able to take care of another child, but also women who wish anonymous births. It is therefore important that the social worker had basic nursing and medical knowledge in gynecology and obstetrics. Social worker provides professional advice mainly in the field of education, contraception, about nests of rescue, the prevention of unwanted pregnancies and also in the field of technical assistance in collaboration with physicians, psychologists or lawyers. Other duties include, for example, assistance of social worker to pregnant women and mothers with children in material or social need, helping in managing asylum accommodation, or social assistance in the form of outreach nursing services in the home environment of the patient (Mojtova, 2008).

Methods of social work with hospitalized clients

Method may be defined as a way to achieve a predetermined goal, according to pre-planned social activities for working with individuals, groups, communities, from different perspectives (Striezenec, 2001).

Social worker after the method is chosen carefully plans the way he will conduct social activities, and will proceed according to predetermined phases of social work, what makes social work more efficient and improving cooperation between social workers and patients. Basic stages of work can be divided into the stages of social recording, stage of social diagnosis, stage of solving social assistance, social therapy stage, and stage of results verification. The different stages are discussed in the next subsections (Slovak, Veres, 2009).

Selection of methods of social work with the patient is determined by number of factors, for example the type of patient, type of problem, and the way in which it is necessary to address the problem. The choice of methods is also a reflection of the social worker himself, his personality, education and practical
experience. It is therefore very for social worker to constantly learn new knowledges in the field of social work, working methods with the patient, as well as a good insight in the current social and health issues. When working with patients in the hospital are mainly used methods of social work with individuals - case and work with the group - group work.

At the inception of a social problem, both external and internal factors may interact. If the problem is affected by external factors, their solution is carried out by technical interventions for example by placing it in social facilities. If the problem is affected by internal factors, social assistance is carried out by a case or individual social work. The effort of social workers, therefore is, that the client regain the ability to address his social situation, or to change its attitude towards life, that may cause him unsatisfactory social situation. In social work with the group natural cohabitation of man in the group is used mainly. In working with social group psychological effect can be used on individual subjects, because they are characterized by common features. This could include the same disease, and if so, it is the task of social worker to make patients understand that they are not alone with their disease, they can mutually communicate information, experiences and new knowledge, for example about the possibilities of mitigating the adverse effects of the treatment, as well as the subsequent procedures after healing (Olah, 2011).

Work stages of social worker

In social work, as a professional and specific activity, it is important to follow a certain procedures at work; social workers need to stick on these procedures in order to provide social services in the most effective way and corresponding with needs of the client.

The different stages are described as follows:

**Stage 1 - Social registration and the first contact with the client**

At the beginning of the cooperation of social workers and social client first contact is very important for forming the first opinion about each other. Social worker will explain to the patient all the procedures in the provision of social assistance. He also has to have studied patient’s medical records, so all conditions are known to him in advance. At this stage communication skills of social workers play a big role (Draganova, 2006).
Stage 2 - Social diagnosis

The following stage is directed to a social worker using individual structured interview found the maximum of information to supplement social and psychosocial history of the patient. This should include key information on how the problem occurred and how it evolved, to the present. It is necessary that the social worker analyzed the social problem of the patient and to attend to individual topics from the most basic complex. Social worker during communicating with patients uses open questions to obtain the maximum of information. At this stage, correct social history should already contain enough information about the client directly (Kascak, 2005).

Stage 3 - Proposal for and the plan of solving social assistance

In stage 3, the social worker shall develop proposed plan of social therapy for patient and explain all the procedures by which social assistance will be granted. For third stage to be successful, care should be taken on the following points: social assistance plan is divided into several stages, most patients have multiple problems at the same time, so attention should be given to each problem (Draganova, 2006).

Other health care team members should be informed about plan of social assistance or even involved. It is necessary to agree with the patient who, what, under what conditions and at when the intervention will be made. This is valid especially when non-cooperative patients. It is highly suitable in third stage to use the activities of voluntary organizations that can inspire the client least later in life. Currently volunteering is part of any modern society (Marcek, 2008).

Stage 4 - Social therapy and intervention

At this stage, a social worker should find a type of intervention that best suits the client, will best respond to his needs and will be the greatest benefit for him. In determining the intervention a social worker should benefit and promote the strengths of the patient and lead him to independence (Mojtova, 2008).

In normal interventions, when working with patients and solution to the problem requires only a gradual and peaceful solution, meeting with a social worker is agreed in advance according to a plan of social assistance. However, in an emergency interventions, when working with a client who is in acute crisis, or in difficult life situations, intervention is provided at the time and in the
manner that is most appropriate for the client and responds best to the needs and also according to the agreed pre-prepared plan of social assistance (Olah, Schavel, Ondrusova, Navratil, 2009).

**Stage 5 - verification of the results and termination of cooperation**

In order to validate the results it is important to summarize overall cooperation of social worker and client, but also to check all the methods and ways of social assistance used. The termination of the cooperation of social worker and the patient may end up either with full resolution of the social problem, or only partial or inadequate resolution of a social problem as well as sending a client to another specialist.

**CONCLUSION**

The goal was to capture the importance of the work of social workers and its position in society as well as the overall sense of social work in the social and health system in our country. It is important to remember that everyone is a potential client and social worker is thus an important element in the social system. Social worker comes into contact with the client first and has the opportunity to direct the client to the right path, show him the right target. Also encouraging him on his journey is very important. When an individual becomes a social clients one of the cornerstones of the social work is to determine the correct social diagnosis and subsequent therapy that could begin to effectively address the problem of social client. I firmly believe that the future in social work will be to more emphasis on social prevention especially when working with clients and I hope that the social worker will have a higher value especially in health care as well as the overall perception of social welfare.

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CONTENT MANAGEMENT ON FACEBOOK PAGES
(ON THE EXAMPLE OF RESEARCH CONDUCTED BY THE CATHOLIC UNIVERSITY OF CROATIA)

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Abstract

Internet and communication via social networks have become an omnipresent phenomenon both on private and institutional level. As a segment of their public relations activities, together with the traditional communications channels the universities also use the new media including the social networks that are an ideal mean of communication for the university and scientific community. Therefore it would be useful to explore the preferences of the social networks users as well as their wishes related to the content and its formats in order to entice their popularity and use. This paper contributes to devising of more efficient use of communication channels within the system of higher education. Facebook and Twitter represent the channel through which the name of the brand, i.e. an institution of higher education may be conveyed to the recipients who are not direct users of social networks of these institutions, thus achieving an important promotional purpose. This paper presents the data obtained on the basis of two researches conducted in 2014: a questionnaire the representative sample of which are the students of the Catholic University of Croatia, and the analysis of the content of the posts published on the Facebook as well as the research conducted in 2015 which confirmed the hypotheses from the 2014 research.

Keywords: Facebook, Social network, Catholic University of Croatia, Content analysis, Public Relations

JEL Classification: M1, M15
1. INTRODUCTION

The public relations have been adapting to the development of the media throughout the history, and due to them they have been acquiring new content and form of communication (Skoko, 2006, 251). In this context, the experience from the practice shows that in the last ten years a process has taken place of significant distancing from the use of classic media such as press, radio and television, and that the contemporary public relations experts are increasingly looking to the new media such as the fora, chat rooms, social networks, blogs, video messages etc., the origin of which is in the development of Internet.

The new media take on three challenges: a) public relations experts must be educated in the field of IT/technology, b) they should establish media cooperation also with the nontraditional „journalists“; and c) they should also represent the organization in the new media environment (Broom, 2010, 248).

While coordinating the three aforementioned aspects of the new profession, the public relations experts must be both creative and innovative, they must now at which moment to launch the news and how to combine it skillfully with other classic media, that is they must know how to manage the information and how use them for the promotion of the brand they manage. Because of their openness and simplicity in communication, social networks are attractive for all types of target groups in the world, and therefore they represent a great potential for publishing the information, for testing them, for asking the users of social networks for their opinion, as well as for seeking the confirmation of the successfulness of communication towards the public that is being communicated with.

Facebook has approx. 1.5 billion users, which is a huge potential that should be used for doing business (Statista, 2016). It is important to define the communication strategy and to clearly set goals, priorities, time frame, co-workers and finances to be used for the management of a particular communication channel. The public relations experts are expected to publish on Facebook those contents that serve the purposes of their company and are intended for the targeted group that follows its page. For the purpose of the quality maintenance of the page and the offered content, it is necessary to conduct a research from time to time and to find out about the interests of the targeted public.

Led by the aforementioned idea, the Public Relations Department of the Catholic University of Croatia conducted two researches presented in this pa-
per. According to the accessible information, it is not known whether any other university in the Republic of Croatia also conducted similar researches, but the research results might be of interest to other institutions of higher education in the Republic of Croatia.

2. PURPOSE AND AIM OF RESEARCH

The purpose of both researches conducted in April 2014 and December 2015 was to explore how public relations influence the popularity of the Catholic University of Croatia by publishing particular content.

The aim of this paper is to review the popularity and preferences of various contents and content formats among the users of the Facebook page of the Catholic University of Croatia.

3. RESEARCH HYPOTHESIS

Research questions are:
1. what contents are the most popular among the users of the Facebook page of the Catholic University of Croatia, and what does the popularity of a content depend on (theme and formats of contents)?
2. what content and content formats (photograph, text, video recording) would the users like to see on the Facebook page of the Catholic University of Croatia?

In the reply to the research question the following hypotheses were put forward:
1. Among the users of the Facebook page of the Catholic University of Croatia, the most popular statuses are those presenting the students of the Catholic University of Croatia with the use of the photographs as a content format.
2. Students who are users of the Facebook page of the Catholic University of Croatia would like to see the photograph as the dominant content format, and they prefer the information on the events on the Catholic University of Croatia and the news on the Departments they study on as the dominant content type.
4. METHODOLOGY AND THE RESULTS OF THE RESEARCH

4.1. Design

The researches in 2014 and 2015 were conducted by the Department of Public Relationships of the Catholic University of Croatia.

For the research conducted in April 2014 the method of qualitative and quantitative analysis of the content on the Facebook page of the Catholic University of Croatia and the anonymous questionnaire were selected, while for the research in December 2015 the method of qualitative and quantitative analysis of the content on the Facebook page of the Catholic University of Croatia was selected.

The quantitative content analysis was implemented to record the content and to analyze their characteristics (Tkalec Verčić et al., 2010, 92). In the period April 1 – May 30, 2014 and August 31 – December 31, 2015 the posts on the Facebook page of the Catholic University of Croatia were reviewed and their content was defined. The content forms such as text, photographs and video recordings were registered separately.

The qualitative content analysis was implemented for the analysis of the frequency and reach of described content (Tkalec Verčić et al., 2010, 92). The representation of the different content types and of particular content formats was determined. In the course of research the content categories and the most represented formats were determined, as well as their reach to public. The reach means the number of persons who have seen the post. The contribution of followers, i.e. number of persons who “liked” and commented on the content, as well as of persons engaged with the posts is important for the popularity of a Facebook page. You may click on a text, a photograph, a link, or you may also share the content, “like” it or comment on it.

Besides the aforementioned methods, the survey method was also used. The questionnaire was drafted with the purpose of defining the content that will contribute to the popularization of the Facebook page of the Catholic University of Croatia, and it consists of two parts. The first part looks at the demographic data on the survey participants (age, gender, department of study). The second part consists of five questions related to the Facebook page of the Catholic University of Croatia.

The comparative analysis of the content and content format in combination with the results of the survey defined in 2014 the contents and content formats
that the users came upon, as well as types of content and content forms the users wanted and expected on the Facebook page of the Catholic University of Croatia. According to Leinert Novosel, a recipient is the king of communication, hence the received data assisted the administrator to communicate properly with the targeted group and to serve the visitors of the Facebook page of the Catholic University of Croatia the contents that the users of the page prefer (Leinert Novosel, 2012, 32). The in-depth analysis of particular characteristics in combination with the data from the survey resulted in concrete indicators that are in fact the basis for further improvement of the Facebook page of the Catholic University of Croatia. The result of the research in 2014 was the basis for setting up a strategy of the Department for Public Relations form successful communication on Facebook social network, and the outcomes of the strategy are visible in the results of the research in 2015.

The data obtained from both researches were entered in Microsoft Excel spreadsheet, and data processing with necessary logical controls was performed in SPSS (Statistical Package for Social Studies) used for statistical analysis of data.

4.2. The Analysis of the Content of Facebook Posts

4.2.1. Sample from period April 1 – May 30, 2014

In the period April 1 – May 30, 2014 on the Facebook page of the Catholic University of Croatia 161 posts were published, and the page was liked by 1255 followers. In the analysis the posts were divided in three types: link (a post that has been transferred from another web page), status (comment, question or a statement related to an event) and photograph. For each post the analysis was made of the reach (number of persons who saw the post), number of likes, number of comments, number of shares of the post and the number of clicks on a post. The visitors could click on a photo, on a link to see the whole news on the web page from which the link was transferred, on like or on share. The content was analyzed in nine categories: events that took place at the Catholic University of Croatia; activities of the lecturers/news related to Departments; students’ activities; awards or projects; religious content; information on Catholic holidays and saints; information on particular events, on exhibitions, new published books; changes of cover photo and inspirational texts. The format of published content was also examined: text, photograph and video. Because of the large number of posts, for the purpose of this research the first 20 most popular posts were selected.
4.2.2. Research Results

The aim of the analysis of the content and format of posts on the Facebook page of the Catholic University of Croatia is to confirm the hypothesis that among the users of the Facebook page of the Catholic University of Croatia, the most popular posts are those in which the students are presented in photographs. The results of the research are as follows:

Table 1: 20 most popular posts per reach

<table>
<thead>
<tr>
<th>Date</th>
<th>Post message</th>
<th>Reach</th>
<th>Reach-Lifetime Post reach by people who like your Page</th>
<th>Reach Lifetime People who have engaged with your post</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.4.2014</td>
<td>HKS-oci na SKHM Dubrovnik 2014.</td>
<td>2421</td>
<td>426</td>
<td>134</td>
</tr>
<tr>
<td>20.3.2014</td>
<td>Informacije o pristupnim izvedenim u području</td>
<td>2057</td>
<td>426</td>
<td>134</td>
</tr>
<tr>
<td>27.4.2014</td>
<td>Pulešak iz Dubrovnika</td>
<td>1697</td>
<td>306</td>
<td>131</td>
</tr>
<tr>
<td>27.4.2014</td>
<td>Prije svete misa na Gospinom Polju</td>
<td>1417</td>
<td>299</td>
<td>110</td>
</tr>
<tr>
<td>20.5.2014</td>
<td>Fotografija: spopadnog područja</td>
<td>1400</td>
<td>487</td>
<td>136</td>
</tr>
<tr>
<td>27.4.2014</td>
<td>Studentica prinudno biciklima iz Zadra da Dubrovnika 350 km</td>
<td>1102</td>
<td>360</td>
<td>131</td>
</tr>
<tr>
<td>26.4.2014</td>
<td>Vijest iz Dubrovnika</td>
<td>1099</td>
<td>407</td>
<td>134</td>
</tr>
<tr>
<td>30.5.2014</td>
<td>Preduj na izdaju za fotografijske najam</td>
<td>1077</td>
<td>407</td>
<td>134</td>
</tr>
<tr>
<td>24.5.2014</td>
<td>HKS nauci</td>
<td>964</td>
<td>480</td>
<td>165</td>
</tr>
<tr>
<td>24.5.2014</td>
<td>Zaslužni priznati za izdaju na SKHM u Dubrovnik</td>
<td>803</td>
<td>451</td>
<td>174</td>
</tr>
<tr>
<td>30.5.2014</td>
<td>Predstavljanje kraje i predaja nagrada najuspješnijim studentima</td>
<td>657</td>
<td>437</td>
<td>143</td>
</tr>
<tr>
<td>14.5.2014</td>
<td>Konstituiran Studentski zbor</td>
<td>658</td>
<td>428</td>
<td>138</td>
</tr>
<tr>
<td>13.5.2014</td>
<td>Grota Fatkinke</td>
<td>618</td>
<td>271</td>
<td>46</td>
</tr>
<tr>
<td>20.3.2014</td>
<td>Cužnici smatran za Dom HKS-a</td>
<td>397</td>
<td>392</td>
<td>109</td>
</tr>
<tr>
<td>18.4.2014</td>
<td>Najveća &quot;Dvocićica&quot;</td>
<td>259</td>
<td>330</td>
<td>92</td>
</tr>
<tr>
<td>20.4.2014</td>
<td>Priča o In i Josipi</td>
<td>434</td>
<td>421</td>
<td>128</td>
</tr>
<tr>
<td>26.4.2014</td>
<td>Vijest iz Dubrovnika</td>
<td>432</td>
<td>298</td>
<td>106</td>
</tr>
<tr>
<td>19.5.2014</td>
<td>Blažak je dani neug priznati-alcajia</td>
<td>401</td>
<td>292</td>
<td>48</td>
</tr>
<tr>
<td>27.4.2014</td>
<td>Nedelja butanov Miluša</td>
<td>365</td>
<td>203</td>
<td>72</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>20478</strong></td>
<td><strong>7602</strong></td>
<td><strong>2521</strong></td>
</tr>
</tbody>
</table>

Source: calculation of authors according to conducted research

The interesting fact is that the reach per number of persons who saw the post because they are followers is 37%, and the number of those who contributed (they are followers and they clicked on the post) in total reach makes 12.31%, which contradicts the 90-9-1 rule (Nielsen, 2006). Namely, the research indicates that the rule 90-9-1 can be applied to online communities. This rule states that 90% of users read, observe but don’t contribute, 9% contribute from time to time but other priorities dominate their time, while 1% of users immedi-
ately reacts to a post and comments within the shortest possible period of time (Nielsen, 2006). Having this in mind, the visitors of the Catholic University of Croatia contradicts this practice, since according to the obtained results it contributes more than it is stated in the rule.

**Table 2:** 20 most popular posts per number of likes, comments, shares and clicks

<table>
<thead>
<tr>
<th>Date</th>
<th>Post message</th>
<th>Likes</th>
<th>Comments</th>
<th>Shares</th>
<th>Post clicks</th>
<th>Park clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.4.2014</td>
<td>HR5-oni na SHiM Dubrovnik 2014</td>
<td>133</td>
<td>5</td>
<td>1</td>
<td>1161</td>
<td>649</td>
</tr>
<tr>
<td>20.5.2014</td>
<td>Informacija o prilikarnim radionicima</td>
<td>104</td>
<td>0</td>
<td>2</td>
<td>599</td>
<td>269</td>
</tr>
<tr>
<td>24.4.2014</td>
<td>HR5-oni na pitu na SHiM Dubrovnik 2014</td>
<td>123</td>
<td>5</td>
<td>1</td>
<td>992</td>
<td>650</td>
</tr>
<tr>
<td>27.4.2014</td>
<td>Polazak iz Dubrovnika</td>
<td>60</td>
<td>3</td>
<td>0</td>
<td>840</td>
<td>461</td>
</tr>
<tr>
<td>27.4.2014</td>
<td>Prijava vremena na Gradisak Polja</td>
<td>45</td>
<td>1</td>
<td>0</td>
<td>654</td>
<td>372</td>
</tr>
<tr>
<td>20.5.2014</td>
<td>Fotografija s padaljenog podničja</td>
<td>118</td>
<td>3</td>
<td>9</td>
<td>463</td>
<td>270</td>
</tr>
<tr>
<td>27.4.2014</td>
<td>Studenice politela hektila na Zadu do Dubrovnika 550 km</td>
<td>111</td>
<td>3</td>
<td>0</td>
<td>466</td>
<td>277</td>
</tr>
<tr>
<td>30.5.2014</td>
<td>Višesna i Dubrovnik</td>
<td>49</td>
<td>1</td>
<td>0</td>
<td>415</td>
<td>415</td>
</tr>
<tr>
<td>24.5.2014</td>
<td>Predaja magistralnih studija s HR5 mesom A.</td>
<td>65</td>
<td>0</td>
<td>0</td>
<td>456</td>
<td>264</td>
</tr>
<tr>
<td>24.4.2014</td>
<td>Znanstveni prijem na turistickoj organizaciji</td>
<td>52</td>
<td>0</td>
<td>0</td>
<td>422</td>
<td>419</td>
</tr>
<tr>
<td>30.5.2014</td>
<td>Predavanje knjige i predaja nagrade najugrijnijim studentima</td>
<td>46</td>
<td>0</td>
<td>0</td>
<td>455</td>
<td>178</td>
</tr>
<tr>
<td>14.5.2014</td>
<td>Konferencija u Dubrovnik</td>
<td>40</td>
<td>0</td>
<td>0</td>
<td>478</td>
<td>478</td>
</tr>
<tr>
<td>13.5.2014</td>
<td>Caucas Kutak</td>
<td>40</td>
<td>12</td>
<td>2</td>
<td>80</td>
<td>42</td>
</tr>
<tr>
<td>20.5.2014</td>
<td>Colujem umomiljena na Dom HR5-a</td>
<td>45</td>
<td>1</td>
<td>0</td>
<td>261</td>
<td>7</td>
</tr>
<tr>
<td>18.4.2014</td>
<td>Numeri “Udiničnica”</td>
<td>35</td>
<td>0</td>
<td>0</td>
<td>248</td>
<td>181</td>
</tr>
<tr>
<td>29.4.2014</td>
<td>Priča iz Hrvatske</td>
<td>39</td>
<td>1</td>
<td>0</td>
<td>1369</td>
<td>953</td>
</tr>
<tr>
<td>26.4.2014</td>
<td>Višesna i Dubrovnik</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>310</td>
<td>258</td>
</tr>
<tr>
<td>19.5.2014</td>
<td>Elodinko i devoj porekla od prices</td>
<td>36</td>
<td>0</td>
<td>0</td>
<td>28</td>
<td>5</td>
</tr>
<tr>
<td>27.4.2014</td>
<td>Načina iz Manošobre u Dubrovnik</td>
<td>32</td>
<td>0</td>
<td>0</td>
<td>149</td>
<td>141</td>
</tr>
</tbody>
</table>

**Source:** calculation of authors according to conducted research

**Table 3:** Number of clicks within a post

![Post clicks](image)

**Source:** calculation of authors according to conducted research

In the post the followers can click on a photograph, a published link within a text or on something else, i.e. they may “like”, “comment” or “share”. The 20 most popular posts were clicked on 10,720 times. It is indicated in Table 3 that
59.24% of clicks were clicks on a photo, 0.07% on a published link while 40.70% was on some other offered option.

4.3. Survey

4.3.1. Sample

The survey participants - students of the Catholic University of Croatia - were selected randomly and they were interviewed during their lessons, which had been previously arranged with their lecturers. Their identities are protected because of the survey anonymity. The interview was done fully on a voluntary basis, and it took place in the facilities of the Catholic University of Croatia.

Total number of 174 students of the Catholic University of Croatia participated in the survey. These are the students of the 1st, 2nd and 3rd year of undergraduate study of history, psychology and sociology and the students of the 1st year of postgraduate study of history who are familiar with the website and Facebook page of the Catholic University of Croatia. In the convenience sample the representation of the students of history was 36%, students of psychology 38% and students of sociology 26%. There were 34 male and 139 female examinees. The age span of the examinees ranges from 18 to 27 years. The average age of students is 20.66.

4.3.2. Results of the Research

The closed type questions were used in the survey. When asked about the use of Facebook, 96.6% of the examinees answered that they used Facebook as a social network, while 3.4% of them weren’t Facebook users. 73.6% of examinees liked the Facebook page of the Catholic University of Croatia, while 27.4% of them did not like the page and 1.7% did not answer this question.

Table 4: Descriptive information on the satisfaction of examinees with the content published on the Facebook page of the Catholic University of Croatia

<table>
<thead>
<tr>
<th></th>
<th>Arithmetic mean</th>
<th>Median</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1. events on CUoC</td>
<td>4.09</td>
<td>4</td>
<td>1,114</td>
</tr>
<tr>
<td>3.2. lecturers’ activities</td>
<td>3.3</td>
<td>3</td>
<td>1,144</td>
</tr>
<tr>
<td>3.3. students’ activities</td>
<td>3.59</td>
<td>4</td>
<td>1,138</td>
</tr>
<tr>
<td>3.4. awards or projects</td>
<td>3.6</td>
<td>4</td>
<td>1,202</td>
</tr>
<tr>
<td>3.5. religious content</td>
<td>3.44</td>
<td>3</td>
<td>1,251</td>
</tr>
</tbody>
</table>

Source: calculation of authors according to conducted research
In the third question the Likert scale was used to measure the satisfaction with the contents published on Facebook page of the Catholic University of Croatia, and the rating scale was from 1 = very unsatisfied to 5 = very satisfied.

In the assessment of the students in the 3rd question it was decided to calculate the mean value. After taking a closer look at the distribution of the results in all 5 response values in the 3rd question evaluated by the students, a conclusion can be made that those distributions are asymmetrical and therefore the arithmetic mean would not be the best indicator of the mean value. Although the differences in values are not big (see Table 5), in case of asymmetric distributions it is more appropriate to use median as the indicator of a central value which is positioned in the center of the series of results arranged by value (Petz et al.; 2012, 39). Standard deviations indicating the deviation of the result from mean value are presented in Table 5 as the indicator of result variability.1

Table 5: Rating of contents that the examinees would like to follow on Facebook page of the Catholic University of Croatia

<table>
<thead>
<tr>
<th>Content of the posts</th>
<th>Rank 1</th>
<th>Rank 2</th>
<th>Rank 3</th>
<th>Rank 4</th>
<th>Rank 5</th>
<th>Rank 6</th>
<th>Σ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information on events at the CUoC</td>
<td>65</td>
<td>50</td>
<td>30</td>
<td>12</td>
<td>6</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Information on the news in the Departments</td>
<td>70</td>
<td>52</td>
<td>30</td>
<td>10</td>
<td>7</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Information on student’s activities</td>
<td>22</td>
<td>35</td>
<td>58</td>
<td>34</td>
<td>9</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>Information on Catholic holidays and Saints</td>
<td>4</td>
<td>9</td>
<td>16</td>
<td>32</td>
<td>53</td>
<td>55</td>
<td>3</td>
</tr>
<tr>
<td>Information on historical events</td>
<td>15</td>
<td>16</td>
<td>28</td>
<td>62</td>
<td>36</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Inspirational texts</td>
<td>6</td>
<td>9</td>
<td>11</td>
<td>19</td>
<td>53</td>
<td>73</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: calculation of authors according to conducted research

In the fourth question the examinees were asked to rate the content they would like to follow on Facebook page of the Catholic University of Croatia, in which rank 1 meant the most desirable content, while rank 6 the least desirable content.

It can be seen in Table 6 that the examinees rated as the most desirable (rank 1) the information on the news in the Departments and information on events at the Catholic University of Croatia. Both types of information also share 2nd place, rank 3 was given to the information on students’ activities, rank 4 to historical events “This day in history”, rank 5 was given to the information on Catholic holidays and saints, while rank 6, like the least desirable information, was given to inspirational texts. Three examinees did not answer this question.

1 In order to establish real statistical differences, further data processing should be done, like for example T-test which would compare whether there is a statistically significant difference in the satisfaction of students with particular contents on the Facebook page of the Catholic University of Croatia.
In the fifth question the examinees rated the format of the content they follow on Facebook page of the Catholic University of Croatia, ranking as no. 1 most desirable formats, and as no. 3 the least desirable content format.

Table 6: Rating the format of the content they would like to follow on the Facebook pages of the Catholic University of Croatia

<table>
<thead>
<tr>
<th>RANK</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>0</th>
<th>Σ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text</td>
<td>56</td>
<td>62</td>
<td>53</td>
<td>3</td>
<td>174</td>
</tr>
<tr>
<td>Photo</td>
<td>98</td>
<td>64</td>
<td>9</td>
<td>3</td>
<td>174</td>
</tr>
<tr>
<td>Video</td>
<td>30</td>
<td>42</td>
<td>99</td>
<td>3</td>
<td>174</td>
</tr>
</tbody>
</table>

Source: calculation of authors according to conducted research

The results relating to the first survey question confirmed the hypothesis. The analysis of the content of the The Facebook page of the Catholic University of Croatia carried out by the Department for public Relations has shown that the most popular content is the photographs of the students of the Catholic University of Croatia, and this content has multiple reach, number of likes and shares in comparison to the contents relating to an event or a notification.

The examinees who participated in the survey answered the second question in the survey by clearly stating their wishes relating to the content and content format of the Facebook page: they want the information on the events on the Catholic University of Croatia and news about Departments as a priority content, as well as photograph as a dominant content format on the Facebook page of the Catholic University of Croatia.

4.4. **Analysis of the Content of Facebook Posts**

**4.4.1. Sample from period August 31 – December 31, 2015**

In the period August 31 – December 31, 2015 on the Facebook page of the Catholic University of Croatia 500 posts were published. The analysis divided these posts in three types: link (a post that has been transferred from another web page), status (comment, question or a statement related to an event) and photograph. For each post the reach (the number of persons who saw the post) was analyzed, as well as the number of likes, the number off comments, the number of shared posts and the number of clicks on the post. Since in this period a large number of posts were published, for the purpose of this research the first 20 most popular posts per number of likes were selected.
4.4.2. Results of the Research

The aim of the analysis of the content and content format of posts published on the Facebook page of the Catholic University of Croatia in 2015 was to compare the preferences of the content and content format with the research done in 2014, and to establish whether the implementation of the earlier research had contributed to more successful management and popularity of the Facebook page of the Catholic University of Croatia. In order to be able to compare the results, the first 20 most popular posts out of 500 posts were also processed in the research in 2015.

The research in 2015 has shown that 31% of posts had a reach of 175-500 persons, 44% of posts had a reach of 502-1000 persons, 19% of posts had a reach of 1001-2011 persons and 6% of posts had a reach of 2027-5847 persons.
Table 7: 20 most popular posts per reach

<table>
<thead>
<tr>
<th>Date</th>
<th>Post Message</th>
<th>Type</th>
<th>Reach</th>
<th>Lifetime Post reach by people who like your Page</th>
<th>Lifetime People who have liked your Page and engaged with some post</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.11.2015</td>
<td>Pozajtite i provežite štetavet skladajti zastojivo temu :)</td>
<td>Photo</td>
<td>5.847</td>
<td>262</td>
<td>33</td>
</tr>
<tr>
<td>22.10.2015</td>
<td>Danas u području predstavljanja je knjiga &quot;Svijesti stajaće&quot;, istom je na prvoj listi najpopularnijih knjiga po popularnosti najznačajnije knjige iz različitih zemalja Evrope. Knjiga je dostupna u nakladnici Bitterman.</td>
<td>Photo</td>
<td>5.692</td>
<td>360</td>
<td>35</td>
</tr>
<tr>
<td>7.9.2015</td>
<td>Zar zol :)</td>
<td>Photo</td>
<td>5.353</td>
<td>1.214</td>
<td>192</td>
</tr>
<tr>
<td>3.12.2015</td>
<td>Valores se na Hrvatskom katoličkom sveučilištu od nasku akademski dan na Hrvatskom studiju u Državnoj zastavnom ... Svet dijete i jako smo svetim i posvećeni.</td>
<td>Photo</td>
<td>4.061</td>
<td>917</td>
<td>212</td>
</tr>
<tr>
<td>16.9.2015</td>
<td>Naše sultanice postao je bogatije za sve zanimljive na komunikaciji i sociologiji. Dobro nam doruč!</td>
<td>Photo</td>
<td>3.961</td>
<td>1.061</td>
<td>214</td>
</tr>
<tr>
<td>17.10.2015</td>
<td>Sveti jednostavnost</td>
<td>SharedVideo</td>
<td>3.900</td>
<td>1.105</td>
<td>131</td>
</tr>
<tr>
<td>13.10.2015</td>
<td>Danaslih bila je omlad na akademski dan na predavanja.</td>
<td>Photo</td>
<td>3.126</td>
<td>1.133</td>
<td>242</td>
</tr>
<tr>
<td>24.9.2015</td>
<td>U ukratko 20. svibnja 2015. usisala u Državnoj zastavnom ... Sveti jednostavnost...</td>
<td>Photo</td>
<td>2.839</td>
<td>1.136</td>
<td>168</td>
</tr>
<tr>
<td>4.9.2015</td>
<td>Knja na Hrvatskom katoličkom sveučilištu potkoč skupjoyoci i noši out ber vanzatiwo :)</td>
<td>Photo</td>
<td>2.827</td>
<td>1.054</td>
<td>187</td>
</tr>
<tr>
<td>21.12.2015</td>
<td>Sveti jednostavnost</td>
<td>Photo</td>
<td>2.765</td>
<td>1.187</td>
<td>154</td>
</tr>
<tr>
<td>14.11.2015</td>
<td>Sveti jednostavnost</td>
<td>Photo</td>
<td>2.566</td>
<td>1.187</td>
<td>484</td>
</tr>
<tr>
<td>10.9.2015</td>
<td>Hrvatsko katoličko sveučilište (University Rectoral Catholic Croatia)</td>
<td>Photo</td>
<td>2.542</td>
<td>1.005</td>
<td>188</td>
</tr>
<tr>
<td>18.10.2015</td>
<td>Dnevni kalendar za 2015. godinu je obilježen. &quot;Dan možive&quot; i obavijestju o tome na sve osebe žive komunikaciju u okolici Banjaluca po zaveštaju Drugog svjetskog rata...</td>
<td>Photo</td>
<td>2.542</td>
<td>750</td>
<td>130</td>
</tr>
<tr>
<td>2.10.2015</td>
<td>Sve smo bili prvenstveno školni! Radijiramo se suzretovanja o izradi Vukovar</td>
<td>Video</td>
<td>2.325</td>
<td>1.127</td>
<td>280</td>
</tr>
<tr>
<td>14.11.2015</td>
<td>Naše studenstvo, Nisa, Valentina i Veronika su se u nami mogu novosti pristojno osjećajno. Sveva su osobe su odgovore na svezime ikonama.</td>
<td>Photo</td>
<td>2.464</td>
<td>1.066</td>
<td>208</td>
</tr>
<tr>
<td>18.11.2015</td>
<td>Profesori, studenti i diplomacije HKS-a i osebe, koje su osobi podružnici susjedni,</td>
<td>Photo</td>
<td>2.447</td>
<td>1.182</td>
<td>329</td>
</tr>
<tr>
<td>12.12.2015</td>
<td>Naši studenti predstavljaju ne iz Page :)</td>
<td>Photo</td>
<td>2.313</td>
<td>979</td>
<td>229</td>
</tr>
</tbody>
</table>

*Source:* calculation of authors according to conducted research
Table 8: 20 most popular posts per number of likes, comments, shares and clicks

<table>
<thead>
<tr>
<th>Date</th>
<th>Post message</th>
<th>Type</th>
<th>Reach</th>
<th>Comment</th>
<th>Like</th>
<th>Share</th>
<th>Link clicks</th>
<th>Photo clicks</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.8.2015</td>
<td>Sveučilišna promocija studenata I prvenstva, psihologija i sociologija.</td>
<td>Photo</td>
<td>3553</td>
<td>6</td>
<td>256</td>
<td>10</td>
<td>148</td>
<td>109</td>
<td></td>
</tr>
<tr>
<td>14.11.2015</td>
<td>Za set :)</td>
<td>Photo</td>
<td>1972</td>
<td>149</td>
<td>2</td>
<td>330</td>
<td>101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.11.2015</td>
<td>Proslavili studenii HES-a sve za godine proslavili Vukovar.</td>
<td>Photo</td>
<td>2447</td>
<td>187</td>
<td>4</td>
<td>1</td>
<td>333</td>
<td>222</td>
<td></td>
</tr>
<tr>
<td>13.10.2015</td>
<td>Danstva kolaška osnovna školske žene doživjela da dobi da u prvenstvu</td>
<td>Photo</td>
<td>3126</td>
<td>123</td>
<td></td>
<td>156</td>
<td>213</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.9.2015</td>
<td>Miš u Hrvatskom kolašinskom evenimentu pokusno sprema i naši studenii u instrumentu izgrovaju :)</td>
<td>Photo</td>
<td>2827</td>
<td>1</td>
<td>170</td>
<td></td>
<td>250</td>
<td>172</td>
<td></td>
</tr>
<tr>
<td>24.9.2015</td>
<td>U stolici 20. srpnja 2015. nastaviti će Orij za proslaviti Hrvatsku kolašinsku eveniment. Deutsch Partner njegovje je ulaganje svoju doktoratu dionica... Čitateljima dc. na Penzi...</td>
<td>Photo</td>
<td>2839</td>
<td>10</td>
<td>181</td>
<td></td>
<td>87</td>
<td>154</td>
<td></td>
</tr>
<tr>
<td>10.8.2013</td>
<td>Naučni Svjetski dan je bogate za naše nastavničke u kojima i sociologija. Dobro nam došli!</td>
<td>Photo</td>
<td>3901</td>
<td>6</td>
<td>180</td>
<td>1</td>
<td>154</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>10.11.2015</td>
<td>HES-eve u koluti stojanja.</td>
<td>Photo</td>
<td>2000</td>
<td>94</td>
<td></td>
<td>182</td>
<td>91</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.12.2015</td>
<td>Vukovar se na Hrvatskom kolašinskom evenimentu održao prvi školski dan na Svjetskom stolici Orij za nastavničku.</td>
<td>Photo</td>
<td>4061</td>
<td>2</td>
<td>83</td>
<td>10</td>
<td>156</td>
<td>160</td>
<td></td>
</tr>
<tr>
<td>8.9.2015</td>
<td>Dan je u naučnom danu penzionera.</td>
<td>Photo</td>
<td>2267</td>
<td>4</td>
<td>79</td>
<td>15</td>
<td>44</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>17.10.2011</td>
<td>Svjetski dan.</td>
<td>Share</td>
<td>Video</td>
<td>3500</td>
<td>1</td>
<td>75</td>
<td></td>
<td>255</td>
<td></td>
</tr>
<tr>
<td>16.11.2011</td>
<td>“Naučni svjetski dan”</td>
<td>Link</td>
<td>1596</td>
<td>3</td>
<td>72</td>
<td>1</td>
<td>13</td>
<td>14</td>
<td>29</td>
</tr>
<tr>
<td>5.10.2015</td>
<td>Mladi smo sasvim samo bojali, kako da izgledi mala jedinstvena sjeća u velikoj trupačkoj uliči svjetlosti na Maksimiru u Splitu. Dne, tako je Dok. dr. H. izmjerio svjestan svjetlosti. Photo/leka trenutka.</td>
<td>Photo</td>
<td>3624</td>
<td>2</td>
<td>71</td>
<td>3</td>
<td>269</td>
<td>267</td>
<td></td>
</tr>
<tr>
<td>4.12.2015</td>
<td>Vijecnici planiranog održanja malo naučnog takvika koristište izlaze javnosti znanstvenik za u odaju mladosti svjetlosti iz sjajem kod Pope Pava.</td>
<td>Photo</td>
<td>1842</td>
<td>70</td>
<td>2</td>
<td></td>
<td>134</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>14.11.2015</td>
<td>Uprava je pošla promocija hrvatske psihologije, psihologi i sociologije.</td>
<td>Photo</td>
<td>2027</td>
<td>69</td>
<td></td>
<td>276</td>
<td>98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.11.2015</td>
<td>Mladi trčavoj predlo. Treo, svega prosjeđ, kad je mali dio, tajena, kada osebna stano, sada, ako van osebno stano, sada, to u budlosti. i usput, koji bi mali u budlosti. - Stanislav Glavinsti</td>
<td>Photo</td>
<td>1823</td>
<td>1</td>
<td>67</td>
<td>4</td>
<td>180</td>
<td>70</td>
<td></td>
</tr>
<tr>
<td>8.10.2015</td>
<td>Tanio tanij Dan je nezaboravni Prvog p era u m i m narodnom Godinu za danes koje nam tako nezaboravni dea :)</td>
<td>Link</td>
<td>1799</td>
<td>1</td>
<td>67</td>
<td>4</td>
<td>12</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>26.11.2015</td>
<td>Da mje, dr. Zdenko Stukel je mje i ona u prvom 27. stolici 2015. godine u 11 sati u Vojinom Hrvatskom kolašinskom evenimentu za sve domaćine u dne u znak o tome oznaka o klasišnom kodaži Alješki otvoren.</td>
<td>Photo</td>
<td>1661</td>
<td>66</td>
<td>4</td>
<td>70</td>
<td>51</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: calculation of authors according to conducted research
The successfulness of posts should be analyzed also per number of clicks within a post. By taking a closer look at this segment of posts, it is clear that in the posts dated November 14, October 15 and November 18, 2015 the content was the students and their activities, and they were ranked on the 2nd, 3rd and 4th place, while the content format used in all three posts were photographs.

4.5. Comparison of the Content Analysis of the Researches from 2014 and 2015

The common element of the researches from 2014 and 2015 is the analysis of posts published on the Facebook page of the Catholic University of Croatia. The results of the research from 2014 were used as a strategic baseline for setting up the communication and launching of the brand of the Catholic University of Zagreb through Facebook social network.

It can be concluded from the comparison of the values obtained by the analysis of the researches in 2014 and 2015 that the highest rise was in the number of shares – it was 425%; the number of Facebook fans increased for 60.80%, the number of likes of posts increased for 545%, while the number of comments increased for 21%. The reach was increased for 173%.
Table 9: Comparison of the analyses of the content of posts in 2014 and 2015

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fans</td>
<td></td>
<td>2.010</td>
</tr>
<tr>
<td>Comments</td>
<td>47</td>
<td>39</td>
</tr>
<tr>
<td>Likes</td>
<td>1.255</td>
<td>1.908</td>
</tr>
<tr>
<td>Shares</td>
<td>84</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: calculation of authors according to conducted research

Table 10: Comparison of the results of content analyses in 2014 and 2015 – reach of posts

Source: calculation of authors according to conducted research

In this comparison it is important to note the value of the survey in 2014 in which the students answered the questions on the content and content type that were of greatest importance to them. Namely, one should commend the sincerity of the surveyed students when answering the questions, which could be seen in 2015 in the posts that were in line with their preferences stated in the survey: the most popular posts were those related to student and their activities, while the dominant content type in post is a photograph.

5. CONCLUSION

Since the Internet and the communication though the channels of social networks have become an omnipresent phenomenon, the universities should not just avoid them, but they should accept the new communication channels with a huge
potential for spreading the mission and promoting the university, exchanging the knowledge, attracting the new members of the academic community (both the lecturers and the students). In the academe Facebook contributes to public relations, it serves as a media for informing and communicating and supplements the official web sites of the universities. In order to manage this communication channel skillfully and to optimally exploit its potentials, it is very useful to make an inquiry into the preferences of the users of Facebook pages and their wishes related to their content and format. In this context, this research generally contributes to devising of more efficient use of contemporary communication channels in the institutions of higher education. From the point of view of public relations, Facebook represents a channel though which the name of a brand, in this case the University, can reach even those recipients who are not direct users of Facebook page of the University, thus accomplishing an important promotional purpose.

This research confirmed both hypotheses, i.e. that among the users of the Facebook page of the Catholic University of Croatia the most popular posts are those displaying the students of the Catholic University of Croatia in photographs. It was also confirmed that the users of the Catholic University of Croatia would like to have the information on the events on the Catholic University of Croatia and news on Departments as priority content, while the photograph is the most important content format on Facebook pages.

On the basis of the obtained results, the Department for Public Relations of the Catholic University of Croatia has acquired the knowledge and guidelines and did not neglect them, but applies them actively in the process of creation of the strategy for launching the information.

**Literature:**

Broom, Glen M. (2010). Cutlip&Center’s Učinkoviti odnosi s javnošću, Mate-ZŠEM, ISBN 0136029698, Zagreb


Abstract

The paper considers the issue of higher education quality, providing argumentation for assessments and attitudes according to an explorative research carried out on a purposive sample of students studying at faculties within universities in Serbia (N=365), aiming at examining the influence didactic strategies and methods have on creative and metacognitive competencies of students, thus validating the hypothesis on the application of didactic strategies and methods and creative competencies of students, as indicators of higher education quality. The method of systematic non-experimental observation was used and the assessment scale was used by the students to evaluate the level of presence of the stated strategies, methods or procedures during studies, and to what an extent these methods contributed to development of competencies of students. In the selection of didactic strategies, methods and procedures attention was paid to choose those associated with problem learning, creative approaches to learning, metacognition and critical autonomy. Observed competencies of students referred to the elements of metacognition, critical thinking, as indicators of quality of higher education. Basic findings confirm the significance of meta-components for success in problem solving (r=0.45; significant at 0.01), as well as the significance of didactic instruction for provoking meta-statements and creative reactions.
1. INTRODUCTION

Quality of higher education is a crucial determinant of sustainable development strategies and it is conditioned by highly competitive global market. Sustainable development implies management of changes which do not remain at the level of adaptive responses to the environment, so that it requires innovativeness of development, i.e. competencies focused on readiness for change, i.e. presence of highly developed flexibility, creative and non-dogmatic thinking, ability to accept pluralism of ideas, tolerance for uncertainty in cognitive sense, and initiative innovativeness and risk taking in conative sense (Gojkov et al. 2015). The changes introduced in higher education during the Bologna process should contribute to realization of these tendencies.

Previous reaches of reform currents in higher education teaching and the intention of the Bologna process have mainly reached structural changes, oriented to the coherence of the European higher education space, as a precondition of more intensive mobility of professors and students…. Essential changes which would directly contribute to quality of studies have not been sufficiently manifested; as a consequence, higher education didactics has found itself in a position to reconsider its concepts, including teaching methods, since they are in direct correlation with quality of studies. Creativity and metacognition, as indicators of higher education teaching quality level have a special place in this sense. Terminological disputes have made dealing with the quality of higher education teaching even more difficult and complex; as a consequence, it is necessary to pay special attention to the aspects in question (creativity and metacognition) as indicators of higher education teaching quality in order to consider more clearly.

2. APPROACHES TO DEFINING OF EDUCATION QUALITY

The starting point of a review of the issue of defining of the essence of education quality in general, as well as higher education quality, could be the statement that there are various attempts and approaches in considerations of quality,
including a whole range of important dimensions (features) manifested within education. This is, among other things, caused by the differences in the ways of quality considerations, resulting from the differences of theoretical backgrounds (Antonijević 2012: 25). It might be claimed that majority of backgrounds serving as a starting point for determination of the essence of education quality deal with the following issues: what is quality of education and what is the content of education quality (Anderson, as cited by Antonijević 2012: 25). The answers to previous questions are mainly in accordance with the theoretical orientation permeating the search for them. This has further consequences for focusing to certain dimensions of quality of education. So the reform of the system of education in Serbia initiated in 2000, emphasized the following dimensions: openness, measurability, verifiability, efficacy, justice, regularity, sustainability, coherence etc (Kovač-Cerović et al. 2004). According to the stated dimensions of quality of educational system it might be concluded what is defined and in what a way, what determines the essence and phenomenon of education quality, and how it is expected to initiate and encourage quality improvement, what are the dimensions according to which it is possible to improve the general level of quality of educational system. Furthermore, it might also be concluded that in the mentioned dimensions there are no clear guidelines how the system could be directed to essential changes of studies ensuring the culture of teaching and learning, to be taken as a baseline, i.e. essential dimension directly leading to higher education quality. As a consequence, the criticisms of the reforms of the system (Gojkov, Stojanović and Rajović, 2015) suggest that the dimensions conceived in such a way neglect the culture of teaching and learning, i.e. changes to be derived from within the university, and which would be indicators of crucial changes, implying emancipatory approaches to learning and teaching. The consequences of various approaches to defining of the notion of education quality are in the core of the fact that it is used as a descriptive conception, rather than normative.

Having in mind that the Lisbon Convention from 1997 tracing the efforts in assessment of higher education quality emphasized the issue of quality of aims, programs, actors, processes and results, a need appeared for less ambiguous determination of the concept of quality and it has turned out that it is not simple. Some authors have pointed out that quality is “elusive”, hard-to-reach ideal, in a sense, a “moving target” (Goddard, as cited by Đukić 2002: 56). Analyses have shown that there are no generally accepted definitions of education quality, but what might be implied by the notion are the values of education. In other words,
the term could refer to value determinations of pedagogic work, as well as to
attributive feature of the subjects involved in educational process (Vlahović,
1996). There are three categories of definition of higher education quality to be
found in relevant literature. One refers to quality as a measure of values, another
refers to the expression of the extent to which the goals are reached, and the
third implies quality as a measure of extent to which proscribed standards are
met (Đukić 2002: 510). If we were to draw a line, i.e. to make a conclusion ac-
cording to all the above stated, we could suggest the following: considerations of
the essence of quality cannot avoid multidimensionality, considered by majority
of authors a significant feature, a core of complexity, conditioned by intertwin-
ing of numerous factors at both individual and social level. All this has lead to
a consensus that single quality indicators cannot lead to reliable indicators for
relevant evaluation of higher education quality (Tunijnman, Batani, 1994: 76).

Furthermore, it is considered that educational indicators are the data show-
ing functioning of educational system, indicators of current state of affairs,
i.e. indicators opening up possibilities to make an assessment of the state and
functioning of educational system. Contemporary literature (Đukić 2002: 512)
suggests that there is an agreement on the following features of educational in-
dicators: they are quantitative, but they assume more than simplified numeric
expression; they offer summary information on relevant aspects of functioning
of educational system; the inform stakeholders, i.e. interested actors; as diag-
nostic means, they are a starting point for evaluation; in certain cases they can
be an insert, a solid represent of a broader circle of other important indicators;
in other words, they can in a sense be an indicator of interaction of a number
of factors, their interrelations, and as such they can have great informative value
(Tunijnman, Batani, 1994: 56).

Relevant literature on higher education (Tunijnman, Batani, 1994; Vlahovic,
1996, Đukić 2002) offers classification of three groups of significant indicators:
inputs: material and professional (professional and pedagogic competences of
teachers); process and indicators of performance (curricula, knowledge resour-
ces, students activities, evaluation of students success); output indicators (spe-
cific knowledge, skills, abilities, attitudes, motivation, self-learning abilities...)

The third group of indicators seems to be rather important for the topic of
the current paper, having in mind that it should include creativity and metacog-
nition as indicators of higher education quality. It seems that a general attitude
according to which quality of education assumes both the value it has and the value it can achieve is in favour of such an attitude. In other words, we are talking about value determinant of pedagogical process and work of teachers which is an essential feature of the relations between subjects in the process of learning, i.e. the attributive feature of all those involved in the process of education; this further leads to a conclusion that it is difficult, if not impossible to delineate means and ends. As a consequence, conclusions could be made that quality involves both process and its results (Vlahović, 1996: 98). At this point space is opening up for considering creativity and metacognition as indicators of higher education quality. In this sense, when considering quality of education, quality and metacognition have a double role in learning process, since they are both the means leading to high quality knowledge and effects of educational process, i.e. a result of efforts of teachers to equip their students with research approaches and strategies of learning, explorative logics of thinking.

However, the practice has come to the point that it has become clearer that as reforms progress, they essentially involve merely structural and organizational side of the currents, with consequences, from the standpoint of higher education didactics, which opposite to the development of quality of science and studies. The task according to which “higher education institutions should to greater extent develop innovation strategies, referring to organization of contents of learning, teaching materials and teaching methods” (Cre/Unesco-Cepes 1997: 11, as cited by Eberhardt, 2010) is difficult to discern at this point. Efforts made within reform of teaching have up to now been limited to mere structural changes. It is very difficult to see what has been an assumption of success of the Bologna process project, i.e. a demand to establish “culture of teaching” which “acknowledges and recognizes the results in teaching to same extent it recognizes and measures research results which could contribute to reputation (Evropska dimenzija u obrazovanju, 1997).

We are facing the need for new didactic impulses in order to moderate the criticisms in favour of dominance of administrative, organizational and structural sides of the reforms... Higher education didactics has recognized learning and teaching which would be in the function of self-organized learning of students as a significant step ahead in this sense, including self-responsible and self-determined characteristics whose purpose is to lead to competences nowadays expected from young people in the world of work requiring a modern individual to find his/her way in life changes. In other words, it is necessary
to integrate the aspects of emancipatory didactics into formulation of studies, in such a way that contents of studies are generated from research, requiring didactic transformation by the teacher, in order to establish “culture of learning and teaching”.

3. CREATIVITY AND METACOGNITION AS INDICATORS OF HIGHER EDUCATION QUALITY

Previous standpoints are arguments in favour of findings of a research conducted by the authors of the current paper. The starting point was the statement that metacognition is seen as a link between ability and executive intelligence and that as such an ability it contributes to respect of conceptual mechanisms and interdependence between self-organization of learning and student’s circumstances. Therefore, importance of metacognition is recognized through its influence on operationality and mobility of prior knowledge, while prior knowledge is qualified as an element enabling more efficient self-regulation of learning, nowadays considred to be a significant cognitive competence.

The notion of metamemory or metacognition offered by Flavell and Velman (Gojkov, 2002) has been accepted referring to knowledge on the capacity/efficacy and memory function of a person or to cognitive grounds as a whole. It might be simply said that metacognition means cognitive processes according to which adequate cognitive strategies are chosen and their efficiency is controlled (Sternberg, 1985). All this helps realization of abilities, i.e. their transformation into executive intelligence. In other words, metacognitive processes are in direct function of realization of abilities and as such they have an important role to play in more recent theories of intelligence (Sternberg, 1988, as cited by Gojkov-Rajic, Stojanovic 2014). From the angle of the current paper, they are considered significant indicator of higher education quality.

Flavell’s definition of metacognition, as knowledge on cognitive phenomena, has been significant starting point for determination of the notion of metacognition for other researchers, as well, and it implies that metacognition is a conscious phenomenon, including phenomena which are not cognitive (motivation, affects, etc). Furthermore, what might also be taken as an argument in favour of the conducted research is a fact in recent decades cognitive system
and its development has been seen as a self-modifying system, while learning is often considered from the same angle (self-regulated learning). This pedagogical psychology perspective has encouraged didacticians to, having accepted the contextual approach to intellectual abilities (Sternberg, 1985, as cited by Gojkov et al., 2015), search for mechanisms according to which abilities could be better known and developed in cognition, and the incentives might be found in the findings of the research claiming that specialized knowledge of students, use of cognitive strategies and self-regulation have important impact on academic learning (Sternberg, 1983, as cited by Gojkov et al., 2002).

Findings of the explorative research, aiming at considering the level of development of metacognitive and creative abilities of students \((N=365)\) and the influence these abilities coupled by applied didactic instructions have on the effects of learning (metacognitive and creative reactions were predictive variables, while problem tasks effects were criterion variable) were obtained according to systematic non-experimental observation. The following instruments were used: protocol for self-observation of metacognition \((MK1)\); problem tasks, Urban and Jellen’s creativity test, Domino-D-48. Theoretical background relies on Sternberg’s triarchic theory of intellectual abilities. The findings which are in function of argumentation of the above discussed attitudes are the as follows:

- Metacognitive abilities of the subjects are poorly expressed. Their number ranges from 0,5 to 5, and their average is 2,1. Average success of students on problem tasks was 1,9 out of 5 tasks. T-test for independent samples was used to examine the difference between those students with highest and those with lowest score in meta-components. Statistically significant difference was found in favour of those with highest scores in meta-statements. Differences were manifested in intellectual potentials, success in problem solving and creativity.

- Graph 1 shows that in regard to metacognitive reactions, students were most successful in the following abilities: awareness on the level of comprehending and analysing the problem, and viewing the problem situation as a whole and the connections between prior knowledge and what is being learnt.

- Understanding and monitoring of one’s own work and activity is less manifested and it ranges from 1,9% - awareness on the aim to be reached to 0,5% - awareness on the procedures of problems solving, on the course
of actions and mechanisms, which was rarely manifested, as well as the levels of awareness at which decisions were made while internal mental operations and processes were functioning (0,5%).

- The relation between intellectual and metacognitive abilities and problem solving confirmed the interdependence of the variables (r= 0,45; significant at the level of 0,01), leading to a conclusion that success in problem solving is followed by high abilities. At the same time, meta-components significantly influenced success in problem solving (r=.62).

Graph 1 Manifestation of metacognitive reactions

- Out of the elements of “executive”, i.e. control process during problem solving, those mostly manifested are as follows: selection of components leading to problem solution and the way information was presented, which was useful in the procedure of problem solving, sequence and choice of actions, awareness on the difficulties and self-awareness on efficacy of actions and paths followed to proceed in the process. The finding confirms the significance of non-cognitive elements and possibility to view metacognition as a kind of personal complex (as one of the aspects of a cognitive style of an individual), pointing out that metacognition in practical manifestation is a reflection of personal cognitive growth; in other
words, it develops and an important place in nurturing of metacognitive functions belongs to didactic instructions in teaching. Most important strategies are those encouraging students to: identify a problem, clarify its meaning, consider the sources of dilemmas, explain the feeling of confusion and tension, caused by controversy, those regulating and controlling taken steps and procedures, those regulating planning and behaviour and arranging another set of details leading to problem solving.

- Regression analysis has shown that the share of metacomponents in score variance is significant; metacomponents explained around 41% of score variance, intellectual abilities explained about 49%, and the contribution of creative reactions saturated in previous two. Dependence of the correlation is statistically confirmed ($r = 0.59$ at 0.01). The finding leads to a conclusion that the observed variables are important for problem solving, and their relation is intertwined. This further opens up possibilities to view metacognition as self-awareness whose place in cognitive functioning is significant, but not autonomous.

Positive correlations between metacognitive statements and didactic instructions, encouraging students and leading to greater effects on criteria tasks, lead to a conclusion that didactic instructions are important for provoking metastatements. Factor analysis of didactic instructions efficient for provoking metastatements and creative reactions singled out 10 factors within which observed instructions (67 instructions were used) were classified. Their contents might be classified under following headings: classifying, control of pieces of information, error analysis, encouragement for flexible approaches, formulation of explanation, turning back to provided information, analysis of important moments, estimation of possibilities to reach an aim, review of previous strategies, patterns and additional reflection on relations and the situation.

4. CONCLUSIONS

Research findings speak for themselves. On the one hand, close link between intellectual potentials, metacognitive abilities and creative reactions in problem solving are in correlation with didactic strategies and methods of encouragement of creative cognitive structures in problem solving; on the other hand, poorly expressed metacognitive abilities speak of the quality of higher educa-
tion. Only certain aspects of organizational structure are dealt with in the present paper. It is beyond dispute that it would make sense to reflect on some other aspects in the current reform movements, while considering effects of education underlying process of learning and contributing to emancipation and autonomy of students as quality indicators, since they will be effective in the demands of strategies of sustainable development and highly competitive global market. Sustainable development assumes change management and innovativeness of development based on the following competencies: readiness for change, ability to accept pluralism of ideas, tolerance for uncertainty in cognitive sense, and it conative sense, initiative, innovativeness and readiness for risk taking; all this is impossible without self-determined learning, i.e. metacognition and creativity which should be avoided neither in considerations of the effects of quality of education nor in learning process organization, having in mind that these are the same and have dual function. In other words, they are both means and ends of learning. To neglect one inevitably means to neglect another.

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Abstract

Although vaccination as a modern public health measure has been accompanied with controversies since its very beginning, today biomedicine has no doubts with respect to its benefits for individuals and whole communities. It is to be noted that vaccination has significantly decreased the incidence and mortality rate of a number of infectious diseases. When propagating vaccination, scientists point not only to its effectiveness but also to its efficiency. It is believed that preventive national mass vaccination programmes have saved billions of euros considering treatment and other medical costs which would be incurred due to the outbreak of a disease. Vaccination and other medications may imply certain unwanted reactions. Although severe side effects of vaccination are rare, in such cases compensation of injuries bears great relevance for the success of immunization policies and maintenance of the public trust. This paper attempts to clarify why traditional tort litigation is not convenient in this view. The injured parties often face long-lasting judicial proceedings with an uncertain outcome. What is even worse is that such cases often concern children who are likely to need lifelong care. On the other hand, vaccine manufacturers are also vulnerable. Vaccine production is expensive and subject to strict supervision. Unlike medications treating chronic diseases which have been used for decades, vaccines are administered only several times during a lifetime. High costs cases are particularly discouraging, which jeopardizes public health goals. Our aim is to demonstrate that the Republic of Croatia should introduce the so-called “no-fault” compensation
programme which would bind the state to compensate for the damage done to its citizens in the name of the principles such as solidarity and justice.

**Keywords:** solidarity, justice, equality, vaccines, compensation, liability

JEL Classification: K2, K29

1. INTRODUCTION

Although vaccination as a modern public health measure has been accompanied with controversies since its very beginning, today biomedicine has no doubts with respect to its benefits for individuals and whole communities. It is assumed that vaccination has significantly curtailed the infectious disease occurrence and mortality rates (Looker & Keelan; 2011, 1). When propagating vaccination, scientists point not only to its effectiveness but also to its cost-reducing effect. It is believed that preventive national mass vaccination programmes have saved billions of euros considering treatment and other medical costs which would be incurred due to the outbreak of a disease (Parmet; 2005, 73; Hodge & Gostin; 2001-2001; 876; Beauchamp & Childress; 2001, 251).

Like other medications, vaccination may also imply certain unwanted reactions. Although severe side effects of vaccination are rare, in such cases compensation of injuries bears great relevance. This paper attempts to clarify why traditional tort litigation is not convenient in this view. The injured parties often face long-lasting judicial proceedings with an uncertain outcome. What is even worse is that such cases often concern children who are likely to need lifelong care. On the other hand, vaccine manufacturers are also vulnerable. Vaccine production is expensive and subject to strict supervision. Unlike medications treating chronic diseases which have been used for decades, vaccines are administered only several times during a lifetime (Parmet; 2005, 88). High costs cases are particularly discouraging for manufacturers, which ultimately jeopardizes public health goals.

Our aim is to demonstrate why the Republic of Croatia should introduce a vaccine compensation programme which would bind the state to compensate for the damage done to its citizens in the name of the principles such as solidarity, equality and justice (Asveld; 2008, 251; Beauchamp & Childress; 2001). The number of such programmes is growing all around the world and Croatia should be particularly sensitive to this issue since vaccination of children against statutory specified diseases is compulsory.
This paper is aimed at precise determination of principles which should set grounds for political and legal decisions on the “acceptability of technological risks” (Asveld; 2008, 251). Most authors acknowledge their importance both in medical and public health ethics (Faden et al.; 2003, 1547). Still, what remains controversial is how to find the right balance between these principles. In terms of compulsory vaccination, one should seek ways how to establish a balance between the autonomy of an individual and the benefits of the whole community from “an efficient vaccination programme” (Faden et al.; 2003, 1547). The key element in this context is to identify the principles which should lay foundations for compensation for vaccine injuries (Mello; 2008, 32).

The paper is divided into five main chapters. The second chapter refers to the legitimacy of the use of compulsion in vaccination programmes. Challenging the additional requirements which need to be met to make the use of compulsion compliant with contemporary perceptions, the third chapter further elaborates the topic raised in the second chapter. The other chapters examine the foundations for introduction of state-funded compensation programmes. The fourth chapter focuses on the utilitarian arguments supporting introduction of such programmes. The fifth one sheds light on some values, such as justice, solidarity and reasonableness, which should constitute a basis for these arguments and the sixth one explores the practice of the states which have already adopted the above programmes.

Although this paper primarily concentrates on compulsory vaccination of children, the conclusions may comprise other compulsory vaccination programmes, in particular the programmes of vaccination against smallpox due to the threat of bioterrorist attacks and work related vaccination which refers to, above all, healthcare workers. This paper does not deal with the specificities relating to compensation for the damage resulting from voluntary vaccination (See Mello; 2008, 41-42).

2. COERCION AND VACCINATION

The respect for the autonomy of an individual regarding his/her choice of medical treatment is today deemed as one of the fundamental values of both “medical and public health ethics” which formulates it as the concept of informed consent (Faden et al.; 2003, 1547-1548). Informed consent is primarily perceived as the obligation of medical staff to provide patients with adequate information on a medical intervention and the risks connected therewith as well as with available alternatives, but today it also implies undertaking necessary steps to make
this information comprehensible to patients and enable them to make a reasonable decision (Faden et al.; 2003, 1548; Beauchamp & Childress; 2001, 77).

Although nowadays many states are known for their successful voluntary childhood immunization policies, such as the UK where vaccination is only recommended “for good of society” (Henson; 2007-2008, 61), a fair number of states, like the Republic of Croatia, qualify childhood immunization as an obligation. Such interference with the autonomy of an individual, in this case that of parents, is depicted as “ethically problematic” and requires strong justification in liberal democracies (Malmquist et al.; 2011, 22). Although the arguments for compulsory vaccination, which are based on paternalistic concerns or personal benefits, are still deemed acceptable, the arguments for protection of other people from harm are much stronger (Malmquist et al.; 2011, 21).

The introduction of programmes of vaccination against highly infectious diseases is aimed at achieving the so-called herd immunity, i.e. high immunization coverage, which with respect to most diseases means 90% of a population. This is supposed to prevent circulation of infectious agents within a community (Field & Caplan; 2008, 115, 122). The accomplishment of this goal entails “a hierarchy of public goods” in which health is preferred over the rights of individuals to freely decide on the medical intervention which they need to undergo (Field & Caplan; 2008, 115).

The introduction of vaccination is thus justified with “self-regarding” and “other-regarding” concerns. Such justification is not vaccination-specific since it is also applied in clinical research involving human subjects (Faden et al.; 2003, 1549). In regard to some infectious diseases, the protection of personal interest prevails over the rights of a community. This is particularly evident when it comes to vaccination of a person due to his/her travel to countries where particular infectious diseases are endemic. Still, it should be noted that the protection of third parties is less prominent when imposing compulsion for the purpose of vaccination against sexually transmitted diseases such as HPV (human papillomavirus). This is a disease which can be transmitted exclusively through sexual contact, so the number of infected persons is much smaller and such are the appertaining risks (Mello; 2008, 38; Malmquist et al.; 2011:22).

Although public health law allows the government to introduce coercion for the sake of promotion of public health values and hence to restrain individual freedoms and impose the positive obligation of immunization, the limits of these state powers needs to be defined though. Today this is particularly important due to the vociferous critiques that the use of coercion in immunizations programmes
“reinforces a culture of coercion” (Shapiro; 2012, 155) and that vaccines should be administered on a voluntary basis. However, the division into voluntary and compulsory vaccination programmes can seem to be too simple (Faden et al.; 2003, 1548). Even though both kinds of programmes are mandatory, there is a huge “moral difference” between forcing people to get vaccinated and fines imposed on individuals. Can the state use “actual force” to achieve satisfying immunization coverage (Shapiro; 2012, 116)?

The use of coercion by the state in preventing the spread of infectious diseases is not a new idea (Flanigan; 2014, 13). Long before the introduction of compulsory vaccination, states had quarantined individuals at risk of getting infected or infected people for the purpose of preventing the spread of diseases. From the viewpoint of Flanigan, the quarantine costs are for an individual much higher than the vaccination costs since quarantine implies restriction of freedom of movement and social isolation. The use of quarantine is justified by the fact that the danger of quarantined people is usually greater than the danger of people subject to vaccination. Flanigan completes the comparison of these two measures with the assertion that personal costs and benefits are of the same kind, but they differentiate from each other by their intensity.

Nowadays, thinks Shapiro, due to the values attributed to the protection of bodily integrity, a person cannot be controlled and locked in “a wrestling hold” while he/she is being administered a vaccine, though the procedure results in nothing but a pin-prick (Shapiro; 2012, 116). The only thing permitted in this view is providing strong incentives (Shapiro; 2012, 116; Hodge & Gostin; 2001-2002, 835). The measures undertaken against those who avoid vaccination include: loss of education possibilities, social isolation, loss of custodial (parental) rights, civil fines and only sometimes, criminal penalties (Shapiro; 2012, 138; Hodge & Gostin; 2001-2002, 833). Regardless of the legitimacy of coercion, its use should be reduced as much as possible while assuring measures for the promotion of fairness among affected individuals, which is the topic of the next chapter (Flanigan; 2014, 20; Mello; 2008, 36).

3. ETHICAL JUSTIFICATION OF COMPULSORY VACCINATION

The previous chapter has revealed that imposing the obligation of vaccination on a person is morally and legally acceptable due to the benefits for the whole community. Yet, authors stress that full ethical justification of mass vac-
compensation could be possible only if the additional conditions are fulfilled (Faden at al.; 2003, 1549; Mello; 2008, 36). These additional conditions shall provide fairness to the individuals who are subject to a compulsion regime (Mello; 2008, 36). This chapter takes into consideration some of the conditions which, in our opinion, necessarily need to be fulfilled in this context and which are broadly present in relevant discussions. First of all, the system of vaccination distribution shall itself be fair (Faden at al.; 2003, 1549). Law and bioethics see numerous discussions on the conflict between the state and an individual considering “the allocation of health care resources” (Gilbar & Bar-Mor.; 2008, 225).

Healthcare appears here as an example of “a scarce resource”. Fairness in the access to healthcare will be achieved if all the community members have ”an equitable means of access”. It means that the access must not be restricted to those who have sufficient financial resources to afford it (Field & Caplan; 2008, 115). The justice in the context of vaccination implies an access of all the children to “safe” and “effective” vaccines (De Castro Lessa & Garoffe Dorea; 2013, 230).

Malmquist points out that the vaccination costs and its benefits should be equally distributed in accordance with Rawls’ postulate from his A Theory of Justice and in a way which best satisfies the interest of the most endangered ones. In order to accomplish this goal, publicly-funded vaccination programmes should be preferred over “consumer-based” or “partially subsidised approaches” (Malmquist et al.; 2011, 23).

Second of all, it is important that states implementing compulsory vaccination programmes assure “due process” before a person is deprived of freedom of choice (Mello; 2008, 36). Possible problems relating to this issue can be found in the practice of the Hungarian Constitutional Court. In the Republic of Hungary, the Constitutional Court has invalidated the provision (“the second sentence in Section 58 para. (4) of Act CLIV of 1997 on Healthcare”) permitting the health authorities to order vaccination “without delay” of a person who has refused to get vaccinated. In its decision, the Constitutional Court has recognized the importance of vaccination of individuals but also established that the existing solution leads to violation of the right to “a legal remedy, personal self-determination and bodily integrity” (The June 2007 Decision of the Hungarian Constitutional Court, case No 39/2007; See also Sadurski; 2014, 282).

The third ethically required condition, which is in the spotlight below, refers to the need for introduction of a financial compensation programme intended for those who have been harmed by vaccination or for their families (Mello;
This measure should provide an additional guarantee that the use of coercion against individuals with respect to vaccination will be restrictive (Mello; 2008, 36).

4. UTILITARIAN ARGUMENTS FOR INTRODUCTION OF STATE-FUNDED COMPENSATION PROGRAMMES

Even though it can often be heard that vaccines are safe, they are still “biologically active agents” which may, though rarely, do harm to individuals. (Wilson & Keelan; 2012, 122). Even a properly manufactured and administrated vaccine may bring to injuries and death (Henson; 2007-2008, 62). Adverse effects are to appear with statistical certainty and the most affected ones are members of the most vulnerable groups such as children and old people (Mello; 2008, 37). Most consequences of vaccination are mild and include local reactions and a slightly elevated body temperature, but some people might suffer fatal or severe consequences of vaccination (Faden et al.; 2003, 1549).

In the year 2012, Croatia registered “39 adverse events which were classified as severe in a broader sense (e.g. an extensive local reaction – larger than 5 cm in diameter, post-vaccinal measles and rubella are all classified as severe adverse events). There were five life-threatening (e.g. anaphylaxis) or hospitalization-requiring reactions (e.g. convulsions, neuritis)” (The Official Website of the Croatian National Institute of Public Health, http://www.hzjz.hr/wp-content/uploads/2013/11/pitanja-za-web.pdf).

These adverse events entail medical and other costs which represent a great burden for an injured person (Wilson & Keelen; 2012, 122). The compensation should result in “restitution in the amount of past and expected future economic losses” accompanied with an amount for “the injured person’s pain and sufferings” (Mello; 2008, 33). Indeed, it is beyond any doubt that some are going to suffer huge damage and no one knows who it will be. Mello highlights that people are hidden behind Rawls’ “veil of ignorance” (Mello; 2008, 41).

The practical reasons why states have opted for introduction of publicly-funded programmes for vaccination damage compensation are often reflections of political and economic concerns. These are, above all, utilitarian reasons which should facilitate the readiness of an individual to get vaccinated and the
willingness of manufacturers to proceed with vaccine production and invest into its further improvements (Wilson & Keelan; 2012, 123; Mello; 2008, 33).

It is quite sure that a traditional tort system does not seem to be an appropriate solution for compensation for the damages emerging in this field. For a person having suffered vaccination injuries, litigation management can be an expensive and uncertain thing and many claimants will not get proper compensation (Parmet; 2005, 90). On the occasion of implementing mass immunization programmes in the United States, whereat doctors acted as “learned intermediaries”, individuals were entitled to file a lawsuit against the manufacturer. Based on “the product liability”, the manufacturers would face consequences if a vaccine was “defectively designed or manufactured” or if there was no warning about the appertaining risks (Mello; 2008, 33; Looker & Keelan; 2011, 4). The manufacturers were not happy with such a situation, the vaccine prices went up due to high court proceedings costs and there was a danger to the sustainability of vaccine supply (Parmet; 2005, 88; Mello; 2008: 36). It was the primary motivation for introduction of the VICP in the USA (Wilson & Keelan; 2011, 123).

Vaccine manufacturers are exceptionally vulnerable to tort litigation costs (Parmet; 2005, 88). Individuals get vaccinated only several times during a lifetime and therefore vaccine manufacturers are not in the same position as medicine manufacturers who have been combatting chronic diseases with medications for decades. It should be mentioned that, emphasizes Parmet, governments are the main vaccine buyer, so they have a powerful effect on shaping the vaccine prices. Besides, in terms of vaccines against rare or eradicated diseases, which are the main target of bioterrorists, their development depends only on governmental funds (Parmet; 2005, 88).

What is imposed here is the issue of the power of these utilitarian arguments with respect to the above goals. Utilitarianism applies “an explicit balancing of relevant factors to determine the optimum result for the greatest number of people regardless of competing individual needs” (Field & Caplan; 2008, 134). In line with these arguments, social benefits from such programmes should exceed the compensation costs (Mello; 2008, 34).

Parmet supports the thesis that special compensation schemes aimed at reducing the risk of vaccination injuries boosts the willingness to get vaccinated. As an obvious example of a failure of an immunization programme which was not accompanied with possible compensation is the 2003 programme of
vaccination of “the first responders” and other “emergency personnel” against smallpox, which was launched by former US president George Bush. Although smallpox has been qualified as an eradicated disease by the World Health Organization, vaccination against this disease was brought to the centre of attention after 11 September 2001 due to the fear of bioterrorism. Out of a total of 500,000 “civilian health care workers” who were supposed to get vaccinated, only 39,353 people actually received the vaccine. Unlike the military vaccination, which was mandatory, the vaccination of other target groups was voluntary (Parmet; 2005, 97). The fact that the consequences of the vaccine against smallpox are more troublesome than those of other widely-used vaccines was probably a relevant factor in this view. Out of a million vaccine administration cases, one can expect 1-2 deaths, 14-52 “life-threatening reactions” and 1000 “serious but not life-threatening reactions” (Faden et al.; 2003, 1547).

According to Parmet, education of a population about infectious disease hazards together with appertaining compensation schemes promotes the public trust and reduces the possibility of injury appearance. The efficacy of a vaccine does not depend on the existence of the trust of the vaccinated person, but trust can be of key importance for the patient’s willingness to get vaccinated or to have his/her child vaccinated (Parmet; 2005, 97).

On the other hand, some authors claim that there is not enough empirical evidence supporting the argument that compensation programmes enhance or weaken a person’s willingness to get vaccinated. Mello suggests that the utilitarian reasons are not strong enough and accentuates that a person’s willingness to get vaccinated is mostly bound to the real risks of disease occurrence, which is, with respect to most diseases, pretty low (Mello; 2008, 35).

The widely present concern for the costs of such programmes should not be forgotten. The reasons why states hesitate to introduce them are greatly attached to the cost-related fears. What is also controversial is their priority with respect to other needs related to the immunization policy. The bare existence of such programmes appears to be an additional argument of the rather vociferous opponents of vaccination and may provide them with legitimacy in their assertions. For instance, an American programme faced harsh criticism resulting from the allegations about the link between the vaccination and autism (Wilson & Keelan; 2012, 122-124). However, Wilson and Keelan have drawn the conclusion that these concerns have turned out to be ill-founded in many states
and that the programme costs are “manageable” and “predictive”. In the United States, the costs were lower-than-expected, which brought to “a large surplus of revenues” realized by the “excise tax on vaccines” (Wilson & Keelan; 2012, 124). The compensation scheme in the United States is financed through a vaccine tax amounting to 0.75 dollars per dose (Mello; 2008, 36, 41).

5. VALUES WHICH SET GROUNDS FOR COMPENSATION PROGRAMMES

The purpose of compensation programmes should not be tailored according to cost-related issues but it should be primarily viewed from the ethical perspective (Wilson & Keelan; 2012, 124). The main goal of such programmes should refer to meeting the solidarity, justice, fairness and reasonableness requirements. Therefore, this chapter offers a short overview of these values. This is particularly important due to the impossibility of standard ethical justification which is to be applied when individuals are exposed to a risk for the sake of a public good and which is based on their voluntary consent (Faden et al.; 2003, 1549). A mandatory immunization policy does not include such consent.

Justice requires “fair, equitable, and appropriate distribution” of “benefits”, “burdens” and “costs” (Beauchamp & Childress; 2001, 226). The relevant literature contains critiques of the conduct of individuals who do not have their children vaccinated in order to avoid harmful consequences of vaccination and thus enjoy the benefits from the vaccination of others and generation of herd immunity which prevents circulation of infectious agents in the environment (Asveld; 2008, 247). Their attitude is deemed unethical and contrary to one of the fundamental values in modern societies – “the value of equality”. In Western civilization, the value of equality is highly appreciated and conduct implying enjoyment of benefits without bearing the burden is considered unacceptable (Asveld; 2008, 247). Such an attitude towards an immunization policy is denoted as “self-defeating” since if it was practised by everyone, the immunization policy would become unsuccessful and would not provide anyone with protection. (Asveld; 2008, 253) In case a community does not compensate for the damage done to individuals on account of vaccination, members of such a community will become free riders who enjoy the benefits of the immunization at the expense of those who have been injured by the vaccine (Mello; 2008, 39).
Solidarity is often perceived as the primary reason for introduction of compensation programmes (Mello; 2008, 39). What solidarity and justice have in common is putting an emphasis on the need to equally bear the respective burden on the occasion of generating a public good (Mello; 2008, 39). Every member of a community should equally bear risks and burdens. If risks are connected with the realization of a public goods, individuals who have suffered damage must not be on their own (Mello; 2008, 39). Solidarity means that we are all in this together and the burden shall not be carried only by “the losers in the vaccine lottery” (Faden et al.; 2003, 1550).

As one of the crucial values in this context, Mello singles out “reasonableness” which entails a mixture of utilitarian and deontological concerns, under the condition that it can be “efficiently” assured, “a rational vaccinees would prefer a world in which such a compensation scheme” exists (Mello; 2008, 41).

6. VACCINE INJURY COMPENSATION PROGRAMMES

Pursuant to Wilson and Keelan, 19 countries had introduced vaccine compensation schemes, out of which 13 are situated on the European continent. Furthermore, this mechanism is applied by three of our neighbouring countries – Italy, Slovenia and Hungary (data are for 2011. See Looker & Keelan; 2011, 2-3). Many European countries have embraced “a vaccine liability as part of a more comprehensive no fault approach to medical accidents“. This is a result of the aspiration to harmonization of healthcare policies within the EU as part of “the pan-European compensation scheme for injuries caused by defective products” (Looker & Keelan; 2011, 3).

As stated above, in 1986, the US Congress established a VICP enabling “no-fault administrative compensation for adverse effects” which have been scientifically confirmed as vaccine-related. The programme was initiated as a response to the childhood vaccine supply crises emerged due to the high “tort liability costs” which the manufacturers were facing. The programme was gradually extended to adult vaccination against smallpox and trivalent influenza (Mello; 2008, 33). According to a report of the US Department of Justice (2003): the VICP had managed to assure a “less adversarial”, “less expensive” and “less time consuming system of recovery” (Mello; 2008, 33).
In Italy and Slovenia, the constitutional courts played a major role in the vaccination policy. They limited the discretionary power of the legislator relating to vaccination. Precisely, the Italian Constitutional Court attempted, in a number of its decisions made in the 1990s, to set a balance between the personal right to autonomy and the universal interest for protection against infectious diseases. The Court backed the power of the legislator to impose mandatory vaccination, but it also ruled that the injured person shall have the right to compensation provided by the community. It entrusted the specification of the compensation amount and conditions to the Parliament. The Parliament remained in charge of determining the constitutionally acceptable minimum compensation. Nevertheless, this amount was subject to supervision of the Constitutional Court. In terms of restraining the powers of the legislator considering the costs and budget (“rights that have a price”), the Italian Constitutional Court has already shown its determination. For instance, in 1988, it declared the law relating to unemployment benefit unconstitutional since it found the subsidy amount inadequate for living (Zagrebelsky; 2003, 645).

In 2003, the Slovenian Constitutional Court held that the Infectious Diseases Act did not properly regulate the state liability for vaccination injuries. In compliance with the former Slovenian judicial practice, the state or “socio-political community“, which is in charge of establishing an immunization policy, was, according to general regulations, liable for the damage which an individual could suffer as a result of vaccination, but the Slovenian Constitutional Court found that solution inconvenient and required enhancement of the protection of an individual against damage (The February 2004 Decision of the Constitutional Court of the Republic of Slovenia, Decision No. U-I-127/01, B - III 27).

The Act on the Protection of the Population against Communicable Diseases (Official Gazette 79/07, 113/08, 43/09 and 22/14-RUSRH) and the Ordinance on the Manner of Carrying Out Immunization, Seroprophylaxis and Chemoprophylaxis against Communicable Diseases, and on the Persons Subject to This Obligation (Official Gazette 103/13) represent the legal foundation of compulsory vaccination in the Republic of Croatia. Immunization programmes are enacted by the minister of health following a proposal of the Croatian National Institute of Public Health. The state is liable for providing damage compensation to persons with long-term medical conditions as a consequence of vaccination carried out in compliance with the National Immunization Programme (This information is available to the public. See The Official
Although there is no special compensation programme, the state is nevertheless liable for the damage done to an individual on the occasion of vaccination. This kind of a system is being abandoned on the European continent and replaced by special compensation programmes. As stated in the previous chapters, despite the difference in the authors’ hierarchy of values, the practice of the states offering compensation programmes has disclosed a number of advantages.

7. CONCLUSION

As far as modern liberal societies are concerned, autonomy plays an important role in medicine and public health. Still, the interest of autonomy starts losing its strength when the conduct of a person inflicts harm on other people. When refusing to get vaccinated, a person does damage to others by increasing his/her odds to become infected and transmit the disease to other people (Field & Caplan; 2008, 16).

Unlike medicine, public health has a long tradition of restraining autonomy for the sake of a public good (Faden et al.; 2003, 1548). When it comes to public policy, it is not which value needs to be respected but how to find the right balance between different values (Field & Caplan; 2008, 16).

The public good which should be realized by vaccination refers to herd immunity which is expected to prevent circulation of infectious agents within a community. Despite their rareness, adverse events following immunization are rather certain for a small number of people. Due to the circumstance in which a person has suffered damage while enabling realization of a public good, it is not right if he/she carries the burden alone. The traditional legal paths to damage compensation have been deemed unsatisfactory. A community must have the duty of damage compensation if it comes to compulsory vaccination or vaccination connected with particular professional obligations (Mello; 2008, 42). In order to overcome the existing problems, states (particularly European ones) are prone to the rising tendency of introducing state-funded compensation programmes. The paper investigates the reasons behind the introduction of these programmes or values which facilitate their implementation. It also
tries to indicate the advantages and flaws of these programmes. Our goal was to show the advantages of such programmes for countries like the Republic of Croatia which is currently featured by the state liability for the damage done to an individual but not by a special vaccine injury compensation programme.

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Law and Economics
Abstract

One of the significant features of the expression of a healthy business environment is its transparency, which inter alia lies in the accurate information regarding the status of companies and other entities to be registered. The national public systems of registration of companies in the EU Member States make available to the business environment and not only, certain types of data and documents that make it easy to find out the essential aspects of the potential partner’s status and the changes operated on its structure. For this purpose, European regulations have been adopted and transposed into the laws of Member States, in the field of implementation of systems for interconnection of trade registries. These regulations are subsumed to the efforts towards ensuring the transparency of the business environment, this time with a cross-border dimension, including all goals of developing the European single market and facilitating direct foreign investments (FDI).

From this perspective the current paper analyzes the categories of information and documents that will make the object of the exchange between the national trade registries of the EU Member States in case of cross-border merger operations and in case of branches that are to be established in other Member States. The exchange of data and documents shall have the purpose to clarify and make available
to the business environment adequate data regarding the status of the companies undergoing cross-border merger, as well as for branches being established by companies from EU Member States, considering the fact that these entities are the main legal investment mechanisms within the cross-border business environment.

At the same time it is also analyzed the public character of the data made available by the trade registry, from institutional point of view, relying on the fundament that the Trade Registry in Romania is a public institution with legal personality subordinated to the Ministry of Justice.

Keywords: foreign direct investments, interconnection system, trade registry, exchange of data and documents, cross-border merger, branch.

JEL Classification: K2, K29

1. INTRODUCTION

One of the significant features of the physiognomy of a healthy business environment is its transparency, which inter alia lies in accurate information regarding the status of companies and other entities that must be registered. (One example of concern regarding the transparency of the business environment is the Pact on Integrity and Transparency in business, its founding being the result of the activity of the Centre for Integrity in Business of the Transparency International-Romania, which together with its partners, GDSI Ireland and Softwin Romania carry out project POSDRU/93/3.3/S/63280, „Together for integrity, social responsibility and sustainable development”, financed within the Operational Programme for Human Resources Development, available at http://www.businessintegrity.ro/?q=content/pactul-pentru-integritate-si-transparen%C8%9B%C4%83-%C3%AEn-mediul-de-afaceri, accessed on 7.12.2015).

2. SEDES MATERIAE AT NATIONAL AND EUROPEAN LEVEL CONCERNING THE SYSTEM OF INTERCONNECTION OF CENTRAL, TRADE AND COMPANY REGISTRIES FROM THE MEMBER STATES

The field of interconnection of central, commercial and companies registries of the Member States, called „the system of interconnection of trade regi-
The issue of Directive 2012/17/EU indicated *ut supra* is part of the series of concerns towards ensuring the transparency of the business environment, this time from a cross-border dimension, including all the goals regarding the development of the European single market and the facilitation of direct foreign investments (FDI), because as acknowledged in Ilie (2012, p.81), the “phenomenon of globalization from the last decade determined the multiplication of the possibilities through a company has to enter a foreign market”.

Previously to the adoption of Directive 2012/17/EU, the Resolution of the European Parliament of 7 September 2010 on the interconnection of trade registries, document preceded by the Commission’s Green Chart of 4 November 2009 on the interconnection of trade registries, ascertaines at point 14 that any strategy to exit the crisis and improve the functioning of the single market must involve a higher degree of transparency and cooperation between the cross-border mechanisms, a step which will enhance the trust of the 500 million consumers in Europe.

Also, in the preamble of Directive 2012/17/EU, pt.2, a reoccurring theme in favour of the establishment of the interconnection system is that of consolidating the legal certainty and *per a contrario* casting away the uncertainties regarding the status of professionals registered in the trade registries, on the grounds that “It is to be expected for the interconnection to contribute to the stimulation of competitiveness between European companies, by reducing the administrative prerogatives and enhancing the legal certainty, thus leading to the way out of the global
economic and financial crisis, which represents one of the priorities of the Strategy Europe 2020”.

The transposition into national legislation of Directive 2012/17/EU was achieved through Law no.152 of 2015 on the amendment and supplement of regulations in the field of registration in the trade registry, published in the Off. Gazette no.519 of 13.07.20185, hereinafter called Law 152/2015.


3. THE ESTABLISHMENT, FUNCTIONING AND COMPONENT MECHANISMS OF THE SYSTEM OF INTERCONNECTION OF REGISTRIES

3.1. THE ESTABLISHMENT AND FUNCTIONING OF THE SYSTEM OF INTERCONNECTION OF REGISTRIES

Law 152/2015 brings the first essential supplement to Law 26/1990, that shall become applicable as of 7 July 2017 and has in view the provisions on the establishment and functioning of the system for interconnection of trade registries in the EU Member States, a system which is to include, together with the trade registries of all Member States, also a central trade registry held by the National Trade Registry Office in Romania, hereinafter called the NTROR, as well as the trade registries held by the trade registry offices attached to county courts.

A part of the system of interconnection of trade registries is also the central European platform, defined in the preamble of Directive 2012/17/EU as being a centralised set of information technology tools integrating services and
should form a common interface that should be used by all domestic registers, and should have two points of access – one at European level and another at national level, in each Member State. At European Level the electronic point of access to the interconnection system is the European e-justice website, that will handle through the platform the requests transmitted by individual users concerning information on professionals, stored in the national registries, and will allow the presentation of the results of search within the portal. At national level, the point of access to the interconnection of trade registries is the central trade registry held by the NTROR.

This platform ensures the interoperability of the central trade registry and of the territorial trade registries with the system of interconnection of trade registries in the Member States of EU, the data and documents being available in standard format of a message and being accessible through electronic means, in compliance with the security standards applicable to the transmission and exchange of data. NTROR may establish, through the central trade registry, optional points of access to the system of interconnection of trade registries, which shall be approved through the order of the minister of justice. The documents may be requested and issued through electronic means and are made available to the public through the system of interconnection of trade registries at the applicant’s expense.

The end purpose of establishing the system of interconnection of trade registries is to make available to the public the documents and data concerning professionals registered in the trade registry by means of this system.

The system is created to allow interrogations of the portal by individual users regarding information about professionals stored in the national registries and the presentation of the results of searches within the portal and at the same time the interconnection of trade registries through the platform that ensures the interoperability of registries, the documents and data being available in standard format and accessible by electronic means.

The system is regarded as necessary at EU level on the grounds presented in the preamble of Directive 2012/17/EU in accordance with which, there do not exist official channels of communication that could accelerate procedures and contribute to overcoming language barriers and enhance legal certainty, and the persons wishing to get informed have to search in registries different from country to country, especially due to the fact that the current voluntary coop-
eration between registries has not proved to be sufficient. With the help of this new system it would be ensured the immediate operability within the trade registries of information regarding professionals.

Even if the provisions regarding the establishment and functioning of the system of interconnection of trade registries will enter into force on 7 July 2017, otherwise in accordance with the transposition due date established by art.5 of Directive 2012/17/EU, Law 152/2015 amends Law 26/1990 on the categories of entities subject to registration in each registry. Consequently, regarding these categories of entities there shall function the interoperability between trade registries within the system of interconnection, for certain data and documents.

These amendments, entered into force 3 days after the publication in the Off. Gazette of Law 152/2015, namely on 16.07.2015, brought an extension and a unification of the concepts regarding the entities which are subject to registration, these being indicated under the same designation under which are mentioned in the legal provisions that regulate their setting up, organisation, functioning, cessation and dissolution, such as the provisions of Company Law 31/1990, Government Emergency Ordinance 44/1999 on economic activities carried out by authorized natural persons, individual enterprises and family enterprises, published in the Off. Gazette no.328 of 25 April 2008, consolidated version of 9 February 2014.

The following are the categories of entities which are subject to registration in each of the registries that are part of the trade registry: registry for the registration of companies, public companies, autonomous company, economic interest groups, cooperatives, European companies, European groups of interest, other legal persons explicitly stipulated by the law; registry for the registration of legal persons in the form of cooperatives and European cooperatives and registry for the registration of authorised natural persons, individual companies and family companies. We observe that for all categories of entities it is provided that the registration shall be operated in two cases, namely when the main office of the legal of natural person is in Romania, and when the secondary offices of the legal and natural persons are in Romania.

Remain unamended the provisions of Law 26/1990 according to which the registry keeping, the registration and the provision of data mentioned in art.4 are established through rules approved by the order of the minister of justice, as Directive 2012/17/EU does not provide for the harmonisation of the internal
systems of registration of the Member States, especially in what concerns the administration, storage of data, fees, usage and disclosure of information for purposes that do not go beyond the national boundaries. The organisation and functioning of NTROR and of the offices of trade registries attached to county courts is regulated by the order of the minister of justice no.1.082/C of 20 March 2014, published in the Off.Gazette no.384 of 23.05.2014.

3.2. THE MECHANISMS COMPOSING OF THE SYSTEM OF INTERCONNECTION OF REGISTRIES

In order to achieve its final goal - that of making available to the public the documents and data regarding professionals registered in the trade registry, the system of interconnection of trade registries shall use specific mechanisms.

3.2.1 INFORMATION REGISTERED IN THE TRADE REGISTRY, AVAILABLE FREE OF CHARGE ON THE INTERNET WEBSITE OF NTROR OR ON ITS ON-LINE SERVICE PORTAL

In the first category, that of information regarding each professional, are explicitly provided the following: the name and legal form of the entity registered in the trade registry; the registered office of the entity and the Member State in which it is registered; the registration number within the trade registry, the unique identifier at European level (EUID) and the fiscal code; the status of the company.

We determined that Law 152/2015 stipulates besides the traditional data about professionals, together with the number of registration in the trade registry of the registered entity, also the unique identifier at European level (EUID). Thus it is carried out another essential supplementation of Law 26/1990, which shall be applicable also beginning with 7 July 2017 and which facilitates the functioning of the system of interconnection of trade registries.

The unique identifier at European level (EUID) shall contain the element of identification of Romania, the element of identification of the national registry, the number of the entity in the respective registry, and if applicable, other elements necessary, so that its structure is approved at national level in Romania, by the order of the minister of justice.
3.2.2. The exchange of documents and data between NTROR and the trade registries from the other EU Member States in the case of operations of cross-border merger and in the case of branches opened by companies having registered offices in EU Member States

As Directive 2012/17/EU ascertains in the explanatory memorandum, the trading companies are extending their activities beyond the national frontiers and a great number of restructuring operations, such as mergers and divisions, involve companies from different Member States, and the official data regarding the companies require that they are available immediately at cross-border level. The cross-border access to commercial data regarding companies and their branches opened in other Member States may be improved only if all Member States engage to make possible the electronic communication between registries and to send each user data in standardized way, by means of identical content and interoperable technologies throughout the Union.

The final purpose of the second mechanism is generated by the need, otherwise fundamented at EU level, to amplify the cross-border dynamics of companies. One component of this dynamics is the legal certainty regarding the status of the companies of Member States, which implies the exchange of data and documents between central trade registries, in order to ensure the accuracy of documents and data which are interrogated by the interested persons.

The exchange of information and documents has the purpose of elucidating and disclosing to the business environment and not only, adequate information on the status of companies involved in cross-border mergers, as well as on branches opened by companies registered in the Member States, considering the fact that these entities are among the main legal investments mechanisms of the cross-border business environment, as acknowledged in Fodor, Buzdugan, Apan (2015, pp.697-698).

In order to set-up a second mechanism, Law 152/2015 brings modifications and supplements that shall become applicable from 7 July 2017, to the following legal acts: Law 31/1990 concerning the aspect of notification through the system of interconnection of trade registries of the cross-border merger and the registration of the status of the assimilated company, Law 26/1990 concerning the obligation to be registered in the trade registry corresponding to each branch, of branches opened in Romania, by the legal persons having main of-
fices abroad; the content of the application for registration and the information and documents received and transmitted to the office of trade registry through the system of interconnection regarding the status of the mother company.

(i) The exchange of documents and data in the case of operations of cross-border merger

In accordance with Law 31/1990, art. 251\textsuperscript{4} para.1, cross-border merger is the operation carried out as follows:

a) by absorption: one or several companies —absorbed companies, of which at least two are governed by the law of two different Member States, are dissolved without entering liquidation and transfer the entire patrimony to another company —absorbing company, in exchange of the distribution to shareholders/stakeholders of the absorbed companies of shares/company shares from the absorbing company and possibly, a cash payment of at most 10% of the value of company shares allocated this way, or

b) by consolidation, resulting in the creation of a new company: several companies of which at least two are governed by the legislation of two different Member States, are dissolved without entering liquidation and transfer their entire patrimony to the new company being set-up, in exchange of the distribution their shareholders/stakeholders of shares from the newly set-up company and possibly, a cash payment of at most 10% of the value of company shares allocated this way, or

c) by the absorption of a company owned entirely: a company —the absorbed company, is dissolved without entering liquidation and transfers its entire patrimony to another company —the absorbing company, which holds all the company shares and securities granting rights to vote in the general assembly.

Regarding the cross-border merger analyzed in Sandru (2015, pp.11-14) it is imposed the obligation, applicable beginning with 7 July 2017, of the trade registry, to make the notification through the system of interconnection. We mention that the obligation of notification is presently provided by Law 31/1990 and remains prevalent the notification regarding the registration of the cross-border merger carried out by the trade registry where the absorbing company or the newly set-up company is registered, transmitted to the trade registry in which are registered the companies taking part in the merger, and which were absorbed or consolidated. Following the receipt of this notification, the latter
registry has the obligation to de-register the absorbed or consolidated companies involved in the merger.

If the absorbed companies are Romanian legal persons, the trade registry in which they are registered de-registers these companies based on the notification communicated by the Member State the nationality of which will be taken by the *absorbing or newly set-up company*.

Legal certainty is ensured by the accuracy of data regarding the carrying out of the cross-border merger, as it is obvious that the merger is to be operated at the office of trade registry where it is registered the *absorbing or newly set-up company*, but following the notification regarding the merger and based on it, **shall be de-registered** the companies participating in the merger and that were either *dissoluted without entering liquidation* and absorbed by the absorbing company, or dissoluted without entering liquidation and transferred the entire patrimony to the newly set-up company. The benefits resulting from the notification regarding the merger and from the communication of any information or document through the system of interconnection shall not be further debated as they were indicated at point 2 of this paper.

The enhancing measure of the notification regarding the cross-border merger by the trade registry where it is registered the *absorbing or newly set-up company*, transmitted to the trade registry in which are registered the companies taking part in the merger, and which were absorbed or consolidated, has as fundament also one of the effects of the cross-border merger provided by art. 251\(^{15}\) of Law 31/1990. According with the provisions of this article, following the cross-border merger, the participating companies cease to exist. Therefore, maintaining registered such a company would create legal uncertainty for the participants in the business environment.

(ii) **The exchange of documents and data in the case of branches opened by companies having registered office in the EU Member States**

The creation of a connection between the registry of the mother company and the trade registries of its branches opened in other Member States is expected to take place beginning with 7 July 2017 through the system of interconnection of registries. This way it is aimed the exchange of information regarding the initiation and cessation of possible procedures of liquidation or insolvency of the mother company, followed by its de-registration. This is owed to the fact that even when a company is de-registered, its branch may continue to carry
on activity, so in order not to create legal uncertainty from the point of view of a third party, it is important to de-register the branch whose mother company was dissolved after liquidation or following its state of insolvency.

For this reason it is instituted the obligation of the legal persons having their main office abroad, and which open branches in Romania, having the legal status indicated by Miță (2015, p.168) to request their registration in the office of trade registry from the office of each branch, indicating the content of the application for registration and the data and documents received and transmitted by the office of trade registry through the system of interconnection regarding the status of the mother company.

The information and documents concern the communication issued by the office of trade registry where the mother company (legal person from another Member State than Romania) is registered, of aspects concerning the initiation or cessation of any procedure of dissolution of insolvency or liquidation of the mother company, as well as its de-registration from the registry. This information are registered by default, free of charge, in the trade registry in which are registered the branched opened by the mother company. While complying with the principles of reciprocity and symmetry, the Romanian office of trade registry shall transmit the information and documents concerning the legal entities registered in Romania and which have branches opened in other Member States, in order to register this information in the trade registry.

In the case in which the legal person from the EU Member State other than Romania, was de-registered, the office of the Romanian trade registry in which the branch is registered, de-registers by default, free of charge, its branch(es), as soon as it receives the corresponding information and documents. The exception are the branches of the companies in the EU Member State which were de-registered as a consequence of a modification of the legal form of that entity, as a consequence of merger, division or cross-border transfer of registered office, while the branch continues to exist.
4. CONCLUSIONS

The public national systems of registration of professionals in the EU Member States, make available to the business environment and not only, certain categories of information that facilitate the taking into knowledge of the essential aspects regarding the status of a potential business partner and the modifications which took place concerning its structure. The concerns directed towards ensuring the transparency of the business environment have acquired a cross-border dimension, including the goals on developing a European single market and facilitating direct foreign investments (FDI).

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THE CONSEQUENCES OF THE FAILURE TO RECOGNIZE THE VALUE OF HUMAN CAPITAL IN THE MEDIA: THE CASE OF LOCAL MEDIA HOUSE

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Abstract

It is consider to be a conventional wisdom in the business and academic community that the true value of an organization in the contemporary economy are people as human capital. Namely, in a corporate world physical assets is no longer consider the most important input in the production of goods and services, but it is a combination of material and nonmaterial resources. This is supported by numerous theoretical and empirical research results represented in the management literature which discusses in variety of ways different positive relationships between human resources (also human potential and human capital) and their pivotal role in the companies’ success.

The purpose of this paper is to make a brief theoretical discussion on the importance of people as valuable resource for modern business enterprise while the empirical part of the paper shows that some organization still have employment practices that contradicts the conventional wisdom when it comes to managing human resources. The empirical basis of the paper is based on the case of the local news media house and its failure to recognize the human capital value for its organization which is quite contradictory taking into consideration that
they are based on journalists as the most important factor in the production of their „goods and services“ – news and newspapers.

**Keywords:** human capital, human resource management, Maslow's hierarchy theory

JEL Classification: L8, L82

1. **INTRODUCTION**

The economic crisis and the concomitant rapid technological change in the last ten years have thoroughly shaken both print and electronic media, as well as their established business models. These developments resulted in the restructuring of the media and journalism, which began in Croatia in 2007. Journalism is also facing parallel processes of eliminating professional skills and job cuts. Although the Internet is most frequently seen as the cause of the collapse of the business model of traditional media, it has only accelerated the underlying problems that have emerged by concentration of media ownership and commercialization of media content in the decades before the advent of the Internet. Although the theory of human resource management claims that during the economic crisis and recession, one of the most important factors of the different policy administration is the one dealing with human resources that should result in turning to people, the events in the media corporations confirm the opposite. These events prove that the human factor will not be recognized as the cheapest and most cost-effective capital in any business, even in the one in which the final product depends on the skill, efficiency and willingness of the employee him/herself. In this case, it is news marketed in the media space which can be produced only by a person trained in journalism activity.

This paper deals with an example of a local daily newspaper, or a relation to human resources in a local media house whose daily newspaper is the most important brand of the company. The aim of this paper is to show an example of the consequences caused by not investing in and neglect of the potential of employees on the basis of current data on employees in the company. Qualitative data related to human resource management practice at the company was collected through a structured interview with former employees, i.e. journalists at the daily newspaper who voluntarily left their jobs in the aforementioned company.
The paper is structured as follows. After the introduction, the second section of the paper provides a brief theoretical review on literature review dealing theoretically and empirically with the importance of human capital. Third section deals with the challenging issue of human resource management discussed in the case the Local News Ltd. The fourth section presents a way to monitor performance, motivation and rewarding of employees, primarily journalists in terms of incentives for investigative and high-quality informative journalism. The fifth section offers research methodology and results obtained through a semi-structured interview conducted with former employees of the Local News Ltd. The paper concludes with the section five.

2. IMPORTANCE OF HUMAN CAPITAL: LITERATURE REVIEW

The labor economics literature has many different ways of defining human capital. The most standard definition considers human capital as a set of skills (or characteristics) that contributes to the increase of worker’s productivity. Even though this may sound quite broad, it is sufficient enough to make a point that human capital does not solely depend upon the years of schooling, but it considers various characteristics such as school quality, training, attitudes towards work, etc. According to Schultz (1972), human capital is strictly an economic concept. Although it pertains to particular attributes of man, it is not intended to serve those who are engaged in analyzing psychological, social, or cultural behavior. It is a form of capital because it is the source of future earnings, or of future satisfactions, or of both of them. It is human because it is an integral part of man (Shultz, 1972: 5). For Acemoglu (2016) it is useful to distinguish between some complementary/alternative ways of thinking of human capital and following is a possible classification: (i) the Becker view: human capital is directly useful in the production process. More explicitly, human capital increases a worker’s productivity in all tasks, though possibly differentially in different tasks, organizations, and situations. In this view, although the role of human capital in the production process may be quite complex, there is a sense in which we can think of it as represented (representable) by a unidimensional object, such as the stock knowledge or skills, and this stock is directly part of the production function; (ii) the Gardener view: according to this view, we should not think of human capital as unidimensional, since there are many dimensions...
or types of skills. A simple version of this approach would emphasize mental vs. physical abilities as different skills. Let us dub this the Gardener view after the work by the social psychologist Howard Gardener, who contributed to the development of multiple-intelligences theory, in particular emphasizing how many geniuses/famous personalities were very “unskilled” in some other dimensions; (iii) the Schultz/Nelson-Phelps view: human capital is viewed mostly as the capacity to adapt. According to this approach, human capital is especially useful in dealing with “disequilibrium” situations, or more generally, with situations in which there is a changing environment, and workers have to adapt to this; (iv) the Bowles-Gintis view: “human capital” is the capacity to work in organizations, obey orders, in short, adapt to life in a hierarchical/capitalist society. According to this view, the main role of schools is to instill in individuals the “correct” ideology and approach towards life; (v) the Spence view: observable measures of human capital are more a signal of ability than characteristics independently useful in the production process (Acemoglu, 2016: 7-8).

When it comes to economic theory of growth, many authors such as Romer (1993) and Prescott (1998) advocated that the differences in economic growth across countries have been due to technology gap which produces a difference in the total factor productivity. Mankiew et al. (1992) have offered an alternative explanation by proposing that the neoclassical model should be improved by adding human capital. Furthermore, the new growth theory has stressed the existence of strong externalities related to human capital and education, showing that the social return to human capital exceeds the private return. Often, these externalities are the main reason for government subsidies to education (Docquier, 2006).

Through the years the importance of human capital has been intensively researched both theoretically and empirically. For example Bartel (1994) establishes a link between the adoption of training programs and productivity growth. The adoption of training programs has also been linked to financial performance (Russell et al., 1985), and Gerhart and Milkovich (1990) and Weitzman and Kruse (1990) identify the links between incentive compensation schemes and productivity. The globalization, competition, continuous technology development and innovation that are challenging both individuals

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1 There is a comprehensive literature review of human capital and performance provided by Stiles and Kulvisaechana (2007).
and organizations to pursue excellence in order to survive and compete additionally placed a research focus on human capital and its impact on (organizational) performance.

The link between human capital and performance is based on two theoretical strands: (i) the resource-based view of the firm and (ii) the expectancy theory of motivation. This paper focuses mainly on the second strand - the expectancy theory of motivation - which is considers the value attached to rewards, the instrumentality, or the belief that the employee will receive the reward upon reaching a certain level of performance, and the expectancy, the belief that the employee can actually achieve the performance level required. The human resource management in practice that encourage high skills and abilities can be considered to make the link between human capital management and their performance in highly competitive market/economy.

3. HUMAN RESOURCE MANAGEMENT IN THE LOCAL NEWS LTD.\textsuperscript{2}

The Local News Ltd. is a company registered as anewspaper publishing company, primarily devoted to publishing the daily newspaper, as well as publishing, radio and journalism activities. In addition to the daily newspaper Daily News, the radio and other printed material are entities related to this company. The major shareholder of the joint-stock company Local News Ltd. is the management company City News LLC, which owns 75% of company shares, followed by Bank Ltd. with 15%, and the remaining 10% of shares is owned by other shareholders of the company. The first issue of the Daily News came out in 1943, but during the Croatian War of Independence the Daily News was renumbered, and according to the imprint, the Daily News is a successor to the National Newspaper that was first published in 1920. Today, its average daily circulation is 6,282.\textsuperscript{3} In July 2015, the Local News Ltd. employed 164 persons, 37 of whom were journalists, authors and editors. This means that only a little

\textsuperscript{2} For the purpose of protecting the actual company, the names of the company and the daily newspaper used as an example have been changed. The original names of the company and employees participating in the structured in-depth interview, as well as other relevant information not subject to publicity, are known to authors.

\textsuperscript{3} The average circulation of 14 daily newspapers in 2013 (source: the Croatian Chamber of Economy). Uploaded on the official website of the Croatian Chamber of Economy, 10 March 2015/ www.hgk.hr
more than a quarter of employees are journalists, who should be the bearers of business operation in a company that is primarily engaged in journalism. The remaining employees work in marketing, sales, printing, newspaper page layout and processing, classified advertisement, administration and support (cleaning, fleet maintenance, work at the reception, etc.). Although it was impossible for the purpose of this research to get official data on the level of education of Local News Ltd. employees, it is known that out of the total number of 37 journalists, only 18 hold a university degree, while others completed only secondary school. It should be stressed that these statistics fit into the ones provided by the Central Bureau of Statistics, according to which the structure of the employed population with a college or university degree accounts for only 24.4% (Central Bureau of Statistics, 2007). It is precisely this level of education that is associated with highly developed skills needed in the knowledge-based economy and employees earning higher income (Sundać and Fatur Krmpotić, 2009: 320).

In the context of the analysis of human resource management, the fact that since October 2012 the editor-in-chief of the daily newspaper “Daily News”, which is also the major brand of the Local News Ltd. is a person who completed only a high school. This means that the company Local News Ltd. itself does not recognize that in today’s knowledge economy one of the indicators of the quality of human capital and its competitiveness is the level of education, which was suggested by Cascio(2000). Although the proposition was accepted that economies that are richer in knowledge assets and intellectual capital achieve a higher level of growth and development, since 2005 and a change in management, the Local News Ltd. neither co-funds further education of its employees nor encourages them to do so. It should be noted that the Local News Ltd. follows the statistical trends of the Republic of Croatia, as data from Eurostat show that in Croatia an average of only 1.93% of the population participates in lifelong learning (EUROSTAT, 2008) “All EU Member States, except Bulgaria and Romania, have a much higher percentage of adult learners. Croatia’s participation in lifelong learning is five times less than the average in 15 EU Member States. In Sweden, almost every third adult is actively involved in deepening their knowledge, in Slovenia it is every seventh adult, and in Croatia it is only every fiftieth adult” (Sundać and Fatur Krmpotić, 2009: 320).

Given the crisis in the media and publishing sector, as part of more extensive scientific research it would be interesting to explore the existing practice of human resource management in relation to financial results achieved in the.
Local News Ltd. and in relation to its main competitors. However, within the framework of this strictly limited paper, the aim of this research is to conduct a study of the role of management in a particular media company, i.e., the role of the number and the structure of employees, investment in their knowledge, skills, motivation and behavior. The authors start with the hypothesis that the Local News Ltd. may be used as a true example of a company based on which it is possible to prove the negative consequences of not investing in human resource management and this is done by means of comparative examples of successful and unsuccessful companies, which illustrate inefficient adaptation to rapid changes, attempts to achieve results not based on highly educated staff, as well as poor motivating factors to work.

3.1. Fundamental differences between successful and unsuccessful companies

The approach of the company Local News Ltd. to human resource management can be illustrated by reviewing the fundamental differences between successful and unsuccessful companies in the context of the aforementioned segment of company management. There are six fundamental differences between successful and unsuccessful companies in the field of human resource management (Bahtijarević-Šiber, 1999: 13).

Successful companies consider people the most valuable asset. Since 2007, by reducing gross income by up to 60%, abolishing bonus payments such as vacation bonus, Christmas bonus, Easter bonus, and a baby gift, not encouraging advancement and further education of employees, low motivation to work, poor working conditions in the premises of the employer in terms of the dilapidated facility fallen into disrepair and constant staff reductions, the Local News Ltd. company has confirmed the opposite, i.e., that it does not consider employees an important asset thus showing little concern for people.

Successful companies provide good training, development, monitoring, and opportunities for advancement at work, whereas unsuccessful companies are managed in an autocratic and bureaucratic way, and they are rigid and inflexible. The Local News Ltd. has not hired any new employees for a long time, and the remaining employees are not offered any rewards for new responsibilities, but the majority of employees is expected to assume an even greater volume of work and tasks for the same or even reduced salaries. Instead of motivation, workers
are threatened with dismissal, and they are intimidated by disincentives and additional deprivation of their rights. It should be stated that the Local News Ltd. has no collective agreement in place, i.e., this type of agreement expired in 2010, and since then only the Rules of Procedure are in effect. The Rules of Procedure were adopted on 28 January 2015 pursuant to Article 26 of the Labor Act. They consist of 70 articles that generally regulate employment, working hours and schedules, vacations and holidays, wages, substantive rights, violations of work contract obligations, liability for damages arising out of employment, termination of employment, the processing of employee data, business secrets, protection of dignity and protection against discrimination, and the rights and obligations arising out of and in the course of employment within the Local News Ltd. These data speak in favor of rigid management of the company.

Typically for successful companies is the existence of a good rewards program, while unsuccessful companies are characterized by little or no further education and development opportunities for their employees. This issue has already been discussed in this paper in relation to the Local News Ltd. According to Bahtijarević-Šiber (1999), successful companies are characterized by the ability to retain employees and lower employee turnover. On the other hand, since January 2015, 15 employees have left the “Daily News” newsroom, the County Radio and the printing sector, due to both the natural decline (retirement and deaths) and resignations. In successful companies, top management is dedicated to and supports their staff, while unsuccessful companies are characterized by unclear and outdated policies, and poor internal communication. Further, successful companies encourage and develop employee participation, which is, as mentioned above, not the case with the Local News Ltd. This comparison will also be confirmed later in the paper when former employees of the Local News Ltd. are interviewed and provide almost the same reasons why they quit their jobs.

3.2. The impact of the economic crisis: media companies in contradiction with the theory

Economic crises and recession, which are reflected by turning to the people as the most important resource, are among the most important factors of different policies and attitudes towards human resources. Furthermore, all theoretical approaches to organization that emphasize people and their behavior as a factor relevant for organizational success have had their direct material incen-
tive in economic crises (Bahtijarević-Šiber, 1999:47). By making capital scarce and more expensive, an economic crisis or recession causes turning to those resources which are abundant in practice, and these are the people, and inaccessibility and a lack of other forms of capital are compensated for by the development and maximum use of the resource offset. The development and interest in human resource management appeared on the global scale in the early eighties of the last century, and according to numerous studies, this discipline is only at the very beginning in the Republic of Croatia, while the need for investment and fostering human resources is still unrecognized.

According to Pološki Vokić (2000) human resource management is a function and managerial activity that has not been sufficiently developed and present in Croatian companies. Croatian companies do not put their employees in the first place as their most important resource, but they are doing it now only “in theory”, in their missions and statements of CEOs.

Nevertheless, in times of crisis, not only the Local News Ltd. failed to turn to human resources as a source of cheap and effective capital, but also almost all media, from electronic to print media, dismiss journalists on a daily basis and consider human capital unnecessary excess and cost. Regular reports issued by the Croatian Journalists’ Association (CJA) bear witness to this. The reasons why in times of crisis human capital is not recognized as the best and the one we should invest in would have to be considered in a separate study which should consider the interests of media company owners and the ways they look at making a profit, that would most likely confirm the hypotheses that the quality of the presented information is least important for today’s media owners, and that the media are used only as a means of profit, which makes them lose their control function in a democratic society. Hence both journalists and the quality of their work are no longer important, and it becomes clear that in times of crisis in media companies employees themselves are not recognized as a resource that we shall invest in. That is contrary to the instructions of researchers like Pološki Vokić, who claims that if Croatian companies want to achieve better financial results, they have to value and invest much more in people and human resource management activities. They need to be more mobile in their human resource policies, pay their employees well and stimulate them, identify key employees, have a well-educated skilled workforce that is continually further educated and developed, measure the quality of human resource management, monitor work performance of employees and generally treat their own staff in a modern way (Pološki Vokić, 2000).
4. MONITORING WORK PERFORMANCE IN THE MEDIA

4.1. Motivation and rewarding in the case of the Local News Ltd.

By using the case of the Local News Ltd., we present a way to monitor performance, motivation and rewarding of employees, primarily journalists in terms of incentives for investigative and high-quality informative journalism. The fundamental objective of monitoring and evaluation of work performance is to raise the level of general organizational skills and achieve strategic goals. Performance evaluation is used to facilitate reward-related decision-making. Information obtained in this way are also used for vocational guidance and placement at adequate positions. Employee performance monitoring is in the interest of both the organization and the individual (Bahtijarević-Šiber, 1999:507).

Due to low employee motivation and poor efficiency, after the arrival of a new editor-in-chief of the daily newspaper “Daily News” in 2012, the editorial board of the Local News Ltd. introduced a scoring system. The goal of this system is to compile a monthly ranking list entitled “A list of newspaper article authors by the number of points”. This rank order list is created by evaluating each article published in the daily edition of the “Daily News” and summing up the points and the number of texts produced by a certain journalist. Each published article is scored by the editor of the section in which the article was published and by an assistant editor, and the list is drawn up based upon the points given by the assistant editor. Each text may be categorized according to the scoring scale ranging from 0 to 10, or from news to exclusive stories. According to this ranking, the editor-in-chief determines incentives or disincentives for authors with the highest or the lowest number of points, respectively. It should also be noted that in May 2015 a total budget for the “Daily News” editor-in-chief incentive scheme amounted to HRK 2,000, which means that any incentive to the first five authors cannot be higher than HRK 400 per person. This performance evaluation of “Daily News” journalists is currently used for the sole purpose of increasing or decreasing their salaries, and on the basis of this evaluation none of its employees has been promoted or even fired, although these are also functions of performance evaluation pursuant to human resource management theory. In relation to performance evaluation methods, it should be noted that in this case we deal with a ranking method. According to Bahtijarević-Šiber, ranking is
the simplest and oldest method that is commonly used for overall performance evaluation, and may be used only in a company with a relatively small number of people, i.e., up to 20. It should be noted here that in this particular case there are 37 employees. A shortcoming of this method is the fact that the rank order list is compiled by editors who are prone to subjective assessment since newspaper articles are evaluated by editors whose decisions may be based on their subjective experience, and there is also no evaluation of the quality of work by a person qualified to evaluate human capital performance.

4.2. Maslow’s hierarchy theory on the example of the Local News Ltd.

Motivation of both the Daily News and the Local News Ltd. can be best interpreted by means of Maslow’s hierarchy of needs theory, which had the greatest impact on the study of human behavior in an organization. This holistic-dynamic theory basically starts from the frustration-deprivation hypothesis, i.e., a hypothesis that it is primarily necessary to meet the basic needs based upon which other, higher order needs are developed. The lowest level of this pyramid is made up of the basic existential need, which would in this case be adequate salaries and incentives. The reasons why employees leave the Local News Ltd. can be seen in the need to satisfy these needs because this media company offers low salaries that are not related to the level of education, does not encourage investment in education and career advancement or give any rewards, and the incentive system is modest and almost non-existent for most employees. Another existential need according to this scale would be a good work environment and favorable working conditions. Most Local News Ltd. employees work on obsolete equipment and outdated inventory in poor hygienic conditions and a questionable safety system. The existential need journalists working in this company would be satisfied with the flexible work arrangements, i.e., sufficient free time, although the profession of journalism implies giving up weekends and unplanned night work. There are no recreational activities and organizational standards such as a restaurant, or even a dairy kitchen or dining area where employees would eat or have breakfast and drink coffee or a refreshing drink. It is evident here that out of five basic needs this company has only partially satisfied one. As to a higher level need for job security, it can be said that most employees are protected by a contract of indefinite duration, but uncertain regular payments call into question meeting this need. Information on the financial situation and development plans of the com-
pany are vague and non-transparent, and there is no communication between employees and management in this regard. There is neither good work environment nor mutual trust, which is a result of anxiety that employees experience because they are uncertain about the survival of the company and their jobs, and there is no managerial and organizational support. Social need satisfaction, not only in the newspaper office but also in a job, is in this case a category that can be realized in this business to the highest degree. According to the job description, social interaction is at the highest level, and teamwork and cooperation are essential. However, a stable structure of the group does not exist due to a large number of colleagues with low motivation (a pattern to which one can apply the theory of job performance, which divides workers into “draught horses”, “stars”, “logs” and “problematic workers”). Meetings and social gatherings are part of daily work and journalists can be satisfied with external influence and respect they enjoy in the society, i.e., the fact that as the fourth estate, journalists are part of social events and also those individuals whose job opens all doors. That is the main reason why despite job insecurity and low wages many journalists remain in this profession. Social interaction, participation and social reputation of the profession itself are still at a high level (it is evident that journalists work for glory and not because of the money). Bearing this in mind, journalism as a profession in the present conditions in the Republic of Croatia calls into question the theory of Abraham Maslow, because the world of media shows that poorly met basic needs are not the reason for quitting the profession, which can satisfy the highest existential needs, i.e., respect and social status.

5. RESEARCH METHODOLOGY AND RESULTS

The methodological approach in this paper has been the case study of the Local News Ltd. The case study, as a holistic empirical inquiry used to gain more in-depth knowledge and understanding of modern phenomenon in the real-life, i.e. business context, is commonly used among social scientists because it allows the exploration and understanding of complex issues. While many scholars find case study methods to be a controversial approach to data gathering, still these methods are recognised in many social science studies especially when in-depth explanations of a social behavior are looked for (see more detailed discussion in Zainal, 2007). According to Zainal (2007) case study method has gained popularity since researchers were becoming more concerned about the limita-

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tions of quantitative methods in providing holistic and in-depth explanations of the social and behavioral problems in question. By using case study methods, a researcher is able to go beyond the quantitative statistical results and understand the behavioral conditions through the actor’s perspective (Tellis, 1997).

In order to obtain qualitative data and for the purpose of research contribution to this paper, the information was obtained from a mini focus group of three former employees of the Daily News, or to be more specific - the Local News Ltd., through a semi-structured interview with predetermined content and a list of 20 questions that have been both open ended and closed ended, based on the literature review. There are many benefits of using this sampling method, some which include potential to overcome the poor response rates of a questionnaire survey; it is adequate method to find out and get more in-depth understanding of participants’ attitudes, values, beliefs and motives as well as to enable comparison by ensuring that all questions are answered by each respondent. One additional benefit is that participants cannot get any assistance from others while answering the questions thus one can count that the responses are unbiased.

By answering these questions, respondents were supposed to give an insight into the concept of human resource management in the Local News Ltd., and explain whether human resource management factors were the reason why they left the company. Those are former employees aged 28 to 46 years, all three are men, and only one of them has a university degree, while the other two completed secondary school education. Respondent A was a Local News Ltd. employee for 23 years, while respondents B and C were employed in the company for 10 and 6 years, respectively. All three respondents concluded an employment contract for an indefinite period of time. When asked: “What is most important when choosing a job?”, respondent A mentioned management-employee appreciation, recognizing potential, freedom of thought and work, while respondent B stressed perspective, stability and a feeling that company management has a vision. For respondent C, it is important that the job is interesting, creative and challenging, that the work environment is as healthy as possible, but also that there is financial security. It is interesting that, when asked to rate the importance of the amount of salary on a scale of 1 to 5, all three respondents rated this material dimension with a score of 4. The same importance on the scale was also given when they answered the question on the importance of the type of employment contracts, i.e., whether the contract was concluded for a definite or an indefinite period of time. Flexible work hours are rated as most
important by respondent A, while respondent B considers them less important and hence score 2 (this should be interpreted through the prism of the fact that this respondent moved to a new job in a company with a traditional fixed work schedule, but a significantly higher salary). Respondent C rated flexible working hours with a score of 4. The possibility of identification with the company was rated with a score of 4 by respondents A and B, while it was put into third place by respondent C. We find answers offered by respondents to the question: “Do you believe that human potential is evaluated in the Local News Ltd. and why do you think so?” extremely important for this paper. Respondent A resolutely responds: “No.” and explains: “because the company does not recognize the potential and achievements of people who have been at the company for a long time, it does not invest in new people either, and there is no development strategy.” Respondent B shares a similar opinion and states: “The Local News Ltd. has proven to be a company which does not recognize human potential, but it is not evaluated either even when it becomes quite clear that there is some potential. I think the reason is precisely a lack of vision and plans for development of the company where any change is very difficult to introduce and there are established patterns for work assignments that are very, very old.” Respondent C agrees with them saying: “When I first came to the Local News Ltd., I had a feeling that human potential was more or less evaluated, but in the meantime I changed my mind. In fact, on many occasions in practice, I witnessed counterexamples. In my opinion, many high quality staff members were easily let go without any attempts made by management to retain them. Also, due to various circumstances, many employees were moved to other jobs, which are, in my opinion, inadequate for them. I suppose that the main reason for such behavior is a bad financial situation of the Local News Ltd.”

When asked about forms of tangible or intangible rewards and motivation to work in this company, respondent B says: “I have never been awarded for any overtime, bonuses and other such benefits were abolished long time ago, and we have always had a negative response to all of our requests for payment of registration fees for various seminars,” while respondent C notes: “There was everything on paper, but certain forms, such as holiday allowance, Christmas and Easter bonuses, have been repealed in the meantime, explaining that the company ran into financial problems, and some other ones (like paid overtime, covering the costs of education or specialization) have never even come to life.” Respondent A only gave a negative response without any detailed explanation. All three re-
Respondents were thinking of leaving the company 3 to 5 years before they actually quit their jobs. Respondent A mentioned the main reasons for leaving a job and listed: “lack of understanding of the needs of work by management; ignoring the rules of the profession in favor of savings”, while respondent B says: “Definitely a very bad atmosphere and lack of prospects. Each month the situation in the company became increasingly worse, wages were getting lower, we had more work to do, and all of that caused a lot of pressure in the workplace. Although several employees quit their jobs, died, took long-term sick leave or retired, company management decided not to hire anyone, but to transfer all tasks to existing staff. With extremely low wages and increased pressure, the situation was becoming more difficult. Unfortunately, such trend can be expected in the future as well.” Respondent C mentions finding a new and better job as the main reason: “In fact, I got another job, as an assistant at the faculty I graduated from in the meantime as the best student in the class. I liked the opportunity of passing my knowledge and experience on generations to come, and a job in the institution, which, unlike in the Local News Ltd., enables promotion and a salary increase according to your efforts and achievements.”

Respondent B would have thought of remaining at the Local News Ltd. if the company had offered better material conditions and career prospects, while the other two respondents claim that they would not stay in that company. Out of these three respondents, the Local News Ltd. tried to hire only respondent C part-time, while the other two respondents were not offered any benefits which would make them change their minds about leaving. When asked: “Do you think that your qualities were appreciated in the Local News Ltd.?” respondent A said resolutely “No.” Respondent B explains: “I have the impression that my contribution is often taken for granted, and additional efforts and hard work have never been recognized. I received performance-based bonuses only a couple of times, even though I worked for years simultaneously as a journalist and a photographer, and even used my private photographic equipment for my work at the Local News Ltd. But, I do not think that the lack of evaluation of my work is something special; the same, unfortunately, applies to all other colleagues.” Respondent C believes that the company gave an answer to this question by offering her further cooperation through part-time work. When asked how they felt when they left the company, respondent A said metaphorically: “Like a squeezed lemon”, while respondent B said: “I feel that certain people started to look at me with certain respect for the first time when I announced...”
that I would leave the company.” Respondent C says: “Since I have been active in journalism for 18 years, I felt as if I was leaving a big part of my life behind, even though I continued to cooperate with the company in a way. And I also feel regret and concern that the Local News Ltd. was in this situation because it is actually a media brand of Osijek and eastern Croatia, because my mother spent almost her entire working life there and because a lot of nice and friendly people still work there, including my brother.” It is interesting that respondents have different views on interpersonal relations within the company. Thus, respondent A says that employee relations were excellent, while respondent B has a contrary opinion: “In general, relations in the Local News Ltd. are unusual. Someone who is your colleague today, will be your direct supervisor tomorrow, which may cause some tension. Generally speaking, interpersonal relationships are, with few exceptions, pretty bad, collegiality is often at extremely low levels, and issues that could be resolved easily are often unnecessarily complicated.” In relation to this question, respondent C says: “In the beginning, everything was pretty good, especially considering the fact that it is a fairly large company that deals with public sector jobs and great responsibility. Later, interpersonal relations degraded, which is logical in a situation where employees are unhappy, underpaid and without any vision of how and when the situation might get better in the future.” All three respondents claim that interpersonal relations only partially influenced their decision to leave, but when they heard of this news, most colleagues congratulated them and there was some positive envy in the air. What is most interesting is that all three respondents said that they would return to the Local News Ltd. if the company dramatically recovered and changed the current management model. Thus, respondent A resolutely responds: “Yes, with company management and the editor-in-chief who have courage, attitude and vision, and who recognize who and what they have at their disposal within the company.” Respondent B says: “Yes, I would return to my former job that I started to like in the last 10 years, but the return to the Local News Ltd. would require significant changes in the structure and future prospects of the company. If there is a clear vision of development, with some new people leading the company, opening to the modern media and technology, and with better financial conditions, I would definitely review my return to the Local News Ltd. Although now in a completely different sector, respondent C does not have any doubts - he would also return to the company, “but to the Local News Ltd., which would be more ordered and that would offer significantly higher salaries than now and better working conditions.”
5. CONCLUSION

In the modern economy that is prone to constant changes in business environments and technological progress in which the focus of economic development has been shifted to knowledge-based activities, high-quality human resource management and investment in their development is a key factor in creating the competitive advantage of modern organizations. By placing the emphasis on the excellence of human resource management practices, today’s companies can make a significant contribution to their work. The aim of this paper was to investigate human resource management practice in the media company Local News Ltd., i.e., to prove that not investing in this sector and neglecting the potential of human capital affect employee turnover and fluctuation, which is then reflected in the company’s operations. Due to a high employee turnover rate, low educational level of personnel, lack of human resource managers in the total number of employees, the first conclusion of this study is that there is almost no human resource management practice in the company Local News Ltd., that practice that existed earlier is completely ignored and that this is precisely one of the main reasons why employees do not see a future in the company. But, it has also been proven in the paper that the media is a specific sphere of business in which particular legalities of human resource management theory do not apply. Hence it is shown that the economic crisis in the world of media does not imply turning toward human capital, but rather the opposite, and that in the hierarchy of needs in the media it is not necessary to meet the basic needs such as job security and salary, since it is a profession that is largely done because of social status, which is partly brought along with journalism. Research has shown that serious access and investments in human resources would prevent employees from leaving companies such as the Local News Ltd. because all respondents said they would come back to work in journalism, which they love, if the editorial and management structure of the company changed, and if both the people and the job itself were treated more seriously and with specific solutions.

Literature


Local News Ltd, Rules of Procedure of the Local News Ltd. of 28 January 2015 (internal)


ON MODELS OF OVERCOMING BUSINESS CRISIS: BANKRUPTCY PROCEEDINGS OR CHANGE IN STATUS

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Abstract

Many studies have applied econometric methods in research of business entities’ development within business environment, and tried to predict the occurrence of bankruptcy reasons, that consequently lead to the opening of bankruptcy proceedings. But, the bankruptcy proceeding is just one of the possibilities that a business has if it faces insolvency. Alternative can be different changes in debtor’s status, which are, together with restructuring proceedings, i.e. pre-bankruptcy proceedings, methods to engage the remaining assets in a more productive way, in new entrepreneurial endeavors. There are many factors that cause the difference between the bankruptcy plan and change in debtor’s status, but it can be said that the goal of both is the same: continuation of business activities.

The analysis from Croatian perspective reveals that the bankruptcy plan model, i.e. pre-bankruptcy settlement has not been successful in European environment. When it comes to practical application, the choice between legal implications of either the opening of bankruptcy proceedings or execution of changes in debtor’s status is not a simple one. It is beyond dispute that the Companies Act and the Bankruptcy Act (both with their accompanying regulations) are

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1 This work has been supported by the Croatian Science Foundation under the project 6558 Business and Personal Insolvency – the Ways to Overcome Excessive Indebtedness.
characterized by modern solutions. Still, in a legal sense, system cannot nearly be considered as finished. The ongoing public debate on some aspects of legal regulation of market, and vagueness or inconsistencies that emerged in application of existing regulation of bankruptcy, clearly point to the areas and issues that should be regulated or reformed in a speedy manner.

The goal of this paper is to analyze the detected problems and to offer answers to the dilemmas that can emerge in present or future business crises of firms. It is important to stress that scope of this paper does not allow an exhaustive and detailed analysis, but will provide an insight to some, by authors’ opinion important aspects of the regulation of bankruptcy and changes in debtor’s status.

**Keywords:** change in status, bankruptcy plan, pre-bankruptcy settlement

JEL Classification: H1, H12

1. **INTRODUCTION**

The authors’ approach in this paper consists of the following research components. Taking into consideration the complexity of the problem analyzed in this paper, as well as the fact that it is a current issue in Croatia, authors devote to the in-depth explanation of the concepts of bankruptcy proceeding and change in status. Comprehensive review that covers change in status and bankruptcy proceeding problem area entails both the analysis of the legal framework that regulates them, and the analysis of qualitative and quantitative indicators of their efficiency, including the consequences they have in business and legal domain in Croatia. Next, the literature review is performed. Even though there are numerous contributions, both from economic and legal field, there are limitations in regard to inability of giving conclusive answers, or useful explanations and appropriate approaches that deal with the choice between reorganization of business and some of the models of change in debtor’s status. The problem formulation follows in context of Croatian economic and legal environment. The paper is based on the assumption that the comprehension of such environment specificities could be crucial in understanding the problem matter of the paper, as well as for the choice between bankruptcy proceeding and change in status. Finally, the recommendations for more efficient legal approach to the insolvent businesses are given.
2. DEFINITION OF CONCEPTS (AND ADDITIONAL EXPLANATIONS)

The implementation and the goal of the bankruptcy proceeding are regulated in detail by the Bankruptcy Act\textsuperscript{2} (Official Gazette of the Republic of Croatia [OG], 71/2015). Within the concept of bankruptcy proceeding two basic, even typical models of corporate bankruptcy should be distinguished. The first imposes that it is justified to end the crisis of the firm where the whole capital is lost (the value of total assets is lower than the value of total liabilities) by opening the liquidation bankruptcy proceeding. Theory states that in such proceeding all of the assets that a business possesses at the moment of opening of the bankruptcy are to be sold. The same applies to the assets the business might obtain in the course of the proceeding. The business may be also sold as a whole in order to accomplish the most favorable payment of claims to the creditors (above all the unsecured ones). The outcome is always, exclusively the removal of the bankruptcy debtor from the court register (Bankruptcy Act, Article 2, Paragraph 2, OG, 71/2015). Contrary to the liquidation bankruptcy, the other model, reorganization (pre-bankruptcy proceeding or bankruptcy plan) is also one of the possible ways how to conduct the bankruptcy proceeding, and the only alternative to the liquidation bankruptcy (cashing-in the debtor’s assets) (Malbašić; 2005). Namely, in order to improve the efficiency of the legal protection in the field of bankruptcy, the Bankruptcy Act has been changed several times since 1996, but the technique of conducting the bankruptcy resulted with no advancements (Tomas Žiković et al.; 2014, 320). The application of the Bankruptcy Act led, as a rule, to the extinction of the business. That was the reason for the implementation of the Act on Financial Operations and Pre-Bankruptcy Settlement in 2012. Its goal was to enable the restructuring and continuation of the debtor’s business through the pre-bankruptcy settlement (Vuković & Bodul; 2014, 8).

In the proposal of the Act on Financial Operations and Pre-Bankruptcy Settlement, as the main reason for the inception of the pre-bankruptcy proceeding it was stated that the implementation of the Bankruptcy Act so far brought only the extinction of businesses. Further argument stated that in the

In the legislation of the EU countries there is a tendency towards the model of restructuring and survival of businesses, as modeled by Chapter 11 of the Bankruptcy Code of the United States. When the restructuring of the debtor was enabled by the Act on Financial Operations and Pre-Bankruptcy Settlement, the financial restructuring of the bankruptcy debtor was abandoned within the bankruptcy proceeding. The creditors were left with the only option within the bankruptcy plan: to transfer the whole debtor’s assets over to the legal entity to be founded by the bankruptcy debtor (so called transferable bankruptcy plan) (OG, 133/2012). Despite the stated, the theory has evaluated the possibilities and the procedure of restructuring as regulated by the Act on Financial Operations and Pre-Bankruptcy Settlement as “a significant setback in the development of the Croatian bankruptcy legislation, especially when it comes to the legal institution of bankruptcy plan” (Garašić; 2013, 490). That points to the necessity of another, even bolder revision of the bankruptcy legislation.

According to the new Bankruptcy Act from 2015 the provisions concerning the pre-bankruptcy settlement are moved from the Act on Financial Operations and Pre-Bankruptcy Settlement to the new Bankruptcy Act as a pre-bankruptcy proceeding. The bankruptcy plan and the bankruptcy proceeding have a goal of survival of insolvent business, if certain corrective measures on both sides (owner’s and creditors) are taken. New/old solutions of the insolvency plan, with yet again numerous measures of economic, financial, legal and organizational nature give considerably more possibilities to the debtor to exit the crisis and settle creditor’s claims in an acceptable way. Namely, the Bankruptcy Act states the measures that can be applied individually and collectively, and the list of measures is not exhaustive, meaning that other measures are allowed if they are important for the implementation of the bankruptcy plan, and if they are not in collision with ius cogens regulations. On the other hand, the fact that the bankruptcy legislation is only one element of the legal system that affects the company management should not be overlooked. The legal regulation of bankruptcy proceedings itself is not sufficient to ensure the smooth functioning of economic developments in a country as it is also necessary to apply legal provisions in the field of primary status law that is, the Companies Act. As for the types of companies, the Companies Act has left a theoretical classification on the partnerships (general partnership, limited partnership, economic interest groupings, and, in a broader sense, civil law partnership and secret society) and corporations (joint stock company and limited liability company).
Frequent changes in Companies Act are the result of the attempts to harmonize the Companies Act with the European directives and regulations relating to the organization of companies. Moreover, it is in this context that the Act on the introduction of the European Company - Societas Europea (SE) and the European Economic Interest Grouping (EEIG) were adopted (Barbić; 2015, 3). Perhaps the most significant feature of the Companies Act is a large number of non-mandatory provisions by which the members of the company have the option to manage the company according to their needs.

The legislator devoted special importance to status changes carried out through a merger, division and transformation of the company, all of which are carried out without liquidation. Fusion occurs through merger or acquisitions of two or more companies and their termination and continuation in the new company. The main characteristic is that both forms of fusion, acquisition and merger, can legally be achieved only within corporations with the main difference between acquisition and merger being that the acquisition means that the acquirer already exists and does not interrupt its continuity, and acquired companies cease to exist, while in merger two or more companies establish a new one and founders cease to exist. Division implies the formation of new companies by division of an existing company in a manner which is contrary to the procedures of status changes- merger and acquisition of companies. The division is carried out by separation or split. The separation is carried out through simultaneous transfer of the respective assets of the dividing company, with its termination without performing liquidation, onto two or more new companies set up to perform the separation (separation with foundation) or in two or more companies that already exist (separation with takeover). The split is carried out by transferring one or more parts of the assets of the dividing company, which does not cease to exist, into one or more new companies set up to perform the separation (split with foundation) or to one or more companies that already exist (split with takeover). The transformation of a company changes its legal organizational form in a different one without interrupting the legal continuity of the company.

According to Companies Act provisions transformations (numerus clausus) that can be carried out are: transformation of a joint stock company into a limited liability company, the transformation of a limited liability company into a joint stock company, the transformation of a joint stock company into a general partnership and a limited partnership, the transformation of a limited liability company into a general partnership and limited partnership and transformation
of a partnership into a corporation. A more detailed analysis of status changes is in many ways limited by the complexity of the subject research and the scope of this work. However, it should be noted that all legal solutions in the Companies Act regarding this domain are fully harmonized with EU directives.

3. BACKGROUND AND LITERATURE REVIEW

In Croatia, there is, perhaps, a hundred scientific articles dealing with the extensive and complex problems of the bankruptcy legislation. Moreover, there are a modest number of monographs regarding bankruptcy (Dika; 1998, Eraković; 1997, Sajter; 2008) as opposed to capital works, scientific articles that exist in the law, such as US and German law. Nevertheless, in recent years, an increasing number of studies are dealing with the economic and legal effects of the liquidation and reorganization bankruptcy proceedings. The largest number of economic, usually, empirical research in the field of bankruptcy deals with the key indicators of bankruptcy proceedings (i.e. the cost of bankruptcy proceedings, duration of bankruptcy proceedings and the level of recovery of creditor’s claims), and carries out a comparative-legal analysis and discusses the relationship between the intensity of bankruptcy use and a series of variables (Sajter; 2007, Sajter; 2008, Sajter; 2010, Schönfelder; 2002, Šverko Grdić et al.; 2009).

When comparing the effectiveness of the bankruptcy system it is common to accept the latest available data of the study “Doing business” by the World Bank, and that is what the authors applied in this paper. The latest issue of the mentioned report exposes the fact that among all the reforms to strengthen legal institutions in 2014/15 in the world, the smallest number of them are recorded in the area of resolving insolvency (WB; 2015, 34). The overall number of insolvency reforms in the period from 2005-2015 is 150 (56 or over one third in EU countries, 2 in Croatia)(WB 2005-2015; authors’ calculations).

The reforms typically work out. Recovery rates for bankruptcy claimants (creditors, workers and government) are significantly higher for the reformers, even controlling for country income levels. Rationale behind this relationship is that reformed bankruptcy regimes allow viable businesses to solve a short-term liquidity crisis, and insolvent businesses are rapidly liquidated (WB; 2006, 67).

In the table that follows starting and ending values of indicators in the time series from 2004 to 2016 for EU countries are presented.
Table 1 Resolving insolvency indicators (time in years; cost and recovery in %)

<table>
<thead>
<tr>
<th>Country</th>
<th>Time first</th>
<th>Time last</th>
<th>Cost first</th>
<th>Cost last</th>
<th>Recovery first</th>
<th>Recovery last</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>1.3</td>
<td>1.1</td>
<td>18</td>
<td>10</td>
<td>72.5</td>
<td>82.7</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.9</td>
<td>0.9</td>
<td>4</td>
<td>3.5</td>
<td>86.2</td>
<td>89.3</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>3.8</td>
<td>3.3</td>
<td>18</td>
<td>9</td>
<td>34.2</td>
<td>34</td>
</tr>
<tr>
<td>Croatia</td>
<td>3.1</td>
<td>3.1</td>
<td>18</td>
<td>14</td>
<td>26.1</td>
<td>30.5</td>
</tr>
<tr>
<td>Cyprus*</td>
<td>1.5</td>
<td>1.5</td>
<td>15</td>
<td>14.5</td>
<td>70.7</td>
<td>71.4</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>9.2</td>
<td>2.1</td>
<td>38</td>
<td>17</td>
<td>16.8</td>
<td>66</td>
</tr>
<tr>
<td>Denmark</td>
<td>4.2</td>
<td>1</td>
<td>8</td>
<td>4</td>
<td>59.8</td>
<td>87.8</td>
</tr>
<tr>
<td>Estonia**</td>
<td>3</td>
<td>3</td>
<td>8</td>
<td>9</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Finland</td>
<td>0.9</td>
<td>0.9</td>
<td>1</td>
<td>3.5</td>
<td>90.2</td>
<td>90.1</td>
</tr>
<tr>
<td>France</td>
<td>2.4</td>
<td>1.9</td>
<td>18</td>
<td>9</td>
<td>46.6</td>
<td>77.5</td>
</tr>
<tr>
<td>Germany</td>
<td>1.2</td>
<td>1.2</td>
<td>8</td>
<td>8</td>
<td>50.3</td>
<td>83.7</td>
</tr>
<tr>
<td>Greece</td>
<td>2.2</td>
<td>3.5</td>
<td>8</td>
<td>9</td>
<td>45.6</td>
<td>34.9</td>
</tr>
<tr>
<td>Hungary</td>
<td>2</td>
<td>2</td>
<td>38</td>
<td>14.5</td>
<td>30.8</td>
<td>41.7</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.4</td>
<td>0.4</td>
<td>8</td>
<td>9</td>
<td>88.9</td>
<td>87.7</td>
</tr>
<tr>
<td>Italy</td>
<td>1.3</td>
<td>1.8</td>
<td>18</td>
<td>22</td>
<td>43.5</td>
<td>63.1</td>
</tr>
<tr>
<td>Latvia</td>
<td>1.2</td>
<td>1.5</td>
<td>4</td>
<td>10</td>
<td>85</td>
<td>48.1</td>
</tr>
<tr>
<td>Lithuania</td>
<td>1.2</td>
<td>2.3</td>
<td>18</td>
<td>10</td>
<td>52.4</td>
<td>42.8</td>
</tr>
<tr>
<td>Luxembourg***</td>
<td>2</td>
<td>2</td>
<td>15</td>
<td>14.5</td>
<td>41.6</td>
<td>43.8</td>
</tr>
<tr>
<td>Malta****</td>
<td>3</td>
<td>3</td>
<td>10</td>
<td>10</td>
<td>39.2</td>
<td>39.6</td>
</tr>
<tr>
<td>Netherlands</td>
<td>2.6</td>
<td>1.1</td>
<td>1</td>
<td>3.5</td>
<td>86.2</td>
<td>88.9</td>
</tr>
<tr>
<td>Poland</td>
<td>1.5</td>
<td>3</td>
<td>18</td>
<td>15</td>
<td>68.2</td>
<td>58.3</td>
</tr>
<tr>
<td>Portugal</td>
<td>2.6</td>
<td>2</td>
<td>8</td>
<td>9</td>
<td>69.9</td>
<td>73.4</td>
</tr>
<tr>
<td>Romania</td>
<td>3.2</td>
<td>3.3</td>
<td>8</td>
<td>10.5</td>
<td>6.9</td>
<td>32.7</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>4.8</td>
<td>4</td>
<td>18</td>
<td>18</td>
<td>39.6</td>
<td>54.7</td>
</tr>
<tr>
<td>Slovenia</td>
<td>3.7</td>
<td>0.8</td>
<td>18</td>
<td>4</td>
<td>23.6</td>
<td>88.2</td>
</tr>
<tr>
<td>Spain</td>
<td>1.5</td>
<td>1.5</td>
<td>8</td>
<td>11</td>
<td>83.4</td>
<td>71.2</td>
</tr>
<tr>
<td>Sweden</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>9</td>
<td>73.2</td>
<td>76.6</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>6</td>
<td>85.8</td>
<td>88.6</td>
</tr>
<tr>
<td>World leader (Singapore)</td>
<td>0.8</td>
<td>0.8</td>
<td>3</td>
<td>3</td>
<td>89.7</td>
<td>89.7</td>
</tr>
<tr>
<td>Average EU</td>
<td>2.42</td>
<td>1.97</td>
<td>13.1</td>
<td>10.2</td>
<td>55.6</td>
<td>63.8</td>
</tr>
<tr>
<td>Distance to leader (%)</td>
<td>67</td>
<td>32</td>
<td>77</td>
<td>71</td>
<td>37</td>
<td>29</td>
</tr>
<tr>
<td>Croatia Distance to leader (%)</td>
<td>74</td>
<td>74</td>
<td>83</td>
<td>79</td>
<td>71</td>
<td>66</td>
</tr>
</tbody>
</table>

Last = 2015
First = 2004 (time, cost); 2005 (recovery) for all countries except *, **, ***, ****
* first observation 2010
The data presented in previous table gives evidence that EU countries have improved framework of resolving insolvency (time shortened from 2,4 to less than 2 years, cost lowered from 13,1% to 10,2% of debtor’s estate, and recovery rate increased from 55,6% to 63,8% of creditor’s claims, in average). Still, looking at the EU data compared to the world leader (Singapore) significant lag is noticed, especially considering the relatively high cost of resolving insolvency where EU lags 71% behind the benchmark. Croatian data shows that changes are very small and that system is very far from efficiency that is achieved at the world frontier, it lags behind in all indicators by 73% in average. The presented data strongly points to the need of further changes and reforms in the field of insolvency, especially in Croatia. Analysis of the practices in the most reformative countries reveals the most important directions in improving insolvency proceedings (Škalamera-Alilović & Dimitrić; 2015, 777): simplification of the procedure, encouraging the active role of creditors, and introduction of provisions to prevent abuse of the bankruptcy proceedings and to facilitate the restructuring of the company. Some of such changes in provisions in Croatia are elaborated and proposed in the remainder of the paper.

The doctrine warns that due to the methodology that was used such studies have significant limitations because they are based on the perception, and not on hard data (Radulović; 2011), even though the use of soft data is commonly spread in fields where hard data is unavailable.

In order to eliminate the weaknesses of the existing bankruptcy legislation and to make the bankruptcy process more efficient, legal doctrine (Dika; 2012, Garašić; 2007, Garašić; 2013, Vuković & Bodul; 2012) and profession (Eraković; 2007, Hrastinski Jurčec; 2007) analyzed a series of procedural measures that ultimately contributed to the resulting series of changes in bankruptcy legislation. In their works they analyzed procedural actions, their advantages and disadvantages, consequences and preconditions for a (more) successful application. For this work the important texts are those that analyze the possibilities for the bankruptcy plan and pre-bankruptcy procedures. These texts deal with legal requirements of pre-bankruptcy procedures, the procedural actions,
the authorized proponents, conditions that must be meet in a settlement, the principles of creditors classification in the different groups, the procedure of notification and voting, the necessary majority to accept the settlement, the absence or the necessity of court confirmation of the plan, the legal consequences of the adopted plan, the protection of creditors, following the implementation of the settlement and its refutation (Bodul & Vuković; 2015, Čuveljak; 2015).

Analyzing the literature in the field of status changes one has an impression that the creators of the Companies Act wanted the Act to be a basic, system act and that other related regulations, such as the Bankruptcy Act, needed to be harmonized according to solutions adopted by the Companies Act (Barbić; 2010, Ivanjko & Kocbek; 1996, Barbić et al.; 1996, Eraković; 2008, Gorenc, 1996, Slakoper; 2009, Zlatović et al.; 2011). Doctrinally, this is quite true, but on a practical and empirical business level of status changes and in light of normal functioning of the legal system, the situation essentially changes. All modes of status changes aim to establish a more rational balance between ownership and control functions, on the one hand, and strengthening of the company’s position on the market, on the other hand. However, due to a rare application of these measures it is left to a future practice to demonstrate the effectiveness of their application (Jurić; 2006, Ledić; 2002, Maurović; 2000, Parać; 2003, Parać; 2004, Petrović & Ceronja; 2010, Ledić & Zubović; 2003a, Ledić & Zubović; 2003b).

4. PROBLEM FORMULATION: BANKRUPTCY PROCEEDINGS VS. STATUS CHANGES

There is no doubt that freedom of choice, as one of the basic principles of modern forms of organizing economic entities, prevails both as a principle and practice unless the administration/management board is limited to just a few possibilities when establishing an economic entity. Nevertheless, administration or management board should evaluate a purposeful option between restructuring through bankruptcy plan or status changes, in order to achieve the effect of better market positioning, more efficient growth and overcome business problems. On one hand, we have a multiplicity of options of status changes (see above) which basically have no direct effect on the status of the company, but they bring innovations in basic characteristics and organizational structure of the new company. On the other hand, in the framework of measures for the implementation of the bankruptcy plan a change of the status of the debtor can also be carried out. Nev-
ertheless, when adopting the bankruptcy plan a key role is played by the creditors, the court and the accountant in bankruptcy, and so the process of status changes through the bankruptcy plan differs from the normal procedure of status changes, regulated by the Companies Act. So the question arises - whether implementation of status changes through the bankruptcy plan is in the greater interest of the creditor or debtor and what are the legal consequences of status changes for the debtor, administration, staff and members of the company?

5. **WHY THE BANKRUPTCY PLAN?**

Supporting the thesis that the status change, as a measure within the bankruptcy plan, enables better and faster recovery of the company, and in order to reply to the above stated question, the authors will present *modus operandi* of obtaining a bankruptcy plan explaining the benefits of the bankruptcy plan in conclusion.

In the introduction, we pointed out that our bankruptcy legislation allows developing a bankruptcy plan which may deviate from the statutory provisions of the liquidation and distribution of the bankruptcy mass. This points out the flexibility through which the legislator wants to motivate all participants in bankruptcy proceedings, as well as potential investors. The intention of the legislator was that the submitter of the bankruptcy plan has the possibility to find an economically rational and more operational solution for a specific debtor under circumstances of a specific case. Each bankruptcy plan consists of the preparatory and implementation base. Preparatory base contains information on what is planned to be done, and implementing base on the manner in which it is planned to be carried out. In practice it is most common to apply measures governed by the Companies Act which naturally required its use (for example, in the case of acquisition or merger). One of the most delicate issues in regard to the bankruptcy plan is sorting the creditors in the groups. The procedure of adopting the bankruptcy plan lasts from the moment of submitting the plan until the bankruptcy judge renders the decision on confirmation of the plan. The decision on confirmation of the plan has constitutive effect and acts toward all creditors (*erga omnes*) from the moment the decision becomes final, which is the moment when *de jure and de facto* the whole process of acceptance and confirmation of the plan ends. The company’s management is obliged to respect the confirmed plan and regularly fulfill their obligations towards all participants.
in terms of the plan. Each creditor is authorized, on the basis of enforceable
documents, (final decision confirming the bankruptcy plan and a decision es-
tering his claim) to run independently enforcement proceedings in order
to settle his undisputed claim in compulsory manner, provided that the debtor
is significantly late in fulfilling his obligations. As a key element it is important
to highlight the legal consequences of the initiation of bankruptcy proceedings
according to Bankruptcy Act and that is procedural legal consequences relating
to all litigations, enforcement proceedings, insurance procedures and non-con-
tentious proceedings in progress. All proceedings are interrupted when the legal
consequences of the bankruptcy proceedings enter into force, and that is the
moment when the ad on the opening of bankruptcy proceedings is published
on the court’s website (e-bulletin board of the court).

6. CONCLUSION

When it comes to the analysis of the bankruptcy plan and the status agree-
ments relevant studies and doctrine indicate that the structure of the results of
those procedures has not met the objectives set. Currently available statistics
on bankruptcy and status changes usually show only half the truth - they reveal
the number and type of procedures, but do not mention the failure of rescuing
negotiations, the impact on third parties or individual community or long-term
success or failure of bankruptcy plans and agreements. In all of these forms
of reorganization it is essential that the preparatory and implementation base
of the bankruptcy plan and the status agreement present the most important
information on the management and the likelihood of success of the implemen-
tation of the agreement or bankruptcy plan, and all that to enable the creditors
to make the most purposeful decision in the decision-making process. Consider-
ing that such information is affected by both legal decisions and numerous
institutional factors (unfavorable social context, problems in the payment sys-
tem) we believe that the best way could be implementing status changes in the
framework of a reorganization plan.

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1-4, ISSN 0537-6645.


JUSTIFICATION OF LEGAL ENTITY PUNISHMENT FOR CRIMINAL OFFENSES

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Abstract

The paper presents and describes the basic models of justification for punishability of legal entities for criminal offenses committed on their behalf and in their favor by their authorities or representatives. These are models of strict liability, accountability and originary culpability of legal entities. The main problem is the explanation of culpability of legal entities which must be distinguished from individual culpability in traditional criminal law. In strict liability, which is inherent in Anglo-American law, a legal entity is held accountable only for causing an injury or a threat to some legal good, so that its culpability is not established at all. According to the accountability model, which is the most common model, individual culpability for criminal offenses committed in the capacity of an authority or a representative of a legal entity shall be attributed under certain conditions to a legal entity as its own culpability. Originary (or autonomous) culpability of a legal entity is based on deficiencies in its organization and is therefore often referred to as organizational culpability. The choice of a particular model is left to the legislator that pays more attention to the need for policy against criminality, rather than the requirements (attitudes) of criminal law doctrine. The solutions of the French, German, Spanish, Austrian, Swiss and Croatian laws are given as typical examples of particular models that were selected.

Keywords: responsibility of legal entities for criminal offenses, models of justification for punishability of legal entities, culpability of a legal entity, strict liability, accountability, original or autonomous culpability of a legal entity

JEL Classification: K1, K2
I. INTRODUCTION

There is no doubt that there has been an increasing tendency of modern criminal law to adopt the principle of societas delinquere potest (i.e., a legal entity may commit a criminal offense). Responsibility of legal entities for criminal offenses is primarily a response to a rise in economic crime in which an individual is not in the foreground, but a legal entity as a real bearer of criminal activity and a user of illegally obtained benefits. In relation to a legal entity, an individual perpetrator has become unimportant, especially in offenses against the environment, and we should not lose sight of the participation of legal entities in organized crime (money laundering). The idea that criminal responsibility of legal entities is not required has been increasingly abandoned because it is sufficient to punish individuals acting on their behalf and in their favor by applying the basic principles of traditional criminal law (strict interpretation of the culpability principle, the application of participation provisions, liability for a failure to act), effective asset forfeiture and penalties of deprivation of liberty for responsible authorities or representatives of legal entities (Jescheck/Weigend, 1986, 227).

A criminal and political need to prosecute legal entities originates, inter alia, from the fact that it is difficult to establish responsibility of an individual in legal entities because of the so-called “organized irresponsibility” (organisierte Unverantwortlichkeit), which is determined by the structure of the legal entity itself, a more extensive division of labor and the complex distribution of competences (Schünemann, 1979, 149). In addition, a criminal offense committed by an individual in the interest of a legal entity is not only an expression of his/her will, but can also be a result of the spiritual atmosphere in the legal entity (the so-called ‘group spirit’ or ‘group dynamics’). Such climate weakens resistance of individuals in the legal entity against violations of legal norms and therefore, as a precautionary measure, it should be resisted not only by punishing the authorities or the representatives of the legal entity, but also the legal entity itself. This will help meet the requirements of general prevention more adequately, but also satisfy justice, particularly when a degree of individual culpability is insignificant compared to the damage caused (e.g., the perpetrator is a low-ranking employee, or a person who only formally acts as a representative of a legal entity).

What has made significant contributions to strengthening a tendency towards punishment of legal entities for criminal offenses are the recommenda-
tions of the Council of Europe, in particular Recommendation No. R (88) 18 of 20 October 1988 concerning liability of enterprises having legal personality for offences committed in the exercise of their activities, and European Union law, within the framework of which the Second Protocol of 1997 on criminal liability of legal entities and money laundering is particularly important, according to which the Member States undertake measures to punish legal entities for certain criminal offenses to the detriment of the European Union.

In 1992, France was among the first countries that accepted new ideas in continental European law, while Germany, where there is still an ongoing fierce debate on this issue, has been strongly opposing criminal responsibility of legal entities. In 2003, Croatia adopted the Act on the Responsibility of Legal Persons for the Criminal Offenses. Among the countries whose criminal law traditionally affects Croatian criminal law, we should emphasize Austria and Switzerland, which have also accepted criminal responsibility of legal entities. It is interesting that in 2010 Spain decided to introduce criminal responsibility of legal entities, although their criminal law is significantly influenced by German criminal law theory.

The main problem in relation to the acceptance of responsibility of legal entities for criminal offenses is loyalty of European continental criminal law to the culpability principle and an understanding of culpability as a reproach that can only be addressed to a natural person (an individual) for a criminal offense. Therefore, there follow a review and an analysis of possible models of justification for punishability of legal entities for criminal offenses that seek to explain culpability of legal entities which is to be distinguished from individual culpability in traditional (classical) criminal law.

II. STRICT LIABILITY

Since culpability of legal entities is the main problem in establishing their criminal responsibility, the easiest way to find a solution would be to objectify culpability of legal entities, where it is enough to establish that the legal entity has caused damage or posed a threat to some legal good. This model has long been accepted in Anglo-American law that recognizes strict liability in case of strict liability offenses. In those offenses, it is not necessary to establish culpability of individual perpetrators, so it is logical that culpability of legal entities does not need to be established either. The Supreme Court decision of 1909 (United
States Supreme Court, New York Central & Hudson River Railroad v. United States, 212 U.S. 481, 490) is extremely important for such development in the United States of America, which expands criminal liability of legal entities to deliberate offenses, by pronouncing the transfer of the common-law doctrine of respondeat superior to criminal law constitutional. On the basis of that doctrine, a legal entity is liable for a criminal offense committed by any of its employees, if, by doing so, he/she acted within the framework of business relations and in the interest of the legal entity. The doctrine has not been abolished, but in the meantime, as a result of many subsequent reactions and criticisms, its scope has been limited (Beale, 2014, 27, 32). Strict liability of legal entities has not been accepted by any country of the continental European legal circle.

III. ACCOUNTABILITY MODEL

The accountability model or the model of establishing culpability of a legal entity on the basis of culpability of certain individuals is accepted by the majority of countries that recognize culpability of legal entities. This model assumes that culpability is strictly individual, but believes that under certain conditions such individual culpability may be assigned to legal entities. This means that even a legal entity may be held criminally responsible for its behavior, i.e., for acts (and failures to act) by which its authorities or representatives shape and realize its will. The main objection to this concept is that it exhausts itself in accounting someone else’s culpability and that it cannot explain why individual culpability of an authority or representative of a legal entity, with the exception of their punishability, should also establish punishability of a legal entity. Therefore, there are some views in the literature that if a criminal offense is committed by the authority or representative of a legal entity, this is not sufficient for its punishability, and establishing culpability of a firm as organizational culpability should be required additionally (Böse, 2014, 137-138). The most famous version of accountability model is the alter ego or identification theory developed by English law, according to which the so-called brains, i.e., directors and other natural persons in the legal entity that can make the key decisions for the legal entity, identify themselves with the legal entity so that their acts taken on behalf of the legal entity are considered to be its acts. In this case, culpability of the natural person acting on behalf of the legal entity becomes culpability of the legal entity itself. Such natural person is not considered to be a representative of
a legal entity; it is assumed that the natural person does not work for the legal entity, but as a legal entity, i.e., that the natural person is the mind of the legal entity, its incarnation or alter ego. It is important that a legal entity cannot identify itself with any of its employees (Novoselec/Bojanić, 2013, 497).

English law (the theory of identification) inspired the French legislator when they prepared the 1992 Criminal Code (Code pénal), because Article 121-2 of the Code expressly provides that legal entities are responsible for “criminal offenses that are committed on their behalf by their authorities and representatives”. The provision of Article 121-2 should be interpreted in conjunction with Article 121-1, which stipulates that a person is responsible only for her/his own behavior/act. The French theory is unique in relation to the view that imputabilité as individual accountability of a legal entity for a criminal offense does not make sense, but that culpability of authorities or representatives is necessary to achieve objective accountability, i.e., a legal entity shall be held accountable for a criminal offence (Walther, 2015, 688). In France, scholars predominantly think that Article 121-2 of the Criminal Code does not refer to the exception to the principle of individual criminal responsibility under Article 121-1 of the Criminal Code, but a variation of the culpability principle (Walther, 2015, 689). A legal entity acts actually and legally through authorities or representatives. This leads to the view that the authorities and representatives of the legal authority in relation to it are not others, and that here we deal with individual responsibility of the legal entity itself. The accountability or accessory liability model (liability of a legal entity depends on liability of a natural person) has not been precisely carried out in statutory regulation; hence there is a possibility that in the implementation of law we might get closer to the model of originary liability of legal entities. In judicial practice, the Court of Cassation (Cour de cassation) has followed the principle of legality and thus opposed the theory of culpability of a legal entity due to its organization. But, there are opposing views in the literature and courts of second instance (appellate courts), which prefer to take into account corporate culture and a general entrepreneurship policy of legal entities (Tricot, 2014, 64). The French model of accountability or accessory liability is also referred to in the literature as liability of representatives, indirect responsibility or reflexive liability of legal entities. A conclusion may be drawn from the aforementioned that personal punishability of a certain natural person (an authority or a representative) must be established first, and then it could be attributed to a legal entity. According to the theory of identification, it is
emphasized in the literature that an authority or a representative in relation to the legal entity is not a third person, but that a legal entity only acts through its authorities or representatives and that they are identical to it. According to this view, Article 121-2 of the Criminal Code, as already mentioned, is not contrary to the provisions of Article 121-1 of the Criminal Code, according to which everyone is liable exclusively for their own acts, but this principle also applies to legal entities. This also explains Article 121-3 of the Criminal Code, according to which responsibility of natural persons and responsibility of legal entities are not mutually exclusive. According to the theory of identification, it is enough to establish in abstracto responsibility of any authority or representative of a legal entity. For punishability of legal entities it is therefore sufficient to prove that the act could have been committed only by its authorities or representatives, but such natural person does not have to identify himself/herself. According to this interpretation, the act of committing an offense through an authority or a representative has clearly lost its importance. Emphasis is placed on the act committed on behalf of a legal entity, by which we come closer to the model of originary (autonomous) liability of legal entities for their own culpability (Tricot, 2014, 65). Therefore, requests to change the legal regulation have often been pointed out, which could at the same time make the wrong practice of the Court of Cassation. But, in any case, it is considered desirable to consider the possibility of direct criminal responsibility of legal entities in French law because it is particularly advocated after a decision by the Court of Cassation in 2006 that caused controversy in relation to the question whether the specific natural person must be identified for a legal entity to be held accountable for the act. The practice of the Court of Cassation has gradually developed a presumption of liability, which in most cases does not require accurate identification of authorities or representatives. Accordingly, natural persons do not always and necessarily have to be known by their names. It is sufficient that a judge can be sure that the criminal offense in question was committed in all its elements by an authority or a representative of a legal entity (Walther, 2015, 692).

The solution is similar to the French and the German law of torts. Germany, however, does not provide for liability of legal entities for criminal offenses, but accepts an indirect form of their punishment under the Misdemeanor Act (Gesetz über Ordnungswidrigkeiten), which stipulates in §30 that a misdemeanor sanction (Geldbusse) may be imposed on a legal entity if its authorities or equivalent persons commit a criminal offense or misdemeanor by means of
which the duties of the legal entity are violated or the legal entity became or should have become rich. Namely, when legal entities are punished for criminal offenses committed by their natural persons, they are actually also punished for these offenses themselves (though in a roundabout way, i.e., for a misdemean- or). It is not surprising that opponents of punishability of legal entities refer to this provision as a label fraud (Etikettenschwindel).

The main points of the German debate on liability of legal persons for criminal offenses are a matter of criminal inability to act, the problem of the proportionality of penalties and the inability of individual culpability of the legal entity or the impossibility of holding someone else accountable to establish culpability of the legal entity itself, as a consequence of strict interpretation of the culpability principle (Pietsch/Jahn, 2015, 1 et seq.).

An act in terms of criminal law can only be committed by natural persons. It is not only a volitional psychophysical act but also a manifestation of personality (personal theory of action). Since legal entities lack a mental and spiritual substance, they cannot respond personally. Only natural persons may act for them, with a certain effect, as their authorities or representatives that should be punished if a criminal offense is committed (Roxin, 2006, 264).

Culpability is strictly personal and therefore there is no culpability of legal entities (Greco, 2015, 516). A reproach in terms of the culpability principle is possible only in relation to natural persons, and holding others accountable can never establish one’s own culpability (Schünemann, 2014, 4). Critics of the accountability model (Zurechnungsmodell) also refer to the judgement of the German Federal Constitutional Court (Lissabon-Urteil of 30 June 2009, BverfGE 123, 267), in which the Court viewed culpability as a presumption of punishment and explained it through personal (individual) responsibility of an individual. The same court, however, does not exclude the possibility of criminal liability of legal entities, but only culpability of persons acting on behalf of the legal entity may also be relevant to this liability (Bertelsmann-Lesering-Beschluss of 25 October 1966, BVerfGE 20, 233). In the literature, there are clear views that the application of the culpability principle to legal entities should be excluded because this principle is primarily used to protect human dignity which belongs only to natural persons (Vogel, 2012, 427).

We have to stress the standpoint (Jescheck) according to which in §30 of the German Misdemeanor Act, the border towards the recognition of culpability
of legal entities has already been crossed, and this is “objective accountability of culpability of a third person, rather than vague culpability of a firm”. This means that the frameworks of classical criminal law based on culpability are abandoned and “a new area of sanctions law that can be justified (legitimized) only through general prevention” is now open (Rogall, 2015, 260). Responsibility of a legal entity (a firm) is not established according to the criteria of possible shortcomings in the organization or control, but it is directly based on the act committed by a certain natural person, as an authority or a representative of a legal entity. Therefore, there is no room for thinking that their act should be considered as a “consequence” of organizational culpability, but an act committed by a manager can be considered an illegal and reprehensible act of a legal entity within the meaning of the strict theory of identification (Rogall, 2015, 265).

When it comes to punishing firms, the principle of proportionality should be taken into account, particularly when it comes to the negative effects of heavy fines imposed on innocent employees of firms that have in no way participated in a criminal offense. Here, in fact, we do not deal with unwanted effects/reflections of individual sanctions, as in the case when the family members of the convicted person suffer because of his/her imprisonment, but the effects on the people that make the firm (shareholders and employees), so that any harm befalling them because of the pronounced sentence must be legitimate (Schünemann GA 2015, 279). The impact of penalties on firms, especially when it comes to high fines, can lead to suppression of an individual fine which becomes unimportant.

Responsibility of legal entities for criminal offenses was also introduced by the Spanish legislator in 2010. According to Article 31bis of the Spanish Criminal Code (Código penal), legal entities shall be held criminally accountable for “acts committed in their name or on their behalf and to their benefit, by their legal representative and their de facto and de jure administrators”. In the same cases, they shall “also be held criminally accountable for criminal offenses committed in the performance of corporate activities on behalf and to the advantage thereof, by natural persons who are subordinate to persons who are authorized to give orders and can commit criminal offenses as due control was not exercised over them in view of the specific circumstances of the case”. The legal phrase refers to the acceptance of the accountability model. In the criminal law theory there are, however, positions that require reconstruction of the above provision in accordance with the model of originary liability of legal entities (ac-
accompanied by the simultaneous harmonization with the culpability principle) or at least its teleological interpretation that takes into account certain specificities of culpability of legal entities (Silva Sánchez, 2015, 270 et seq.). The starting point is, in fact, the fact that group dynamics within the legal entity can gradually create the contributory structure to commit criminal offenses of natural persons behind them. In doing so, the crucial question is whether a natural person committed (at least illegally) a criminal offense which is an expression of the defective condition of the legal entity organization which, due to the continuation of the tortious conduct, needs correction in the form of an appropriate sanction (measure). It is necessary to keep the request for establishing an objectively unlawful condition or a quasi-condition at the core of a legal entity (a defect in the organization), which is an unwritten assumption of its responsibility and at the same time a basis for the legal entity to be held accountable for behavior of its natural persons.

In 2005, the Austrian legislator also introduced responsibility of legal persons for criminal offenses and regulated it in a separate Corporate Liability Act. It accepted the accountability model as legal entities are held accountable for criminal offenses committed by natural persons, and there are two variants of responsibility: responsibility for criminal offenses committed by decision-makers and responsibility for criminal offenses committed by corporate employees. In accordance with §3, general assumptions of responsibility are that the criminal offense was committed for the benefit of the legal entity or that criminal offenses are committed in violation of the duties of legal entities (Kienapfel/Höpfel, 2009, 310-315).

Finally, the accountability model was accepted by the Croatian legislator in the Act on the Responsibility of Legal Persons for the Criminal Offenses. Under Croatian law, the foundation of responsibility of legal entities is the criminal offense of a legal entity. The legal entity shall be punished for a criminal offence of a responsible person if such offence violates any of the duties of the legal entity or if the legal entity has derived or should have derived illegal gain for itself or third person (Article 3(1)). The responsible person within the meaning of this Act is a natural person in charge of the operations of the legal entity or entrusted with the tasks from the scope of operation of the legal entity (Article 4). Holding a legal entity accountable for criminal offenses committed by the responsible person is governed by Article 5(1): “Responsibility of a legal person is based on culpability of the responsible person”. The legal person shall be pun-
ished for the criminal offence of the responsible person also in cases when the existence of actual or legal obstacles for the establishment of responsibility of the responsible person is established (Article 5(1).

From the standpoint of Croatian law, the problem of establishing culpability of legal entities is especially pronounced because in its Article 4, the Criminal Code proclaims the culpability principle. Therefore, the question can naturally arise as to whether this principle also holds for legal entities or whether it is better to accept strict liability in this field (Novoselec/Bojanić, 2013, 501). The Croatian legislator has removed objective liability of legal entities, but they are not held accountable according to the culpability principle (nulla poena sine culpa) either. This principle applies only to natural persons receiving a reproach for committing criminal offenses because, instead of acting unlawfully, they might have decided to act lawfully. Such individual culpability assumes punishment, but a degree of culpability is an important circumstance relevant to sentencing. Individual culpability of responsible persons can be attributed to a legal entity only objectively and as such it forms the basis of its responsibilities. Responsibility of the legal entity is derived from culpability of the responsible person (the accountability model).

IV. ORIGINAL OR AUTONOMOUS CULPABILITY OF A LEGAL ENTITY

‘Organizational culpability’ (Organizationsverschulden) or a model similar to culpability (Schuldanalogiemodell) is most frequently mentioned as a form of original or autonomous culpability of a legal entity. The concept of organizational culpability comes from the German author Tiedemann, who used it to justify liability of legal entities for misdemeanors, but later his concept was understood as a culpability model of legal entities in general (Tiedemann, 1988, 1172). Tiedemann assumes that culpability in the classical sense, i.e., as an ethically justified reproach, may be addressed exclusively to the individual. For legal entities, only culpability in a broader sense is possible, as the statement that the perpetrator does not comply with the requirements imposed on him/her by the legal system (a social concept of culpability). Such understanding finds organizational culpability useful, according to which the acts of individuals can be attributed to the legal entity only if its authorities or representatives fail to carry out supervision measures that should provide proper operation. By introducing
organizational culpability Tiedemann only wants to justify why culpability of these people is attributed to the legal entity. To that extent, his theory does not represent a complete deviation from the theory of corporate liability for the acts committed by its authorities (Novoselec/Bojanić, 2013, 499). However, this is not enough to account for original culpability of the legal entity because failures in the organization can only be imagined as failures of leading individuals in the legal entity, and again the question arises as to what right enables a legal entity to be held accountable for these failures as its act (Roxin, 2006, 264). In this sense, culpability of the legal entity remains fiction, as well as its act, because wrong (deficit) organization does not come from the firm itself but from managerial decision-making individuals as natural persons.

The model of autonomous responsibility (culpability due to organizational failure) has been accepted in the Swiss Criminal Code, which stipulates in Article 102(1): “If a felony or misdemeanour is committed in an undertaking in the exercise of commercial activities in accordance with the objects of the undertaking and if it is not possible to attribute this act to any specific natural person due to the inadequate organisation of the undertaking, then the felony or misdemeanour is attributed to the undertaking.” For certain criminal offenses listed in Article 102(2) of the Criminal Code, “the undertaking is penalized irrespective of criminal liability of any natural person, provided the undertaking is responsible for failing to take all the reasonable organisational measures that were required in order to prevent such an offence.” According to these provisions, which are generally criticized for lack of specificity (Stratenwerth/Wohlers, 2013, 240-242), the Swiss legislator distinguishes between “real” culpability of firms (i.e., punishability competing with culpability of individuals), which is limited to certain criminal offenses, and general, subsidiary responsibility of a firm. In the first case, a reproach addressed to the firm refers to the fact that not all expected organizational measures have been undertaken to prevent commission of a criminal offense (failure in the organization referring to the act), while subsidiary responsibility relies on the fact that the offense committed due to lacking organization cannot be attributed to any natural person (failure in the organization referring to the person). Since the reproach addressed to the firm is based on an organizational deficiency, it is no longer a question whether the criminal offense is committed by the authority of the legal entity, its representative or any other employee. The law consistently deviates from the culpable
commission of a criminal offense and holds a criminal offense act that is illegal as sufficient (Böse, 2014, 139-140).

In recent years, there has been a lot discussion in Germany about the Draft of the Act on the introduction of criminal liability of firms and other associations, which was proposed by the Ministry of Justice of North Rhine-Westphalia. The consistent opponents of the introduction of criminal liability of firms have qualified this request as a “criminal and political zombie” (Schünemann, 2014, 1). The explanation of the Draft highlights the growing criminal law potential of activities performed by firms and personal culpability of individuals acting in the interest of the firm and participating in the commission of criminal offenses is considered to be insignificant in relation to the consequences of the committed criminal offense. The current regime of punishing legal entities under misdemeanor law is criticized for the inadequate preventive effect. In the substantive provisions, the Draft seeks to determine the “specific unlawfulness of a firm”, which is reflected in its deficient organization because of which the firm suffers, promotes or even provokes misdemeanor behavior. In this regard, the authors of the Draft refer to the concept of “organized irresponsibility”. Substantive provisions of the Draft are focused on the wrong choice of the decision-making person and the lack or failure with respect to necessary control and supervision, which means that organizational culpability is in the forefront and consequently the adoption of the model of autonomous (originary) culpability of firms (Pietsch/Jahn, 2014, 1-4). However, the current attitudes referring to the unacceptability of criminal liability of legal entities, primarily argumentation in relation to non-transferability of the culpability principle, are still dominant in reactions to the Draft. Draft advocates require it to be supplemented, especially in order to refine assumptions referring to culpability of legal entities (organizational culpability). After all, the necessity of passing a new act is also questioned with respect to the experience in punishing legal entities under misdemeanor law. The positions which advocate solutions partially in the context of misdemeanor law have crystallized in previous discussions, taking into account the ultima ratio principle, and partially in the context of building preventive (security) measures for which no perpetrator’s culpability is necessary (Schünemann, 2015, 280). In connection with the latter, a (security) measure which is substantially close to the guardianship of a legal entity is particularly emphasized, and it is conceptually referred to as “Unternehmenskuratel”. Unlike fines (as the most common sanction applicable to legal entities), the purpose of
such measure is to influence the causes of criminal activity of legal entities in the organizational field and without adverse consequences for innocent shareholders and employees who have not participated in any way in the commission of a criminal offense. (Schünemann, 2014, 6).

V. CONCLUSION

Culpability of legal entities in the sense of individual culpability in traditional criminal law does not exist. Strict liability of legal entities for criminal offenses is excluded from continental European criminal law, which has almost entirely adopted the principle *societas delinquere potest*. There exists, however, liability of legal entities for criminal offenses which are derived from culpability of certain natural persons (typically its authorities or representatives) for committing a criminal offense (the accountability model) and original liability of legal entities for criminal offenses in the form of organizational culpability (the model of originary or autonomous liability of legal entities). The choice of the right model is left to the legislator, and when it comes to the introduction of criminal liability of legal entities, it is more governed by the need for policy against criminality than the requirements of the criminal law doctrine. Punishability of legal entities may be mainly justified by the idea of general deterrence, while specific deterrence should come to the fore in the implementation of (security) measures that could contribute to eliminating the causes of criminal offences committed by a legal entity in the field of its organization. Such preventive orientation should also be accepted by the legal entities themselves by designing and realization of behavior standards both in ethical and legal terms.

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Vogel, J. (2012) Unrecht und Schuld in einem Unternehmensstrafrecht, Strafverteidiger (StV) 32, 427-432
THE IMPACT OF AMENDMENTS TO THE PUBLIC PROCUREMENT ACT ON THE INCREASE IN TOTAL VALUE OF PROCUREMENT

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Abstract

Main objective of this scientific-research paper is to identify the impact of the Public Procurement Act on total value of procurement in the period of last five years. Another objective is to make comparison between the ratio of public procurement procedures and low-cost procurements with regard to the Amendments to the Public Procurement Act and legal provisions currently in force.

The authors shall describe close correlation between provisions of the Public Procurement Act and total values of procurement, as well as correlation with the ratio of public procurement procedures and low-cost procurement procedures.

Keywords: public procurement, low-cost procurement, Public Procurement Act

JEL Classification: H5, H57
1. INTRODUCTION

According to the definition adopted at the Panel of the Faculty of Law of the University of Zagreb and Club of Jurists of the City of Zagreb, public procurement is a procedure preceding the awarding of the contract, which must be adhered to by those that the law refers to as entities bound by the Act, or in more simple terms, those who spend public resources and comprise a part of the public sector (Barbić; 2007, 2).

The updated definition published by the Ministry of Justice of the Republic of Croatia in the Guidelines for the Prevention of Corruption determines public procurement as a set of procedures that must be implemented prior to awarding public procurement contracts for products, works or services, by the contracting authorities who are not acquiring financial resources on their own, but they are direct or indirect beneficiaries of the state budget or budget of regional self-government units (Ministry of Justice; 2016).

The authors of this paper would like to suggest the following definition: public procurement is a set of procedures and activities which must be implemented by contracting authorities included in the List of entities bound by the Public Procurement Act prior to awarding public procurement contracts for products, works or services.

Low-cost procurements are type of procurements that may be defined as procurement of products and services with the estimated value up to HRK 200,000.00, and procurement of works with the estimated value up to HRK 500,000.00, and the provision of the Public Procurement Act are not applicable for such procurements.

2. ESTIMATED VALUE OF PROCUREMENT

Procurement of high-value is procurement where the estimated value is equal to or greater than the value of the European thresholds (EU 2015/C 392/1).

Procurement of lesser value is procurement where the estimated value is smaller than the European thresholds (EU 2015/C 392/1).

This Act need not be applied to procurement of products and services the estimated value of which is less than HRK 200,000.00, and for procurement of
works the estimated value of which is less than HRK 500,000.00. The issue of procurement up to such values is regulated by means of contracting authority’s internal act (Official Gazette 143/13).

Planned value of procurement is the value of subject of procurement including VAT, planned by a contracting authority within its financial plan of budget.

Estimated value of procurement is the value of subject of procurement, the calculation of which shall be based on the total amount payable, net of VAT.

3. PROGRESSION OF AMENDMENTS TO THE PUBLIC PROCUREMENT ACT IN THE REPUBLIC OF CROATIA

With the following progression of amendments to the most important legal provisions, authors would like to present the complexity of monitoring all amendments to the legal provisions of the Public Procurement Act.

Table 1: Progression of amendments to the Public Procurement Act in the past 15 years

<table>
<thead>
<tr>
<th>Year</th>
<th>Legislation amendment</th>
<th>Public procurement Act currently in force</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>Act on Amendments to the Act on the State Commission for Supervision of Public Procurement Procedures (Official Gazette 74/2014)</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Act on Amendments to the Public Procurement Act (Official Gazette 143/2013)</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Act on Amendments to the Act on the State Commission for Supervision of Public Procurement Procedures (Official Gazette 127/2013)</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Act on Amendments to the Public Procurement Act (Official Gazette 83/2013)</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Act on the State Commission for Supervision of Public Procurement Procedures (Official Gazette 18/2013)</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>Ordinance on the List of Entities Bound by the Public Procurement Act (Official Gazette 19/2012)</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>Regulation on Control over the Implementation of the Public Procurement Act (Official Gazette 10/2012)</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>Public Procurement Act (Official Gazette 90/2011)</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>Regulation on the Implementation of Control over the Public Procurement Act through Prevention and Instruction Activities (Official Gazette 97/2009)</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>Regulation on the List of Entities Bound by the Public Procurement Act (Official Gazette 83/2009)</td>
<td></td>
</tr>
</tbody>
</table>
### Legal Framework for Public Procurement

Legal framework for public procurement, initiating the alignment of the acquis, was established by the Public Procurement Act from 2007 (Official Gazette 110/2007), revised in 2008 by means of the Act on Amendments to the Public Procurement Act (Official Gazette 125/2008).

The most recent and currently valid Public Procurement Act was adopted in 2011 (Official Gazette 90/2011) and it was revised by means of two amendments to the Public Procurement Act (Official Gazette 83/2013 and Official Gazette 83/2013), and several paragraphs was repealed by means of a Decision of the Constitutional Court of the Republic of Croatia (Official Gazette 13/2014).

Based on the enclosed progression of amendments to the Public Procurement Act and new Public Procurement Act announced for the year 2016 by the Ministry of Economy, the authors concluded that the Act is being amended too often, making it difficult to monitor the amendments, for both contracting authorities and tenderers. It would be useful to align the Act with positive examples from the European Union and surrounding areas to the largest possible extent, in order to accelerate the necessary economic growth by means of its application.

### Source: Official Gazette

<table>
<thead>
<tr>
<th>Year</th>
<th>Act/ Regulation</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>Act on Amendments to the Public Procurement Act (Official Gazette 125/2008)</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>Regulation on the List of Entities Bound by the Public Procurement Act (Official Gazette 14/2008)</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>Public Procurement Act (Official Gazette 110/2007)</td>
<td></td>
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<tr>
<td>2007</td>
<td>Amendments to the List of Entities Bound by the Public Procurement Act (Official Gazette 64/2007)</td>
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<tr>
<td>2006</td>
<td>List of Entities Bound by the Public Procurement Act (Official Gazette 18/2006)</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Act on Amendments to the Public Procurement Act (Official Gazette 92/2005)</td>
<td></td>
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<tr>
<td>2003</td>
<td>Regulation on Amendments to the Public Procurement Act (Official Gazette 197/2003)</td>
<td></td>
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<tr>
<td>2001</td>
<td>Public Procurement Act (Official Gazette 117/2001)</td>
<td></td>
</tr>
</tbody>
</table>
4. CHANGES IN TOTAL VALUES OF PROCUREMENT BETWEEN 2010 AND 2014

Changes in total value of procurement make it possible to observe the trends which show the possibilities of the public sector pertaining to procurement of products, works and services, and the scope of public procurement procedures and low-cost procedures.

Table 2: Total value of procurement between 2010 and 2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Total value of procurement</th>
<th>Public procurement</th>
<th>Low-cost procurement</th>
<th>Public procurement</th>
<th>Low-cost procurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>HRK 24,786,394,308.00</td>
<td>HRK 20,175,840,089.00</td>
<td>HRK 4,610,554,209.00</td>
<td>81%</td>
<td>19%</td>
</tr>
<tr>
<td>2011</td>
<td>HRK 30,982,932,368.00</td>
<td>HRK 26,249,108,478.00</td>
<td>HRK 4,791,732,822.00</td>
<td>81%</td>
<td>15%</td>
</tr>
<tr>
<td>2012</td>
<td>HRK 39,326,349,168.00</td>
<td>HRK 33,210,333,611.00</td>
<td>HRK 6,074,941,904.00</td>
<td>81%</td>
<td>15%</td>
</tr>
<tr>
<td>2013</td>
<td>HRK 49,465,751,201.00</td>
<td>HRK 33,148,035,625.00</td>
<td>HRK 6,335,248,384.00</td>
<td>81%</td>
<td>16%</td>
</tr>
<tr>
<td>2014</td>
<td>HRK 42,157,174,728.00</td>
<td>HRK 32,875,972,137.00</td>
<td>HRK 9,277,951,667.00</td>
<td>78%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Source: Authors' calculation

Constant annual growth in the total value of procurement is evident from Table 2, and it is particularly evident when comparing the year 2010, when the total value of procurement in the sector amounted to HRK 24,786,394,308.00, with the year 2014, when the total value of procurement increased to HRK 42,157,174,728.00, comprising an increase of 70%. Should such trends continue, the authors predict that the total value of procurement might increase to more than HRK 45 billion in 2015.

Graph 1. Overview of changes in total values of procurement in the period between 2010 and 2014

Source: Authors' calculation
Authors would like to emphasize that it is evident from Graph 1 that there was a significant increase in total value of procurement in 2011 and 2012. This correlates to Table 1: Progression of amendments to the Public Procurement Act in the past 15 year, which shows that the Public Procurement Act was amended in 2011. Accordingly, the afore-mentioned amendments had a positive impact on the increase in total value of procurement in the subsequent years. This leads to a conclusion that the amendments to the Public Procurement Act, that is, the quality of such amendments, are closely related to the increase in total value of procurement. Whereas new amendments to the Public Procurement Act are scheduled for 2016, as announced by the Ministry of Economy of the Republic of Croatia, authors expect that additional upgrades of the new act shall provide solutions of higher quality. This could lead to the same impact as the one in 2011 and 2012, when there was a significant increase in total values of procurement. Consequently, this could result in economic growth and rise in GDP.

**Graph 2:** Changes in the ratio between public procurements and low-cost procurements in the period between 2010 and 2014

![Graph 2](image)

*Source: Authors’ calculations*

Data from Table 2 and graphic data from Graph 2 on the ratios between public procurements and low-cost procurements show that the Public Procurement Act from 2011 and additional amendments to the Public Procurement Act from 2013 (Official Gazette 143/13) resulted in amendments to the act in terms of increasing the threshold of low-cost procurement. This threshold amounted to HRK 70,000.00 in the Public procurement Act from 2011, so the
Public Procurement Act was not applicable below this amount. The Amendments to the Public Procurement Act from 2013 rendered new criteria, according to which the Act is not applied for procurement of products and services the estimated value of which is less than HRK 200,000.00, and for procurement of works the estimated value of which is less than HRK 500,000.00. The issues of procurement up to those values are regulated by means of a contracting authority’s internal act. This increase in the threshold value of low-cost procurements makes a procurement procedure easier and quicker for contracting authorities. Authors found this was the reason for increase in the number of low-cost procurements in 2014, based on the above-mentioned data. Authors predict that the tendency of increase in the percentage of low-cost procurements in the total procurement number will continue in 2015 and the subsequent years, owing to the fact that procedures for low-cost procurements are quicker and easier. Furthermore, there might be an increase in the total values of procurement due to the fact that procedures are simplified, that is, each contracting authority adopted an internal act which regulates the procedure according to which the contracting authority performs the procedures of low-cost procurement.

5. CONCLUSION

Taking into consideration everything afore-mentioned, it can be concluded that frequent amendments to the Public Procurement Act had an impact on spending of public money. Moreover, the previously mentioned may be encouraged by means of amendments to the Act, in a manner which stimulates economic growth by increasing the public sector’s spending.

It is visible that the amendments to the Public Procurement Act, especially the part in which the thresholds for low-cost procurement were increased, had a positive impact on the increase in total value of procurement in the public sector. In addition, there was an increase in the number of low-cost procurements which are conducted according to internal acts of the contracting authority, but significantly quicker than the public procurement procedures.

Whereas new amendments to the Public Procurement Act are scheduled for the near future, the authors hope that the objective of amendments will be simplification. This will increase the number of procedures, and consequently lead to economic growth.
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Regulation on Control over the Implementation of the Public Procurement Act (Official Gazette No. 10/2012)


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Regulation on Amendments to the Public Procurement Act (Official Gazette 197/2003)
Regulation on the List of Entities Bound by the Public Procurement Act (Official Gazette No. 83/2009)
Regulation on the List of Entities Bound by the Public Procurement Act (Official Gazette No. 14/2008)
Regulation on the Implementation of Control over the Public Procurement Act through Prevention and Instruction Activities (Official Gazette No. 97/2009)
Act on the State Commission for Supervision of Public Procurement Procedures (Official Gazette No. 18/2013)
Act on Amendments to the Act on the State Commission for Supervision of Public Procurement Procedures (Official Gazette No. 127/2013)
Act on Amendments to the Public Procurement Act (Official Gazette No. 143/2013)
Act on Amendments to the Public Procurement Act (Official Gazette No. 83/2013)
Act on Amendments to the Public Procurement Act (Official Gazette No. 125/2008)
Act on Amendments to the Public Procurement Act (Official Gazette 92/2005)
Act on Amendments to the Act on the State Commission for Supervision of Public Procurement Procedures (Official Gazette No. 74/2014)
Public Procurement Act (Official Gazette No. 90/2011)
Public Procurement Act (Official Gazette No. 110/2007)
Public Procurement Act (Official Gazette No. 117/2001)
Industrial Organization
DO YOU TRUST YOUR BRAND OR NOT? A COMPARATIVE ANALYSIS OF THE ADOPTION OF BRAND EXTENSIONS OF GENERATION X VERSUS Y IN THE FMCG INDUSTRY

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Abstract
Branded goods manufacturers in the fast-moving consumer goods industry (FMCG) such as Nestlé, Unilever, Procter & Gamble or L’Oréal are currently under fierce pressure: Markets are saturated, competition is high and customers are demanding. Since innovation is key in this industry, new products are being constantly introduced into the market. Brand extensions, i.e. introducing new products under an existing brand name, are one strategic option that can offer essential benefits: lower marketing costs and a lower risk of failure among others. However, brand extensions also fail to a large extent in the market – due to various factors. One factor which has not been researched yet is age of customers. This empirical study analyses the moderating effect of age on the perception and acceptance of brand extensions. The cosmetics brand L’Oréal was taken as an
example. Quantitative research based on a standardized online questionnaire has been conducted in August 2015 and 128 valid responses were collected in total (73 of Generation X and 55 of Generation Y). Contrary to our expectations, results show that Generation X and Y perception and acceptance of brand extensions are quite similar. Both generations perceive the parent brand L’Oréal as strong and favorable and have a similar high likelihood to buy brand extensions – both, line and category extensions. The only difference is that members of Generation X have a slightly lower level of accepting brand extensions due to their longer experience and exposure with the brand.

**Keywords:** Brand extension, consumer goods, FMCG, cosmetics, generation X, generation Y

JEL Classification: L8, L89

1. INTRODUCTION

The fast-moving consumer goods industry (FMCG) is currently facing challenging times: The majority of the Western markets are saturated, retail remains powerful, competition for customer attention is high, marketing expenditures are increasing and customers are more and more demanding – they are becoming less and less brand loyal and shift their consumption expenses to other product categories that offer a higher subjective benefit. One answer of branded goods manufacturers to satisfy customers is to constantly innovate and bring new products into the market. However, with creating new awareness and with retail charging high prices for shelf space, this is costly. Brand extensions and the possibility to leverage existing brand equity can be a potential option to reduce risks and keep costs low. This option shall be further explored in the following article.

2. CONCEPTUAL FRAMEWORK AND HYPOTHESES

2.1. Brand extensions

2.1.1. Background and definition of brand extensions

Brand extension – also called brand stretching – is one of the most researched and influential areas in marketing (Keller & Lehmann, 2006). Brand
extensions involve the usage of an established brand name when entering a new product category (Aaker & Keller, 1990; Franzen & Moriarty, 2015; Tauber, 1981). The history of brand extension dates back to the 1960s (Gamble, 1967), yet it took 20 years until the concept took received further attention. The popularity of the diversification strategy in the 1980s resulted in the fact that companies entered various new product categories. In this context, brand extensions became part of an overall Marketing strategy. Therefore, it was seen as a tool to leverage the value of a well-known brand name in one category to launch a new product in a different category and to increase the overall value of a brand and investment (Tauber, 1981; Tauber, 1988).

Although marketing scholars define brand extensions strictly as category extensions, for the purpose of the article the brand extension definition shall also include line extensions. This is due to fact that in practice the vast majority (89%) of brand extensions are line extensions, and not category extensions (Völckner & Sattler, 2006).

2.1.2. Types of brand extensions

Operating under a new brand name in the same product category refers to “multibrands”, when it concerns a new product category this is called “new brands” (Armstrong & Kotler, 2007). Contrarily, operating under an existing brand name – and thus extending the brand – refers to brand extensions. In short, (successful) brands can leverage their existing brand equity to introduce new products in the same or a new market. There are two types of extensions: ‘line extension’ and ‘category extension’ (Peter & Olson, 1996). A line extension is when the parent brand is used for a product that targets a new market segment within a product category served by the parent (Aaker & Keller, 1990; Keller et al., 2012). In contrast, category extensions involve existing brand names extended to an entirely new product category (Aaker & Keller, 1990).

Furthermore, Kim et al. (2001) argue that brand extensions come in two primary forms: ‘horizontal’ and ‘vertical’: “A horizontal extension involves the application of an existing brand name to a new product introduction, either in a similar product class or in a product category completely new to the firm”. Oppositely, a “vertical extension involves introducing a similar brand in the same product category, but usually at a different price and quality level” (Sullivan, 1990). In both ways, the value of established brands is leveraged.
2.1.3. Benefits and Risks of Brand Extensions

Brand extensions have benefits, but also risks. Firstly, these strategies are valued because of several reasons (Aaker & Keller, 1990; Keller et al., 2012; Smith & Park, 1992; Kapferer, 2008; Völkner & Sattler, 2006; Saha, 2004):

- Higher profitability because existing brands reduce marketing costs, mainly in advertising to create new brand awareness
- Increased success rate of a new product due to the positive expectation and thus an increased success rate
- Decrease in customers’ uncertainty of buying new products due to the existing knowledge of the brand
- Reduced perceived risk of customers
- Easier access to distribution channels, especially to gain shelf space with powerful retailers
- Potential clarification of the brand meaning of the parent brand
- Reinforcement and improvement of the parent brand’s image due to the increased visibility
- Redefinition and revitalization of a declining brand

However, various statistics show that the majority of brand extensions fail. Völckner & Sattler (2006) state an over 80% failure rate of brand extension in certain categories. Risks and causes of failures are (Kapferer, 1992; Keller & Lehmann, 2006; Keller et al., 2012):

- Crisis in one product category harms other product categories
- Dilution of the parent brand and/or brand meaning
- Cannibalization of sales of existing products
- Resistance of retailers due to the high number of products
- Reduced identification of the brand with one category

Important factors of consumer responses towards brand extensions are quality perceptions, perception of fit between the parent brand and extension (Aaker & Keller, 1990), parent brand reputation (Gronhaug et al., 1981), value of the brand (Reddy et al., 1994), price premium of the brand (Taylor et al., 1998) and the breadth of existing brand extensions (Dacin & Smith, 1994). Two undesired outcomes of brand extension are ‘overexploitation’ and ‘underexploitation’. Overexploitation happens when an extension does not fit the brand type meaning that there is no shared philosophy to underpin the brand. Oppositely, underexploitation happens when a brand has the desired philosophy but
simply fails to use and apply it (Kapferer, 1992). However, academic research shows that parent brands are not particularly vulnerable to failed brand extensions. An unsuccessful brand extension potentially damages a parent brand only when there is a high degree of similarity or ‘fit’ involved, such as in the same category and when consumers experience inferior product performance directly (Aaker & Keller, 1990; Loken & John, 1993; Milberg et al., 1997; Loken et al., 1998; Romeo, 1991). To conclude, a company’s brand equity can be a promising strategy to launch a new product to consumers.

2.1.4. Factors for success of brand extensions

Market-, company-, and brand-related factors determine the success of brand extensions (Franzen & Moriarty, 2015; EURIB, 2015b). Blom’s brand extension model is based on previous literature and Nielsen data on FMCG goods in the Dutch supermarkets from 1994 to 2003 (EURIB, 2015b). Firstly, market factors refer to competition: the more brands in the new category, the smaller the success rate will be. Also, the intermediary role of retailers in creating available shelf space is crucial. Secondly, beneficial company factors mainly include experience in marketing, branding and previous extensions. But also, the size of the company plays a role. Big companies, i.e. wide brands that are already established in a number of different categories, generally have more successful extensions than smaller ones (Franzen & Moriarty, 2015). Also the distance of extension to the parent brand is vital in succeeding, followed by the entry moment. Being one of the first-movers can make or break a brand extension. Thirdly, brand-related factors refer to the brand-added value of the parent brand and competing brands. The perception of consumers, reflected in consumer behavior, is of vital importance in order to make an extension a success (EURIB, 2015b). This refers to the strength of the brand in the mind and the behavior of consumers (Franzen & Moriarty, 2015). High quality perception, brand credibility and loyalty encourage people to try out the new product. This way untapped market segments can be reached. It is important to consider that not every brand lends itself for brand extensions leading to unsuccessful extension efforts (Kapferer, 1992). Kapferer’s model ‘brand types and extension possibilities’ depicts the boundaries of the scope of extension possibilities, based on the type of brand and the degree of product difference between the original product, referred to as parent product, and extended product. That means that brand extensions must be compatible with the original product, regardless the
degree of product difference (EURIB, 2015a; Kapferer, 1992). Referring to the recent challenges – the battle for market share and change in consumer values – brand extensions can be one of the strategic marketing tools to answer this.

2.2. BRAND EXTENSIONS IN THE FMCG INDUSTRY

2.2.1. INTRODUCTION TO THE FMCG INDUSTRY

The FMCG industry is one of the biggest industries worldwide and primarily deals with producing, distributing and marketing of essential, non-durable consumer-packed goods. FMCG goods are referred to as ‘fast-moving’ because these are generally cheap, have a short shelf life – shorter than a year – and are for everyday consumption (Reckitt Benckiser Group, 2015). Profit margins on these products are low for retailers, who try to offset this by selling large volumes (KPMG, 2014). Global leading companies such as Nestlé, Unilever, Procter & Gamble and L’Oréal shape the competitive landscape with their widely-known brands and thus high marketing investments into these. FMCG categories are mainly food, beverages, household care (e.g. fabric wash, household cleaners) and personal care (e.g. cosmetics & toiletries, deodorants, paper products). This research focuses on brand extensions in ‘cosmetics’ (KPMG, 2014).

2.2.2. CHALLENGES OF THE INDUSTRY

Competition in the FMCG industry is high. First, brand manufacturers are forced in a battle to gain market share, shelf impact and media-attention from consumers. Also, retailers consolidate and introduce competing private-label brands. Second, marketers get less control over their brands as the ‘prosumer’ is on the rise. Previously, many consumer goods were scarce and valuable; nowadays they are available in abundance. Intangible goods, such as time, creativity and health become more important. Thus, brands position accordingly to stay relevant for consumers (Motivaction, 2015).

2.2.3. BRAND EXTENSIONS IN PRACTICE

FMCG companies invest large sums of money into new product development based on recent market trends and research (Statista, n.d.). The growing demand for existing products encourages more FMCG players to extend their existing brand and product portfolio. Only 1% of the product introductions succeed long-term in the market, thus many companies adopt brand extensions
as this costs only half of what it would take to launch a product under a new brand name (Peter & Olson, 1996). Moreover, studies show that only 10% of the buyers of various FMCG goods are loyal to a particular brand over a year (Dowling, 2002). However, Völckner & Sattler (2006) state that failure rates of brand extensions in the FMCG sector are high with around 80%. Nevertheless, brand managers and marketers prefer brand extensions six times more to launching a new brand (Chogle, 2012). Of all the new FMCG launches, 89% were line extensions, 6% were category extensions and 5% were new brands (Völckner & Sattler, 2006). As a result, brand extensions in ‘personal care’, ‘household care’ and ‘processed foods’ categories drove growth in the industry.

2.3. Hypotheses

Existing research on success factors for brand extensions mainly focuses on market-, company-, and brand-related factors (see chapter 2.1.4.). There is a shortage of research on customer-related factors. Therefore, this research tries focus on age and its moderating role on the perception and acceptance of brand extensions. We have analyzed samples of Generation X and Generation Y customers: Generation X being born between 1965 and 1980 (i.e. in 2015 between 35 to 50 years old) and Generation Y being born between 1981 and 1997 (i.e. in 2015 between 18 to 34 years old) (Fry, 2015). Generation X is characterized as being skeptical and cautious showing a ‘what’s in it for me’ attitude. They have a high consumption spending but can be critical of marketing communications and brands (Epstein & Epstein, 2014). Because of this, it is assumed that they are probably more reluctant to accept brand extensions.

On the other hand, Generation Y is the first generation that grew up with the Internet and social media. This has shaped them to be more flexible and peer oriented. It is said that they are being connected 24/7 and less brand loyal (Epstein & Epstein, 2014). In general, their trends are shorter compared to previous generations. Taking all of this into account, we assume the following hypotheses:

H1: In the context of a brand extension, Generation X requires either more strong or favorable or unique perceptions of the core brand towards the extended product compared to Generation Y
H2: Members of Generation X perceive well-established FMCG brands differently than Generation Y

H3: Members of Generation X have a lower level of accepting brand extensions due to their longer exposure to brands compared to Generation Y

H4: Generation Y have a higher likelihood to buy brand extensions then Generation X

H5: Generation X accept line extensions versus category extensions better compared to Generation Y

3. RESEARCH DESIGN

For data collection an online questionnaire in English language has been used (see Appendix). It consists of 14 closed questions and includes fictitious yet realistic examples of line and category extensions of the brand L’Oréal Paris. This is considered to be a brand that is familiar in the mind of many consumers. However, non-existing products are proposed as line or category extensions in order to avoid existing associations about these products. Table 1 lists the used variables and the type of measurement.

Table 1: Variables and Measurement

<table>
<thead>
<tr>
<th>Question in the Questionnaire</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Perception:</td>
<td></td>
</tr>
<tr>
<td>• How well do you know the brand L’Oréal? (Perceived strength of the core brand)</td>
<td>5-point bipolar rating scale (not at all=0; very well=5)</td>
</tr>
<tr>
<td>• To what extent do you like the brand L’Oréal? (Perceived favor of the core brand)</td>
<td>5-point bipolar rating scale (not at all=0; very much=5)</td>
</tr>
<tr>
<td>• When you think of L’Oréal, to what extent do you find this brand unique compared to other leading cosmetics brands? (Perceived uniqueness of the core brand)</td>
<td>5-point bipolar rating scale (not at all unique=0; very unique=5)</td>
</tr>
<tr>
<td>Brand Attributes:</td>
<td></td>
</tr>
<tr>
<td>• When you think of the brand L’Oréal, how would you rank the following statements? (Credible products at affordable prices; Consistent products with high quality; Empowering all kinds of women; Glamourous; Innovative global ‘beauty and personal care’ leader; Look and feel like celebrities such as Doutzen Kroes and Claudia Schiffer; Luxurious, sophisticated French heritage)</td>
<td>5-point bipolar rating scale (completely disagree=0; completely agree=5)</td>
</tr>
</tbody>
</table>
The strategy is designed to test two different generations therefore 'stratified' type of convenience sample is used. This technique enables highlighting the perceptions of respondents in the two different age groups: Generation X and Generation Y.

Respondents between 18 and 50 years in Belgium and the Netherlands are reached through public posts on social media channels such as Facebook, LinkedIn and Twitter. Also, the link of the questionnaire has been sent out via e-mail to personal contacts of the authors. Besides, the link has been shared in closed social media groups such as ‘Skin care with natural ingredients’ on Facebook and ‘Cosmetics and makeup reviews’ on LinkedIn. A total of 151 persons started the survey within a time period of 20 days in August 2015 with an effective completion rate of 85%, resulting in 128 completed questionnaires. The mean age of the respondents is 33.5 years, which represents more or less the lower bound of Generation X and the upper bound of Generation Y. 73 participants (52%) have indicated that they are between 18 and 34 years old (Generation Y) and 55 participants (39%) are between 35 and 50 years old (Generation X).
Out of the 128 respondents, 110 female responses (78%) were collected while only 18 males participated (13%) are part of the sample. This does not match the actual gender distribution in the population. Further analysis however shows that the variable gender has no significant influence on the acceptance of brand extension. The over-represented part of female participants creates therefore no bias in our results.

The overall majority of the sample – 96 participants (68%) – occasionally buys products of the brand L’Oréal Paris. Furthermore, 9 participants (6%) have indicated that L’Oréal Paris is their preferred brand and 34 respondents (24%) never buy any L’Oréal Paris product. The sample of Generation X consists of 2 respondents (4%) that indicate that L’Oréal Paris is their preferred brand, 38 respondents (69%) buy L’Oréal Paris products on an occasional base and 15 respondents (27%) never buy any L’Oréal Paris products. Concerning Generation Y, 5 respondents (7%) see L’Oréal Paris as their preferred brand, 51 respondents (71%) occasionally buy L’Oréal Paris products and finally 16 respondents (22%) never buy L’Oréal Paris products.

4. RESULTS

Hypothesis H1 assumes that Generation X requires either stronger or more favorable or more unique perceptions of the core brand towards the extended product than Generation Y. In the questionnaire, brand perception has been translated into three different parts in the questionnaire: Strong refers to “How well do you know the brand?”, favorable refers to “To what extent do you like the brand?” and finally unique is simply “To what extent do you find this brand unique compared to other brands?”.

In a first multivariate analysis, the authors analyzed the influence of brand preference and of the main two sociodemographic variables gender and age on the brand perceptions of respondents (see column (1) to (3) in Table 2).

Table 2: Influence of age and gender on brand perception

<table>
<thead>
<tr>
<th></th>
<th>OLS-Regression: Dependent Variablea)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) Perceived strength of the core brand</td>
</tr>
<tr>
<td>(Constant)</td>
<td>3.476** (0.274)</td>
</tr>
</tbody>
</table>
It shows that neither gender nor age exert any influence on one of the variables. Results remain insignificant using the non-parametric Mann-Whitney U-test with Generation X and Y as grouping variable. This means that there is no statistical evidence for a difference between the two age groups concerning knowledge, likeliness or uniqueness of the brand L’Oréal Paris. Therefore, Hypothesis H1 should be rejected.

Interestingly, users – compared to non-users – perceive the brand significantly better if ‘L’Oréal is a preferred brand’ or if ‘L’Oréal is an occasionally used brand’.

Respondents were also asked to rank seven different brand attributes on a 5-point rating scale to test Hypothesis H2. The whole sample perceives L’Oréal as a brand with “credible products at affordable prices” and “consistent products with high quality” rather than glamorous or luxurious, thus rather as non-premium. This shows that the two generations are more homogenous than expected.

Using the results of the Mann-Whitney U-test (see Table 3) authors conclude that there are no differences between the two generations towards the mean ranks of the brand attributes of L’Oréal Paris. All p-values are largely above 5 percent and therefore age does not exert an influence on perceiving well-established FMCG brands such as L’Oréal Paris. Therefore, Hypothesis H2 cannot be assumed. This means that generation-specific differences in the acceptance of brand extensions are neither based on differences in perception nor on differences on brand attributes.

<table>
<thead>
<tr>
<th></th>
<th>L’Oréal is preferred brand (yes=1)</th>
<th>L’Oréal is an occasionally used brand (yes=1)</th>
<th>Age</th>
<th>Gender (male=1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b)</td>
<td>b)</td>
<td>a)</td>
<td>b)</td>
</tr>
<tr>
<td>R²</td>
<td>0.122</td>
<td>0.121</td>
<td>0.000</td>
<td>-0.133</td>
</tr>
<tr>
<td>F</td>
<td>4.240**</td>
<td>5.908**</td>
<td>-0.004</td>
<td>-0.121</td>
</tr>
<tr>
<td>VIF</td>
<td>&lt;1.17</td>
<td>&lt;1.17</td>
<td>-0.010</td>
<td>-0.010</td>
</tr>
<tr>
<td>Obs.</td>
<td>127</td>
<td>127</td>
<td>127</td>
<td>127</td>
</tr>
</tbody>
</table>

Notes: a) continuous variable; b) dummy variable; c) 5-point scale; d) Method: OLS-Regression; ** and * indicate significance at the 1% and 5% level.
Table 3: U-Test Statistics of Brand attributes grouped by Generation X and Y

<table>
<thead>
<tr>
<th></th>
<th>Credible products at affordable prices</th>
<th>Consistent products with high quality</th>
<th>Empowering all kinds of women</th>
<th>Glamorous</th>
<th>Innovative global ‘beauty and personal care’ leader</th>
<th>Look and feel like celebrities such as Doutzen Kroes and Claudia Schiffer</th>
<th>Luxurious, sophisticated French heritage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mann-Whitney U</td>
<td>1792.5</td>
<td>1611.0</td>
<td>1662.0</td>
<td>1647.0</td>
<td>1496.5</td>
<td>1632.0</td>
<td>1729.5</td>
</tr>
<tr>
<td>Wilcoxon W</td>
<td>3067.5</td>
<td>2836.0</td>
<td>4147.0</td>
<td>3025.0</td>
<td>2624.5</td>
<td>2808.0</td>
<td>3055.5</td>
</tr>
<tr>
<td>Z</td>
<td>-.042</td>
<td>-.624</td>
<td>.307</td>
<td>-1.060</td>
<td>-1.118</td>
<td>-.273</td>
<td>-.437</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.966</td>
<td>.533</td>
<td>.759</td>
<td>.289</td>
<td>.264</td>
<td>.785</td>
<td>.662</td>
</tr>
</tbody>
</table>

Note: Grouping Variable: Generation (Y=1; X=0)

To analyze the purchase behavior of both generations, two fictitious brand extensions of L’Oréal Paris are proposed. As mentioned in the literature review, two types of brand extensions exist: line extensions and category extensions.

In order to know which generation is more open to buy line extensions, in column (1) of Table 4 the influences of age, gender, and duration of the knowledge of the brand on the willingness to buy a line extension are shown via the help of an OLS regression. Again, all p-values are above 5 percent. The willingness to buy a brand extension therefore is independent from the age. Also a longer exposure to the brand of L’Oréal Paris does not lead to a lower or higher willingness to buy a line extension. Hypotheses H3, H4 and H5 cannot be assumed for line extensions. Only respondents who are occasionally using the brand show a higher willingness to buy line extensions. Interestingly, this holds only true for respondents, where L’Oréal is the preferred brand, since the regression coefficient is higher, but a high standard error leads to non-significant results.

Column (2) of Table 4 shows the impact of the same variables on the willingness to buy category extensions. Again, none of the variables is significant. Hypothesis H3, H4 and H5 cannot be assumed for category extensions.
Table 4: Influence of age and gender on brand perception

<table>
<thead>
<tr>
<th></th>
<th>OLS-Regression: Dependent Variable(^{a(b)})</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) Willingness to buy Line Extensions of a Brand</td>
</tr>
<tr>
<td></td>
<td>(2) Willingness to buy Category Extensions of a Brand</td>
</tr>
<tr>
<td>(Constant)</td>
<td>a) 2.848** (0.648)</td>
</tr>
<tr>
<td></td>
<td>b) 3.426** (0.841)</td>
</tr>
<tr>
<td>L’Oréal is preferred brand (yes=1)</td>
<td>0.736 (0.365)</td>
</tr>
<tr>
<td></td>
<td>0.260  (0.499)</td>
</tr>
<tr>
<td>L’Oréal is an occasionally used brand (yes=1)</td>
<td>0.492* (0.192)</td>
</tr>
<tr>
<td></td>
<td>0.486 (0.249)</td>
</tr>
<tr>
<td>Knows the brand less than 11 years</td>
<td>b) 0.170 (.388)</td>
</tr>
<tr>
<td></td>
<td>-0.390 (0.503)</td>
</tr>
<tr>
<td>Knows the brand between 11 &amp; 20 years</td>
<td>b) 0.388 (3.35)</td>
</tr>
<tr>
<td></td>
<td>-0.368 (0.434)</td>
</tr>
<tr>
<td>Knows the brand between 21 &amp; 30 years</td>
<td>b) 0.294 (.330)</td>
</tr>
<tr>
<td></td>
<td>0.089 (0.427)</td>
</tr>
<tr>
<td>Age</td>
<td>a) -0.001 (0.012)</td>
</tr>
<tr>
<td></td>
<td>-0.017 (0.016)</td>
</tr>
<tr>
<td>Gender (male=1)</td>
<td>b) -0.387 (0.239)</td>
</tr>
<tr>
<td></td>
<td>-0.121 (0.309)</td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.102</td>
</tr>
<tr>
<td>(F)</td>
<td>1.938</td>
</tr>
<tr>
<td>(VIF)</td>
<td>&lt;4.73</td>
</tr>
<tr>
<td>Obs.</td>
<td>127</td>
</tr>
</tbody>
</table>

Notes: a) continuous variable; b) dummy variable; c) 5-point scale; d) Method: OLS-Regression;
** and * indicate significance at the 1% and 5% level.

5. DISCUSSION AND CONCLUSION

5.1. Discussion

The main objective of this research is to provide an insight into the differences and similarities between members of Generation X and Y concerning brand extensions. As a summary: all Hypotheses have been rejected. These results shall be further explained:

The results for H1 show that age does not have a statistically significant influence on the strength, favorability or uniqueness of the perceptions towards L’Oréal. It might be suggested that both generations are largely familiar with the brand L’Oréal and that Generation X with its longer exposure and experience with the brand sees it in the same way. It could not be confirmed that Generation X has a lower level of accepting brand extensions due to their longer exposure to the brand.
The results show that Generation X and Y perceive the brand L’Oréal as fairly similar. The whole sample perceives L’Oréal as a brand with “credible products at affordable prices” and “consistent products with high quality” rather than glamorous or luxurious, thus rather as non-premium. This shows that the two generations are more homogenous than expected.

H3 and H4 test whether Generation Y has a higher likelihood to accept brand extensions compared to Generation X and to buy them. Surprisingly, the results are not statistically significant. This shows that the likelihood to buy brand extensions is similar. It seems that both generations are open to brand extension strategies based on the example given in the questionnaire.

H5 shows that there is not a statistically significant difference between both generations regarding the acceptance of line versus category extensions. Although we had expected that members of Generation X are more conservative and cautious and that therefore Generation X would accept line extensions better compared to Generation Y, again, it can be seen that both generations are more homogenous and similarly curious to try out even more daring brand extensions. One potential explanation might be that since the brand L’Oréal is comparably highly rated by participants, both generations show the same trust in the parent brand – and therefore trust in the quality of the brand extension.

5.2. Conclusion

The results of the research show that the perception and acceptance of brand extensions of Generation X and Y are quite similar. Both generations perceive the parent brand L’Oréal as strong and favorable and have a similar high likelihood to buy brand extensions – both, line and category extensions. We believe that this is due to two effects:

- Generation X and Y are more homogenous than usually portrayed. With Generation X pursuing their careers, leading a hedonistic and affluent lifestyle, the differences to Generation Y might not be as large as expected.

- The brand equity of L’Oréal in the Dutch market is particularly strong for both generations. Hence, the trust in a high-quality, worth-trying brand extension is also high. L’Oréal has succeeded in building up a strong and consistent brand over the years with a homogenous brand image for decades.
As a result, it can be concluded that the brand L’Oréal has potential to extend in the Dutch market – both with line and category extension. This can give the company an additional market growth in the affluent age group of consumers between 18 and 50 years old with a homogenized product for both generations.

6. LIMITATIONS AND FURTHER RESEARCH

Despite the fact that the overall research methodology has been carefully chosen, this research has several limitations that should be pointed out.

The first limitation concerns the brand L’Oréal itself, it seems that it is so familiar, well-known, and accepted over different generations that this might cause the similarity in behavior between the two age groups. Generation-specific brands (e.g. the brand SAAB for Generation X) probably induce different acceptance rates for brand extensions between the different age groups. Secondly, this research is based on fictitious brand extensions. Therefore the results cannot be generalized to other product categories. It is advised to pre-test and research other product categories in the future. This way, a more substantial and valid research outcome is achieved. Also, the fictitious extended products have not been named according to L’Oréal but simply based on their functionality, which could influence the way in which consumers think about the products.

Thirdly, despite that the sampling method and size is statistically sufficient, the sample is not representative. Especially, in order to make meaningful comparisons between two groups within the sample, the sample size for each age group gets smaller which decreases the significance of statistical tests. Further, the sample is mainly focused on Belgium and The Netherlands therefore the outcomes are not necessarily applicable to all other countries. Moreover, it is assumed that the sample is overrepresented by higher-income and education respondents than the average population. This implies that the outcomes are not necessarily applicable to the entire population and thus the findings cannot be generalized. By all means, a better random sampling approach and larger sample would increase the reliability and representativeness of the results.

To conclude, the questionnaire could be misinterpreted by the Belgian and Dutch respondents due to the language in English. Although the possibility of variability of the responses is reduced by using closed questions, there is always room for misunderstanding. Furthermore, interviews with branding
experts would be more in-depth therefore for future research it is suggested to integrate qualitative research in the methodology.

References


(Note: click on “Kapferer’s model on brand types and extension possibilities – Download pdf for this model”)

(Note: click on “Success and failure factors for brand extensions according to Blom – Download pdf for this model”)


### Appendix (Questionnaire)

1. How well do you know the brand L’Oréal?

   - Not at all
   - Not well
   - Neutral
   - Well
   - Very well

2. Are you currently a customer of L’Oréal?

   - Yes, it is my preferred brand
   - Yes, I buy it occasionally
   - No, I never buy any L’Oréal products

3. When you think of the brand L’Oréal, how would you rank the following statements?

   **Completely disagree** | **Disagree** | **Neutral** | **Agree** | **Completely agree** | **I do not know**

   - Credible products at affordable prices
   - Consistent products with high quality
   - Empowering all kinds of women, i.e., “Every woman is worth it”
   - Glamorous
   - Innovative global beauty and personal care leader
   - Look and feel like celebrities such as Gisele Bündchen and Claudia Schiffer
   - Luxurious, sophisticated French heritage (i.e., Parisian beauty)

4. How long have you known the brand L’Oréal?

   ![Calendar Icon]

5. To what extent do you like the brand L’Oréal?

   - Not at all
   - Not so much
   - Neutral
   - Somewhat
   - Very much

6. When you think of L’Oréal, to what extent do you find this brand unique compared to other leading cosmetics brands?

   - Not at all unique
   - Not so unique
   - Neutral
   - Unique
   - Very unique
7. Exciting news: L’Oréal is going to extend its brand and add a new product to their existing ‘cosmetics’ assortment: 100% natural and organic skincare. To what extent would you consider buying this ‘extended’ product?

<table>
<thead>
<tr>
<th>Completely disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Completely agree</th>
</tr>
</thead>
</table>

8. There is more news: L’Oréal is going to extend its brand even further by launching a new product in a completely new product category: the L’Oréal tooth whitening pen for a great smile. To what extent would you consider buying this ‘extended’ product?

<table>
<thead>
<tr>
<th>Completely disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Completely agree</th>
</tr>
</thead>
</table>

9. Why would you buy these extended products of L’Oréal, e.g. 100% natural and organic skin care and the tooth whitening pen? Please rank the following statements:

<table>
<thead>
<tr>
<th>Completely disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Completely agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am curious to try out these products.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am interested in natural skin care products.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am interested in whitening dental care products.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L’Oréal is my favourite brand so I want to try out all of their new products.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The fit between the extended products and existing assortment of L’Oréal.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The positive reputation of the parent brand L’Oréal.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 10. How old are you?

* 11. Are you male or female?

   - Male
   - Female

12. How important is outer appearance (i.e. a beautiful skin) to you?

<table>
<thead>
<tr>
<th>Not at all important</th>
<th>Not important</th>
<th>Neutral</th>
<th>Important</th>
<th>Very important</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
13. What is your preferred cosmetic brand in terms of skin care when it comes to face cream?
- Clinique
- Estée Lauder
- Garnier
- Household brands such as Elbe, Heine, Krasthol etc.
- Kiehl's
- Lancaster
- Lancôme
- La Prairie
- L’Oréal Paris
- Nars
- Olay
- Vichy
- Other (please specify)

14. What are important factors when you decide to buy cosmetics (i.e., skin care)? Please rank the following statements:

<table>
<thead>
<tr>
<th></th>
<th>Completely disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Completely agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Advice from in-store consultants</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Brand image</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Brand reputation</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Credibility</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Packaging</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Price</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Quality</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Recommendations from friends and family</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Special offer (i.e., promotions)</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Value for money</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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</tr>
</tbody>
</table>
THE IMPACT OF MANAGEMENT ON THE DEVELOPMENT OF THE CONCEPT OF PLANNING AND MANAGEMENT OF REPAIR PROCESS

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Abstract

Process management is especially complex in organizational systems which belong to the production systems. Given that represent the complex structure of technical systems and biological systems exposed to heavy influence of external action (the market, stock market, the currency changes, demographic explosion, natural calamities, etc.). In their behavior, there are elements of the stochastic, which can only predict with a certain probability behavior.

Using data from the existing technical documentation, available literature and secondary data (primary characters) in the paper, the typing of technological procedures in the case of repair. Based on typical technological processes, us-

Acknowledgement: The paper was written within the bilateral research project entitled “Knowledge management in the function of development strategy” co-financed pursuant to the Protocol on Scientific and Technological Cooperation between the Republic of Croatia and the Republic of Montenegro for the years 2015/2016.
ing a software system MIMS, authors made the planning, management and analysis of the repair. Authors also performed statistical analysis by appropriate statistical methods.

Keywords: management, production, repair, process

JEL Classification: J5, L1

1. INTRODUCTION

In the beginning of the development of industrial civilization maintenance activity was not based on economic or technical principles. Production was at the level of that time, and all other supporting activities were totally abandoned and even maintenance was just chaotic.

The development of production processes speeded up the creation of numerous problems in the field of production which were difficult to solve. Among different activities that accompanied production maintenance gradually became more and more important. There is no doubt that it raises interest because it refers to machinery and equipment in all sectors of manufacturing, in all cycles, and on technical, economical and technological levels. As a result, necessity for occasional interventions (additional and preventive), which performance is organized by the use of modern methods of work in order to bring the biggest benefit, arise.

In the beginning of the industrial development (about 150 years ago) the maintenance function did not exist neither in terms of preventive maintenance nor in the sense of organized actions. All interventions were urgent, meaning that they were performed when the damage appeared. Repair was carried out in most cases by the operator of the machine or device that was being repaired.

Over time mechanical workshops were developed in which intervention were undertaken at the invitation of workers from the production department. Maintenance work (better to say fixes) took place at current inspirations without systematic approach and development. Even today there is a heritage of this process, especially in small and medium-sized sections and workshops in which maintenance is a universal service. Moving from technical to economic way of doing business, one took care of every working hour of device usage and employees. The analysis of cost

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MIMS (Management Information Maintenance Systeem) developed under the project of Faculty of Mechanical Engineering Slavonski Brod and program implementation company Informatički inženjering - ININ
viewpoints did the first steps on an industrial scale starting from manufacturing process and later (or in the course of this process) moving to maintenance.

Modern technical systems are composed of a large number of parts, sub-sets and sets. Each of these systems has a specific purpose, and that is, in general, to perform the intended function in set limits of quality. In order to work, parts of technical systems must be in mutual functional relationship whether static or dynamic. Because of these connections they interact with each other, their loads, spendings (especially in the dynamic link) and damages. Such violation of the state of parts and their interconnections leads to a decline in the performance of quality of the system as a whole. If the level and quality falls below a specified lower limit, the technical system gets into defective condition.

This is graphically shown in figure 1.

![Figure 1. Gradual (a) and current (b) formation of defects](image)

Figure 1. shows that a malfunction can occur gradually until the moment \( t_a \) and currently at the time \( t_b \). Except of the interaction of connected parts, two important factors act on the system: the human and the environment. The operation method, mode of application, temperature, humidity, corrosion and soil conditions have a reflection on the state of the technical system. All of these imposes the need to take specific measures in order to achieve its permanent validity. A series of systematic activities carried out in this order represent the maintenance of technical systems.

Maintenance of technical systems present a business function which main task is to maintain machinery, equipment, appliances, plants, buildings, roads and other means of work, intended for the realization of all business tasks of the production system, in good working order. The process of maintaining the sys-
tem in good working order should act in first place to prevent the appearance of faults, but if failures occur however, then they must be eliminated in high quality and in the shortest time limit. Thus, the meaning of maintenance functions is reflected in the possibility of reducing system malfunctions to a minimum. If at the same time utilized capacity of the system is achieved, just about or in the way it was prior to the occurrence of failure, the maintenance function fully performs its role in the business process of the production system.

Maintenance is an essential business function in production systems, especially in cases that have mass, high series and process manufacturing. In these production systems maintenance is of equal importance as production. When a fault occurs, production stops and its results depend on the success and speed of fault elimination. The most important maintenance goal is to ensure maximum possible availability of operating system with minimal maintenance costs.

2. PLANNING AND MONITORING OF REPAIR

Planning is a process which means to find rational solutions, procedures and programs in the achievement of a set of goals in situations or business. Today, there are no organized social groups whose work is not based on workplans. Humans as individuals, where considered to be relatively independent, plan their work, actions and lives. Planning is an aware action of people in the development process, opposed to an uncontrolled development. By planning we define objectives and resources and convert them to planned tasks of certain persons or organized units. Planning is not a need that arises only at times, but it is an ongoing process of an organized whole, its parts and individuals. Today, it is not possible to provide a common work that is not planned. Planning is created as a result of experience and knowledge that is the best way to work anytime and anywhere. Today, all activities are connected and one can not imagine life without planning what and how to work. Planning becomes not only need but obligation, too. The obligation of planning arose as a result of necessity within an organization. As a result, institutional planning is one of the demands of organized work.

The characteristics of a plan are quantification of the process task, procedures and other elements which are set. It sets a numeric expression of results which have to be achieved. It also defines checkpoints that numerically express the size of the result which has to be achieved in a given time. The application of scientific methods in planning is the foundation for a successful planning.
The periodization of the plan is the connection of actions with time and space. This means there is an obligation of participants to carry out certain activities which are expressed in certain sizes, in time and space. The plan must be followed, meaning that it commits participants to observe strictly all planned tasks (Kokanović, M. et al., 1988.). Planning of repairs, as the highest level of maintenance, is a complex process that consists of following phases: preparation of repairs, its performance and analyses.

The repair plan is the basis for its managing and it contains:
- cycles of repair plans according to the equipment,
- activities on performing repairs,
- operations,
- necessary materials and spare parts,
- equipment for replacement and reconstruction,
- necessary employers,
- necessary tools and
- necessary advices and production capacity.

Figure 2. shows the organization of preparation, conduction and analyses of finished repairs adjusted to the repair of a complex technical system. (Majdandžić, N., 1999.)
3. OPTIMIZATION OF REPAIR DURATION IN RELATION TO COSTS (PERT-COST METHOD)

While producing a product (service) certain costs appear as the result of used materials and other factors of the manufacturing process such as: workforce, tool, energy, fixed assets, etc. (Selaković, M., 1987.) Each activity that has to be executed to achieve revenue takes certain costs. Costs are therefore a regular occurrence in operations of any business system. It is incorrect to give negative connotations to business costs because they are not inherently negative phenomena (Selaković, M., 1994.). Costs are the center of economy, and
in literature economies take central places. This is because the term economy is closely tied to the success of the company that is dependent on costs (Holjevac, Ž., 1993.). It can be concluded that all economic decisions are based on costs and special attention should be given to cost management. This means, that it is not possible to lead the company and avoid cost (Čovo, P., et. al. 1999.). In case of maintenance of fixed assets versus costs benefit appears in shape of longer lifetime use, as well as the reduced scope of losses due to the lack of production caused by dismissals. Therefore, the investment volume in maintenance should be correlated with efficiency that derives from longer and safer use of technical systems. It is important that the maintenance system enables maximum reliability to the technical system and to minimize maintenance costs. If we want to get as many products as possible from production, maintenance costs could significantly contribute to the reduction of the gain. Figure 3.

Figure 3. Ratio between maintenance costs and stagnation costs

Experience shows that one can not exactly talk about the optimum point of maintenance costs and stagnation. The base minimum shows that it is the interval between points x1 and x2. Normally, it is expected that the system will have low maintenance costs at the beginning and most of its time and that only at the end costs will increase considerably. Such an increase of maintenance costs should actually be expected if only those defects appear which the producer calculated during design and calculation. The diagram Figure 4. shows the ratio between direct and indirect costs due to the length of the project (repair).
Figure 4. Diagram costs-duration length of the project

If the system is well designed, then each part is dimensioned to be canceled only after it exceeds the life of the entire system. If systems would behave the same way in practice (as expected from the constructor) then they should not cause any sensitive maintenance costs during their lifetime, except low-cost preventive maintenance and replacement of cheaper parts. However, most of the technical systems do not behave that way. Parts of the components regularly switch to a halt in the form of weak spots. Others are not expended even after many years of use. We should also have in mind the so called accidental damages which, unlike damages coming by time, may at any time, with equal probability, occur and cause maintenance costs (Čovo, P. et. al., 1999.).
4. CONCLUSION

The maintenance process presents a series of progressive changes of the conditions of technical systems at the time, caused by performing maintenance activities which ensure the conversion of input to output values in accordance with the set goals.

The maintenance process is accompanied by various kinds of disorders which, to a large extent, affect the stability of the maintenance parameter process, and often perform the controlled system outside the limits of tolerance.

A high degree of complexity of technical systems, and thus the maintenance system, with a large number of feedback loops and other effects, cause within the development process management application of certain principles which arise in the research and application process, ensuring quality in work performance and implementation of management procedures.

Managing repairs of complex technical systems based on typical operations have a great contribution especially if the repair is performed on a large number of similar or same systems and if the repair is carried out serially.

In lifetime of one STS over 75% of value of the newly produced systems is spent. This imposes the question of the optimization of repairs. The optimization can be done in different ways and with different methods, but there is only one goal - to get a proper system in the shortest possible time, with the lowest cost of repair and with satisfactory quality.

Planning repairs, as the highest level of maintenance, is a complex process which consists of the following phases: preparation of the repair, its performance and analysis. This paper also shows the organisation of preparation, implementation and analysis of the done repair which is adjusted to the complex technical system.

This paper shows one optimization example done by the PERT / COST method. An algorithm optimization of the repair duration in relation to the costs was done, and the repair plan developed in a line diagram was used. Defining rules for determining routes and selection of the critical path at line diagrams and algorithm optimization the PERT / COST method (technique developed for network planning) was extended to line diagrams, too, which are increasingly used due to visually favorable views.
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Abstract

In today’s environment with strong competitive pressure, organizations have to nurture their relationships with customers. Employees play an important role in the maintenance and development of these relationships. Consequently, it could be significant for organizations to engage in marketing activities within the internal market (i.e. among employees) in order to achieve important outcomes. The purpose of this paper is to explore the impact of internal marketing on the customer relationship development. A research was conducted among service firms in order to identify the above relationships. The research showed that internal marketing significantly affects the customer relationship development. The results may provide managers with guidelines for their strategy development by highlighting the importance of well-applied internal marketing for the maintenance of long-term relations with customers.
Keywords: Customer relationship development, internal marketing

JEL Classification: M3, M31

1. INTRODUCTION

The customer relationship development (CRD) can be defined as the process of developing context and content within customer relationships on a collaborative basis, resulting in fast, reliable and foreseeable benefits to company and customer (Blomqvist, Dahl, Haeger, 2002, p. 9).

According to Blomqvist, Dahl, Haeger (2002), if applied, the CRD approach induces three significant consequences such as excellent customer experience, customer retention and a route to realizing lifetime value potential. Moreover, it can be linked to greater sales productivity (Goebel, Deeter-Schmelz, Kennedy, 2013).

These outcomes significantly gain in importance in today’s environment with great competitive pressure and high customer acquisition costs (Blomqvist, Dahl, Haeger, 2002).

In the process of customer relationship development, the employee component (i.e. people) plays a crucial role. Namely, already Gronroos (1990) highlighted the role of the organization’s employees in enhancing its relations with customers. He pointed out the importance of planning and carrying out specific activities (e.g. marketing activities) aimed at employees in order to positively influence customer relationships.

The above mentioned employees’ role and importance in the customer relationship development was recognized more than 40 years ago, when the internal marketing concept emerged and the term internal marketing (IM) was coined.

Moreover, it was suggested (Gronroos, 1994, p. 13) that the internal market of employees is best motivated for service-mindedness and customer-oriented performance by an active, marketing like approach, where a variety of activities are used internally in an active, marketing like and coordinated way.

Namely, organizations could take full advantage of the interactions with their customers, if the employees, who play a vital role in the process, were customer conscious and aware of the importance of such interactions, as well as skilled, motivated and willing to develop and maintain these relations. IM has the potential to influence all these aspects.
The main aim of this study is to explore the link between the application of the IM concept and the development of relationships with customers.

In today’s business context, it is of extreme importance for the organizations to develop relationships with their own customers. The findings of the research might prompt the managers to conduct marketing activities within the internal market with the goal of being successful in the external market by retaining and developing customer relationships.

The identified relationships between internal marketing and customer relationship development will be added to the body of knowledge in internal marketing and they might enhance better implementation of the IM concept in practice. According to Wieseke, Ahearne, Lam, DickJan (2009), there is little extant research on internal marketing, whilst other authors (Kaur, Sharma, 2015) highlighted the consistent growth of the internal marketing literature. Despite the different points of view, given the limited application of the concept in practice, further studies in the field of internal marketing are highly required.

The study becomes yet more appreciated, when the power of the contemporary service sector industries and the importance of their relationship development are taken into account.

The paper consists of seven chapters. After the introduction, the second chapter presents the theoretical framework through the literature review and the hypothesis development. The third chapter outlines the methodology, i.e. the sample and data collection and the measurement scales. The fourth chapter presents the research results, the measurement model evaluations and the structural model analysis. The fifth chapter focuses on the discussion and the managerial implications. In the sixth chapter, the limitations and the direction for future researches are highlighted. The conclusion section presents the most important implications.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Some authors (Gronroos, 1990, p. 5) pointed out that marketing revolves around relationships where the parties (i.e. employees and customers) are involved through repeated interactions in establishing and developing those relationships. Furthermore, customer relationship development represents the art of developing
and maintaining relationships with customers (Goebel, Deeter-Schmelz, Kennedy, 2013).

Berry (1995) highlighted that there are tight linkages between relationship marketing and internal marketing and, accordingly, he pointed out the need of applying marketing to the internal market (i.e. among employees).

The internal marketing concept emerged from services marketing (Berry, 1995) as a tool for improving the service quality and the quality of the interaction between the customer and the employee. Moreover, IM is considered the missing half of marketing, whilst the customer orientation is considered the core part of the same marketing concept (Saad, Hassan Shya, 2015). As previously mentioned, IM activities could have the potential to influence many key aspects on the employee level for maintaining and developing relationships with customers. According to Rafiq and Ahmed (2002, p. 11), IM is a planned effort using a marketing approach directed to motivating employees, for implementing and integrating organization strategies towards customer orientation.

It was suggested (Wu, Tsai, Fu, 2013) that IM and customer orientation significantly affect relationship marketing. The Rafiq and Ahmed’s (2002) model of IM for service organizations shows the relationships among different components, but the authors highlighted that further research is required to confirm such links. Namely, there are several somewhat different findings in explaining the relationships among motivation, job satisfaction and customer orientation as a broader concept of CRD. This study might be a small piece in the jigsaw of identification of these relations. To the best of the authors’ knowledge, the relationship between internal marketing and the specific construct of customer relationship development as presented in this paper has not been sufficiently studied so far.

Accordingly, and with the aim of advancing the field’s knowledge of the topic, we state as follows:

**Hypothesis 1:** IM positively influences customer relationship development

### 3. METHODOLOGY

#### 3.1. Sample and Data Collection

The sample of the research was selected from the respondent population comprising employees of utility (municipal) companies in the Region of Istria. There
are 9 companies providing utility services in the Region of Istria and they employ 1225 people in total. The utility (municipal) companies were delivered questionnaires in written form. The companies were asked to distribute them to all employees and then send the completed questionnaires back to the researchers. At the beginning of the questionnaire, the objective of the research was indicated, as well as the instructions to fill in the questionnaire. The research was conducted in May 2015. A total of 136 questionnaires was collected, out of which 4 were incompletely filled-in, so that 132 questionnaires were included in the analysis i.e. 10,8% of the total number of employees of utility (municipal) companies in the Region of Istria. The structure of the sample is shown in Table 1.

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>18-25</th>
<th>1,5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>26-36</td>
<td>19,7</td>
</tr>
<tr>
<td></td>
<td>36-45</td>
<td>40,9</td>
</tr>
<tr>
<td></td>
<td>46-55</td>
<td>28,8</td>
</tr>
<tr>
<td></td>
<td>&gt;55</td>
<td>9,1</td>
</tr>
<tr>
<td>Gender</td>
<td>F</td>
<td>45,5</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>54,5</td>
</tr>
<tr>
<td>Education</td>
<td>High School</td>
<td>39,4</td>
</tr>
<tr>
<td></td>
<td>University degree</td>
<td>57,6</td>
</tr>
<tr>
<td></td>
<td>Master, PhD</td>
<td>3</td>
</tr>
<tr>
<td>Length of Employment in the Company (Years)</td>
<td>1-5</td>
<td>25,8</td>
</tr>
<tr>
<td></td>
<td>6-10</td>
<td>28,8</td>
</tr>
<tr>
<td></td>
<td>11-15</td>
<td>18,2</td>
</tr>
<tr>
<td></td>
<td>&gt;15</td>
<td>30,2</td>
</tr>
</tbody>
</table>

Source: Authors’ calculation

Table 1: [Sample structure]

The sample structure comprises different respondent segments based on selected socio-demographic characteristics, thus providing a greater possibility of generalizing the results and improving conclusion validity with regard to the subject-matter of the research.

3.2. Measurement Scales

The scale developed by Money and Foreman (1995) was used for measuring the internal marketing concept. The scale developed by Goebel, Deeter-Schmelz and Kennedy (2013) was used to identify the level of the customer
relationship development. Questions about the age, gender, educational qualification, job position, and years of employment in the company were included in the questionnaire.

All of the scales used were Likert-type scales with 7 levels of intensity (1 - strongly disagree, 7 - strongly agree).

4. RESEARCH RESULTS

The hypothesis H1 was tested by means of the Partial Least Square (PLS) method of structural equation modeling (SEM). The PLS method was used instead of the covariance-based SEM (CB-SEM) analysis, because it allows for an analysis of relations between several latent variables simultaneously i.e. an analysis of complex models with many manifest variables and theoretical constructs. Besides that, PLS SEM does not have difficulties in identifying individual theoretical constructs in smaller samples (<250) and does not have any special requirements with regard to the distribution of manifest variables, because it is a non-parameter method (Hair et al., 2010).

The software SmartPLS 3 (Ringle, Wende and Becker, 2015) was used for the data analysis.

In order to establish the psychometric adequacy of the scales and test the hypothesis posited, the authors first checked the measurement models and then the structural model of relationships between individual theoretical constructs.

Before the analysis, all manifest variables were checked as to the presence of outliers. No outliers i.e. values above +/- 3 of the standard deviation of the arithmetic mean of individual variables were identified and all the data collected were used in the analysis. This procedure assures that the measurement scales are valid and reliable before testing the hypotheses.

4.1. Measurement Model Evaluation

A total of 5 latent variables with reflective measurement models (Mode A measurement) were included in the analyzed model. The reflective measurement models for individual constructs were used because reflective indicators can be considered a representative sample of all possible indicators of the conceptual domain of individual constructs (Hair et al., 2013). In addition, changes
of the indicators are caused by individual theoretical constructs (Diammatopoulos and Winklohofer, 2001) and they can be considered mutually replaceable without jeopardizing the content validity of individual constructs. Lastly, the assumption that some indicators do not have an associated error term (Diammatopoulos, 2011) cannot be accepted. One theoretical construct was conceived as a higher component model (HCM), namely reflective-reflective type HCM (Hair, et al., 2013). The HCM referred to the construct Internal Marketing (second order construct) and it included the subdimensions Vision, Development and Rewarding (first order constructs). To establish the HOC construct, the authors used the repeated indicator approach, i.e. all indicators of lower order constructs were allocated to HOCs (Wetzels, Odekerken-Schröder and Van Oppen, 2009).

Internal consistency reliability, convergent and discriminant validity of the reflective measurement models of individual theoretical constructs were assessed. For the assessment of internal consistency reliability and convergent validity, outer loadings, the Composite Reliability indicator (C.R.), the Cronbach’s alpha coefficient and the Average Variance Extracted indicator (AVE) were computed.

Based on the results of the analysis of the measurement model, it can be concluded that all 5 reflectively measured constructs had a satisfactory level of internal consistency reliability and convergent validity. Outer loadings of all variables of the indicators of individual constructs are statistically significant at the level of 5% and above 0,7. The statistical significance of outer loadings was established by bootstrapping procedure on the basis of 5000 subsamples. Finally, the C.R. and AVE indicators for all constructs were above 0,7 i.e. 0,5, indicating a satisfactory level of convergent validity of the measurement scales.

Discriminant validity was established based on the Fornell-Larcker criterion. It should be emphasized that the discriminant validity criterion had to be met only by HOC constructs and the construct Customer Relationship Development (according to Hair et al., 2013).

The total amount of the square roots of the AVE indicators for the HOC construct and the construct Customer Relationship Development was higher than the correlations of these constructs with the other constructs in the model, thus meeting the Fornell-Larcker criterion (Fornell and Larcker, 1981).
4.2. **Structural Model Analysis**

After verifying the internal consistency reliability and the convergent and discriminant validity, the structural model was analyzed and the posited hypothesis was tested. The statistical significance of individual parameters of the structural model was established by bootstrapping procedure on the basis of 5000 subsamples (“no sign changes” option included). The results of the analysis of the structural model are shown in Table 2.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Original sample – standardized coefficient (β)</th>
<th>t – values</th>
<th>95% Confidence Intervals**</th>
<th>R²</th>
<th>f² – effect size</th>
<th>Q²</th>
<th>Accepted hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>IM -&gt; Vis</td>
<td>0,885*</td>
<td>47,67</td>
<td>[0,849 – 0,920]</td>
<td>0,76</td>
<td>3,62</td>
<td>0,73</td>
<td></td>
</tr>
<tr>
<td>IM -&gt; Dev</td>
<td>0,955*</td>
<td>104,71</td>
<td>[0,937 - 0,971]</td>
<td>0,91</td>
<td>10,29</td>
<td>0,68</td>
<td></td>
</tr>
<tr>
<td>IM -&gt; Nag</td>
<td>0,907*</td>
<td>56,79</td>
<td>[0,875 - 0,938]</td>
<td>0,82</td>
<td>4,62</td>
<td>0,68</td>
<td></td>
</tr>
<tr>
<td>H1 IM -&gt; CUSDEV</td>
<td>0,300*</td>
<td>24,84</td>
<td>[0,136 – 0,454]</td>
<td>0,09</td>
<td>0,1</td>
<td>0,08</td>
<td>accepted</td>
</tr>
</tbody>
</table>

**p<0,05, ** bias corrected

*Source: Authors’ calculations, p<0.05.*

**Table 2:** [Analysis of the structural model]

Based on the results of the analysis of the structural model, the hypothesis H1 was accepted. Based on the value of the coefficient of determination R², the HOC construct Internal Marketing explains to a great extent the variance in the pertaining lower order constructs. The values of the R² indicator for individual LOC constructs range between 0,76 and 0,91. Likewise, all relations between HOC and the pertaining LOC constructs are statistically significant at the level of 5%.

The research established that IM has no direct statistically significant impact on the construct Customer Relationship Development (H1: β=0,300; [-0,136 - 0,454], (p>0,05). According to Cohen (1988), the effect size of IM on CUSDEV is medium (f²=0,1).

Predictive relevance of the structural model was established with the Blind-folding procedure by using the cross-validate redundancy approach, and the Stone-Geisser’s Q² value was calculated (Geisser, 1974; Stone, 1974). For all endogenous constructs (Internal marketing and Customer Relationship Development), Q² values were above 0, indicating a satisfactory level of the predictive relevance model.
For the purpose of assessment of the quality of the structural model, the standardized root mean square residual (SRMR) value was calculated. It allows assessing the average magnitude of the discrepancies between observed and expected correlations as an absolute measure of (model) fit criterion, which for the Composite model amounted to 0.085 and was below the recommended value of 0.1 (Hu and Bentler, 1998; Hensler and Sarstedt, 2013). This indicates a satisfactory level of the adjustment of the structural model to the empirical data. The study results are thoroughly analyzed in the discussion and recommendations for future researches.

5. DISCUSSION AND IMPLICATIONS

The present study shows that IM significantly influences the customer relationship development. As mentioned earlier, organizations achieve their main goals by developing the relationships with their customers. This is especially true in today’s environment and conditions where the customer is demanding, not loyal and prone to change the supplier if not sufficiently satisfied. In the relationship development, employees (especially the first line employees) have a great responsibility and play a key role. Furthermore, they have to be capable, willing and skilled in the development of relationships. Internal marketing activities are directed to employees with the aim of motivating them, influencing their job satisfaction, empowering them, training them well, and influencing their attitude and behavior.

The study findings may prompt organizations to plan and implement internal marketing activities. Top managers might allow and manage these activities among employees in order to enhance the relationships with customers that could positively affect the organization’s success. The framework seems to work like a closed circle linking internal and external market, accompanied by positive effects for the organization.

6. LIMITATIONS AND FUTURE RESEARCHES

There are several limitations of the research. One of them is the fact that the research was conducted among utility firms (public sector or services of public interest). Namely, as generally known, the public sector has its own specific goals, which are different from profit organizations’ goals. Future researches
should be conducted in the profit sector and in a wider geographical area. It would be advisable to research other drivers of successful customer relationship development such as manager support, organizational culture and motivation. In addition, an analysis of the possible moderator variables should be done, such as the person’s position in the organization, the organization’s orientation (profit vs. nonprofit), years of experience, education, type of utility service, etc.

7. CONCLUSION

The findings contribute to highlight the influence of internal marketing activities on an essential aspect of the firm’s success. The study confirms the positive relations between a well applied internal marketing and customer relationship development.

Although internal marketing has been known as the missing half of marketing, the IM concept has been neglected and insufficiently applied for decades. This study will be added to the body of knowledge by pointing out an important outcome of the application of internal marketing.

Contemporary organizations must strive to develop their relationships with customers. In their interaction with customers, employees have to be customer conscious and ready to deliver good relationships. This internal market may represent a vital part in the organization’s attempts to achieve its goals, such as deliver excellent customer experience, customer retention, and realizing lifetime value potential. To achieve these goals, organizations must apply the internal marketing concept.

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Economic Development, Technological Change and Growth
AN EXPLORATION OF INTERNET USAGE AMONG STUDENTS: THE CASE OF JOSIP JURAJ STROSSMAYER UNIVERSITY OF OSIJEK, CROATIA

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Abstract
The purpose of this paper is to explore the preferences and habits of Internet usage among the students of Josip Juraj Strossmayer University of Osijek and to determine the major student body differences between the faculties and departments alike. The focus of this paper is set on communication capabilities of Internet as a digital medium while taking into account the characteristics and behavioral components of the student population. The primary research was conducted on the students of Josip Juraj Strossmayer University of Osijek, as an institution with a significant number of academic programs and students. The data was collected from 1733 university students dispersed among the university faculties and departments, thus creating a university level representative sample or respondents. The conducted research provided several interesting implications on student behavior regarding the general Internet information collection and consumption. The assumption that the Internet is the key information element for the university student population was confirmed. Furthermore, the paper suggests several important guidelines for further research. The self-reporting measurement is a clear limitation of the collected data and has
an impact on the given conclusions. Therefore, future research activities should consider more objective measurement of Internet usage.

Key words: Internet usage, students, digital communication, Croatia, information consumption

JEL Classification: M3, L86

1. INTRODUCTION

The Internet revolution clearly made a significant impact on social and associated behavioral changes on a global scale. The digital revolution is just the beginning of the long-term process as technology continues to evolve at an exponential rate (Laudon & Traver, 2015:46-48). Internet has evolved into an omnipresent virtual world with developed communication possibilities and potential: interactive web-sites, mobile apps, social networks, blogs and e-newsletters make up only several most important common communication tools.

New technologies and communication usage shape new trends globally. Even though it might seem unreasonable to think about these trends in the long-term perspective due to its disruptive nature and certain level of unpredictability, several significant trends such as content marketing, mobile availability and big data can be observed.

Content marketing is a strategic marketing approach focused on creation and distribution of consistent and highly relevant content across multiple communication channels in order to attract and retain the attention of a clearly defined target audience resulting in profitable customer action (Content Marketing Institute, 2015; Holliman, & Rowley, 2014). Content is the main reason users heavily rely on the Internet when searching for various types of information. This trend is additionally fueled by a general mobile availability of users and significant growth of smartphone and tablet usage worldwide. As users adopt mobile technology to the point of it almost being the dominant Internet usage device, mobile readiness of web space is no longer a desirable quality but a necessary precondition. In addition, different business sectors are clearly embracing the mobile (r)evolution: starting from m-banking apps and mobile transactions, mobile booking apps and services or government related mobile services (Poselovni.hr, 2014; Persaud & Azhar, 2012).
Both practitioners and academics are using a colloquial term big data to describe a symptomatic timely trend. Big data usually stands for specifically designed methods and techniques for processing large quantities of both structured and unstructured data. The amount and complexity of data had grown tremendously in time, especially having in mind the growing quantity of Internet data being generated every day. Every user interaction and behavior (within the digital environment) can be monitored, measured and analyzed in order to create the best possible user experience. Obviously, there are several privacy issues linked to big data phenomenon, but the capabilities of user experience understanding are exceptional (Mayer-Schönberger, & Cukier, 2013; George et al., 2014).

2. INTERNET USAGE

Not more than 30 years ago, information and communication technologies had an auxiliary role in facilitating business activities. The development and expansion of ICT enabled the creation of digital markets and businesses relying solely on digital technologies and Internet. From the begging of 21st century, digital technologies hold a central communication position on various levels: personal, social, economic, legal, political, business and others. It is even quite difficult to imagine communication and global connectivity without digital technologies. One could argue that ICT has the similar impact and development role like railroad, highways or even electricity (Ružić et al. 2014:21). Even though it is abundantly clear that the human race existed without Internet for a long period, it is hard for modern first world generations to imagine a world without Internet.

One of the most common indicators for describing the Internet’s global popularity is the number of Internet users. According to Miniwatts Marketing group (2015) there was 3,37 billion (or 46,4%) Internet users worldwide as of November 2015 with obvious differences among the continents and regions. Namely, 88% of North America population were Internet users, Europe at 74% and Australia/Oceania at 73%. Furthermore, 79% of European Union citizens were Internet users while the percentage was slightly less in Croatia – at 75%. The differences are not only apparent on a country level, but also among various demographics, including students.

The Internet is a highly valuable component of today’s educational system. The academia increasingly depends on the Internet for educational purposes.
A majority of academic and research institutions provide Internet service to students, teachers, and researchers (Safdar et al., 2010). American university students are one of the most computer-savvy and Internet oriented users due to their level of education, availability of computers and typically free access to the Internet through colleges and universities (Aiken et al., 2003:185). Perry et al. (1998) found that regular Internet use by USA university students is evident in all age groups with consistent usage across groups. Another study showed that the Internet usage among developing country students varies significantly with age, gender and educational level while the various tools they use vary significantly with age, gender, faculty type and educational level (Williams Nwagwu et al., 2009:722-725). However, students tend to use the Internet extensively, even in the developing countries (Ani, 2010:561-564; Safdar et al. 2010). Furthermore, a study revealed that students prefer electronic media to printed media in seeking information (Islam, 2013).

Besides the technological preconditions of Internet connectivity, education is the key to fostering significant Internet use. Internet infusion into an educational system seems critical for increasing its use in the economy as a whole (Fusilier & Durlabhji, 2005:233). Therefore, examining student Internet use on the university level might serve as a guideline for understanding actual and future potential and impact on national economy.

3. METHODOLOGY AND RESEARCH

The purpose of this paper is to explore the preferences and habits of Internet usage among the students of Josip Juraj Strossmayer University of Osijek. Main research goals are as follows:

- Determine how often students use Internet
- Determine which devices students use to access Internet
- Examine how and where students seek university related information
- Test the potential differences between university faculties and departments based on their scientific field affiliation.

Based on the information from the Rector’s office, there were 17337 students at the University during the academic year of 2013/2014. For the purposes on the research, 10% of the student population were involved and tested, thus creating a sample of 1733 participants. The used quota sample was based on the student share of each faculty or department at university level (Figure 1).
Figure 1. Sample overview

<table>
<thead>
<tr>
<th>FACULTY OR DEPARTMENT</th>
<th>STUDENTS</th>
<th>SHARE</th>
<th>SAMPLE SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty of Economics</td>
<td>3362</td>
<td>19.4%</td>
<td>336</td>
</tr>
<tr>
<td>Faculty of Electrical Engineering</td>
<td>2002</td>
<td>11.5%</td>
<td>200</td>
</tr>
<tr>
<td>Faculty of Philosophy</td>
<td>1304</td>
<td>7.5%</td>
<td>130</td>
</tr>
<tr>
<td>Faculty of Civil Engineering</td>
<td>1222</td>
<td>7.0%</td>
<td>122</td>
</tr>
<tr>
<td>Catholic Faculty of Theology</td>
<td>208</td>
<td>1.2%</td>
<td>21</td>
</tr>
<tr>
<td>Faculty of Medicine</td>
<td>936</td>
<td>5.4%</td>
<td>94</td>
</tr>
<tr>
<td>Department of Biology</td>
<td>231</td>
<td>1.3%</td>
<td>23</td>
</tr>
<tr>
<td>Department of Physics</td>
<td>153</td>
<td>0.9%</td>
<td>15</td>
</tr>
<tr>
<td>Department of Chemistry</td>
<td>163</td>
<td>0.9%</td>
<td>16</td>
</tr>
<tr>
<td>Department of Cultural Studies</td>
<td>428</td>
<td>2.5%</td>
<td>43</td>
</tr>
<tr>
<td>Department of Mathematics</td>
<td>441</td>
<td>2.5%</td>
<td>44</td>
</tr>
<tr>
<td>Faculty of Agriculture</td>
<td>1633</td>
<td>9.4%</td>
<td>163</td>
</tr>
<tr>
<td>Faculty of Law</td>
<td>2511</td>
<td>14.5%</td>
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</tr>
<tr>
<td>Faculty of Food Technology</td>
<td>682</td>
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<tr>
<td>Faculty of Mechanical Engineering</td>
<td>914</td>
<td>5.3%</td>
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<td>Faculty of Education</td>
<td>903</td>
<td>5.2%</td>
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</tr>
<tr>
<td>Academy of Arts</td>
<td>244</td>
<td>1.4%</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>17337</td>
<td>100%</td>
<td>1733</td>
</tr>
</tbody>
</table>

Source: Rector’s office

The survey questionnaire consisted of 22 research and 2 demographic questions. Survey questions used a 7-point Likert scale (describing the level of usage, frequency level, level of agreement) and several open-ended questions. The data for level and frequency of Internet usage was collected in the form of self-reporting questionnaire items.

In addition, it should be noted that during data analysis, 7-point Likert scales were treated as scale variables. Due to possible Likert scale subjective perception of respondents, the conclusions should be considered with caution. The data was collected via online questionnaire and personal interviews during 4 months’ time, March to June 2014 creating a dataset with 1733 entries. Based on the sample data, 56.3% participants were female and 43.7% male students; 27.5% were first-year students, 30.5% were second-year students, 19.2% were third-year students, 12.1% were fourth-year students or first-year graduates and finally 10.7% were fifth-year students or second-year graduates.
The focus of this paper is set on communication capabilities of Internet as a digital medium while taking into account the characteristics and behavioral components of the student population. Based on the literature review and personal experience, it was anticipated that students use Internet on a daily basis, which was confirmed. Almost 94% of the respondents use Internet multiple times a day, slightly less than 4% use Internet once a day and the rest use it less than daily (Figure 2). The first group could be colloquially named power-users due to their frequency of use.

**Figure 2. Frequency of Internet access among students**

**FREQUENCY OF INTERNET ACCESS**

Source: authors’ research

There is a large difference among the devices used to access the Internet based on the collected data. Respondents primarily use their private computers ($x=6.38$, $s=1.37$) and mobile phones ($x=5.68$, $s=1.97$) to access the Internet while faculty computers, tablets and other public computers are not used to a greater extent (Figure 3)

**Figure 3. Internet access device among students**

Source: authors’ research

There is also a large difference among the sources of information about university related issues. The respondents highlighted the social network Facebook as the most used source of information ($x=5.73$, $s=1.76$) while information form a colleague or a friend (word-of-mouth) was in the second place ($x=5.27$, $1.72$). Interestingly, getting information at the faculty and faculty web-site recorded the same middle-range mean score ($x=4.01$, $s=2.01$ and $s=2.16$ respectively) (Figure 4).
In order to compare the differences within the university, the general classification of scientific fields (NZVOTR) was used and respondents were segmented based on their faculty or department affiliation into 7 categories: social sciences, engineering and technology, humanities, medical and health science, natural sciences, agricultural sciences and arts.

Even though every scientific field showed a high level of student Internet usage, several significant differences among scientific fields at university level were noticed. Based on chi-square test, there is enough evidence to conclude that Internet usage is connected with scientific field ($\chi^2 = 122,654, df = 6, p < 0.001$). Humanities recorded the lowest percentage of power-users (74.2%) while social sciences recorded the biggest one (97.2%) (Figure 5).

**Figure 5. Power users by scientific field**

<table>
<thead>
<tr>
<th>SCIENTIFIC FIELD</th>
<th>Power users</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCIAL SCIENCES</td>
<td>97.2%</td>
<td>2.8%</td>
</tr>
<tr>
<td>ENGINEERING AND TECHNOLOGY</td>
<td>94.4%</td>
<td>5.6%</td>
</tr>
<tr>
<td>HUMANITIES</td>
<td>74.2%</td>
<td>25.8%</td>
</tr>
<tr>
<td>MEDICAL AND HEALTH SCIENCES</td>
<td>16.2%</td>
<td>83.8%</td>
</tr>
<tr>
<td>NATURAL SCIENCES</td>
<td>95.9%</td>
<td>4.1%</td>
</tr>
<tr>
<td>AGRICULTURAL SCIENCES</td>
<td>95.7%</td>
<td>4.3%</td>
</tr>
<tr>
<td>ARTS</td>
<td>92.0%</td>
<td>8.0%</td>
</tr>
</tbody>
</table>

Source: authors’ research

ANOVA test (Figure 6) was used to determine the statistical significance of differences among scientific fields based on the devices used to access the Internet. Significant differences were observed on all the device variables (private...
computer, faculty computer, other public computer and mobile phone) except tablet (Figure 7).

**Figure 6.** ANOVA test for Internet access device usage among scientific fields

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Private computer</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>44.461</td>
<td>6</td>
<td>7.410</td>
<td>3.995</td>
<td>.001</td>
</tr>
<tr>
<td>Within Groups</td>
<td>3201.592</td>
<td>1726</td>
<td>1.855</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3246.053</td>
<td>1732</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Faculty computer</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>344.677</td>
<td>6</td>
<td>57.446</td>
<td>36.146</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2743.092</td>
<td>1726</td>
<td>1.589</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3087.769</td>
<td>1732</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other public computer</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>132.078</td>
<td>6</td>
<td>22.013</td>
<td>20.318</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1870.019</td>
<td>1726</td>
<td>1.083</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2002.097</td>
<td>1732</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Mobile phone</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>113.271</td>
<td>6</td>
<td>18.878</td>
<td>4.951</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6580.905</td>
<td>1726</td>
<td>3.813</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6694.175</td>
<td>1732</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tablet</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>36.718</td>
<td>6</td>
<td>6.120</td>
<td>2.026</td>
<td>.059</td>
</tr>
<tr>
<td>Within Groups</td>
<td>5214.121</td>
<td>1726</td>
<td>3.021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5250.839</td>
<td>1732</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: authors’ research*

However, the post-hoc test didn’t show any practical implication of the differences except that humanities students use faculty computers and other public computer for Internet access significantly more often then other students.

**Figure 7.** Internet access device by scientific field

*Source: authors’ research*

Furthermore, the ANOVA test (Figure 8) was used to determine the statistical significance of differences among scientific fields based on the information
sources about university related issues. Significant differences were observed on all the information source variables (Figure 9).

**Figure 8. ANOVA test for information source among scientific fields**

<table>
<thead>
<tr>
<th>Information Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>At the faculty/department</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>128,033</td>
<td>6</td>
<td>21.339</td>
<td>5.389</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>6834.661</td>
<td>1726</td>
<td>3.960</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6962.695</td>
<td>1732</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Faculty/department web-site</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>602,937</td>
<td>6</td>
<td>100.489</td>
<td>23.138</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>7496.016</td>
<td>1726</td>
<td>4.343</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8098.953</td>
<td>1732</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Any other web-site</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>102,195</td>
<td>6</td>
<td>17.032</td>
<td>5.596</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>5253.007</td>
<td>1726</td>
<td>3.043</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5355.201</td>
<td>1732</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Facebook</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>127,384</td>
<td>6</td>
<td>21.231</td>
<td>6.989</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>5243.423</td>
<td>1726</td>
<td>3.038</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5370.807</td>
<td>1732</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Offline media</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>110,345</td>
<td>6</td>
<td>18.391</td>
<td>8.969</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>3539.147</td>
<td>1726</td>
<td>2.050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3649.492</td>
<td>1732</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>From a friend or colleague</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>81,562</td>
<td>6</td>
<td>13.594</td>
<td>4.675</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>5018.807</td>
<td>1726</td>
<td>2.908</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5100.368</td>
<td>1732</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>93,403</td>
<td>6</td>
<td>15.567</td>
<td>7.671</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>3502.661</td>
<td>1726</td>
<td>2.029</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3596.065</td>
<td>1732</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** authors’ research

However, the post-hoc test didn’t show any practical implication of the differences except that medical and health sciences students use faculty web-site and information from friends and colleagues\(^1\) significantly less often as a source of information.

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\(^1\) Regarding the information from friends and colleagues, they significantly differ from every science field except Arts.
This research paper suffers from several limitations. Self-reporting could be subject to personal projection of a respondent and could therefore contain unreliable and incomparable data. It was suggested to examine a more objective reporting measure for Internet usage in future research. In addition, future research efforts may focus in more detail on behavior and habits of student Internet users, mobile Internet and social network usage.

4. CONCLUSION

The focus of this paper is set on communication capabilities of Internet as a digital medium while taking into account the characteristics and behavioral components of the student population. The primary research was conducted on the students of Josip Juraj Strossmayer University of Osijek, as an institution with a significant number of academic programs and students. For the purposes on the research, 10% of the student population were involved and tested, thus creating a sample of 1733 participants. The quota sample was used based on the share of each faculty or department on the university level.

The conducted research provided several interesting implications on student behavior regarding the general Internet information collection and consumption. The assumption that the Internet is the key information element for the university student population was confirmed. Almost 94% of the respondents use Internet multiple times a day, thus earning students the colloquial name In-
Internet power-users. Private computers and mobile phones are primary devices for Internet access for students. The most popular source of information about university related issues is social network Facebook followed by information from friends and colleagues while direct information at the faculty and faculty web-site recorded middle-range mean scores.

Students from different faculties and departments were further categorized into seven general scientific fields. Even though every scientific field showed a high level of student Internet usage, several significant differences among scientific fields on the university level were noticed. The chi-square test implied a statistical significant connection between Internet usage and affiliation to a scientific field where social sciences students showed highest and humanities sciences students the lowest Internet usage.

The self-reporting measurement is a clear limitation of the collected data and could have an impact on the given conclusions. Therefore, future research activities should consider more objective measurement of Internet usage.

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CORPORATE SOCIAL RESPONSIBILITY (CSR) – NEUERE RECHTLICHE ENTWICKLUNG IN DER EUROPÄISCHEN UNION (EU) WESENTLICHE ECKPUNKTE UND EINIGE POTENTIELLE AUSWirkungen auf Unternehmen

Bodo RUNZHEIMER, Ph.D., Pforzheim

Abstract

Das Konzept der Corporate Social Responsibility (CSR) hat auf internationaler Ebene bemerkenswert an Bedeutung gewonnen (UN-Konferenz Rio + 20 im Juni 2012). Im Abschlussdokument mit dem Titel „Die Zukunft, die wir wollen“, wird die Bedeutung der Berichterstattung über unternehmerische Nachhaltigkeit anerkannt und den Unternehmen nahe gelegt, die Aufnahme von Nachhaltigkeitsinformationen in ihren Berichtszyklus zu erwägen.


Inhaltlich geht es bei der CSR-Richtlinie darum, ob und in welcher Form bestimmte Unternehmen/Gruppen verpflichtet werden, über die Beachtung der dem Allgemeinwohl oder schutzbedürftigen Individualinteressen dienenden Gesetze („Compliance“) hinaus in ihrer Geschäftspolitik Umwelt-, soziale und Arbeitnehmerbelange sowie Governance-Aspekte (Bekämpfung von Korruption und Bestechung) zu berücksichtigen und für hinreichende Diversität in der Zusammensetzung der Leitungsorgane zu sorgen.

Bei den Anforderungen ist zu unterscheiden zwischen der Einführung einer nichtfinanziellen Erklärung und der Erweiterung der Erklärung zur Unternehmensführung (gemäß § 289a HGB). Die nichtfinanziellen Berichterstattungspflichten werden als geeignete Instrumente zur Umsetzung der UNO Leitprinzipien für Wirtschaft und Menschenrechte angesehen.

**Keywords:** Nichtfinanzielle Berichterstattung nach HGB und IFRS (EU-Richtlinie 2014/95/EU), Berichtspflicht über Umweltbelange/Sozial- und Arbeitnehmerbelange/Achtung der Menschenrechte/Bekämpfung von Korruption und Bestechung; Angaben zu Diversitätskonzepten bezüglich der Organe

JEL Classification: O1, O16

**EINLEITUNG**


In der „Corporate Social Responsibility (CSR-Richtlinie)“/RiLi 2014/95/EU (Erwägungsgrund 3) heißt es: „Die Angabe nichtfinanzieller Informationen ist nämlich ein wesentliches Element der Bewältigung des Übergangs zu einer nachhaltigen globalen Wirtschaft, indem langfristige Rentabilität mit sozialer Gerechtigkeit und Umweltschutz verbunden wird. In diesem Zusammenhang hilft die Angabe nichtfinanzieller Informationen dabei, das Geschäftsergebnis von Unternehmen und ihre Auswirkungen auf die Gesellschaft zu messen, zu überwachen und zu handhaben."


„Audits und Reporting sind ein wichtiges Element wirksamer Managementsysteme. Das steht nicht in Frage. In Frage steht der Umkehrschluss: Können durch die Pflicht zum Reporting solche Unternehmen zu einem insgesamt verantwortlicheren Verhalten bewegt werden, die dies nicht aus anderen Gründen ohnehin tun?“ (Deutsches Netzwerk Wirtschaftsethik: www.DNWE.de/Stellungnahme-zumKonzeptdesBMJV/zurUmsetzungCSR-Richtlinie/27.4.2015, S. 3).

Gewisse Brisanz erhält CSR-Richtlinie dadurch, dass die Berücksichtigung der CSR-Belange mit dem Unternehmensziel der Gewinnerzielung im Konflikt stehen kann.

1. Betroffene Unternehmen und Gruppen

Die Richtlinie 2014/95/EU (so genannte „CSR-Richtlinie“) ist bis zum 6. Dezember 2016 in nationales Recht EU-weit umzusetzen. Sie regelt die nichtfinanziellen und die Diversität betreffenden Informationen und gilt ab 1. Januar

Der nationale Gesetzgeber kann den Kreis der betroffenen Unternehmen weiter konkretisieren.


Dieses gemeinsame Reporting ist zweifellos vorteilhaft.
2. **WESENTLICHE INHALTE DER NICHTFINANZIELLEN ERKLÄRUNG**


- Umweltbelange
- Sozial- und Arbeitnehmerbelange
- Achtung der Menschenrechte
- Bekämpfung von Korruption und Bestechung

Diese so genannte **nichtfinanzielle Erklärung** ist entweder als Teil des *Lageberichts/Konzernlageberichts* oder in Form eines *gesonderten Berichts* zu publizieren.

Vom Abschlussprüfer ist zu prüfen, ob die Erklärung vorgelegt wurde (RiLi 2014/95/EU, Art. 19a, Abs. 5 bzw. Art. 29a, Abs. 5). Gemäß Art. 19a, Abs. 6 bzw. Art. 29a, Abs.6 der RiLi 2014/95/EU können die EU-Mitgliedsstaaten vorschreiben, dass die in der nichtfinanziellen Erklärung oder dem gesonderten Bericht enthaltenen Informationen von einem „unabhängigen Erbringer von Bestätigungsleistungen“ zu überprüfen sind.

Die Verlässlichkeit und Glaubwürdigkeit der nichtfinanziellen Erklärung würde zunehmen, wenn die Informationen einer „Überprüfung“ seitens einer dritten autorisierten Partei unterzogen werden müssten.

Die Informationen der **nichtfinanziellen Erklärung** umfassen dabei mindestens:

- Beschreibung des Geschäftsmodells
- Beschreibung der in Bezug auf die genannten Belange verfolgten Konzepte
- Ergebnisse der Konzepte
- Wesentliche Risiken im Zusammenhang mit diesen Belangen
- Die wichtigsten Leistungsindikatoren, die für die betreffende Geschäftstätigkeit von Bedeutung sind


Die Unternehmen/Gruppen sollen bei der Berichterstattung darlegen, welche Leitlinien sie ihrem Reporting zugrunde gelegt haben (vgl. RiLi 2014/95/EU, Art. 19a und 29a).


EMAS ist ein Auditierungsschema und –verfahren, das nur Umweltinformationen erfasst, nicht aber die volle CSR-Themenbreite. „Zudem ziehen die Unternehmen den internationalen ISO 14000 ff. Standard häufig dem europäischen EMAS vor“ (www.anwaltsverein.de/Stellungnahmen/ Nr.38/2015, S. 15; Deinert, S.: Die CSR-Berichtspflicht und die Belange der Arbeitnehmer und sonstigen Erwerbstätigen in der Liefer- und Wertschöpfungskette, S. 75 f.).

Der UN Global Compact (UNGC) enthält zehn programmatisch und kurz gefasste Gebote, die die Respektierung der Menschenrechte, soziale und Arbeitnehmerbelange, Umwelt und Korruptionsbekämpfung beinhalten. Die Unternehmen, die ihn unterschreiben, „sind zur jährlichen Einreichung sog. Fortschrittsmitteilungen verpflichtet, in denen sie allgemein darlegen müssen, auf welche Weise sie die zehn Prinzipien umsetzen und die allgemeinen Ziele und Themen der UN unterstützen“ (www.anwaltsverein.de/Stellungnahmen/ Nr.38/2015, S. 15; Deinert, S., a.a.O., S. 59).


Die OECD Leitlinien für multinationale Unternehmen sind Empfehlungen der OECD-Staaten an ihre Unternehmen, die das jeweils „erwartete Geschäftsgebaren“ thematisch umfassender definiert, als sie neben Menschenrechten Arbeits- und Industriebeziehungen, Umwelt, Antikorruption, Ver-


3. ERWEITERUNG DER ERKLÄRUNG ZUR UNTERNEHMENSFÜHRUNG UM DIVERSITÄTSKONZEPTE


Werthaltigkeit eines Unternehmens/einer Gruppe, sondern auch seine Auswirkungen auf die Gesellschaft zu messen, zu überwachen und zu managen (vgl. RiLi2014/95/EU, Erwägungsgrund 3).

Wird kein Diversitätskonzept angewendet, sollte es keine Verpflichtung zur Einführung eines solchen Konzeptes geben. Die Erklärung zur Unternehmensführung sollte aber eine klare Erläuterung enthalten, warum dies der Fall ist (vgl. RiLi 2014/95/EU, Erwägungsgrund 19). Auch hier gilt also der „Comply or explain-Grundsatz“.


4. FORM DER NICHTFINANZIELLEN ERKLÄRUNG

5. **BERICHT ÜBER „NEGATIVE AUSWIRKUNGEN“ GEMÄSS ARTIKEL 19A UND ARTIKEL 29A DER SCR-RICHTLINIE - „SAFE HARBOUR-REGELUNG“ (SCHUTZKLAUSEL)**

Der Deutsche Anwaltsverein stellt – gut begründet fest – die in Artikel 19a, Abs. 1, sowie in Artikel 29a, Abs. 1 der CSR-Richtlinie vorgesehene so genannte „Safe Harbour-Regelung“ (Schutzklausel) ist zwingend erforderlich und sollte bei der Umsetzung in nationales Recht unbedingt aufgenommen werden (www.anwaltsverein.de/Stellungnahmen/Nr.38/2015, S. 19).


Für die „konsolidierte nichtfinanzielle Erklärung“ einer berichtspflichtigen Gruppe gilt eine analoge Regelung gemäß Artikel 29a (vgl. RiLi 2014/95/EU, Artikel 29a, Abs. 1).


6. ZAHLUNGSBERICHTE FÜR UNTERNEHMEN UND GRUPPEN ALLER BRANCHEN


7. **WESENTLICHE ECKPUNKTE DES KONZEPTS DES BMJV ZUR UMSETZUNG DER CSR-RICHTLINIE**


- Umsetzung der CSR-Richtlinie in deutsches Recht, grundsätzlich 1:1
- Ausnutzung von Spielräumen der CSR-Richtlinie für eine Umsetzung, die den vom Bundeskabinett am 11. Dezember 2014 beschlossenen Eckpunkten zum Bürokratieabbau Rechnung trägt
- Schaffung einer kohärenten Gesamtregelung für den handelsrechtlichen Lage- und Konzernlagebericht

8. ZUSAMMENFASSUNG

Das Spannungsfeld zwischen Gesellschaft und Unternehmen wird seit Jahrzehnten in der wissenschaftlichen Literatur und in den Unternehmen unter Begriffen wie „Corporate Social Responsibility (CSR)“, „Corporate Citizenship (CC)“, „nachhaltige Unternehmensführung“ und „gesellschaftliches Engagement in der Unternehmensführung“ diskutiert. Durchgesetzt hat sich der Anglicismus „CSR“.

Das Konzept der Corporate Social Responsibility (CSR) hat auf internationaler Ebene bemerkenswert an Bedeutung gewonnen (UN-Konferenz Rio + 20 im Juni 2012). In Absatz 47 des Abschlussdokuments mit dem Titel „Die Zukunft, die wir wollen“, wird die Bedeutung der Berichterstattung über unternehmerische Nachhaltigkeit anerkannt und den Unternehmen nahe gelegt, die Aufnahme von Nachhaltigkeitsinformationen in ihren Berichtszyklus zu erwägen.


Inhaltlich geht es bei der Corporate Social Responsibility (CSR-Richtlinie) darum, ob und in welcher Form bestimmte Unternehmen/Gruppen verpflichtet werden, über die Beachtung der dem Allgemeinwohl oder schutzbedürftigen Individualinteressen dienenden Gesetze („Compliance“) hinaus in ihrer Geschäftspolitik Umwelt-, soziale und Arbeitnehmerbelange sowie Governance-Aspekte (Bekämpfung von Korruption und Bestechung) zu berücksichtigen und für hinreichende Diversität in der Zusammensetzung der Leitungsorgane zu sorgen.

Ziel der CSR-Richtlinie ist es, die Sozial- und Umweltberichterstattung bestimmter Unternehmen EU-weit auf ein einheitlich hohes Niveau zu

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Abstract

Identification of strategic development sectors in accordance with the theory of comparative advantages begins by identifying entrepreneurial initiatives and needs of specific area. Entrepreneurial discovery as a continuous process should play a crucial role in the preparation, monitoring and implementation of the NUTS2 Regional Development Strategy. Based on the Smart Specialisation and especially the Entrepreneurial Discovery Process, this paper proposes a new adoption of strategic development sectors for Vukovar-Srijem County as a foundation for drafting the new Development Strategy of Vukovar-Srijem County 2016-2020.

Keywords: Regional Development Strategy; Smart Specialisation; Vukovar-Srijem County.

JEL Classification: O1, O18
INTRODUCTION

Pursuant the Act on regional development, The Development Strategy of Vukovar-Srijem County written for the period from 2011 to 2013 (extended to 2016) will be replaced with a new strategy, harmonized with the EU seven-year planning cycle, for the period to 2020.

The still valid Development Strategy of Vukovar-Srijem County for the period 2011-2013 is the basic document for establishment and implementation of economic and social development. It was written in accordance with the Act on regional development of the Republic of Croatia, according to the demands and methodology used in the EU in preparation of program-planning documentation. It sets a vision, strategic goals, priorities and measures, which represent the frame and necessary base for preparation, financing and implementation of development projects that are the key initiators of changes in economy and society as a whole (VSŽ; 2011).

Table 1 shows the structure and hierarchy of vision, goals, priorities and measures of the Development Strategy of Vukovar-Srijem County 2011-2013 (VSŽ; 2011).

Vision: Vukovar-Srijem County is a developed county with a competitive economy based on quality human resources and sustainable utilization of natural and cultural heritage, attractive for investments into products and services of high added value and with a high level of social inclusion.

Objectives:
• Objective 1: Competitive economy
• Objective 2: Development of human resources and capacity for managing development
• Objective 3: Quality spatial planning, modern infrastructure and preserved environment
• Objective 4: Improvement of life quality

Table 1. Vision, objectives, priorities and measures structure in Development Strategy of Vukovar-Srijem County (VSŽ; 2011.)

<table>
<thead>
<tr>
<th>VISION</th>
<th>OBJECTIVE 1</th>
<th>OBJECTIVE 2</th>
<th>OBJECTIVE 3</th>
<th>OBJECTIVE 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIORITIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEASURES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: VSŽ, 2011
The valid Development Strategy of Vukovar-Srijem County has not given satisfactory results. The unemployment and depopulation are currently the biggest issues in Vukovar-Srijem County. Trends noticed in 2014 and in the beginning of 2015 indicate a bit better condition regarding unemployment, but unfortunately the employment and business data still report stagnation and further falling behind from the average in the Republic of Croatia (VSŽ; 2015).

The conclusion of the state of economy in Vukovar-Srijem County for 2014 verifies that the economic movements in Vukovar-Srijem County do not go into desired direction and it is suggested that the existing trends should be changed by implementing new economic measures:

- initiation of new investment cycles,
- incitement of innovations and application of new technologies,
- strengthening of competitiveness in economic subjects,
- reindustrialisation, i.e. change of economy structure,
- homogeneous regional development,
- stopping of negative demographic trends (VSŽ; 2015).

The establishment of the Competence centre for Slavonian oak and implementation of projects of research, development and innovation will enable the implementation of economic measures from the completion information on the economy in VSC in 2014. (VSŽ; 2015).

New investment cycle will be run primarily through the financing of projects of research, development and innovation of EU funds. Encouraging innovation and application of new technologies will be role of Competence centre for Slavonian oak with its activities to transfer knowledge and technology, which will have a direct impact on strengthening the sector competitiveness. Re-industrialization, changing the structure of the economy is just one of the objectives of the Competence centre for Slavonian oak - abandone the orientation towards primary production and embrace development of new products with high added value and high level of finalization which require new knowledge and new technologies. Balanced regional development is possible only with the use of smart specialisation and focus on strategic production sectors in the context of “food & wood” strategy. With the recognition of the wood sector, and forestry and wood industry as a strategic development sectors and activities focusing on the development of this particular sector in which Vukovar-Srijem County has obvious comparative advantages, so will also stop the negative demographic trends. It will be neither easy nor quick, but “every time begins with the first step.”
SMART SPECIALISATION

Smart Specialisation Strategy (S3) of the Republic of Croatia for the period 2016-2020, after having been harmonized with the European Commission, was adopted by the Government of the Republic of Croatia on 30 March, 2016 (Vlada RH; 2016).

S3 is a precondition for withdrawing funds from EU structural and investment funds for the Thematic goal 1 – strengthening of research, technological development and innovation. Its adoption enabled utilization of means within the Operational program competitiveness and cohesion 2014-2020, which will be directed to stimulation of scientific excellence and encouraging of Croatian economy through research, technological development and innovation.

Within the S3 of the Republic of Croatia the goals and priority activities regarding investments into research and development as well as into commercialization of innovations were set, and the following thematic priority fields for investments and further development of Croatian economy were identified:

- Health and life quality,
- Energy and sustainable environment,
- Transport and mobility,
- Safety,
- Food and bio-economy.

Table 2. Thematic Priority Areas and Cross Cutting Sub Thematic Priority Areas

<table>
<thead>
<tr>
<th>THEMATIC PRIORITY AREAS</th>
<th>CROSS CUTTING SUB THEMATIC PRIORITY AREAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH AND QUALITY OF LIFE</td>
<td>KET</td>
</tr>
<tr>
<td>ENERGY AND SUSTAINABLE DEVELOPMENT</td>
<td>ICT</td>
</tr>
<tr>
<td>TRANSPORT AND MOBILITY</td>
<td>FOOD AND BIO-ECONOMY</td>
</tr>
</tbody>
</table>

Source: Vlada RH, 2016

Ultimate goals of S3 are:
- Stimulation of economic growth,
- Increased business sector investment into research and development and
- Creation of new workplaces.

Special focus was set to efficient cooperation of economy and scientific-research sector within the area in the Republic of Croatia where there is the high-
est potential for smart, inclusive and sustainable growth based on its advantages and potentials for advancement and excellence.

In order to ensure more efficient system of support and managing innovations, S3 uses the method of Entrepreneurial Discovery Process (EDP) for additional strengthening of cohesion and inclusion of all shareholders in innovation system according to the Triple Helix (business and scientific-research sector and local and regional autonomies and state administration bodies) (Foray; 2015, Lawton Smith; 2012).

S3 is based on available resources and potential for their utilization, identification of comparative advantages, and technological specialisation as the foundation for future innovations. Its goal is to encourage public and private investments into research, technological development and innovations in a bottom-up principle, and through the cooperation and common effort of the public, scientific-research and business sector and through the process of Entrepreneurial Discovery Process to discover own strength and comparative advantages.

“FOOD&WOOD“ STRATEGY

Modelled on Smart Specialisation, the needs of specific area should be more emphasized and also included into the preparation of the new County Development Strategy. Recognizing entrepreneurial initiatives through identification of strategic development sectors is the beginning of application of entrepreneurial discovery process as a continuing process which represents the pillar of S3 (Capello, 2014.).

More to that, specialisation means the choice of priority, strategic and development sector based on Entrepreneurial Discovery Process. Specialisation also means excellence, exactly in that specialised sector.

Applying the concept of entrepreneurial discovery, according to all analyses and indicators, there are two strategic development sectors with the highest growth potential in Vukovar-Srijem County:

• Food processing sector and
• Wood processing sector.

In Smart Specialization Strategy of the Republic of Croatia 2016-2020 food and wood processing sector match thematic priority fields of food and bio-economy. Additionally, there are three horizontal supporting sectors rel-
relevant for the development of Vukovar-Srijem County and for strengthening two strategic priority development sectors. They are:

- Renewable Energy Sources
- Tourism and
- Transport.

All three horizontal sectors should have the role of creating a platform for development of two strategic development sectors and their strengthening.

Soil, mild continental climate and suitable annual precipitation of this area are good preconditions for agricultural production. Main products include wheat, corn, sunflower, soya, sugar beet, tobacco and vegetables. In livestock production the most present are pig and cattle breeding. Agricultural area takes up 145.985 ha or 60.6% of Vukovar-Srijem County area, whereas 93.3% refers to arable land, and the rest refers to pastures, meadows, vineyards and orchards (VSŽ; 2015).

Total forest area with the largest oak forest in Europe - Spačva basin takes up the area of 69.383 ha which makes 28.7% of county area and it comprises mostly of famous Slavonia oak. The quantity of available wood mass is about 19 mil m3 in the forests of the County, and the annual cut of 344.000m3 gross wood mass is a good basis for the development of wood processing industry, especially for final product and furniture production. The centralized management system of Croatian forests Ltd. prevents smart utilization of locally available resource. Therefore local wood industry process only 38% of locally available raw material, although their processing capacity is three times as much. Number of people employed in forestry and wood processing industry surpasses 2000, with the potential of opening 1200 new workplaces in wood processing industry.

In accordance with existing natural potential in Vukovar-Srijem County there is a Renewable Energy Source potential of biomass - forest biomass, wood residue from the wood processing industry and agricultural biomass. Considering the features of agricultural economies – cattle breeding and farming – there is a huge potential of farmers’ merging for building centralized biogas plants, which would then ensure and adequately take care of biodegradable agricultural refuse. Thanks to its position in the southern part of the Pannonian basin there is a significant potential in geothermal energy in Vukovar-Srijem County. The geothermal water temperatures from deep research drills indicate the possibility of their utilization in production of thermal energy for different purposes,
like room heating and cooling, industrial processes (fruit, vegetables, fish, wood, paper and wool driers, water distillation, milk pasteurization), greenhouse production, fishpond heating, production of drinking water and production of electrical energy (EIHP; 2012).

Natural beauties of the region, with rich Slavonian oak forest that hides numerous species of small and big wild animals, waterways rich with various high quality fish, offer excellent preconditions for the development of continental, hunting, fishing, excursion and adventure tourism. Rich culinary offer of the region is the basis of development and high quality offer in catering and hotel industry. Total revenues from tourism in Vukovar-Srijem County estimated for 2013 was about 6.000.000 EUR, whereas the expected total revenue for 2020 is at about 41.000.000 EUR, which is a big development potential (VSŽ; 2015).

Suitable geographical location of Vukovar-Srijem County, which is an important transport transversal in the direction East-West and North-South, road, railway and river transport, are the advantages of this region regarding opening to Eastern European markets. It is necessary to emphasize the motorway Zagreb-Belgrade, the river Danube and river port Vukovar. The construction of the Canal Danube-Sava would additionally connect waterways of Sava, Drava and Danube and shorten the route from Western Europe to the Adriatic for 400 km, and from Eastern Europe for 85 km. It would create a river-railway connection of 560 km to the port in Rijeka.

**Table 3.** Strategic development sectors and cross cutting sub sectors for new Development Strategy of Vukovar-Srijem County on NUTS2 level

<table>
<thead>
<tr>
<th>STRATEGIC DEVELOPMENT SECTORS</th>
<th>FOOD</th>
<th>WOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>CROSS CUTTING SUB SECTORS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RENEWABLE ENERGY SOURCES</td>
<td>TOURISM</td>
<td>TRANSPORT</td>
</tr>
</tbody>
</table>

Source: Author

**CONCLUSION**

Entrepreneurial discovery and smart specialisation are some of the principles of S3 that must have their application in the preparation, monitoring and implementation of NUTS2 region level – County Development Strategy.
The basic precondition for successful preparation, evaluation and implementation of one such strategy is vertical and horizontal organisation of development sectors. Development Strategy of Vukovar-Srijem County should consist of two strategic development sectors (food processing sector and wood processing sector) and three cross cutting sub sectors (Renewable Energy Sources, tourism and transport) - “food&wood” strategy.

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HUMAN RESOURCES IMPACT ON THE FINANCIAL SUCCESS IN MANUFACTURING INDUSTRY IN REPUBLIC OF CROATIA

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Abstract

Capital is base for the existence of enterprise, but in global economy the most important capital is human resource. Today business is characterized by virtual economy, intellectual capital, and the knowledge economy. Enterprises that don’t have the competence to successfully manage human resources will not have insured sustainable development. Enterprises in Croatia don’t have enough developed concept of human resources strategy and their impact on financial strategy. Croatia is one of the few countries that’s still affected by the global economic crisis, that occurred after collapse of the market in 2008. Today’s economy is characterized by a large number of companies that operate badly, many of them were liquidated, the scale of unemployment is growing steadily, the level of high educated people is low, macroeconomic indicators are not satisfactory, etc. One of rare industries with permanent growth and successful financial indicators is manufacturing industry.

The aim of this paper is to present the implications and impacts of human resource strategy on the financial success of enterprises in the manufacturing industry – sector C according to NKD 2007 (National Classification of Activities). Research is conducted through a survey in 30 small enterprises in Republic of Croatia. The paper presents the impact of human resources (number of employees and their income) on financial indicators of enterprises in 2015. The aim is to make recommendations and suggestions how to improve the strategy of human resources in enterprise in order to achieve better financial results.

Keywords: human resource, strategy, finance, manufacturing industry, indicator

JEL Classification: E24, J24
1. **INTRODUCTION**

Paper is focused on determining of the basic peculiarities in the development of human resources in terms of strengthening of competitiveness of enterprises. Special emphasis will be on defining the most important features of human resources, specificities of human resources in modern enterprises, the effect of internal and external factors on human resources management in enterprises. Before encountered of the first signs of economic crisis, on the market was very optimistic situation in which the real estate market value is increasingly growing, but also the price of oil began to rise sharply due to the growth in demand. The rise in oil prices is behind encourage the growth of food prices, because just at that time appeared the drought which has further encouraged the emergence of the crisis. Also, one of the main causes of the crisis were banks, who thought that in these difficult times can benefit from approving loans.

Although the global economic crisis has ended in the rest of the world, but in Republic of Croatia is still ongoing. One of the business initiators of positive trends is the manufacturing industry. Industry was systematically destroying for years, because of bad conducted privatization and neglect of the sector. Manufacturing industry has a significant share in the economy and is one of the few sectors that constantly grow. Human capital together with technology is the most important capital for the development of production. The goal is to show how development of human resources effects on financial success of the company.

2. **DEFINITION OF HUMAN RESOURCES**

Human resources are the most important part of any organization or enterprise. People with their knowledge, skills and creativity contributes the most to the achievement of company’s goals. Sometimes the greatest importance and advantage was in possession of tangible assets, but today the most important role in the enterprise has human resource. “Work can be divided into physical and mental. Today, most of the physical labor is replaced by machines and technologies. Mental work of course, always carries the elements of physical work” (Buble, M, Kružić, D., 2006, p. 248). Main cause of risk and errors is originated by human activities. Therefore, it is important to increase the expertise, motivation and responsibility of decision makers at all levels. Controlling the human resources combines activities and tasks associated with people such as: acquisition, selection, training and other activities that provide and encourage staff development.
“Today, the competition in the labor market is high. Companies want only the best qualified candidates for a specific job. This competition for the job does not start when someone looking for a job, but it is present from the competition in the school, where weaker lagging behind, and advanced fights for a greater success. The expertise and knowledge are what launches success and the right to vote, while unskilled workers usually do not have the right to vote on the development policy of the company” (Marušić, S, 2006., p.28). Turbulence and uncertainty of the business environment bring instability and uncertainty for making long-term plans, it is important to rely on the people and their skills. “What is the business environment more uncertain and turbulent, the importance of human resources in the company and its potential are more important” (web.efzg.hr).

3. HUMAN RESOURCE IN REPUBLIC OF CROATIA

In the modern world the biggest struggle is about efficiency of enterprises. Efficiency of enterprises slowly takes on the debate over the relationship of resources that have been made against the achieved results. The most important is how employees can contribute to increase efficiency. However, in all of this is forgotten how much people are an important resource in the company. It is important to point out influence of investing in the skills of human resources, because only high-quality human resources can be competitive and contribute to increase the volume of business, as well as well-developed plan for human resources management within the company. It is important to invest in knowledge, skills and competences through lifelong learning.

“The World Bank until 2008 ranked countries in three categories: high developed countries, the countries with medium development and the countries with low level of development of human resources. Since 2009, there are four groups of countries according to the human development index (HDI)” (Karaman, A. N., 2012 , p. 20). First group are countries with very high level of development of human resources, where the value of the index of human development is between 0.9 and 1. Second are countries with high development of human resources - index from 0.8 to 0.9. Third are countries of medium development from 0.5 to 0.8. Fourth are low developed countries with index less than 0.5. Table 1 presents HDI for most developed countries and Croatia.
Table 1. Human Development Index in 2010“

<table>
<thead>
<tr>
<th>Country</th>
<th>HDI</th>
<th>Rank</th>
<th>Life age</th>
<th>The average years of schooling</th>
<th>Expected years of schooling</th>
<th>GNI PPP Pc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norway</td>
<td>0.938</td>
<td>1</td>
<td>81.0</td>
<td>12.6</td>
<td>17.3</td>
<td>58.810</td>
</tr>
<tr>
<td>Australia</td>
<td>0.937</td>
<td>2</td>
<td>81.9</td>
<td>12.0</td>
<td>20.5</td>
<td>38.692</td>
</tr>
<tr>
<td>USA</td>
<td>0.902</td>
<td>4</td>
<td>79.6</td>
<td>12.4</td>
<td>15.7</td>
<td>47.094</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.895</td>
<td>5</td>
<td>80.3</td>
<td>11.6</td>
<td>17.9</td>
<td>33.078</td>
</tr>
<tr>
<td>Croatia</td>
<td>0.767</td>
<td>51</td>
<td>76.7</td>
<td>9.0</td>
<td>13.8</td>
<td>16.389</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>0.140</td>
<td>169</td>
<td>47.0</td>
<td>7.2</td>
<td>9.2</td>
<td>176</td>
</tr>
</tbody>
</table>

Source: Karaman, A. N., 2012, p.22

According to table 1. Croatia is medium developed country by HDI. Very developed countries are only Norway, Australia and USA. Table also shows rank for each country, average life age, average years of schooling, expected years of schooling and Gross National Income (GNI) per capita at purchasing power parity (PPP). Main problems in Croatia are low rate of high educated people (about 7-8% as opposed to more than 30% in Norway), rate of young people who immigrates is constantly increasing and undeveloped economy.

“Republic of Croatia is behind highly developed and some middle-income countries. It is obvious that human resources can be developed differently within the national economy. In view of the components of the index of human development, the largest rate of illiteracy is present in Sibensko-Kninjska County (5.13%). Below are Sisacko Moslavacka (3.35%) and Licko-Senjska and Zadarska County with 3.20% of the illiterate population. Croatia has an average of 1.77% of the illiterate population, negative deviation from the Croatian average are recorded in Pozesko-Slavonska, Karlovacka, Brodsko-Posavskova, Bjelovarsko-Bilogorska, Viroviticko podravska, Osjecko-Baranjska and Splitsko-Dalmatinska County. At least illiterate population has Primorsko Goranska County in which is written 99.38% of the population” Karaman, A. N., 2012, p. 24).

4. RESEARCH OF HUMAN RESOURCE AND FINANCIAL STRENGTH IN MANUFACTURING INDUSTRY

Manufacturing is according to NKD is classified as sector C, which consists of sectors from C10 to C33. Industry in the Republic of Croatia has been since 1990’s systematically destroyed, neglected and significantly influenced
badly conducted privatization. The Croatian economy is de-industrialized. But nowadays is a growing emphasis on the importance of the industry, and it is one on the sector with the highest growth, the largest export and a large proportion of employees. “The result of a manufacturing process that can be done in the sense that it is ready for use or consumption, or semi-finished product that is an input for further processing” (www.dzs.hr). The level of education is next: most employees in the manufacturing industry in 2012 has the secondary education - even 94,309 people, next are skilled workers - 32,341 of them, and then the low-skilled (unskilled) are 22,800 people. Highly educated people contains 17,981 and masters of science 841 of employees. At least the employees with the title of Doctor of Science are only 154” (Industrial strategy of Republic of Croatia 2012-2020).

Most employees in 2012 worked in the sector C10 - Manufacture of food products, with a share in total manufacturing industry of 19.53% (43,826 employees). Elsewhere in the number of employees is activity C25 Manufacture of fabricated metal products, except machinery and equipment, which in 2012 employed 26,950 people, accounting for a share of 12.01%. These two sectors employ more than 30% of total employment in the manufacturing industry. On the other hand, the lowest share of employment in the whole industry has activities 12 Manufacture of tobacco products, with a share of only 0.33%. Most important characteristic of manufacturing industry are: labor costs per unit, current ratio, gearing ratio, operating profit margin, export and import ratio, share of exports in total revenues and Grubell-Lloyd index in period form 2010. to 2012. year are shown in table 2.

Table 2. Main characteristics of manufacturing industry in period 2010.-2012.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour costs per unit</td>
<td>0,53</td>
<td>0,44</td>
<td>0,45</td>
</tr>
<tr>
<td>Current ratio</td>
<td>1,12</td>
<td>1,13</td>
<td>1,12</td>
</tr>
<tr>
<td>The gearing ratio</td>
<td>0,58</td>
<td>0,61</td>
<td>0,56</td>
</tr>
<tr>
<td>Operating profit margin</td>
<td>4,18</td>
<td>8,36</td>
<td>7,94</td>
</tr>
<tr>
<td>Exports and imports ratio</td>
<td>1,678</td>
<td>1,756</td>
<td>1,812</td>
</tr>
<tr>
<td>The share of exports in total revenues</td>
<td>34,89</td>
<td>34,70</td>
<td>34,54</td>
</tr>
<tr>
<td>Grubell-Lloyd index</td>
<td>0,747</td>
<td>0,726</td>
<td>0,711</td>
</tr>
</tbody>
</table>

Source Industrial strategy of Republic of Croatia 2012-2020

According to table 2, labor costs per unit are decreased from 0,53 in 2010. to 0,45 in, 2012. Current ratio is constant 1,12 for each year, same as gearing
ratio which is about 0.58. Operating profit margin in 2010 was 4.18, but next year was 8.36. This growth is positive indicator because it shows how much income left to company after covering production and overhead costs, therefore, all expenses except the cost of financing. Ratio of exports and imports is growing, but at low rate about 0.1% per year. This indicator should be even higher. Manufacturing industry exports many of its products, but also have high rate of import, due to lack of raw materials in the domestic market. Share of exports in total revenue is about one third. Grubell-Lloydov (GL) index indicates ratio of international exchange activities in relation to activities (intra-industry) or with unrelated activities (inter-industry). GL index takes values in the interval from 0 to 1, wherein a value of 0 indicates perfect inter-industry exchange, and the value of one perfect intra-industry exchange. Croatia is characterized by intra-industry exchange with average GL index 0.7. Export and import are two opposite terms and important indicators of the economy. A high import indicators shows lack of competitiveness of the economy and can create trade deficit.

The ratio of exports and imports is one of the components that determine the level of GDP together: with consumption, investment and government spending. Table 3 shows main characteristics of manufacturing industry according to size of enterprise (small, medium and large) in 2012. Main characteristics are: number of enterprises, number of employees, earning before tax (EBT) and net average annual salary.

**Table 3.** Characteristic of manufacturing industry according to size of enterprises in 2012.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Small</th>
<th>Medium</th>
<th>Large</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of enterprises</td>
<td>11,526</td>
<td>95.49%</td>
<td>3.51%</td>
<td>0.99%</td>
</tr>
<tr>
<td>Number of employees</td>
<td>224,441</td>
<td>39.79%</td>
<td>23.92%</td>
<td>36.28%</td>
</tr>
<tr>
<td>EBT</td>
<td>14.7 bil.kn</td>
<td>11.37%</td>
<td>10.40%</td>
<td>78.23%</td>
</tr>
<tr>
<td>Loss after tax</td>
<td>6.6 bil.kn</td>
<td>31.73%</td>
<td>21.87%</td>
<td>46.40%</td>
</tr>
<tr>
<td>Net average annual salary</td>
<td>55,818</td>
<td>41,883</td>
<td>53,356</td>
<td>71,245</td>
</tr>
</tbody>
</table>

Source: made by author according to Croatian Chamber of Economy

Total number of enterprises in manufacturing industry in 2012 was 11,526. Share of small enterprises is 95.45%, medium 3.51% and large 0.99%. Number of employees was 224,441, but 39.79% of them are employed in small, 23.92% in medium and 36.28% in large enterprises. The proportion of large companies is less than one percent, but in them is employed the biggest number of employees and have highest annual average salaries 77,245 HRK. Average net annual salary in industry is 55,818 HRK, in small enterprises 41,883 HRK,
in medium 41,883 HRK. Even the most of enterprises are small, they don’t have most of employees, have very low share in industry (EBT - 11.37%, while large enterprises have 78.23%). Total EBT is 14.7 bil. HRK. Opposite to EBT, loss after tax is highest in large enterprises, more than 46%. Although certain indicators according to company size are disproportionate, the greatest success is recorded in large enterprises, though small in numbers are the most common.

5. FUNDAMENTAL INDICATORS

Research was conducted on 30 small enterprises in the manufacturing industry in Republic of Croatian. Research is based on data from Business Croatia. Analyzed are basic indicators of human resources and finance in 2014. Table 4 presents four manufacturing sectors, which have largest number of enterprises. Sectors are: C10 Manufacture of food products, C14 Manufacture of wearing apparel, C16 Manufacture of wood and wood products and C25 Manufacture of fabricated metal products.

Table 4 Main sectors of manufacturing industry in Republic of Croatia

<table>
<thead>
<tr>
<th>Sector</th>
<th>Small enterprises</th>
<th>Total number of enterprises</th>
<th>Sample for research</th>
</tr>
</thead>
<tbody>
<tr>
<td>C10 Manufacture of food products</td>
<td>1366</td>
<td>1453</td>
<td>8</td>
</tr>
<tr>
<td>C14 Manufacture of wearing apparel</td>
<td>502</td>
<td>518</td>
<td>4</td>
</tr>
<tr>
<td>C16 Manufacture of wood and wood products</td>
<td>923</td>
<td>959</td>
<td>6</td>
</tr>
<tr>
<td>C25 Manufacture of fabricated metal products</td>
<td>1810</td>
<td>1872</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: Poslovna Hrvatska

Sector C25 is largest in manufacturing industry with total number of 1872 enterprises, respectively 1366 small enterprises. Sector C14 counts 518 enterprises; C16 has 959, and C10 counts 1453 enterprises. According table 4, sample of 30 enterprises is taken from sector: C10 - 8 enterprises, C14 - 4 enterprises, C16 - 6 enterprises and C25 - 12 enterprises. This study uses indicators such as: credit rating of enterprise, the number of members of the management board, number of employees, revenue per employee, net profit per employee, current liquidity, indicator of financial strength, net profit, EBT and so on. According to research, in 29 enterprises is only one member of management board. The reason is because in small enterprises entrepreneur is only one who brings up all decisions. Small enterprises are mostly individual enterprises. In only one enterprise there are 2 members of board. Credit rating is generally not high. Most enterprises - 18 have rating C, only 1 rating A, 7 rating B, rating
D and E both each 3 enterprises. Small enterprises are those who employing up to 50 employees. Within the small business, most of them are micro-enterprises that have 0-9 employees. According to research structure of employees is shown in table 5.

**Table 5.** Number of employees in small enterprises

<table>
<thead>
<tr>
<th>Number of employees</th>
<th>enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9</td>
<td>19</td>
</tr>
<tr>
<td>10-20</td>
<td>8</td>
</tr>
<tr>
<td>21-30</td>
<td>1</td>
</tr>
<tr>
<td>31-50</td>
<td>2</td>
</tr>
</tbody>
</table>

*Source*: made by author

Most enterprises have 0-9 employees. Such enterprises are small; don’t have enough humans and generally don’t possess knowledge nor the financial resources to be able to develop. That’s the main reason why small enterprises are not attractive for educated people. Another indicator in research is revenue of employees in manufacturing industry. Revenue per employee is one of the most important elements that make an organization attractive the workforce which is able to create added value. According to research, the most attractive are large enterprises. Revenue per employee is in 0 HRK in 4 enterprises, less than 100,000 HRK is in 5 enterprises, more than 100,000 less than 1 mil. HRK have 19 enterprises, and only 2 with revenue per employee more than 1 mil. HRK. After revenue per employee, average net salary in most enterprises is less than 4000,00 HRK in 24 enterprise, and higher than 4000,00 and less than 10,000,00 kn in 6 enterprises.

According to employee influence in enterprise EBT is negative in 4 enterprises, less than 100,000 kn in 19 enterprises and more than 100,000 in 7 enterprises. Similar to EBT, net profits are also negative in 4 enterprises. The highest rate of loss is more than 17 million HRK in one small enterprise with 0 employees.

**Table 6.** Current ratio, financial strength and Altman Z score indicators

<table>
<thead>
<tr>
<th>Current ratio</th>
<th>Number of enterprises</th>
<th>Financial strength</th>
<th>Number of enterprises</th>
<th>Altman Z score</th>
<th>Number of enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>18</td>
<td>negative</td>
<td>4</td>
<td>1,8-3</td>
<td>23</td>
</tr>
<tr>
<td>2 &amp; more</td>
<td>12</td>
<td>Less 1</td>
<td>15</td>
<td>3 &amp; more</td>
<td>7</td>
</tr>
<tr>
<td>1 &amp; more</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source*: made by author
According to table 6 current ratio is form 0-2 in 18 enterprises. Only 12 have more than two. This is positive indicator for development. Current ratio should be 2 or more, it means that the company has twice as much cash, receivables and inventories than short-term liabilities that are due. The reason is that small enterprises don’t have financial stability and don’t have proper and educated people. Other indicator is financial strength. Border measures of financial strength is 1, if it is negative it indicates that the company is threatening the viability of the market. 4 enterprises have negative financial strength and it’s very obvious that will stop work. Altman Z score model combines five different financial ratios to determine the probability of bankruptcy companies. Generally, if it’s the lower score there is more chance for bankruptcy. Companies with ratio higher than 3, are considered as healthy companies and are not likely to bankruptcy. Companies with ratios between 1.8 and 3 are in the gray zone. According to research only 7 enterprises is healthy, most of them are in gray zone.

According to the data presented on a sample of 30 companies and display of manufacturing industry as a whole, it is clear that small business in a very precarious market, economic and above all financial position. The human factor should be significant impact, but research has shown that a significant part of the company operates with 0 or 1 employees. This is a situation where it is not possible to develop human resources. Another negative situation is not attractive for small firms in terms of average wages that are much lower than in large enterprises. Small companies should recognize the importance of knowledge and human resources, rather than relying only on classical business elements such as capital and physical labor.

6. CONCLUSION

Manufacturing is one of the most important industries in the Republic of Croatia. It is one of the largest exporters, and importers, over time is neglected, but in times of economic crisis is one of the main activities that gives constant growth of 5-6%. Industrial production is neglected for years, but again is understood its importance and development.

In this paper, emphasis is placed on small enterprises that are in a global world, the foundation of development of successful entrepreneurship and the key to further economic development. Small businesses are the most numerous, but their lack of resources does not implement the best financial results. People
are the most important economic resource, and companies should have the best network of human resources, and therefore have the most attractive environments for business. Large enterprises achieve the highest revenues, but also the highest profit per employee. This paper analyzes the sector of small enterprises, precisely because it appears that small businesses do not have enough financial resources to attract the best and the most educated human frame, and a lack of resources have tended function of human resource management. In the future, the aim is to stimulate the function of human resources in small businesses, in order to enable better environment and thus create better financial results.

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Abstract

The paper deals with the issues of defining the institution in the social sciences and their practical applicability in the analysis of economic phenomena and processes, particularly with regard to economic development. It explores the relationship between the institutional infrastructure and the level of economic development. In the end, the fundamental shortcomings of the institutional infrastructure of the Croatian economy are shown and desirable and possible solutions are proposed, especially the measures to encourage development of appropriate institutions for a modern market economy that should be consolidated into a coherent, the long-term development strategy that will be acceptable to all stakeholders.

Keywords: new institutionalism, institutions, economic growth, transition

JEL Classification: O1, O3
1. INTRODUCTION

Understanding the basic tenements of institutional economics is extremely important for the contemporary economic policy, both because of the importance of the institutional infrastructure as a factor of modern economic growth of the national economy, and because it also significantly contributes to the understanding of the transition process of socialist systems to capitalism. Transitioning countries are faced with the challenge of “state-building” that becomes the subject of interest of the international community and post-modern society. When it comes to this, Croatia is currently at a crossroads. The makers of the development policy are faced with the task of designing and implementing appropriate strategies for economic and general social development, within which they are to select the most suitable institutional framework\(^1\), shaped not only by the characteristics of the national economy, but also the fact that the Republic of Croatia became a member of the European Union on the 1\(^{st}\) of July 2013.

2. THE CONCEPT OF INSTITUTIONS IN NEO-INSTITUTIONAL THEORY

The term “institution” is used extensively in our modern times. In colloquial speech it is synonymous with an organisation that carries out tasks in the public interest, while in legal terminology it signifies a socially or legally established form of relations between entities. In the social sciences, the concept of an institution is sometimes used as a synonym for a formal organisation (Pusić, 1996: 67-68). This is especially evident in the sociological approach. The definitions of institutions by new institutionalists, to some extent, stem from the definitions by old institutionalists. They are attempting to build on and expand the old definitions and apply their new forms to a vastly more complex social context, explaining the concept of institutions in different ways.

In political science, institutions are typically associated with the standard. Thus, for example, for March and Olsen (political) institutions are built from norms or rules understood in a very broad sense, and not necessarily as formal structures. Rules include “routines, procedures, conventions, roles, strategies, organisational forms and technologies around which political activity is built” and

\(^1\) “The outstanding discovery of recent historical and anthropological research is that man’s economy, as a rule, is submerged in his social relationship.” (Polany, 1944: 46).
beliefs, paradigms, codes, cultures and knowledge that surround, support and explain these roles and routines, or contradict them (March and Olsen, 1989: 22).

In neo-institutional economy, institutions are generally understood as permanent systems of established and embedded social rules that have a share in the ideas that build social interaction. Considering the very broad definition, institutions include a wide range of social interactions such as “languages, traffic conventions, organisations or companies, and various products and market services. Even table manners can be considered an institution” (Hodgson, in: Wang and Holton III, 2005: 92). According to Toll, every culture features rules for thinking and acting that are embodied in institutions. Institutions are made up of habits and habitual behaviour, and are the prescribed patterns that regulate and stabilise the execution of various social tasks (Toll, in: Sjöstrand, 1993: 8).

North defines institutions as “rules of conduct that structure human relationships: one person’s opportunity is another’s limitation” (North, 2003: 13), which reduces the effect of the variable of uncertainty in everyday life, including economic transactions. Since the institutional infrastructure was created over a long period of time, time and/or powerful and determined social mobilisation is required for it to change. Also, there is a complex system of relationships between political, economic and cultural institutions, which should be borne in mind when analysing a particular area (politics, economies and cultures, i.e., the social capital). In studying the development and changes of institutions, the impulse of change may arise from the economic and cultural spheres and become accepted by politics, and, in turn, political reforms can initiate cultural and economic changes. Sometimes, as is the case of the transition of post-socialist countries to capitalism, these changes take place simultaneously, and it is difficult to differentiate between the drivers and the followers, particularly in the relationship between politics and economics, which are often formally and informally intertwined through common goals, actors and interests.

Similarly to institutional economists and economic historians, institutionalists of the school of rational choice initially saw institutions as sets of rules used in order to prescribe, ban and allow certain behaviour. Members of the organisation (or institution) consensually follow these rules in exchange for the benefits arising from their membership within the structure. Although very similar to the definition of institutions represented by normative institutionalism, the main difference is in the degree of formality and feasibility implied by the words “norm” and “rule.”
The second version is also based on rules, but they fulfil an entirely different purpose. In this case, institutions are the means to avoid the basic problem of collective action, and provide a set of agreed rules that indicate priorities in decision making. The third version is described by Peters as “individuals within institutions”, because its rational actors are trying to use institutions to meet their individual goals. The school of rational choice features other versions of institutions such as a version based on game theory, and so on (Peters, 1999: 47-52).

Many authors point out as positive the fact that the school of rational choice, as opposed to historical institutionalism, emphasizes the functional view of the institution. However, Thelen states that there were numerous non-functionalist, who had a more pronounced historical view of institutions, within the school of rational choice (Thelen, 1999: 378-379).

Peters believes that there are three basic types of answers to the question of what institutions are. The first group emphasizes the normative nature of the institution. It assumes that values restrict individuals. Due to this, although individuals can bring with them some values when joining an institution, through the mere fact of joining they willingly accept the institution's values as the dominant. The second group of answers defines institutions through rules. They restrict individual behaviour within the institution and, in contrast to norms, in a much more rigorous and formal way, show what a good member of the institution can and cannot do (this is typical of the school of rational choice). The third group of answers relies on the view that individual behaviour can be limited by established patterns of interaction among institutions. However, this criterion is limited by tautology because, in some approaches, institutions are defined by their ability to restrict behaviour, and yet this restrictive ability is taken as a relatively independent criterion (Peters, 1999: 146).

As can be seen from the above, many authors' definitions of institutions include norms in the conceptual delineation of institutions. Pusić believes that norms should not be introduced into the notion of institutions as such, despite the fact that an institution's concrete reality includes both norms and people's actual behaviour. Institutions are directly tied to social norms, but these social norms often remain just so many words, and people's behaviour is separated from normative references. For this reason, he introduces the concept of expectation, which better signifies the contingency of the relationship between norms and behaviour. As a generic term, an institution can stand for a “social structure whose key element is a set of interrelated expectations, i.e. a system of ex-
pectations concerning behaviour” (Pusić, 1989: 182), stabilised in their social\(^2\), temporal\(^3\) and substantial\(^4\) dimensions. They are originally formed through habitualisation, factual repetition of a certain sequence of actions in the course of an interaction, which gradually becomes binding, and are later more frequently formed through explicit normative establishment. Institutions are maintained through the internalisation of relevant norms in the minds of sufficient numbers of people, and the socialisation of new generations (Pusić, 1989: 143, 182-197).

In sociology, the basic definition of institutions is that they are ordered and established processes that make up the components of society (“rules of the game”). Institutions deal with varying contents. Some can be seen as organisations, while others cannot (e.g. voting, marriage, labour markets, and academic fields). Some are more “cultural” (e.g. shaking hands), while others are more “structural” (e.g. corporations). However, despite the differences, all imply a stable form for accepted activities that are repeated in a sequence. This is the basic idea at the core of how institutions are understood in sociology (Jepperson, 1991: 143-145). Sjöstrand and other authors attempt to define institutions from the socio-economic aspect as a “human mental construction of a unified system of participating (imposed) rules governing individual interactions in repeated situations” (Sjöstrand, 1993: 9) while institutionalisation is referred to as “the process by which individuals intersubjectively approve of, internalise and externalise this mental construction” (ibid.).

Sociologist Scott maintains that “institutions consist of cognitive, normative and regulative structures and activities that provide stability and meaning for social behaviour” (Scott, in: Peters, 1999: 106). On the one hand, such a broad definition is preferred because it opens up the possibility of different interpretations of the concept of institutions both in scientific and everyday language. On the other hand, it cannot distinguish between institutions and other forms of organisation or social structures (Peters, 1999: 106). Both Scott and

\(^2\) Expectations stabilised in accordance with the social dimension signify that “most of society’s members assume that most of society’s members will comply with institutional norms” (Pusić, 1989: 143). Institutions are differentiated in accordance with the social dimension through the existence of different institutions for particular subsets of the society (Pusić, 1989: 186).

\(^3\) The stabilisation of an institution in accordance with the temporal dimension signifies the durability and stability of a social structure (Pusić, 1989: 184).

\(^4\) Stabilisation in accordance with the substantial dimension means that “personal interests and goals of actors in an institution gain the characteristics of impersonality and objectivity not only towards third parties, but the actors themselves” (Pusić, 1989: 184).
Meyer define the institution relying on the empirical, flatly and with no historical dimensions. They believe that the norms of institutions produce actors who operate within institutions and later regulate their activity. According to them, most institutions start off as organisations “formed around rationally selected goals through the making of rational regulations, mainly regulations of positive rights, and not crystallised through a long process of formation of normative expectations around powerful pre-rational motives turned into institutional purposes” (Pusić, 1996: 80).

Similarly to Scott and Meyer, many other authors, especially those who analyse institutions from a sociological perspective, do not make a clear distinction between institutions and organisations. This is not surprising since modern institutions and organisations are rather intertwined, so it is often difficult to differentiate between the two. However, it is necessary to explicitly distinguish between these two related phenomena. An institution is undoubtedly not the same as an organisation, although the organisation may eventually become an institution\(^5\). Furthermore, institutions are not mere formal norms, although they are often made up of norms. These include social beliefs, cultural patterns and other stable forms of behaviour that are repeated in a habitual order. If norms (or rules) are understood in a broad sense as maintained by March and

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\(^5\) With this in mind, it is worth noting Pusić’s explanation, which highlights the fact that the institution is phylogenetically presumably an earlier occurrence than the organisation, since it is initially based on emotionality and emotions, which are tied with instincts, while the organisation as a widespread form of a social structure only occurs with the affirmation of rational orientation in human consciousness.

Within the institution, motives, interests and needs of people are turned into permanent institutional purposes, and the norms constituting institutions only become the normative expectations of the entire social environment with the passing of time. On the other hand, organisational goals are set through the formal act of founding by the founders. Mutual relations between the members of an organisation and methods of work within the organisation are established in an equally formal fashion. It is precisely the formality in organisations which constitutes one of the key points of their differentiation from institutions. “Formally” signifies that something was established through some positive regulation or contract, regardless of whether it is known to its addressees, whether it was internalised in their consciousness and whether it had time to morph into general expectations within a social community (all of which are essential features of institutions). For this reason, organisations demonstrate greater elasticity in changing and adapting, but are less stable and more poorly accepted compared to institutions. While there are institutions which are not organisations (e.g. marriage and ownership), every organisation is potentially an institution since it assumes that its members are aware of the normative requirement of their own and other members’ behaviour. Even with an organisation’s emergence, the starting point is people’s motive, interest or need, with the difference being the fact that these turn into a rational goal of an organised activity within the organisation, but they remain the charismatic purpose within the institution. With the time’s passing, even the goals of an organisation can turn into institutional purposes, and positive regulations can be habitualised into normative expectations (Pusić, 1996: 93-96, and 2002: 174 -176).
Olsen or neo-institutional economists, then they can be included in the definition of institutions. However, if norms merely signify formal rules, it is more prudent to exclude the concept of norms from the definition of institutions, and, as suggested by Pusić, introduce the concept of expectations.

3. INSTITUTIONS AND ECONOMIC GROWTH

In the late 1980s, and especially at the beginning of the 1990s, there were a number of empirical studies based on the so-called Barr’s growth equation (Barro, 1997), which allows for systemic and comprehensive analysis of the major economic and socio-political factors that affect economic growth, displaying their statistical significance through the model of \[ G = f(y, y^*) \], where \( G \) is the growth rate of the per capita output, \( y \) indicates the current level of the per capita output, and \( y^* \) indicates the long-term state of the per capita output level. The target size for \( y^* \) depends on the amplitude of choice and the variables in its immediate vicinity, such as the savings rate, fertility rate, the terms of international trade and the rule of law. The results of such an analysis empirically evidence the impact of factors that are regularly deemed essential in the theory of economic growth: (1) the initial level of GDP, (2) the initial level of human capital, (3) fertility rate, (4) public spending, (5) the index of the rule of law, (6) the terms of international trade, (7) the ratio of investment and output, (8) inflation and (9) the level of political rights.\(^6\)

\(^6\) (1) The initial level of GDP - expresses a negative coefficient, which suggests a slower growth rate of developed economies, in as much as all other variables are equal.

(2) The initial level of human capital - a higher level of workers’ education generally contributes to economic growth through higher labour productivity.

(3) Fertility rate – it is negatively correlated with economic growth, since population growth increases the share of investment used for providing the capital for new workers, instead of raising the level of the capital equipment of existing workers.

(4) Public spending – by dropping those forms of public spending which improve productivity from the analysis, for example, expenditure on education, Barro concludes that increasing unproductive public spending slows economic growth.

(5) The index of the rule of law - a higher level of the rule of law has a positive effect on economic growth. Variables included in the index of the rule of law in Barro’s analysis include, among others, the quality of bureaucracy, the level of corruption in politics, the performance of contractual obligations by the government, the risk of expropriation by the government and the overall maintenance of the rule of law in the country.

(6) The requirements of international exchange - expressed through the relationship of export prices to import goods, their changes impact the real GDP only when they stimulate changes in domestic output and employment.
In addition to these, there are other variables that are important for economic growth, but they are regularly difficult to measure. Identifying the basic ingredients of economic growth is the first, and not always the easiest, task for any country seeking prosperity. However, as the controversy over the famous Washington Consensus demonstrates, the pace and order of reforms which aim to achieve each of the variables in practice are still the subject of debate. The fact suggests itself as an empirical conclusion that blind acceptance and implementation of reforms, which come from the direction of Washington with the best intentions, very often lead to crisis and recession (as in the example of Argentina, Russia, Hungary, and, to a certain extent, Croatia), while their modification and selective application, i.e. seeking their own developmental path, can have a positive effect (as in the example of Brazil, India, China and Slovenia). However, before starting any debates on specific economic policy measures to achieve high rates of economic growth, there is the question of organisation, that is, whether a country can be socially organised and create the appropriate climate and institutional infrastructure suitable for modern economic growth.

Romer divides the numerous aspects of social (institutional) infrastructure into three groups (Romer, 2001: 144). The first deals with the features of a government’s fiscal policy, which directly affects the relationship between private and social benefits. If, for example, the government sets tax rates that are too high, the result is a stimulus to rent-seeking in the form of tax evasion or growth of the underground economy, due to which public revenues begin to decline. The second group refers to the factors that shape the environment in which private decisions are made. If, for example, a country is ruled by organised crime or war, private benefits from investment and other activities that increase the output will be very small. The same is true in the case of an inefficient judiciary.

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(7) The ratio of investment and output – it is positively correlated with economic growth, but Barro emphasizes the importance of the reverse causal relationship between these two variables, especially in open and developed economies where economic growth creates and attracts new investment.

(8) Inflation - high inflation rates negatively correlate with the rate of economic growth, but this study also shows that the relationship between these two variables is not statistically significant for inflation rates below 20% on an annual basis.

(9) The level of political rights – an increase in the scope of political rights promotes economic growth to a certain degree. Once a moderate level of democracy is reached in a given society, increasing the level of political rights tends to slow down the growth of economy, due to a tendency towards the creation of increasingly pronounced redistributive policies and strengthened roles of various stakeholders. Barro concludes that the “net effect of democracy on growth is theoretically uncertain”. (Barro, 1997: 51).

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7 According to Jones’ definition (Romer, 2001: 144).
or antitrust regulations. The third group of institutions and policies that form the social infrastructure is made up of government rent-seeking activities, such as unjustified expropriation or approval of grants and subsidies, bribery of public officials, or any abuse of power for the private benefit of government officials (Romer: 2001: 145-146).

The differences between West and East Germany, North and South Korea, Hong Kong, Taiwan and China are listed as evidence of the links between social, i.e. institutional, infrastructure and the level of GDP per country. In these countries, many of the variables that affect the GDP were identical before their division: climate, natural resources, the initial levels of physical and human capital, cultural attitudes towards savings, work, and entrepreneurship, and yet their output per worker is dramatically different. At the time of German reunification in 1990, the output per worker in the West was 2.5 times higher than in the East, while in 1997, when the People's Republic of China annexed Hong Kong, this ratio between Hong Kong and China was 10:1. On the other hand, in the still independent Taiwan the output per worker is 5 to 10 times higher than in PRC (Romer, 2001: 147).

The next group of evidence consists of empirical researches that connect the various elements of social infrastructure with growth rates and levels of GDP. Relevant research was initiated by Barro (Barro, 1991), who included the measures of political stability as the assessment of institutional quality in a cross-country analysis of the long-term growth, surveying 98 countries in the period from 1960 to 1985. His dependent variable was the average rate of GDP growth in that period, and independent variables included: the initial GDP, the initial average number of years of education, government spending, market distortions and existing investments, while the indicators of institutional quality were the number and frequency of coups, revolutions and assassinations. His econometric model, which was later only slightly changed, adapted and perfected by other researchers, has proven that there is a positive link between political stability and economic growth.

In their evaluation of institutions Mauro (Mauro, 1995), and Knack and Keefer (Knack and Keefer, 1995) introduced subjective indicators, which create certain commercial indicators for their customers’ – international investors – needs: Business International (BI), today a part of The Economist Intelligence Unit (EIU), International Country Risk Guide (ICRG), and Business Envi-
rnonment Risk Intelligence (BERI). Mauro used nine indicators of institutional effectiveness (Mauro, 1995: 684) and found a negative correlation between corruption and investment, efficiency and economic growth, both in statistical and economic terms. In his work, he noticed the problem of causality since his indicators represented the average for the period from 1980 to 1983, and he measured investment and growth for the period from 1960 to 1985, which can be interpreted in a way that the increase affected the observed indicators. He also concluded, by controlling endogeneity through ethno-linguistic fractionalisation, that the efficiency of public administration leads to higher investment and growth (Mauro, 1995: 705). Furthermore, widespread corruption discourages foreign investment, further slowing economic growth, and leads to the deterioration of political stability and the level and quality of education, which slow growth even further. Problems in this group of analyses occurred in terms of data collection methodology, which was often not transparent enough (since the data are impossible to indirectly, “physically” measure), and the frequent lack of sufficiently long time series of quality collected data, construction of the models, i.e. indices, themselves, and the selection and evaluation of relevant variables.

Brunetti, Kisunko and Weder (1997) used the data obtained through the research of attitudes of 3600 private entrepreneurs from 69 countries. Based on 25 questions they asked, they concluded that, in less developed countries, most entrepreneurs criticised the governments for not doing enough to ensure their personal safety and protection of property rights, and that they did business in constant fear of sudden political changes and new rules that could seriously affect their business. Entrepreneurs in Asia were the least fearful of changes in rules and policies, those in the countries of the CIS welcomed changes with most cynicism, and more than half of respondents in Latin America and Central and Eastern Europe did not trust their governments and their reform activities. Similar to the CIS entrepreneurs, they saw major obstacles in the

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8 As well as their possible multiple connections, i.e. interdependence. Also, the results largely depend on perception, often of foreign analysts and researchers, so any obstacles and shortcomings they perceive do not necessarily apply to local businesses.

9 CIS - Commonwealth of Independent States, Russian: СНГ (SNG) - Содружество Независимых Государств. It consists of nine member states (Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan and Uzbekistan) and two associate countries (Turkmenistan and Ukraine) that take part in its activities. A free trade zone has been established between the member states.
unreliable judiciary, difficulties in financing, and corruption and crime. In contrast, entrepreneurs in the industrialised countries of Europe and Asia saw their biggest obstacles in labour legislation, environmental protection and the cost of regulation, while their common problems were, first and foremost, the height of the tax burden and difficulties in launching new business ventures.

When examining the relationship between institutions and growth, some researchers focused on the Asian “tigers” because they felt that institutions were partly responsible for the high growth rates of these countries. The case of East Asia (Korea, Singapore, Taiwan, Thailand, Japan, Malaysia, Indonesia and the Philippines) was investigated by Rodrik (1997), who used the ICRG index and concluded that the institutional quality index was good at ranking the countries by their successful economic growth. His model included, as the independent variables, the initial GDP, education, and the institutional quality index, and used it to explain almost all variations of growth in the region for the period from 1960 to 1994. Since the index of institutional quality was designed for the period of the 1980s, the issue of endogeneity arose, which he also tried to solve by using an instrumental variable - ethno-linguistic heterogeneity. He showed that countries with greater heterogeneity had a harder time maintaining good institutions. He concluded that the level of investment (i.e. the accumulation of capital) and the quality of institutional infrastructure (especially the quality of public administration, rule of law, protection of private property and contract enforcement by the authorities) are positively correlated with the level of economic growth, and the importance of the institutional framework in East Asia lies in the fact that it has allowed for minor side distortions in the implementation of the industrial policy.

Furthermore, when investigating the effects of the quality of institutions and economic policy measures on economic growth, Edison (2003) proved the dominance of the quality of institutional infrastructure over economic performance, while economic policy measures had little independent influence. He also acknowledged the possibility of a causal connection, and a factual close connection of the two main groups of variables, and concluded that “economic policies are not unimportant, but their impact on economic performance is already reflected in the strength of the institutions” (Edison, 2003: 27).

The issue of causality in particular was addressed by Chong and Calderon (2000), showing that it exists in both directions, and that good institutions pro-
mote growth, which in turn leads to the adoption of good institutions. The result was attained through observing the growth rate of GDP per capita from 1972 to 1995, and by using Geweke’s method of testing causality, since it allows for the linear feedback effect between institutional quality and economic growth to be tested, using the BERI indicators. They found that the impact of institutional reforms on growth is greater in poor countries, and that they regularly require longer periods than developed countries.

Therefore, we can say that some empirical studies have managed to prove a positive correlation between the quality of institutional infrastructure and long-term GDP growth, and that quality institutional infrastructure and political stability (Barro, 1991) are the prerequisites of an effective economic policy (Edison, 2003), as well as long-term economic growth (Mauro, 1995, Knack and Keefer, 1995, Rodrik, 1997). It is also evident that good institutions stimulate economic growth, and that high growth rates are favourable for the development of high-quality institutional infrastructure (Chong and Calderon, 2000), which actually makes institutional infrastructure a kind of an endogenous factor of economic growth.

4. THE INSTITUTIONAL INFRASTRUCTURE OF SELECTED ECONOMIES IN TRANSITION

4.1. Fundamental flows in institutional infrastructure

Economic growth is conditioned by many institutions. Rodrik identifies the following institutions relevant for economic growth: property rights protection, regulatory institutions, macroeconomic stability, social security institutions and conflict resolution institutions. Rodrik points out the importance of “local knowledge,” and argues that a strategy of institution building must not over-emphasize best practice “blueprints” at the expense of experimentation. Participatory political systems are the most effective ones for processing and aggregating local knowledge. Democracy is a meta-institution for building good institutions. A range of evidence indicates that participatory democracies enable higher-quality growth (Rodrik, 2000: 4).

Using Rodrik’s understanding of institutions which are vital for economic growth we will use the data from the The Freedom House (The Nations in Transit), Transparency International Corruption index and Heritage
We will use it to see if membership in EU had any impact on development of efficient institutions which would in turn help countries economic performance. We will use the data for “new” EU member states namely: Slovenia, Hungary, Slovakia, Poland, Czech Republic, Latvia, Lithuania, Croatia and countries from South Eastern Europe which aspire to join EU like Macedonia, Montenegro, Bosnia and Herzegovina and Serbia. (In the following tables bold data marks the year when countries joined EU; 2004 for Slovenia, Hungary, Slovakia, Czech Republic, Poland, Lithuania, Latvia and Estonia and 2013 for Croatia.)

**Freedom House** is an independent watchdog organization dedicated to the expansion of freedom and democracy around the world ([https://freedom-house.org/about-us 2/3/2016](https://freedom-house.org/about-us 2/3/2016)). The organization recognizes that: “freedom is possible only in democratic political environments where governments are accountable to their own people; the rule of law prevails; and freedoms of expression, association, and belief, as well as respect for the rights of minorities and women, are guaranteed” (ibid). We will use their nations in transit to illustrate the impact of EU accession on democracy, judicial independence and public service sector. The scores are from 1 (highest) to 7 (lowest).

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10. We haven’t used the World Bank doing business and Worldwide Governance Indicators since they are quite similar to (and partially based on) the selected indicators and cover shorter time periods.

Electoral process examines national executive and legislative elections, electoral processes, the development of multiparty systems, and popular participation in the political process (Nations in Transit, 2015, p. 9). As we see from the results the membership in EU has generally improved the score of the New EU member states after their accession to EU in 2004 with the exception of Hungary which after the return to power of Viktor Orban and its concept of “illiberal democracy” has fallen a bit here. On the other hand countries which are outside the EU have a significantly lower score here including Croatia which has been a member state of EU only from 2013. After all it takes time for democracy to really start working.

**Civil society**

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Civil Society assesses the growth of nongovernmental organizations (NGOs), their organizational capacity and financial sustainability, and the legal and political environment in which they function; the development of free trade unions; and interest group participation in the policy process (ibid, p.9). Here the gap between the Central European states and Balkan states is the lowest since EU and USA have promoted civil society in Balkans by funding numerous NGOs through European Neighbourhood & Partnership Instrument (12)https://ec.europa.eu/europeaid/sectors/funding-5_en13, as has previously done in the late 1990s and early 2000s for the EU member states which joined EU in 2004.

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Independent Media addresses the current state of press freedom, including libel laws, harassment of journalists, and editorial independence; the emergence of a financially viable private press; and internet access for private citizens (Nations in Transit, 2015, pp. 9-10). Independent media is quite an important condition for democracy since media function as a sort of watchdogs for government’s misuse of power and informs the public of it. Media should be independent from not only government’s political influence but also from the influence of big corporations which is harder to achieve nowadays.

### National democratic government

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National Democratic Governance considers the democratic character and stability of the governmental system; the independence, effectiveness, and accountability of legislative and executive branches; and the democratic oversight of military and security services (Nations in Transit, 2015, p. 9). Democracies usually grow slower than its autocratic rivals at least in the short run (Rodrik, 2011: Olson, 2000). Olson measured economic efficiency of autocracy vs. democracy. He took into account how these two systems of government can provide for the recognition and protection of property rights, the implementation of contracts, and giving us the stable currency without inflation. As he pointed out: “Economy will generate its maximum income only if there is high rate of investment. Much of the return on long-term investments is received long after the investments are made. In autocracy the autocrat, who is trying to have a long term view, will try to convince his subjects that their capital will be permanently protected not only from theft by the others but from confiscations by the autocrat himself. If his subjects fear expropriation, they will invest less, and in the long run his tax collections will be reduced” (Olson, 2000, p. 25). Historic experience shows us that usually democratic countries have lower GDP growth rates in the short run but in the long run they outperform autocracies (Olson, 2000).

Local Democratic Governance

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Local Democratic Governance considers the decentralization of power; the responsibilities, election, and capacity of local governmental bodies; and the transparency and accountability of local authorities (Nations in Transit, 2015, p. 10). It also points out how effective local authorities are in promoting investments in their municipalities and how strong are bottom up incentives in government as whole. Even if Croatia is not rated highly in this regard Croatian local government
showed good incentive in setting up local investment promotion agencies when such a central agency was lacking at the national level (Vedriš et al, 2012)

**Judicial framework and independence**

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This index highlights constitutional reform, human rights protections, criminal code reform, judicial independence, the status of ethnic minority rights, guarantees of equality before the law, treatment of suspects and prisoners, and compliance with judicial decisions (Nations in Transit, 2015, p. 10). Judicial independence and its efficiency is one of the most important conditions of economic growth and development (Ahtik et al, 2009). Olson also numbers the protection of property rights and contract enforcement as key ingredients for economic growth with impartial and efficient judicial system (Olson,2000)

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Corruption focuses on public perceptions of corruption, the business interests of top policymakers, laws on financial disclosure and conflict of interest, and the efficacy of anticorruption mechanisms (Nations in Transit, 2015, p. 10). Corruption has a negative impact on economic growth since it eliminates the market (Vranjican, 2009) and free competition.

Transparency international corruption index gives us more or less the same results for these countries. CPI range is from 1 (worst score) and 10 (best score) and it is built on the research on how citizens of each country view the corruption in their public sector.

**CPI index**

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**Source:** [www.transparency.org](http://www.transparency.org)\textsuperscript{14}

\textsuperscript{14} retrieved 23.03.2016.
Democracy scores

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According to Nations in Transit a country’s Democracy Score is the average of its ratings on all seven indicators and it moves in the range from 1-7. Based on it Freedom House assigns each country to one of the following regime types: “Consolidated Democracies: Countries receiving a Democracy Score of 1.00–1.99 embody the best policies and practices of liberal democracy. Countries receiving a Democracy Score of 2.00–2.99 perform equally well on many indicators, but face challenges—often associated with corruption— that contribute to a slightly lower score. Semi-Consolidated Democracies: Countries receiving a Democracy Score of 3.00–3.99 are electoral democracies that meet relatively high standards for the selection of national leaders but exhibit some weaknesses in their defense of political rights and civil liberties. Transitional or Hybrid Regimes: Countries receiving a Democracy Score of 4.00–4.99 are typically electoral democracies that meet only minimum standards for the selection of national leaders. Democratic institutions are fragile, and substantial challenges to the protection of political rights and civil liberties exist. The potential for sustainable, liberal democracy is unclear” (Nations in Transit, 2015, p.10).

As we can see majority of the new EU member states are classified as consolidated democracy with Slovenia and Estonia being the best placed. Hungary is the only country being graded lower than its peers in 2015 it was given the grade of Semi-Consolidated democracy thanks to the authoritarian rule of its prime minister Viktor Orban. But what is more all of these countries compete with each other in attracting FDI. Three distinct types of competition state ex-
ist in Central Eastern Europe according to Drahokuopil\(^\text{15}\): competition states in the Visegrád Four can be called *Porterian* since the industrial policies in the V4 are based on competitiveness theory promoted by the Michael Porter. As the main feature of the Baltic competition states Drahokuopil identifies macroeconomic stability driven neoliberal states with monetary institutions at their core (Drahokuopil, 2009). Baltic States main strategy compromises attracting and keeping investment primarily by market forces and by the provision of a low-cost, flexible environment. Unfortunately this can have adverse consequences for social inclusion. Slovenia according to Drahokuopil has developed a distinct type of competition state, which can be characterized as *balanced neo-corporatist* whose main feature is that negotiated industrial relations play a crucial role in balancing the potentially contradictory tasks and institutions of Slovenian competition state (Drahokuopil, 2009, pp. 46-48).

On the other hand Croatia, Serbia and Montenegro have been classified as semi consolidate democracies and their economic performances and the ability to attract FDI have been and are still weaker than the ones of the New EU member states from Central Europe and Baltic. Democracy and institutional effectiveness go hand in hand according to Rodrik (Rodrik, 2011). In the last place classified as Transnational or hybrid regimes are Bosnia and Herzegovina and Macedonia. They have the worst economic performance and the weakest institutional structure of all the countries in our study. As Olson pointed out capital will be invested in countries with weak protection of property rights and enforcement of contracts only if it can generate high levels of return and if the “autocrat” is willing to vouch for some of the returns (Olson, 2000). Property rights and contracts are after all best protected and enforced in democratic governments with strong institutional infrastructure.

**Heritage foundation index** captures the level of economic freedoms in different countries understanding that economic freedom is fundamental right of each individual to control their work and property. The score is based from 0 (worst) to 100 (best).

\(^{15}\) Drahokuopil gives the following explanation of the competition state: “By definition, the concept of the competition state underscores that state strategies are subordinated to the imperative of competition. States not only compete to attract investment but implement policies that are likely to retain investors within the locality (i.e., prevent investment flight) (Drahokuopil, 2009, p. 17).
Overall score

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</tr>
</tbody>
</table>

16 The overall score is derived from results gained from more specific indices that are produced from measurements of respective variables (http://www.heritage.org/index/about- retrieved 23.03.2016.) related to: property rights (component of this index is an assessment of the ability of individuals to accumulate private property, secured by clear laws that are fully enforced by the state. It measures the degree to which a country’s laws protect private property rights and the degree to which its government enforces those laws. The 8 new EU member countries have a better protection of property rights than the rest of our observed group; freedom from corruption (which is derived from Transparency international index and shows similar results to it); fiscal freedom (measures the tax burden imposed by the government on its citizens. All of our observed countries do well in this index with the exception of Slovenia who has a strong welfare state and therefore needs a lot of revenue in order to finance it); government spending (measures the government spending as percentage of GDP. All of this countries have a moderate level of government spending); business freedom (a quantitative measure of the ability to start, operate, and close a business that represents the overall burden of regulation as well as the efficiency of government in the regulatory process (http://www. heritage.org/index/regulatory-efficiency- retrieved 23.03.2016). The new EU member states lead the way here but Montenegro and Macedonia also have a good level of business freedoms as well); The labor freedom component is a quantitative measure that looks into various aspects of the legal and regulatory framework of a country’s labor market. It provides cross-country data on regulations concerning minimum wages, laws inhibiting layoffs, severance requirements, and measurable regulatory burdens on hiring, hours, and so on. Macedonia, Serbia and Montenegro achieve the best scores here since the level of protection of worker’s rights and minimum wages is the lowest one here which is a development strategy pursued by these countries in order to attract FDI; monetary freedom combines a measure of price stability with an assessment of price controls. All of these countries have opted for a low inflation since the memories of communist times when prices run amok with high inflation levels are still fresh in them. Lithuania, Latvia, Estonia, Slovakia and Slovenia are also members of Euro area; trade freedom shows how open is the trade in those countries (absence of tariff and non-tariff barriers to trade). All of them are members of / or have applied to membership in WTO, therefore the good score results should not surprise us; investment freedom captures the freedom of movement of capital both inside the country and with other countries. EU member states achieve higher score here since they are members of single market but all of the observed countries had to liberalize their capital markets in order to apply for EU membership; financial freedom is a measure of banking efficiency as well as a measure of independence from government control and interference in the financial sector.
By gaining independence from Yugoslavia and entering the transition process, Croatia has faced a complex problem of creating an independent and sovereign state on the basis of an inherited, inefficient socialist state of the federal type. Many government functions from the former system had to be changed, and, at the same time, new institutions appropriate for a modern sovereign state and market economy needed to be created. The initial results of building new institutions, from the political sphere (e.g. electoral legislation) to the economic and social issues of the ownership of the means of production (legal regulation and control of the privatisation process), indicate the tendency of the new ruling elites to shape the institutions in a way that will facilitate their remaining in power and the future expansion of political power and economic influence in society.

The recent economic literature generally emphasizes the fact that the macroeconomic stability and openness of a country are necessary, but not sufficient conditions for the construction of a market economy, its sustainable growth and development, and thus achieving a high level of citizen welfare. Government institutions need further adjustment to market conditions, both in terms of the protection of property rights, education, health, physical infrastructure, maintaining order and law enforcement, and environmental protection, and in terms of regulation policies, social protection and structural reforms. The recommendations by the Institute of Public Finance (Ott et al., 2000: 2) to improve the institutional infrastructure in Croatia put particular emphasis on
the basic principle and the basic starting point in reforming a state: the state should not take over those jobs that the market performs better than it, but should intervene where the market fails. The state should minimise the role of entrepreneurs, and use measures to create a favourable environment for the development of the private sector. State institutions determine the environment in which the market operates, and an inefficient institutional environment leads to arbitrariness of a section of state agencies and rentier behaviour by public officials. In order to achieve the objectives of creating a smaller and more efficient state, it is necessary to encourage the development of institutions appropriate for a market economy\textsuperscript{17}, especially:

a) The transformation of institutions that ensure the state’s security, and the adherence to law and order, in accordance with peacetime conditions and the accession to Euro-Atlantic integration;

b) The creation of a stable and transparent legal system that will be effective in enabling business and protecting creditors and property rights, which will ensure that contracts are respected. The changes in the legal system require an increase in the investment in the education of new judges and the development of modern management structures. In order for court proceedings to become faster, it is necessary to (Uzelac, 2004: 106):

- Reform the procedural legislation;
- Delegate the tasks currently carried out by the courts to other government and community services and private professions (especially notaries), and delegate the tasks that are not in the centre of judicial functions to other persons within or outside the court;
- Optimise the organisation of the judiciary at the national level (the system of jurisdiction) and at the level of each court (reorganise the functioning of court administration);
- Change the Land Registration Act; modernise the land registry and reconcile it with the cadastre; make the registration procedure easy, cheap and effective; develop and implement a registry of securities for real estate and movable property;
- Establish legal consistency in the judiciary, precisely determine the criteria for the distribution of cases among judges, and clearly define the rules for the judges’ accountability;

\textsuperscript{17} For more details, see: Ott et. al: 2000, OECD: 2003 and FIAS: 2001.
c) A reform of state institutions and changing the role of officials from the rulers to those who serve the public. It is necessary to create efficient, professional, independent and non-corrupt institutions and officials who favour the market. A professional, efficient and independent administration does not fall under the influence of various interest groups, but comes to decisions independently and responsibly, and implements them in the same fashion. The transparency of government policy and the clarity, speed and impartiality of administrative procedures provide safety in business and provide room for further strategic business planning. It would also be useful to introduce the principle of tacit approval in the functioning of the administration - if the competent authority fails to respond within a certain appropriate period of time, this signifies consent (EBRD 2003: 181). Additionally, it is necessary to strengthen the coordination of the administration in order to avoid the overlapping of responsibilities between the governing bodies and eliminate unnecessary complex and lengthy administrative procedures that detract foreign investors and are a potential source of corruption. Greater efficiency of state functions can be achieved by reducing the number and changing the qualification structure of civil servants, developing a motivational system and a reward system, educating and training employees, introducing an adequate system of punishment for corrupt officials and employees, as well as reducing the benefits, while simultaneously increasing the cost (risk) of corruption.

In the fight against corruption, emphasis should be placed on a disincentive for giving and receiving bribes, in relation to the system of ex-post control, including through (Rose-Ackerman 2002: 43):

- Removing the programs marred by corruption;
- Establishing valid privatisation processes;
- Implementing the reforms of government subsidies, incentives and other transfer payments;
- Reforming the system of appointment, dismissal and supervision in the civil service,

thus reducing operating costs and eliminating distortions in the allocation of resources, especially state investment;
d) The creation of a social security system and social partnership which will aid the socially vulnerable and unemployed. Continuous co-operation and dialogue between all the main actors in the economic process significantly facilitates the process of reform. The social partnership between the government, unions and employers is a \textit{conditio sine qua non} for the success of the proposed reforms. “In Croatia, there was no reform of the public administration carried out that would (also) put the emphasis on economic values and thus correspond to some of the global trends, and contribute to the survival of the welfare state. The violation of fundamental democratic political and legal principles and standards prevented the creation of a high-quality institutional structure of the rule of law and made rather difficult the technical co-ordination in the system of public administration. The changes in public administration were politically induced, aimed at creating a pervasive and centralised state with a predominance of the executive over the legislative and judicial authority. Much of the administrative staff has been replaced by new officials, according to political, personal and regional cronyism. Saturating the public administration with politics meant neglecting the criteria of competence, professionalism and quality in officers, as well as the principles of economy, efficiency and effectiveness of the government, and paved the way for corruption.” (Koprić, 2001, 1290)

5. CONCLUSION

It is unlikely that a common definition of the very complex notion of institutions, delineated in many ways, will soon be agreed upon. This, of course, does not detract from the useful and valuable efforts of certain authors to find some common denominator with which to label the phenomenon of institutions in society. Therefore, in scientific studies and discussions, it is recommended to avoid implicit and vague labelling of institutions that can bring additional confusion or misinterpretation into a field that is already full of different interpretations, especially in light of the existence of a large number of useful and accepted definitions of institutions in some fields of social sciences.

Applying the economic neo-institutional approach to the analysis of modern economic growth, which is the topic of this paper, while taking into account the inherent limitations arising from the question of the objectivity of some
indicators that are formed on the basis of the perception of the interviewed participants in the economic process, the endogeneity of certain variables, as well as the problem of the causality between the quality of institutions and the economy’s growth rate, we can conclude that certain empirical studies presented in the paper managed to prove a positive correlation between the quality of institutional infrastructure and long-term economic growth, and that a high-quality institutional infrastructure and political stability are the prerequisites for long-term economic growth. It is also evident that good institutions stimulate economic growth and high growth rates are favourable for the development of high-quality institutional infrastructure. Therefore, the contemporary role of the state should not be directed at the “Marxist” dying out or the neo-liberal reduction of the state’s impact, but intelligently managing economic policy and relations with the aim of promoting economic growth and development.

This sets before Croatia the imperative of choosing and creating its own developmental path, guided by the positive experiences of others while taking care not to fall into the traps of the less successful countries. It is necessary to resolutely remove the so-called “political obstacles” in order to accelerate economic development. The political and administrative system (effective state) must do away with the endeavour of certain interest groups to ensure the rent. In this context, the “rule of law” and the independence of the judiciary are the preconditions of the free market and economic growth. Another important determinant is politics, i.e. the government, strong and capable enough to prevent chaos and ensure the safety of life and property of its citizens, protecting them from attacks from without, within and its own self, and who is willing to continuously invest part of public revenue to facilitate the operation of the business sector, which creates value and is most interested in rapid economic growth. The government’s priorities should be innovation and productivity, rather than maintenance through the redistribution of value added (created in the domestic economy or borrowed from abroad) to its supporters. The examples of developed European and Asian as well as some more prosperous Central and East European countries in transition show that the institutions in national economies are an important factor which significantly determines the economic performance of countries, and point to the importance of choice and the creation of one’s own developmental path, i.e. the failure in the uncritical acceptance of other’s, successful, solutions to one’s own problems, without taking into account the relevant specific features of each national economy.
Finally, there is the question of what kind of institutional infrastructure is desirable and possible in Croatia. The positive reach of Croatia’s previous development efforts is certainly the fact that, at least on paper (if not in practice), there are almost all economic and non-economic institutions that also operate successfully in developed European countries. The key problem is in their effectiveness and co-ordination. Also evident is the lack of a single, acceptable to all relevant factors, long-term strategy of economic and general social development that could be supported by trade unions, employers and the government, firmly and responsibly. It seems that in Croatia there is still no awareness among the political elite of the necessity of strengthening the offer, and among voters of increasing the demand for effective institutions and the rule of law. It is obvious that the existing EU institutional infrastructure leaves enough room for Croatia to achieve this developmental goal. In doing so, we must be aware that no one but ourselves will solve our problems for free, or restructure and develop institutions in our best interest, but, should we show a lack of interest and/or incompetence, as was the case in the past, in accordance with their own interests and priorities.

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TRENDS, FACTS AND FIGURES OF THE GLOBAL TOYS AND GAMES MARKET AND INDUSTRY

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Abstract

Play is an inexhaustible source of new cognitions in children’s development and it holds vital significance for the development of their personality and creative attitude towards life and surroundings. Toys are perceived as physical items of play. There is no dispute that toys represent a growing product segment on the market. Owing to the awareness on the importance of toys and technological innovations, toy shelves are filled with novelties every day. However, it is necessary to distinguish the traditional toys from the modern ones, such as computer games, video games, and numerous mobile applications that can be downloaded to smartphones or tablets. This paper will discuss the traditional toys market and the status and success of the whole toy industry and market. It is important to analyse the market at a global level, and to give an overall review of the competitiveness and success of the toy industry on the international market, which significantly impacts the local markets.

Looking back on the development of toys, it can be concluded that throughout history they often changed in terms of their roles, functions, manner of use and especially in terms of their appearance, design and packaging. Nonetheless, toy market revenues exhibit steady annual growth and forecasts regarding the future growth look very optimistic as well.

Keywords: children, toys and games, toy industry, toy market

JEL Classification: P2, P23
1. INTRODUCTION

Play, as an activity, best suits the nature of a child and the basic principles of his/her psychological and physical development because it creates a unity of physical, intellectual, emotional and social development. The need for self-expression is one of basic human needs, and a child’s way of expression is through play. Play is universal, and it is part of every world culture in which children play on a daily basis. Although way of playing differs depending on the culture or generation, it is an instinctive and essential part of growing up. Apart from representing entertainment in childhood, it also represents a primary way in which children learn about themselves, others and the world around them. Owing to the above-mentioned, toys have an immense role in the mentioned processes, as they form the physical basis for play. Children’s parents and educators, as well as toy manufacturers, are well aware of this fact. It is precisely why the toy industry is so well developed, and why its potential keeps on growing.

In modern society, children’s toys are exceptionally important. Special attention is paid to them in the family environment, which has a strong influence on children during the period of their early development. Nowadays, parents are usually busy spending their time fulfilling their professional roles, thus spending less time playing actively with their children. Therefore, parents often buy children toys in order to compensate for the lack of time and to express their love. In underdeveloped societies, children do not have enough time to play because they are given various chores from their earliest age. On the other hand, developed societies have to cope with a bigger problem: common ignorance of the development potential of children’s toys and games. Statistical data show that half of today’s parents in the most developed countries of the world spend annually more money on toys than on saving money for their children’s future and education. Moreover, most adults regard playing as juvenile, and they are convinced that their participation in such an activity is a waste of time. Contrary to that opinion, play and toys in fact enable parents to learn about their children through playing together, and they help the parents monitor their children’s development and behaviour. Owing to that, parents can explore children’s emotions, recognize their actual needs and better comprehend their current level of mental development.

A toy should be appropriate for children’s age and their psychological and physical capabilities. Not all toys are adequate for all children, and there are not many toys that can play the role of a faithful companion during the child’s jour-
ney to adulthood. For example, a toy can be either too complex for a child, so that it does not know how to use it, which results in the child’s dissatisfaction; or it can be too simple, so that the child finds it boring and useless.

2. DEFINITION OF TOYS AND GAMES MARKET AND INDUSTRY

Toy industry is very specific – just like its end users who use toys. When it comes to buying toys, a buyer does not have to be a user. Manufacturers are mostly aware of this, so they have to design and create their offer to be appealing to both types of consumer, i.e. to parents who are usually the ones who buy toys, and to children who play with them. Joint decision on buying is made only when a child likes a certain toy, and his/her parent recognises it as a possible quality means for play.

Total revenues of the toy market are generated through the sale of activity toys (including arts and crafts, building sets, learning and exploration and sewing and hobby), dolls, games and puzzles (including jigsaw puzzles and card games), infant/pre-school (including intellectual growth education toys and other infant toys), plush (includes soft toys), outdoor and sports toys (includes outdoor games and sports such as cars and bicycles etc.) and other toys (including toys made of plastics, rubber, textile, die-cast miniature model toys and metal toys. This also comprises action figures, youth electronics and boy character toys, which cover small racing cars etc.). They do not include games consoles and video games.1

Specific issues pertaining to this subject are related to manufacturing process and employment generated by the toy industry, movements of traditional toys on the market, and the role of production and design in the global value chain. It is often said that the toy market is almost always stable, and one of the rarest segments not jeopardized by the global financial crisis.2

What makes the traditional toys, such as puzzles, dolls and cars, still interesting is that video games and the Internet can evoke visual and acoustic experience with all its possibilities, but not the touch itself, which children find very important during play. However, there is a special trend of combining a tradi-

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2 http://www.dw.de/odzvonilo-igra%C4%8Dkama-made-in-china/a-15705538
tional toy with electronic novelties. One example is a Barbie doll with a built-in camera, or a board game which gives players clues.

Another trend on the toy market not to be neglected are the eco-friendly toys, and the manufacturers noticed there is an increased demand for them. To keep up with today’s growing environmental awareness of consumers, the market has found a place for a relatively new element – the so-called eco toys. These toys are generally made of wood, but often also from other environmentally friendly materials. During the manufacturing process, environmentally friendly glues are used. What is more, protective coatings contain no hazardous or chemical substances, and they are sometimes edible, e.g. the same ones that are used in production of drugs and cosmetics. However, such toys are more expensive than the plastic ones because they are manufactured in a more complex way, or often handcrafted. With that in mind, manufacturers are becoming more drawn to the production of such toys, as their sale will bring them higher profit. On the market cramped with various toys, children want to see something rather new and “unused”, which is one of the reasons such toys are popular among children. Parents make a decision on buying based on different criteria. They put their children’s health first, and it is exactly what eco toys also do.

The toy market is also specific because it is expected to be more innovative and creative than other markets. The success of toy sales depends on fulfilling the requirements and needs of buyers, but also of end users, who are children. As children’s wishes are likely to change quickly, it is upon the manufacturers to introduce new products in order to satisfy the changes expected.

The toy industry is one of the most dynamic business sectors, and approximately 60% of toys on the market each year are newly developed products. In 2011, more than 90% of toy companies operating in Europe placed new products on the market. This compares to less than 40% in other industry sectors.

Just like the sale of most other end-use products, the toy sale also has its specificities in terms of customers’ habits. During the holidays and at weekends, toy sales are drastically higher than usual. 28% of total toy sales takes place on Saturdays, and 18% on Fridays. According to the data of Toy Store, one third of all annual sales occur in November and December, prior to Christmas holidays.³

Chart 1. Specificity of toy sales based on days in a week and months in a year


3. TOY PRODUCTION, THEIR SECURITY AND SAFETY

Just as any other industry, the toy industry has also undergone serious changes over the years. Great turning points happened in the middle of the last century.

Industrial production of toys was moved from Europe (Germany, Scandinavian countries) to the United States. Furthermore, in the seventies, production facilities were gradually moved across the Asian continent; first to Japan, then to South Korea and Taiwan, and then to China, where the largest number of toys is produced nowadays. Up to 80% of all toys that can be bought today have been designed in the United States, and produced in China. However, more and more multinational manufacturers move their production to Europe because they are concerned about their reputation. Another reason is the withdrawal of toys from the markets as they do not satisfy the criteria of Western markets.

One example of toys from Chinese factories not satisfying the Western market standards, making the entire industry think twice, was the case of the American toy manufacturer Mattel. This manufacturer of the most famous doll
for girls, Barbie, was forced to recall more than 1.5 million toys produced in China because they were coloured by colours containing high levels of lead.\(^4\)

Chart 2 shows the number of toys recalled in the U.S. from 2001 to 2014. The chart shows decreasing recall numbers, indicating higher toy quality and stricter controls and testing before releasing the product on the market. The largest number of recalled toys was in 2007 and 2008, during the period when the largest number of toys was imported from China.

**Chart 2. Number of toys recalled in the U.S. from 2001 to 2014**


The most common cause of non-compliance with the given criteria is when toys release colour, when they contain lead or poisonous phthalate and formamide that are used as plastic softeners. It has been proven that these dangerous substances can cause disruptions and failures in children’s bodies, such as asthma, cancer, endocrine disruptions, kidney and liver failures, as well as reproductive organ failures. Stuffed toys are contaminated with bacteria or viruses which can cause various diseases, while some toys contain pieces which can be detached easily and thus hurt children.

Each toy should have three markings on its packaging. The first one should represent security criteria. When it comes to security, CE marking is the most important one. It shows that the toy meets all the important requirements pertaining to children’s safety and health, and with it, the manufacturer guarantees

\(^4\) [http://www.dw.com/hr/odzvonilo-igra%C4%8Dkama-made-in-china/a-15705538](http://www.dw.com/hr/odzvonilo-igra%C4%8Dkama-made-in-china/a-15705538)
that the toy conforms to all the prescribed testing procedures conducted in the laboratories authorised for that purpose.

The second marking should indicate child’s age, that is the age when they are physically ready to use the toy for playing. Lastly, the third marking pertains to child’s cognitive ability, which relates to understanding of the way in which the toy is used.\footnote{http://www.dw.com/hr/ne-diraj-tu-igra%C4%8Dku-opasna-je/a-15425388}

Until recently, 70% of all toys were produced in China, but that number has recently been decreasing. The things which initially attracted the companies to China, its cheap workforce and raw materials, are precisely the reasons why the production returned to the West.\footnote{http://www.dw.com/hr/odzvonilo-igra%C4%8Dkama-made-in-china/a-15705538} Chart 3 displays the above-mentioned situation when toys from China were imported to the U.S. market, in the period from 2000 to 2014. Following several years in which the import decreased, there was a small increase in 2014, implying that Chinese factories, in their wish not to lose a large share in toy production, took certain measures related to the production quality on their market.

**Chart 3.** Total annual U.S. imports of toys from China from 2000 to 2014 (in billions U.S. dollars)


3.1. Toy safety in Europe

In Europe, toy safety is governed by the Toy Safety Directive (TSD; Directive 2009/48/EC). The TSD obliges manufacturers, importers and suppliers to ensure that their products meet the requirements in the field of toy safety, including mechanical, physical and chemical safety. Each toy to be placed on the market is submitted to a conformity assessment procedure. When a toy is placed on the market, the manufacturer must draw up an EC Declaration of Conformity (DoC). By doing so, the manufacturer certifies and assumes responsibility for the compliance of the toy with the essential requirements of the TSD. Both the conformity assessment procedure and the mandatory DoC incur costs on producers. The additional costs do not distort the competitive playing field between domestic (EU) and foreign (non-EU) producers. However, the increased costs have a negative influence on the competitive situation of small toy producers, as the additional costs are more difficult to bear for SMEs, who generally do not have the resources to provide the required documentation and testing in-house and therefore need to seek the required capacity externally, which means increased costs. Toy safety also affects the competitiveness of European producers aiming to export outside Europe. The main reason is the existence of local safety requirements in non-EU countries. These safety requirements often also include the need for local testing, which forms one of the major trade barriers for the EU toy industry.7

4. Toys and games market analysis and value

The global toys market experienced relatively strong growth during the period between 2010 and 2014. Forecasts suggest solid growth will continue, albeit at a marginally accelerated rate during the five-year period between 2014 and 2019.

The global toys and games market had total revenues of $92.2bn in 2014, representing a compound annual growth rate (CAGR) of 4.4% between 2010 and 2014. Europe is the largest regional market, accounting for 31.3% of value in 2014. However, the market has been squeezed by government policies of austerity, retrenching fiscal spending and diminishing consumer confidence. The activity toys segment was the most lucrative one on the market in 2014, with total revenues of $15.8bn, equivalent to 17.1% of the market’s overall value. The infant/pre-school...

segment contributed revenues of $14.7bn in 2014, equating to 16% of the market’s aggregate value. The performance of the market is forecast to accelerate, with an anticipated CAGR of 4.7% for the five-year period between 2014 and 2019, which is expected to drive the market to a value of $115.9bn by the end of 2019.  

The global toys and games market grew by 5.9% in 2014 to reach a value of $92,185.9 million. The compound annual growth rate of the market in the period between 2010 and 2014 was 4.4%. This is evident from the following table.

Table 1. Global toys and games market value (in million U.S. dollars), 2010-2014

<table>
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<th>Year</th>
<th>$ million</th>
<th>€ million</th>
<th>% Growth</th>
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<tr>
<td>2010</td>
<td>77,104.3</td>
<td>50,207.7</td>
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<tr>
<td>2011</td>
<td>80,534.4</td>
<td>60,597.7</td>
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<td>2012</td>
<td>83,457.6</td>
<td>62,797.3</td>
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<td>87,032.5</td>
<td>65,487.2</td>
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<td>2014</td>
<td>92,185.9</td>
<td>69,364.9</td>
<td>5.9%</td>
</tr>
<tr>
<td></td>
<td>CAGR: 2010-14</td>
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<td>4.4%</td>
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</tbody>
</table>


It is predicted that by 2019, the global toys and games market will have the value of $115,946.5 million – an increase of 25.8% when compared to 2014. The compound annual growth rate of the market in the period between 2014 and 2019 is predicted to be 4.7%.

Table 2. Global toys and games market value forecast (in million U.S. dollars), 2014-2019

<table>
<thead>
<tr>
<th>Year</th>
<th>$ million</th>
<th>€ million</th>
<th>% Growth</th>
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<td>2014</td>
<td>92,185.9</td>
<td>69,364.9</td>
<td>5.9%</td>
</tr>
<tr>
<td>2015</td>
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<tr>
<td>2018</td>
<td>110,467.9</td>
<td>83,121.1</td>
<td>5.1%</td>
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<tr>
<td>2019</td>
<td>115,946.5</td>
<td>87,243.4</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td>CAGR: 2014-19</td>
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<td>4.7%</td>
</tr>
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</table>


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5. CATEGORY SEGMENTATION AND LEADING TOYS AND GAMES COMPANIES

Activity toys comprise the largest segment of the global toys and games market, accounting for 17.1% of the market’s total value. The Infant/pre-school segment accounts for a further 16% of the market.

Table 3. Global toys and games market category segmentation (in million U.S. dollars), 2014

<table>
<thead>
<tr>
<th>Category</th>
<th>2014</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity Toys</td>
<td>15,800.6</td>
<td>17.1%</td>
</tr>
<tr>
<td>Infant/Pre-school</td>
<td>14,341.7</td>
<td>16.0%</td>
</tr>
<tr>
<td>Dolls</td>
<td>12,123.4</td>
<td>13.2%</td>
</tr>
<tr>
<td>Outdoor &amp; Sports Toys</td>
<td>11,349.8</td>
<td>12.3%</td>
</tr>
<tr>
<td>Games and Puzzles</td>
<td>9,632.2</td>
<td>10.4%</td>
</tr>
<tr>
<td>Plush</td>
<td>6,892.1</td>
<td>7.5%</td>
</tr>
<tr>
<td>Other</td>
<td>21,653.3</td>
<td>23.5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>92,185.9</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>


Chart 4. Global toys and games market category segmentation (% share, by value), 2014


When it comes to toy manufacturers, several well-known multinational companies have been among the most successful ones on the world stage for several years. The first place belongs to Mattel, an American doll manufacturing company. It is followed by Lego, a Danish manufacturer of blocks, which
continues to fascinate the world with its novelties, and whose products are used by children and adults equally. The following chart shows the world’s most famous manufacturers and their revenues in 2014.

**Table 4.** Sales of the leading toy companies worldwide in 2014 (in million U.S. dollars)

![Sales of the leading toy companies worldwide in 2014](http://www.statista.com/statistics/398353/sales-of-the-leading-toy-companies-worldwide/)

The most famous manufacturers owe their success to the maximum adoption to trends and needs of the market. In addition to toys becoming digitally compatible and electronic support being used more in their manufacturing and use, the toy manufacturers themselves are in a greater extent turning to advertising their products in a digital surrounding. Toys are more and more often advertised on the Internet, and the manufacturers especially benefit from presenting their products on social networks. Nine out of ten toy manufacturers use Facebook to promote their business and present the reports. Three quarters of toy manufacturers own their own websites, while more than one third sells its products online.¹⁰

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CONCLUSION

Global toys and games market is one of the biggest markets of end-use products. Geographically speaking, the EU toys and games market is the largest one. By following the significant changes occurring in the digital surrounding, the traditional toy manufacturers work every day on modernizing their products so they could compete with the world trends, such as computer games, console games, and similar. Nonetheless, traditional toys still have their buyers, and the leading multinational companies are making an effort it stays that way. Any toy that a child cannot physically hold in his/her hands and play with does not contribute enough to a child’s development and growth. Some people believe that quality computer games and mobile applications can contribute to the development of child’s abilities, research results on this topic show the amount of time a child is recommended to use digital devices. On the other hand, there are no time limits in classic play. It is instinctive, and a child lives and develops through it. The manufacturers are aware that the higher the awareness of parents and educators on that topic is, the higher the need for toys is. The success of traditional toy manufacturers will depend on the fusion of tradition and technology, and their ability to make new toys inspiring and appealing. Moreover, it will depend on their ability to offer innovative ways to play with their products. The adoption of technological achievements and their integration into classic toys can lead to evolution in terms of consumer experience. The thing that always puts traditional toys in the first place is that children actively engage in play, which contributes to children’s physical development. Parents are aware that children learn about the virtual world earlier than ever before. Therefore, they want to prolong their real world and let them just be children. Therefore, they are trying to ensure children playful and creative childhood that existed before the modernization. However, very important questions are being raised when it comes to classic toys, especially about their safety, and the quality of their manufacturing. It is essential to evaluate what kind of toy to buy to a child, and whether it will be safe throughout the entire time of its use. The manufacturers should primarily care about ensuring toy safety; owing to the fact that parents rarely forgive mistakes when it comes to their children’s health. The manufacturers are legally responsible, and they should inform the public on the safety of their products. As long as they care about the above-mentioned issues, the success of traditional toy manufacturers is guaranteed, and the forecasts on the growth of toys and games market and industry supports that hypothesis.
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M-LEARNING APP DESIGN BASED ON STUDENT PREFERENCES: CASE OF MASTERS PROJECT

Davorin TURKALJ, Ph.D., Assistant professor

Slavica SINGER, Ph.D., Professor emeritus

Sunčica OBERMAN PETERKA, Ph.D., Associated professor

Abstract

Faced with challenges resulting from the rising demand for knowledge and skills in the labour market, the educational system is constantly lagging behind these requirements in terms of developing the curricula, teaching methods and materials that should ensure the competitiveness of future professionals. Education at all levels is facing reforms aimed at identifying and defining specific as well as general competences through a dialogue between education stakeholders and employers. All these efforts are carried out in order to increase the mobility and competitiveness of young people in the labour market, as well as to promote lifelong learning that has become a vital factor in the development of the new age economy. In an effort to attune to the constant changes, one must also take into account the learning methods that better fit the profile of students who are largely affected by the omnipresent communication technologies. Mobile devices can facilitate learning in a way that is better adapted to the technological environment and lifestyle of users.

The aim of this paper is to present the results of research carried out in three project partner countries and identify the parameters as well as recommendations for the development of an m-learning application for secondary vocational school students. The research was conducted in the framework of the MASTERS project co-financed by the ERASMUS+ programme, which was developed to improve education standard across the European Union.

Keywords: m-learning, entrepreneurial learning, mobile app design, VET

JEL Classification: D8, D83
1. INTRODUCTION

The introduction of mobile learning into traditional forms of learning is necessary in order to adapt the learning process to the needs of the target group which is substantially different from the target group for which the curriculum was originally designed. Mobile learning offers a novel approach to reach them - it offers flexibility in when the learning takes place, personalized content, and teaches relevant skills for the future (McQuiggan et al.; 2015, 8). A better understanding of the importance of introducing new forms of learning will change the role of students as they will become more active participants in the learning process as a result of situated learning. Situated learning is closely related to personalized learning where the learner tailors the scope, time and application of his/her own learning to himself/herself. Successful personalized learning programs are based on the principle that any software application used within a school must provide the same level of functionality for all students, regardless of their unique abilities (Grant, Basye; 2014, 13). The best way to achieve this is by using mobile devices. Mobile devices are not a substitute for existing learning devices, but they serve as an extension for learning in a new environment having new capabilities, though, not all learning content and activities are appropriate for mobile devices (Gay, Stefanone; 2001, 257-276). Although until recently mobile devices such as smartphones and tablets were not fully adapted for mobile learning in terms of technological requirements, rapid progress in the field of mobile technology has enabled a perfect reproduction of teaching materials for a complete interactive learning experience. Taylor (2011, 75) states that the dramatic changes of mobile technologies in the social lives of many people point to deeper and more prevailing alterations to communication practices than previous ICTs not so intimately connected to the trajectory of individual social lives. Mobile devices, when combined with social media and wireless connectivity, are enabling more personalized learning opportunities for both students and educators. Driven by several factors, the incorporation of student owned devices within classroom instruction is quickly becoming a viable solution for many schools and districts (Blackboard; 2012, 3). In this context, one should also keep in mind the European reference framework which identified eight key competences for lifelong learning everyone needs to have, where traditional literacy is supplemented with information and digital literacy as an integral part of the culture of a modern day individual (EUR-Lex; 2006).
Initiatives to overcome the above-mentioned challenges have been developed as part of the various programmes of the European Union as well as international organizations such as UNESCO. They place a special emphasis on the strategic guidelines for further development of mobile technology as an integral part of modern learning. One of the projects that have been approved as a result of these initiatives is the Erasmus + Masters project, the results of which are presented in this paper.

2. CONTEXT

Entrepreneurial skills are of great importance for a country’s economic stability and therefore entrepreneurial education and training has been identified as one of the highest priorities by the European Commission in its Europe 2020 strategy. These skills are even more important in the field of Vocational Education and Training (VET) as it adds an essential qualification to young people’s careers.

MASTERS stands for Mobile Application for Skills Training in Entrepreneurship.

Its main objective is to increase the labour market relevance of VET, promote entrepreneurship education and social entrepreneurship among young people and enhance digital integration in learning, teaching, training, and youth work at various levels. As a consequence of such labour market challenge, the Austrian Chamber of Commerce developed a specific program – the Entrepreneurs Skills Certificate (ESC). This program was successfully implemented in Austria and transferred to the Czech Republic, Germany and other European countries. Transferring unique know-how from one European country to another is the main reason for a transnational project.

MASTERS addresses several European as well as local objectives to equip young VET pupils with new skills and foster educational development through ICT-based innovation by:

- Upgrading VET to labour market demand
- Supporting the reduction of youth unemployment
- Developing basic transversal skills in entrepreneurship,
- Supporting and integrating new ICT-based teaching methodologies and approaches
- Better aligning teaching content to the needs of the labour market and facilitating smoother transition from education to the world of work
• Promoting entrepreneurship education to develop active citizenship; employability and new business creation
• Creating personalized learning approaches; collaborative learning and entrepreneurial thinking

3. METHODOLOGY

Before developing an m-learning application with entrepreneurial content, reshaped and visualized according to the understanding of young learners in the field of VET, primary research was conducted. The research involved a qualitative and quantitative survey carried out with an aim to develop tailor-made solutions for the target group.

**QUANTITATIVE RESEARCH - ONLINE SURVEY**

A total of 346 respondents aged 14–21 have completed an online survey focused on exploring students’ mobile device usage habits, their attitudes towards education in the context of mobile application support and preferences with regard to mobile learning application features. The study was fielded between January 20th and February 5th, 2016 on three locations (the Czech Republic, Austria, and Germany).

The sample was non-random and purposive as it was predefined by the project proposition and by the choice of project partners. Descriptive statistics were used to present the results of online survey.

**QUALITATIVE RESEARCH - EXPERT INTERVIEWS**

World Café was used as a platform for conducting expert interviews with project stakeholders (teachers, principals, parents, developers). The interviews, based on 5 questions, were organised at three locations (the Czech Republic, Austria, and Germany). Results from expert interviews are summed up in the recommendations section of this paper.

4. RESULTS

**TARGET GROUP**

Of the total of 346 respondents, 83.8% were male and only 16.2% were female which can be attributed to the fact that the selected target group is made up of students of secondary vocational schools for professions that are often
characterized as male-dominated. The majority of online survey respondents, i.e. 41.3% of them, come from the Czech Republic, 31.5% from Austria and 27.2% from Germany. The respondents were aged between 14-21 years, with an average age being 17.2 years. Nine in ten respondents described themselves as intermediate or advanced mobile device users.

4.1. Overall results

Mobile device ownership

98% of the respondents own some type of a mobile device. Smartphones and laptops are most common with 94% and 73.7%, respectively. 41% of the respondents own a tablet. On average, respondents spend 5.6 hours a day using a smartphone, 3.8 hours using a laptop and 2.4 hours using a tablet. 66% have Android OS on their smartphones, and 24% have iOS. 68.2% use laptops running Windows. Three in four respondents report that a smartphone is their primary mobile device while 18.5% said the same for their portable computers.

Mobile device usage

Nine in ten respondents use their mobile devices almost constantly or several times a day. They report using their smartphones throughout the whole day and portable computers in the early evening hours. The respondents prefer to use Wi-Fi Internet connection. 98% of them have Wi-Fi at home and 62.1% prefer to connect to the Internet through school’s Wi-Fi, although they have some sort of a mobile data plan. They access online content using a mobile web browser and mobile apps almost equally often with a slight advantage indicated for mobile web browsers with 55% in comparison to 42% using mobile apps.

M-learning experience

One third of the respondents have come across some type of ICT-assisted education before. Most experiences are connected with learning a foreign language, attending driving school, using Moodle LMS, or taking online courses. 76% of those who have had previous experience with ICT-assisted instruction described it as positive or very positive. 63% of all respondents agree or strongly agree that m-learning will have a significant role in education in the future.

Attitude towards m-learning

When rating barriers to the use of mobile learning, most respondents fall in the category “neither agree nor disagree”. This can be attributed to the fact that they do not have extensive previous experience with ICT-assisted instruction.
Table 1. The level of agreement with the barriers to the use of mobile learning

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of training</td>
<td>58</td>
<td>70</td>
<td>118</td>
<td>81</td>
<td>19</td>
<td>346</td>
</tr>
<tr>
<td>Lack of connectivity</td>
<td>45</td>
<td>86</td>
<td>102</td>
<td>83</td>
<td>30</td>
<td>346</td>
</tr>
<tr>
<td>Lack of devices</td>
<td>72</td>
<td>99</td>
<td>106</td>
<td>57</td>
<td>12</td>
<td>346</td>
</tr>
<tr>
<td>Lack of digital</td>
<td>36</td>
<td>63</td>
<td>132</td>
<td>83</td>
<td>32</td>
<td>346</td>
</tr>
<tr>
<td>educational content</td>
<td>33</td>
<td>48</td>
<td>141</td>
<td>79</td>
<td>45</td>
<td>346</td>
</tr>
<tr>
<td>Poor school</td>
<td>74</td>
<td>89</td>
<td>126</td>
<td>39</td>
<td>18</td>
<td>346</td>
</tr>
<tr>
<td>administration</td>
<td>34</td>
<td>52</td>
<td>169</td>
<td>66</td>
<td>36</td>
<td>346</td>
</tr>
<tr>
<td>Negative student</td>
<td>21</td>
<td>19</td>
<td>69</td>
<td>138</td>
<td>99</td>
<td>346</td>
</tr>
<tr>
<td>attitudes</td>
<td>29</td>
<td>42</td>
<td>101</td>
<td>100</td>
<td>74</td>
<td>346</td>
</tr>
<tr>
<td>Lack of pedagogical</td>
<td>36</td>
<td>68</td>
<td>128</td>
<td>75</td>
<td>39</td>
<td>346</td>
</tr>
<tr>
<td>justification</td>
<td>23</td>
<td>18</td>
<td>88</td>
<td>145</td>
<td>72</td>
<td>346</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>41</td>
<td>130</td>
<td>93</td>
<td>57</td>
<td>346</td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>44</td>
<td>118</td>
<td>94</td>
<td>55</td>
<td>346</td>
</tr>
</tbody>
</table>

Source: implemented survey, results summarized by the authors

On the other hand, most of them find that the benefits of m-learning are that it makes it easier to access coursework, increases their knowledge in their field of study as well as their motivation.

Table 2. The level of agreement with the benefits of using mobile learning applications in education

<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makes it easier to access</td>
<td>21</td>
<td>19</td>
<td>69</td>
<td>138</td>
<td>99</td>
<td>346</td>
</tr>
<tr>
<td>coursework</td>
<td>29</td>
<td>42</td>
<td>101</td>
<td>100</td>
<td>74</td>
<td>346</td>
</tr>
<tr>
<td>Increases communication with</td>
<td>36</td>
<td>68</td>
<td>128</td>
<td>75</td>
<td>39</td>
<td>346</td>
</tr>
<tr>
<td>other students</td>
<td>23</td>
<td>18</td>
<td>88</td>
<td>145</td>
<td>72</td>
<td>346</td>
</tr>
<tr>
<td>Increases communication with</td>
<td>25</td>
<td>41</td>
<td>130</td>
<td>93</td>
<td>57</td>
<td>346</td>
</tr>
<tr>
<td>instructors</td>
<td>35</td>
<td>44</td>
<td>118</td>
<td>94</td>
<td>55</td>
<td>346</td>
</tr>
<tr>
<td>Increases my knowledge in my</td>
<td>21</td>
<td>19</td>
<td>69</td>
<td>138</td>
<td>99</td>
<td>346</td>
</tr>
<tr>
<td>field of study</td>
<td>29</td>
<td>42</td>
<td>101</td>
<td>100</td>
<td>74</td>
<td>346</td>
</tr>
<tr>
<td>Improves my quality of work</td>
<td>36</td>
<td>68</td>
<td>128</td>
<td>75</td>
<td>39</td>
<td>346</td>
</tr>
<tr>
<td>Increases motivation to</td>
<td>23</td>
<td>18</td>
<td>88</td>
<td>145</td>
<td>72</td>
<td>346</td>
</tr>
<tr>
<td>complete coursework</td>
<td>25</td>
<td>41</td>
<td>130</td>
<td>93</td>
<td>57</td>
<td>346</td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>44</td>
<td>118</td>
<td>94</td>
<td>55</td>
<td>346</td>
</tr>
</tbody>
</table>

Source: implemented survey, results summarized by the authors

Around 60% of the respondents believe that a progress report/notifications would be a crucial factor in deciding to use an m-application again. Another motivational factor would be if their friends/colleagues started using the app.
**Table 3. Importance of factors in deciding to use m-learning applications again**

![Table 3](image)

*Source: implemented survey, results summarized by the authors*

**Mobile app feature preferences**

When rating attributes of apps that they normally use, respondents gave the highest importance to appealing design, interactivity and making life easier. They rated entertainment-related as well as social and communication categories as important and very important. When asked to choose which features they would like to have integrated into an m-learning app, the respondents predominantly chose comparing the results with their colleagues, forum/chat and social (like, share, comment, post, etc.). In terms of their preferences with regard to the type of app they think would help improve their learning experience, quizzes, tutorials, best practice/case studies, and game-based apps were equally scored.
Graph 1. Which features would you like to have integrated into an m-learning application?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
<th>Percent</th>
<th>Count</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social (share, comment, like, post, etc.)</td>
<td></td>
<td>64.2%</td>
<td>222</td>
<td></td>
</tr>
<tr>
<td>Forum/chat</td>
<td></td>
<td>70.5%</td>
<td>244</td>
<td></td>
</tr>
<tr>
<td>Comparing the results with colleagues</td>
<td></td>
<td>75.1%</td>
<td>290</td>
<td></td>
</tr>
<tr>
<td>Geo-location features (location sharing, check-in feature)</td>
<td></td>
<td>24.0%</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>QR code (a machine-readable code consisting of an array of black and white squares, typically used for storing URLs or other information for reading by the camera on a smartphone.)</td>
<td>30.9%</td>
<td>107</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>8.7%</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>30</strong></td>
<td><strong>346</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: implemented survey, results summarized by the authors

4.2. Comparative analysis

Between compared schools, differences were found in the following questions: Q1, Q8, Q10, Q13 and Q25. In Q1 (Gender), a difference between compared schools was detected in the German school where similar numbers of female and male students participated in the survey (m=46, f=48); in contrast, only eight participants from the Czech school were female students and there were no female participants in the Austrian school. In Q8 (primary mobile device), 37% of students in the Czech school reported laptop was their primary mobile device, while only 9% of German and Austrian respondents claimed the same. In Q10 (How do you go online – at school Wi-Fi), 84% of German students responded they did not go online using school Wi-Fi in comparison to 17.5% of surveyed Czech and 24.8% Austrian students.

As for the question “Have you come across any type of ICT-assisted education/instruction before?” (Q13), the data shows that Czech students had the most experience while Austrian students had the least previous experience. When analysing Q25 (student preference for the type of m-learning app), it was found that Czech students would prefer a game based m-learning app, German students opted for tutorials while Austrian students chose best practice app type. Responses to other questions were also compared between different countries, but findings were mostly homogenous, which is important when building
an m-learning app that should accommodate for student needs and expectations in terms of its design and performance.

5. CONCLUSIONS AND RECOMMENDATIONS

Based on implemented survey, it is obvious that a mobile learning application would be well accepted by students aged between 14-21 years. The application must be in local language (in the case of the project partners, it should be developed in Czech and German languages). The app should be free.

The fact that the vast majority of users have opted for a smartphone as their primary mobile device should be taken into account. In order to maximize the reach of m-learning application, it is desirable that the application is available on as many mobile devices as possible. Based on the collected data, a web-based application would be the best solution considering that users have mobile devices with different operating systems.

In cooperation with partner schools, ways should be found to ensure that students have quality Wi-Fi Internet connection at all times. Other identified barriers should be removed by training school staff and students.

The positive attitude expressed by the respondents towards m-learning is an advantage which should be further developed by providing visually appealing, intuitive, interactive, and useful mobile application loaded with educational materials.

The features that were identified as desirable in implemented survey should be integrated in the design of mobile applications. This includes implementation of the elements of Web 2.0 concept with expanded communication capabilities, such as forum/chat, share, like, comment, post, etc. The possibility of comparing the results with colleagues is another desirable feature because it encourages competition. Quizzes, tutorials, and best practice/case studies have been reported as the preferred features, which means that the application should make learning fun and preferably be game-based.

The mobile app should include some of the following teaching methods: learning through games: scored placement test - ranking - final test; cooperative elements: partial solutions form the whole solution, peer-learning, group challenges, brainstorming, problem tasks, multiple choice tests, practice oriented, glossary and lexicon for students.
In order to introduce m-learning on a larger scale into the secondary level of education, it is important to relate it more to the efficiency and effectiveness of the educational process. This will impel policy makers to look at it as an important investment into improving the educational ecosystem in order to provide young people with a better learning environment with an aim to increase their competitiveness on the labour market.

References


A POLICY FOR AN ECONOMIC TURNAROUND OF THE REPUBLIC OF CROATIA THE BASIS OF SUSTAINABLE DEVELOPMENT

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Abstract

According to many indicators, the Republic of Croatia is ranked at the bottom of a comparative list of EU member states. Such a situation has been essentially unchanged from the beginning of the transition process and in comparison to the group of countries that are also new EU members. Under the European Semester Croatia is obligated to remove the existing macroeconomic imbalances, for which it has also prepared and adopted the corresponding documents that contain programs for the required structural reforms. A policy for an economic turnaround, conceptually, then operationally, and in its implementation, is a necessary basis for stability in overall social development, which has been disrupted by the demographic trends of an aging population, and especially by an increasing rate of emigration. What and how to effect an economic turnaround is the basic theme of this research work.

Keywords: economic lag, social crisis, demographic trends, EU obligations, EU Semester, economic turnaround, globalization, national economic policy.

JEL Classification: Q00, Q01

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1 This work was prepared as part of the research project of the Faculty of Law of the University of Zagreb, The New Croatian Legal System and the sub-project, Croatia's Economic Position in the Context of the New EU Economic and Development Policies.
1. INTRODUCTION

Change and the pressure to change have become permanent and increasingly frequent characteristics of modern events – economic, social, political and technological. The environment is changing: key trendsetters, stimulated by newer and newer technological solutions, are dictating changes that are creating the foundation for the further development of new products and services, all of which can be on the global market in a minimum amount of time. Progress in individual segments that until several decades ago was being achieved gradually and within a European framework and carried the impulse for continued development of national prosperity, has now become the foundation of increasingly rapid global divisions between those who succeed in achieving a catch-up strategy for their national economies with the adoption of reforms and adaptations and those who do not succeed at all or only partially.

How will the Republic of Croatia find its place in these circumstances and changes? By reviewing domestic and foreign analyses, beginning with the EU Commission, international credit rating agencies, and also nationally relevant organizations, it is clear and unavoidable that a turnaround from the current inertia has become an imperative. The method of administration, starting with the system of public administration and territorial structure, the effectiveness of all public services, from the judiciary to public health, the current degree of competitiveness of the national economy and all of its consequences for the degree of development, higher emigration, the aging of the population and the accompanying fiscal burdens, and unbalanced regional development are all indicators that lead to the conclusion that it is not a question of whether a turnaround is needed, but of how such a turnaround can be achieved in time and space. This means how to prepare it meaningfully and conceptually and then to implement it. This is the central theme of scientific research interest in this work.

2. CURRENT SITUATION

The many years of national economic crisis on one hand and the increased sensitivity to the indicators that measure economic success on the other hand, both within the framework of obligations arising from the application of the European Semester, have created a situation in Croatia in which the status of the economy has become a central national question. Moreover, Croatia’s status as

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2 With the exception of the pre and post-election periods, when the orientations and world views of the leading political parties occupy a dominant place on the political scene.
a full member of the EU has also increased competitive pressures on the national market and it has stimulated an additional factor of mobility, not only of capital and investments within national borders, but also the outflow and departure of the most qualified part of the population in terms of both age and qualifications to the benefit of the markets and economies of more economically developed countries, especially the older EU members such as Germany, Austria, Great Britain and Ireland. All of these factors are a cumulative consequence of the recognition of a crisis and of the even more significant fact that a substantive and consistent program of economic recovery must be created based on a series of reforms that will then have to be implemented and achieved.

Such a consistent and responsible program is the duty and obligation of the executive authorities, which in a formal sense is also comprised of requirements from the documents The Program for National Reforms and The Program of Convergence, which contain the rationale for their preparation and adoption and the necessity of their implementation. In the Program for National Reforms the government has identified three main goals of structural policy: stimulating growth, external competitiveness, and re-establishing balance in the Croatian economy; resolving the weakness in administration and increasing the effectiveness of the public sector, and increasing the sustainability of the debt of the country and strengthening the management of public finance. Within these goals an emphasis has been placed on 10 specific areas of reform: (1) Strengthening the fiscal framework and management of public finances, (2) Rationalization and improvement of the control of expenditures, (3) Improvement of the efficiency of the pension system, (4) Reducing fiscal risk in the healthcare system, (5) Reforming the system of social compensation, (6) Improving the operation of public administration, (7) Improving the management of public enterprises, (8) Reducing administrative burdens and costs of doing business, (9) Improving the quality of new laws and (10) Strengthening the framework for implementing bankruptcy proceedings.

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1 It is estimated that in 2015 50,628 people emigrated to Germany alone. A year earlier 44,260 emigrated, while in that same period 30,425 people returned, which is a net outflow of 64,643 of the most qualified people in the optimal age for employment. Overall, there are 297,985 Croatian citizens in the Republic of Germany, which is about the same as the populations of the cities of Split and Rijeka. (Data from official statistics of the Republic of Germany according to Gatarić, Lj.: “In the last year 50,628 people with Croatian passports relocated to Germany,” Večernji list/Current, 22 March 2016, p. 2).


3 Ibidem, p. 4.
In addition to the Program of National Reforms, the Croatian government has also prepared and adopted the Program of Convergence of the Republic of Croatia for 2015-2018,\(^6\) in which it identifies its economic priorities in the context of achieving the Program of National Reforms. The chapter *Frameworks and goals of the economic policy of the Government of the Republic of Croatia* states that the goal of economic policy is to initiate sustainable economic growth after many years of recession. In contrast to growth before the crisis, which was based on high indebtedness due to increased personal consumption and investment in real estate, the new model of long-term, sustainable growth will be based on exports and increased investment in production. The main task of the government is to implement structural reforms aimed at improving the business environment, which are described in the National Program of Reforms. The room to maneuver for macroeconomic reforms is limited. Monetary policy is limited by the high degree of euroization and by weak credit channels, while fiscal policy, as a consequence of the long recession, has exhausted the space for counter-cyclical activity. Indeed, as a result of growing public debt, rapid fiscal consolidation is required.\(^7\)

But there is also the fact that these achievements, in their dynamic, content, and consistency, are lagging behind the obligations and promises that have been made, and above all, real needs. Consistent evaluation of such a situation and the possible behaviors can be observed in the continued, and especially recent, evaluations and warnings by international credit rating agencies, which state: “The economy grew 1.6% in 2015, emerging from a six-year recession that reduced real GDP by 12.5% between 2008 and 2014. However, the economic recovery was principally driven by one-off factors, such as an exceptionally strong tourist season and a recovery in private consumption boosted by low oil prices and a reduction in the personal income tax, both of which increased real disposable incomes. In 2016, Moody’s expects growth of around 1.5%. Downside risks to the growth outlook could emanate from a deterioration in the global environment, delays to the reform agenda and/or increased political uncertainty that could weaken confidence and thus impact growth. Additionally, given the economy’s dependence on tourism, events related to the refugee crisis that could affect tourism in Croatia could also hamper growth. The ratings agency expects Croatia to grow on average by 1.7% over the next four years, which is much lower than the pre-crisis average of 4.5% between 2000 and 2007. At this level, growth pros-


\(^7\) Ibidem, p. 4.
pects are also much weaker than for other Central and Eastern European (CEE) peers, where Moody’s expects growth of close to 3% on average over the same period. Low growth for a prolonged period of time undermines economic resilience and impedes the reduction in the debt burden.”

Furthermore, “High budget deficits during the crisis reflected both revenue shortfalls and expenditure overruns. The deficit averaged 6% of GDP in 2009-2014, compared to 3.4% of GDP in 2001-08. Expenditure pressures developed as a result of increasing social security benefits and higher interest payments, while revenue shortfalls were largely unanticipated due to optimistic macroeconomic assumptions underpinning the budget preparation process.

Moody’s believes that the process of fiscal consolidation will be slow and halting, and expects a fiscal deficit of around 3.9% of GDP this year, weaker than the 3% of GDP criteria required to exit the European Union’s (EU) excessive deficit procedure. This trend, combined with the anticipated modest levels of real economic growth, will likely push the debt burden above the 90% of GDP threshold by 2018. Moody’s also notes that debt affordability has deteriorated, with the interest to revenue ratio increasing to 8.2% in 2014 from 4.6% in 2008.”

These analyses are related not only to an estimate of the current situation and/or a near-term perspective, but especially to a longer time frame, which means postponement of the beginning of the reforms and deep reforms. Such behavior is exacerbated by the powerful growth of public foreign debt, which is clearly shown in the following chart.

**Figure 1.** Public debt increase 2008-2015


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8 Moody’s Investor Service, Rating Action: Moody’s downgrades Croatia’s issuer and bond rating to Ba2 with a negative outlook, Global Credit Research, 11 March 2016, p. 2.

For purposes of comparison, during the crisis, which ended for the majority of the comparable transition countries in 2011, Croatia, in relative terms, raised the level of public debt almost three times more than Bosnia and Herzegovina, twice that of Slovakia, and more than twice the average of the Eurozone member states. Room for the further growth of that debt and the use of the resources gathered to clear the budget deficit, which means financing a portion of public expenditures on this basis, simply no longer exists.

That such room, from the aspect of enhanced risk and the drastically increased costs of servicing such indebtedness, is closed is apparent from the data in the following figure.

**Figure 2.** Prognosis for government interest expenditures for 2016 (% BDP)

![](image)


The share of costs for interest in GDP drastically jumped to 3.5%. The average interest rate is twice as high as the expected rate of growth of GDP. Therefore, in the literature it led the well-known phenomenon called *the snowball effect*,\(^\text{10}\) which means that without an acceleration in the GDP growth rate it is not possible to achieve a reduction in the level of such indebtedness. How such a relationship is reflected in vulnerability in regard to the position on the financial markets in the process of refinancing, and additional financing on the

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\(^{10}\) French economist Thomas Piketty caused a sensation in early 2014 with his book *Capital* on a simple, brutal formula explaining economic inequality: \(r > g\) (meaning that return on capital is generally higher than economic growth). Here, he talks through the massive data set that led him to conclude: Economic inequality is not new, but it is getting worse, with possibly radical impacts.
capital market, is apparent from the degree of burden on that basis, comparatively considered in the following figure.

**Figure 3.** Gross needs for (re)financing 2016 (% GDP-a)

![Gross needs for (re)financing 2016 (% GDP-a)](source)


It is simply not possible for the Republic of Croatia, according to the logic of automatism, to plan and predict the achievement of the transaction refinancing of mature annual financial obligations on the international capital markets, keeping in mind on one hand the volatility of global capital markets and on the other hand the predicted low negative trend of the Croatian credit rating among the leading international credit rating agencies. At the same time, such a position also makes the costs of refinancing extremely expensive compared to the referent and competitive EU environment.

### 3. WHAT TO DO

Given this situation, the basic question is what are the reforms that the Croatian government has to encourage and what are the public policies that have to be applied in order to achieve the required economic turnaround, which is the only real basis for balancing the social situation in the country, consolidating demographic trends, and finally, ensuring long-term, sustainable growth. Regarding this concept of an economic turnaround, there are several valuable and substantive analyses by foreign and domestic institutions. The first is the proposed list of program reforms by the Croatian Employer’s Association, which...
states what it will be necessary to do, based on the experience and knowledge of its members.

Box 1. Required reforms: proposals for the future government of Croatia

1. How will you be obligated to respect financial rules and how will you implement fiscal consolidation?
2. When and how will you change the territorial organization of the country?
3. When and how will you implement reform of public administration?
4. How will you remove the greatest administrative and investment barriers in the first year of your mandate?
5. When and how will you reduce the tax and non-tax burdens of the business sector?
6. When and how will you reform the judiciary and improve the quality of regulations?
7. When and how will you increase the efficiency of state enterprises and the use of state property?
8. How do you see the role of the private sector in providing public services?
9. When and how will you implement reform of the labor market with the goal of increasing employment, especially among young people?
10. How will you expand the curriculum, and establish a better quality system of education and professional training, with the goal of employability?
11. When and how will you improve the healthcare and pension systems?
12. How will you resolve the problem of an aging population and a possible shortage in the labor force?
13. How will you ensure energy availability, energy, security, and ecological sustainability?
14. How will you encourage knowledge and innovation in terms of their business application?
15. How will you increase cultural dialogue, affirm excellence and encourage entrepreneurship?
16. How will you increase the benefit of being a member of NATO and increase the use of EU funds?

Source: Croatian Employer’s Association: HUP Score – Measuring achievement of goals of HUP and the results of reforms, Day Entrepreneurs, Zagreb, 15 June 2015.
The above proposal was discussed and commented on by the professional, political and general public after it was publicly presented as a document during the recent pre-election period to demonstrate to the leading political parties their readiness to implement reforms contained in that document. After the establishment of a parliamentary majority and the formation of the new government, the response was partially contained in the document Smjernice za izradu državnog proračuna RH za 2016. i projekcija za 2017 i 2018 (Guidelines for preparing the national budget of the Republic of Croatia for 2016 and projections for 2017 and 2018), which contains an evaluation of what must be done immediately. “An adequately structured fiscal consolidation by itself represents a precondition for raising the trajectory of potential growth because in the long term it reduces the cost of indebtedness and interest, increases room for the private sector, improves the credibility of fiscal policy and the perception of risk to the country with a consequent improvement of the country’s credit rating and an increased availability of and a lower cost for capital. In regard to the activation of state property, it should be emphasized that public enterprises (for example, the energy sector, forests, water, and the railways) have a powerful investment potential. However, they cannot be used to encourage growth if they are not restructured. Furthermore, the government is aiming to intensify the privatization process for government-owned companies, with the exception of those that are of strategic importance. Revenues from such assets will be used primarily to reduce the public debt.”

In addition, the document also cites a broader concept of activity aimed at stimulating economic growth. “To strengthen the foundation for growth in the medium term, the government will continue with reform efforts to improve the investment environment, reduce the administrative burdens on doing business, and strengthen the efficiency of public administration, the fiscal sustainability of the healthcare, pension and social welfare systems. EU funds, especially in the strategically important areas of infrastructure, energy, tourism and agriculture, will make a significant contribution to growth. In this regard, the government is planning to increase the level of use of EU resources by simplifying the administrative procedures and strengthening the support institutions included in the preparation and implementation of EU projects. These efforts should

11 Guidelines for preparing the national budget of the Republic of Croatia for 2016 and projections for 2017 and 2018, p. 3.
result in a 30% greater absorption of EU funds, exceeding an annual level of one billion euros.”

Consolidation of the national budget and reduction of the deficit in the upcoming period to below three percent is a process that must be achieved in a relative sense, by increasing the rate of growth of GDP, but also in an absolute sense, by the possible and required reduction of almost all public expenditures and a more efficient expenditure of these resources in all segments of public services. Reform is necessary because the revenue side of the current Croatian position is characterized by the situation in which the index of the tax burden is considerably above average and there is no longer room to increase it. To the contrary, the burden on taxpayers must be reduced in order to maintain and support their competitive positions. One study that examined the problem of the existing tax burden in Croatia has stated and clearly argued that the tax maximum has been reached. “But, there are even more important conclusions for Croatia because according to a study by the World Bank, the tax bite in Croatia is very large and tax collections exceed tax capacity. Each additional increase in taxes can only lead to undesired economic disturbances and a further disruption of the competitiveness of the country. Therefore, tax reforms cannot rest exclusively on increasing tax rates and the introduction of new taxes. The goal should primarily be increased effectiveness of tax collection, removing the disruptions that taxes cause, improving the climate for entrepreneurship by ensuring stability in the tax system, simplifying the tax regulations and administrative procedures, reconsidering the tax structures with a preponderance on those types of taxes that least act as a brake on the growth of the economy. It is also important to improve the management system in public service and to reduce corruption.”

International comparative data are provided in the following tables.

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12 Ibidem, p. 3.
14 It is especially important to emphasize that the following data in the World Bank study are from 2009, but Croatia increased its tax rates even more after that. This is particularly true in regard to VAT, which made up almost 40% of taxes (more exactly 36.3% in 2012), and which is the largest individual tax revenue and a change in its rate greatly affects total tax revenues. After 2009, the general rate of VAT grew from 23 percent to 25 percent, and the median rate from 10 to 13 percent, while the zero rate was abolished, which is one of the reasons why the overall share of taxes in GDP grew from 32.9% in 2011. to 33.9% in 2012. All of this certainly contributed to an even more unsatisfactory index for the tax burden. (Source: Ibidem, p. 6).
Table 1. Countries with a high tax receipts, high tax burden, 1994-2009 (selected countries)

<table>
<thead>
<tr>
<th>Developing countries</th>
<th>Taxes/BDP (actual, %)</th>
<th>Taxes/BDP (estimate, %)</th>
<th>Index of tax burden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>19.34</td>
<td>19.29</td>
<td>1.00</td>
</tr>
<tr>
<td>Poland</td>
<td>28.42</td>
<td>27.85</td>
<td>1.02</td>
</tr>
<tr>
<td>Belarus</td>
<td>29.89</td>
<td>28.65</td>
<td>1.04</td>
</tr>
<tr>
<td>Hungary</td>
<td>35.03</td>
<td>31.19</td>
<td>1.12</td>
</tr>
<tr>
<td>Slovenia</td>
<td>34.91</td>
<td>30.81</td>
<td>1.13</td>
</tr>
<tr>
<td>Croatia</td>
<td>33.84</td>
<td>28.72</td>
<td>1.18</td>
</tr>
<tr>
<td>Brazil</td>
<td>20.35</td>
<td>16.13</td>
<td>1.26</td>
</tr>
<tr>
<td>Vietnam</td>
<td>18.46</td>
<td>14.10</td>
<td>1.31</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>22.88</td>
<td>16.93</td>
<td>1.35</td>
</tr>
<tr>
<td>Mongolia</td>
<td>20.06</td>
<td>14.91</td>
<td>1.35</td>
</tr>
<tr>
<td>Uruguay</td>
<td>23.85</td>
<td>17.67</td>
<td>1.35</td>
</tr>
<tr>
<td>Portugal</td>
<td>31.32</td>
<td>30.53</td>
<td>1.03</td>
</tr>
<tr>
<td>Finland</td>
<td>34.83</td>
<td>33.09</td>
<td>1.05</td>
</tr>
<tr>
<td>Austria</td>
<td>35.80</td>
<td>32.54</td>
<td>1.09</td>
</tr>
<tr>
<td>Netherlands</td>
<td>37.30</td>
<td>33.97</td>
<td>1.10</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>34.79</td>
<td>31.63</td>
<td>1.10</td>
</tr>
<tr>
<td>Norway</td>
<td>37.11</td>
<td>32.75</td>
<td>1.13</td>
</tr>
<tr>
<td>Australia</td>
<td>23.77</td>
<td>20.77</td>
<td>1.14</td>
</tr>
<tr>
<td>Greece</td>
<td>33.00</td>
<td>28.99</td>
<td>1.14</td>
</tr>
<tr>
<td>Belgium</td>
<td>40.67</td>
<td>32.86</td>
<td>1.24</td>
</tr>
<tr>
<td>Italy</td>
<td>36.12</td>
<td>28.98</td>
<td>1.25</td>
</tr>
<tr>
<td>France</td>
<td>38.77</td>
<td>30.05</td>
<td>1.29</td>
</tr>
<tr>
<td>Cyprus</td>
<td>42.50</td>
<td>30.38</td>
<td>1.40</td>
</tr>
<tr>
<td>Malta</td>
<td>34.32</td>
<td>24.44</td>
<td>1.40</td>
</tr>
<tr>
<td>Average (Unweighted)</td>
<td>35.38</td>
<td>30.08</td>
<td>1.18</td>
</tr>
</tbody>
</table>


The author states that it is apparent that in the period 1994-2009 Croatia’s share of actual tax receipts in GDP was 33.84%. Tax capacity was calculated by regression, i.e. an estimated share of tax revenues in GDP of 28.72%, which
means that the index of tax burden was 1.18%, so that the country no longer has any room to introduce new taxes and to increase the tax rate. The author also emphasizes a different statistical scope for overall taxes that serves to measure the tax burden (the share of taxes in GDP) in Croatia and the EU 27. Specifically, the tax data of the great majority of countries in the EU 27 includes the amount for paid taxes, i.e. taxes are shown according to an accounting principle in which the data is recorded when the tax obligation arises, regardless of whether it is paid or not. On the other hand, in Croatia taxes are shown according to a cash principle, so tax data in Croatia contains only information on taxes that have been paid, but not on unpaid taxes. Thus, for a more complete comparison of the tax burden with the EU 27 countries the Croatian data should be increased by the amount of unpaid taxes. The total tax burden would then be much greater and the room for new tax increases would be much less.\(^\text{15}\)

All of this data and these assertions underline the extremely delicate position of Croatia in the context of the economic results that it has achieved, and consequently, its macroeconomic imbalances. Thus, it is stated that Croatia’s public debt, which continues to rise, is burdening the economy and is a source of vulnerability. Private sector debt has stabilized, but it also continues to be a brake on investment and expenditure, and because of low inflation it will take time to adapt to the high ratio of the financial lever. Croatia has been exposed to internal and external shocks because of the high level of foreign debt in combination with domestic debt that is denominated in foreign currencies. Following from this observation is an important analysis that is relevant for the upcoming period. “In the medium-term period Croatia will be faced with the challenge of increasing potential growth with the goal of maintaining the process of convergence. The recovery of internal demand is currently contributing to a growth of GDP above the level of the potential growth of production. This is an expected development given the depth and duration of the recession. However, it is expected that the growth of production in the long term will converge with its potential, which is currently estimated to be below one percent. The low potential for growth is partly a reflection of the decline of investment, although in the future the main obstacle to a more lasting potential growth will be a record low growth in productivity and to a lesser extent a reduction in the labor force. A change in this trend will include stimulating the efficiency of the economy

\(^{15}\) Ibidem, p. 2.
in sharing resources by means of structural reforms.” What those reforms are and in which areas they will be achieved can be seen in the following Box:

<table>
<thead>
<tr>
<th>Box 2. Structural reforms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structural reforms might be</strong></td>
</tr>
<tr>
<td>reform of the retirement system</td>
</tr>
<tr>
<td>reform of the healthcare system</td>
</tr>
<tr>
<td>reform of the social welfare system</td>
</tr>
<tr>
<td>other reforms in the fiscal sphere (strengthening fiscal discipline, reducing the debt burden of labor, increasing fiscal responsibility, etc.)</td>
</tr>
<tr>
<td>reforms of public and local administration</td>
</tr>
<tr>
<td>reform of the judiciary</td>
</tr>
<tr>
<td>reform on the labor market</td>
</tr>
<tr>
<td>reform of the educational system and reforms that apply to research and development</td>
</tr>
<tr>
<td>changes in the business environment</td>
</tr>
<tr>
<td>privatization and restructuring of state-owned commercial companies</td>
</tr>
</tbody>
</table>

**Current priority – reforms that encourage investment and employment and which can have a positive short-term effect**

- changes in the business environment
- privatization and restructuring of state-owned commercial companies, and consequently with long-term effects
- reform of public and local administration
- reform of the judiciary


The content and emphasis of the Recommendations in the Report of the EU Commission indicate an identical direction for reforms.

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Figure 4. Reforms based on the recommendations of the EU Semester for Croatia


The above reforms are ones that follow and whose progress is evaluated through the five designated categories. Croatia has a limited amount of time (until the end of 2016) to make the required progress to ensure the further and unhindered flow of the resources from EU funds that can be used to stimulate broader and more complex reform programs.¹⁷

The Commission has at its disposal instruments that can penalize a member country that does not meet its requirements and that does not achieve the required goals of the reforms, starting with a financial penalty and including restricting access to the resources of EU funds.

One of the especially sensitive areas of structural dysfunction is the labor market, in terms of unemployment of the young, long-term unemployment, and in the general rate of unemployment. In the area of unemployment among

¹⁷ Croatia is an important beneficiary of the resources from European structural and investment funds for the period 2014-2020, from which it has drawn financial resources in the amount of 10.7 billion euros. That amount is equal to 3.3% of GDP on an annual basis and makes up 73% of the expected national public investment in the areas for which the funds are intended – which is the highest rate in the EU. European structural and investment funds are the most important financial instruments for implementing national reform programs and for strengthening economic competitiveness and employment. (Source: Ibidem, p. 12).
the young and long-term unemployment Croatia has entered the category of three countries with the most unsatisfactory indicators (with Greece it is also one of the member countries with a continuous six-year decline in GDP). But, the basic reason is contained in the analysis that “... unemployment among the young and long-term unemployment still represent a structural problem that will not be resolved without removing the disharmony between the needs of the economy and the skills and qualifications that are being offered on the labor market.”¹⁸ The question can then be asked if it is possible to resolve this disharmony by some specific ad hoc actions, or is a structural reform of the educational system necessary that would include a complete change in the curriculum and in the organization of instruction.¹⁹

In terms of long-term unemployment, the position of the Croatian labor force in the process of lifelong education should be comparatively analyzed with the other member countries of the EU.

Figure 5. Lifelong education in Croatia and EU countries


Just under three percent of the population of Croatia is included in the process of lifelong education, compared to almost 10% in Portugal and Spain, 12%.

¹⁸ Labor Market Indicators as Part of the Procedure for Removing Macroeconomic Imbalances (MIP), Croatian Chamber of Commerce, Zagreb, January 2016, p. 10.
¹⁹ Austria and Germany have the lowest rate of unemployment among the young in the EU, but also a system of professional technical education in which 80% of the training occurs in companies and 20% in schools.
in Slovenia, and more than one-fifth in the Scandinavian countries. In addition, Croatia has one of the highest proportions of 15-year-olds (29.9%) whose results in mathematics are at the lowest level (below Level2) according to the OECD Program for International Student Assessment (PISA). The level of knowledge is equal to functionally mathematically illiterate (on a par with the share for reading, which is lower at 18.7%, and which is even more concerning). With regard to technological change and the problem of an aging and declining population that Croatia is facing, these issues represent a significant risk to the prospects for long-term economic growth. Poor basic cognitive skills, such as mathematics and reading, are an obstacle to lifelong education and to the continued acquisition and addition of technical skills.\(^{20}\)

In other words, compared to the EU, where 10.7% of the working age population (25-65 years old) participates in lifelong education, in Croatia this participation is just one quarter of the population shown in relation to the overall population. As a consequence, this has an influence on the competitive position of the labor force and also an effect on overall competitiveness of the country.

Based on a series of indicators, it is clear that Croatia is faced with a situation that in the absence of designing and implementing structural reforms endangers its current and future socio-economic position. The solutions must and can only be found within its borders with the assistance of outside experts and the use of the best experiences of other countries in specific areas, which it can then include in its own program of structural reforms.

4. THE EXPERIENCE OF OTHERS - BEST PRACTICES FROM OTHER COUNTRIES

There is no doubt that every country, recognizing and respecting its setting, limits and possibilities, must construct its own development policy and establish instruments of economic policy that are suitable to its position – historical and social and in its current context. But it is also clear that strong disruptions and manifestations of crisis, such as the absence of investment and the unemployment of human and physical capacities and the high deficit in public consumption, demand a turn to best practices, which others have car-

ried out in similar circumstances to overcome such a situation. As identified in the AGS, a coordinated approach to macroeconomic policies is warranted to tackle imbalances while supporting recovery. Policy action and effective reform implementation, in particular in the field of competitiveness but also insolvency, in particular must be stepped up in countries whose capacity to grow is constrained by elevated deleveraging pressures or structural growth bottlenecks. At the same time, domestic demand and investment must be boosted, especially in countries with fiscal space, a large current account surplus or low deleveraging pressures. In light of the interconnection between member states, this combination of policies would contribute to putting the rebalancing process on a more stable footing by making it more symmetric, while making the recovery more self-sustainable.21

Moreover, it states that “… overcoming the high levels of debt while making room for the recovery to become more self-sustainable represents the main challenge for the euro area at the current juncture. At the euro area aggregate level, the risk of protracted anemic growth and low inflation must be mitigated by countries that are better placed to boost investment consistently with available fiscal space and low deleveraging needs. In parallel, structural reforms aimed at unlocking growth potential must continue or be stepped up especially in countries whose growth potential is limited by structural growth bottlenecks. Moreover, countries whose capacity to boost demand is constrained by high deleveraging pressures should also focus on growth enhancing reforms, ensuring also that their insolvency framework is adequate to address the stock of non-viable debt, free up economic resources accordingly and reallocate capital efficiently.”22

That the policy of best practices in the search for solutions can be a platform for stimulating economic growth and is a commitment that not only countries in economic difficulties but also EU members have made is also confirmed by the active engagement of the most developed members of the OECD in establishing instruments and mechanisms that can stimulate economic growth. Thus, at the very beginning it states: Going for Growth offers a comprehensive assessment to help governments reflect on how policy reforms might affect their


22 Ibidem, p. 6.
citizens’ well-being and to design policy packages that best meet their objectives. The report identifies key reform priorities to boost real incomes and employment in advanced and major emerging-market countries. The priorities broadly cover product and labour market regulation, education and training, tax and benefit systems, trade and investment rules, and innovation policies.23

The study warns that it is relevant to recognize how structural reforms must be prepared and presented, both to the professional and to the general public. Most structural reforms appear to boost growth fairly quickly, while usually very few if any have short-term costs. However, in a few cases, growth benefits may take more time to materialize in a downturn, and long-term growth gains can be preceded by short-term losses. For example, in a context of severe labor market slack, social protection reforms aimed at encouraging job seekers to return to work through a tightening of conditions for receiving unemployment benefits can temporarily depress employment. Postponing such reforms until the labor market shows clear signs of recovery is legitimate in economies still facing weak demand.24

Also significant is a warning about how and why it may happen that announced and initiated reforms can slow down or be completely abandoned with many negative consequences, both for the existing situation, or a further deepening of the crisis and also for the credibility of the protagonists of political authority who received their mandate with the promise that reforms will not only be started but also implemented to achieve clearly identified goals.” The reform slowdown could also reflect the need to move from legislation to implementation, which is difficult to measure. In order for reforms to deliver, governments must ensure that legislated changes are applied. The challenge is particularly acute when many ambitious reforms have been introduced in a short period of time, such as in the euro area periphery countries, where the slowdown appears most pronounced. Recent EU and OECD surveys for those countries emphasize a number of practical obstacles which are creating a discrepancy between formal adoption of reforms and their actual implementation. Such is the case of the approval of necessary secondary legislation, the transmission of laws from central to local governments, court challenges, insufficient or ineffective

In the context of various experiences and suggestions about how to structure and then implement reforms it is also worth noting the analyses from a country that has been exposed to the demands for concrete, rapid and urgent reforms. That is Greece. It may be of interest to cite the views of the governor of National Bank of Greece. “Financial stability is a prerequisite for sustainable growth; it is also a fact, however, that financial stability on a sustainable basis cannot be achieved without economic growth. Failure to maintain sustainable growth has been the biggest threat to the long-term stability of the EU since the onset of the 2007 crisis. An appropriate balance between managing risk and enabling investment needs to be struck. In this connection, it is crucial that the regulatory framework does not impede, but provides, a suitable environment for sustainable growth.”

5. CONCLUSION

In the last decade the world and the global economy have been faced with the end of accelerated economic growth and conjuncture (2007-2008) and entered an economic crisis whose intensity and scope might be compared to the Great Depression of 1929. At the same time, it is both worthwhile and important to analyze the instruments from the neo- or post-Keynesian arsenal and the new theoretical and political solutions that were used to overcome it.

The Republic of Croatia was confronted with the crisis in the role of a niche-player where the crisis arrived at its borders at a moment when it was not prepared, let alone had put into action policies to overcome an endogenous economic crisis that had arisen far earlier. The structural disruptions were the result of an extended period of transition, but also the absence of an appropriate development model, and accordingly, of the appropriate instruments of economic policy.

25 Ibidem, p. 21
By fulfilling the political preconditions and a series of normative conditions (Acquis communautaire), Croatia became a full member of the EU. That membership provided the chance for an exit into a potentially respectable market (scope, purchasing power), but at the same time, it further strengthened the competitive pressures on the domestic market. At the same time, it highlighted all of the weaknesses in the country’s competitive position and the need for changes and structural reforms in several areas. Furthermore, it also created added awareness of the need for holistic action, which means undertaking measures for changes to the legal frameworks in key areas. In this context, the EU Commission stated its requirements that were formulated and delivered to Croatia in the framework of the European Semester. Identical or complementary measures in the framework of achieving public policies were also transmitted by the World Bank. Several domestic and foreign research works and analytical evaluations have confirmed this in one way or another.

But an economic turnaround is not achievable without a social awareness and also the political will to make the changes that must be made. It is necessary to engage professional institutions to prepare the foundation and the analyses for action, having in mind existing documents, and it must be done – urgently. Conceptually, it is necessary to devise reforms for an economic turnaround and then in an operational sense to be capable of managing and achieving those changes.

Finally, the fundamental question remains whether there is on one hand sufficient political will within the executive authority to resist expectations that a resolution to the crisis will occur through inertia or by itself, and on the other hand to risk wasting energy and concentration on daily political disputes that will essentially slow the activities of all of the stakeholders who are need to achieve the desired changes.

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Urban, Rural
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Economics and
Growth
INTEGRATED APPROACH TO TOURIST EXPERIENCES—AN IMPERATIVE FOR BRANDING AND COMPETITIVE ADVANTAGES FOR DESTINATIONS IN CONTINENTAL CROATIA

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Abstract

Tourism as the fastest growing “industry” in the world is faced with a growing challenge of increased competition. In accordance with the contemporary market conditions, it is necessary to turn all the comparative advantages into competitive ones to the utmost in order to create, maintain or promote a good competitive position in the tourist market. Unlike tourism on the Croatian coast, touristic offer in continental Croatia (with the exclusion of Zagreb) is still unrecognizable by the majority of potential tourists. Market recognition and the raise in the competitiveness of tourist destinations in continental Croatia would contribute to achieving a great number of development principles emphasized in the Strategy for the Tourism development of the Republic of Croatia until 2020, such as the development of tourism in the whole country, which is more than sun and sea as well as the development of the creative tourism with authentic tourist experiences, which will contribute to decreasing the seasonality. Precisely the continental Croatia, which is still an undiscovered part of the Croatian tourism story possesses a great potential for market positioning as the original “life style” destination of a unique experience based on tradition, cultural and natural heritage as well as the lifestyle of its inhabitants. The recent trends on the tourist demand market indicate that it is necessary to create such integrated and original tourism products
which will provide the tourists with a memorable holiday experience. Therefore, the main task which stands before the destination management is to connect all the components of tourist attractiveness, all providers of tourist services and all stakeholders which are crucial for creating a recognizable integral tourism product. In this paper, the authors, using the method of meta-analysis of relevant literature in fields such as experience economy, an integrated tourism product management and IQM in tourist destinations, sought to emphasize the need for an innovative approach in the development of tourist destinations based not only on the functional classification of tourist attractiveness and a way to create recognizable integral tourism products, but also on the need to connect highly fragmented links in the tourism value chain, primarily to deliver an unforgettable holiday experience for a tourist. A justification of this concise analysis is visible based on the fact that in most tourist destinations in the eastern Croatia the integrated quality management of the tourist destination for a tourism product is not being applied. The authors have come to this conclusion after conducting in-depth interviews with the directors of Tourist Board offices on the selected sample from the area of Virovitica-Podravina, Osijek-Baranja and parts of Koprivnica-Križevci County. Moreover, an empirical research has been conducted for the purpose of this work, which was based on a survey conducted on a sample of 20 owners of restaurants and resorts in the aforementioned area in connection with the originality of gastronomic and wine offer, a use of local ingredients and, in general, the association of stakeholders of tourist offer within the destinations to create authentic and integral tourism products. The results obtained in the research and the theoretical analysis and synthesis will be used as a guideline for a more innovative way of managing tourist destinations in continental Croatia with a goal of creating a recognizable tourist offer and a better competitive position in the tourism market.

Keywords: integrated tourism product, experience economy, IQM, tourist destination management

JEL Classification: Z3, Z32

1. INTRODUCTION

It is a basic need of tourism, as perhaps compared to any other sector, to embrace the principles of the experience economy as a new economic paradigm. According to Pine and Gilmore (1999), the experience economy is the final stage in the evolution of the economic environment as it represents the only possible way
of product and experience differentiation, the accomplishment of premium prices and the increase of competitive advantages in the time of global competitiveness (Pine and Gilmore, 1999., 2011.). In order to create a rounded and authentic tourism product, what is essential is the cooperation of all the holders of the tourist offer at the destination, but also a good management and organization of the destination management guided by the principles of the IQM, the cooperation (Michael E. 2007.) and the constant communication with guests to permanently adapt the destination product to the guest’s needs based on the gathered information. The aim of this work was to examine to which extent the owners of the food service facilities in the selected counties of the continental Croatia implement the 4 realms of the experience economy (the 4E-s) in designing their products and whether and to what extent do they implement the system of the integral management of the tourism product. The findings that have been reached in this paper will serve primarily as a foundation for further research of the application of IQM at tourist destinations and the use of the realms of experience economy in creating the original tourist products, but also as a guideline for holders of the tourist destination management and entrepreneurs in tourism with the goal of creating a more competitive tourist offer in continental Croatia.

2. THE ORIGINALITY OF TOURISM PRODUCT BASED ON ROUNDED EXPERIENCES

The very essence of the experience economy, the involvement of the guest/visitor in the experience and by the way of it the guest’s contentment with a product or a service is presented by the Pine and Gilmore (1999) Model visible on the Figure 1. The horizontal axis shows the involvement of the guest in the experience while the vertical axis shows the guest’s connection with the experience.
Figure 1. The Four dimensions of an experience

![The Four dimensions of an experience](image)

Source: Pine and Gillmore (1999): The Experience Economy-Work is Theatre and Every Business is a Stage, pg.30

Only that tourism product which will include all four dimensions of the experience will have a better competitive advantage. The principles of the experience economy in tourism and tourist destination have been studied by numerous other authors (Hayes & MacLeod, 2007., Pullman & Gross, 2004., Tarssanen i Kylanen (2005), Morgan, Elbe, & Curiel, 2009., Sundbo et al. 2008.). Tarssanen and Kylanen (2005) have thus developed their model under the name “experience pyramid” which includes five elements of the experience. The first element of experience is the individuality, the second one originality, the third is the story, the fourth multisensory perception and the fifth one is contrast. The authors H., Fiore, A. M., & Jeoung, M. (2007) have formed a scale for assessing all four areas within the experience economy which they used to estimate the level of satisfaction, i.e. the guest’s experience of staying in tourist accommodation facilities. Their model of guest’s satisfaction assessment based on the four dimensions of experience economy was also used by other authors in order to estimate the visitor’s satisfaction with various tourist experiences.

2.1. Designing the destination product based on 4 Ei

The most recent studies of the guest’s preferences indicate the fact that contemporary tourists want to discover more, experience more, to take part in the life of the tourist destination and to learn more, i.e. to be involved as much as possible in the life of the tourist destination and the host (Tomas ljeto 2014.,TripBarometer, 2015, Eurobarometer, 2015.). These tourists are ready to spend more if they are offered that web of activity, i.e. that integral (complex)
tourism product which will suit their specific needs. The tourist service adapts and becomes highly personalized (Skift & Boxever, 2014.), fitting the authentic environment of the destination, i.e. the special and unforgettable experience. (Skift & Peak, 2014.) The management of tourist destination is thus presented with the task of creating a rounded tourism product which will follow the recent trends of the tourist demand as well as be competitive. Such tourism product (or experience) has to be comprised of all four elements of the experience (Mehmetoglu M. and Engen M., 2011.). While designing the products of tourist destination (or any other touristic product), one has to bear in mind the following:

- What can be done in order to make the destination (the object, the attraction) appealing? These are the components of the product that make guests want to arrive, to take a walk, to sit, to socialize. One has to think about what it is that will make the “area” desirable for the arrival, as well as interesting and comfortable, i.e. what will create the atmosphere in which the guests want to spend their time and feel free and relaxed. In addition to the aesthetic component of the product, the component of fun also presents the passive part of the guest’s experience but it is usually that component which makes the guests spend more time in the tourist facility or some other tourist attraction.

- Which elements that will encourage the visitors to take part in the tourist experience and awaken their desire to adopt new insights should be incorporated in the destination product? Unique activities, the ones that provide the escape from the guest’s daily routines, the ones that make them participative and active. (Pine J., Gillmore J., 2011., Sundbo et al. 2007.)

2.2. Integrated quality management of the tourist destination as a way of transferring unique tourist experiences

The focus of the integrated quality management of the tourist destination (IQM) is the tourist and his expected benefits, but also the care of preserving and promoting the tourist attraction base as well as improving the living conditions of the local area. The success of the integrated quality management of the tourist destination will depend primarily on the involvement of all stakeholders and their joint work on implementing the strategy of the integral quality system
As for the market success, the center of the entire system should be focused on transferring the unique experience to the visitors and adhering to the set standards in any step of the tourism value chain (Jennings G. et al. 2009.). With the IQM being a long-term and an ongoing process of transferring a quality tourist experience, it requires continuous supervision, upgrading and changing as the visitor’s preferences and the market conditions shift. The system of following the visitor’s reactions and their impressions before, during and after visiting a certain tourist destination also plays a significant role in the successful managing of the tourist destination in this context. The whole system is based on the cooperativeness and the joint work on improving and understanding the needs of current and future visitors and accordingly on adapting the standards in the tourist destination and following the tourist’s reactions, especially in the after-sale phase (EC Tourism Unit, 2000.). There are many ways of gathering the information from the visitors, nowadays mostly by the way of social media and user-generated websites (Hays S., 2014.). The information gathered and analyzed in that way serve as a way of improving the tourist destination integral product.

3. METHODOLOGY

For the purpose of this work, the authors have conducted a research on the sample of 20 restaurants and resorts, as well as 10 tourist associations, 5 of which were from the county level and the other 5 the tourist associations of the lower-structure from the counties of Virovitica-Podravina, Osijek-Baranja, Koprivnica-Križevci, Bjelovar-Bilogora and Požega-Slavonija. Through the survey conducted on the sample of randomly-selected restaurant owners and managers, the authors wanted to gather the information regarding the representation of 4E of the experience economy in the subject’s tourist facility offer. The representation of the element Entertainment was studied based on the question “Do you hire musicians that play traditional music in your facility and when?”. The element of the Esthetic was surveyed based on the questions “Is your facility decorated in a traditional style?” and “Do you use the traditional folklore elements on the official uniforms of your employees, table linens, plates, glasses or your offered means such as the menu?”. The element of Education was tested using the question “Do your employees provide the guests with the information about the culinary heritage and the nutritional composition while offering
The element of *Escapism* was surveyed using the question “Are your guests able to participate in designing their own gastronomic or enological experience, for example by preparing the dishes, choosing the ingredients from your garden, or by decorating the venue for special occasions?” The questionnaire was conducted over the telephone between July and September 2015. By conducting in-depth interviews with one deliberately selected director of each tourist office and tourist association of the mentioned counties and lower-structure tourist associations, the authors aimed to investigate whether the questioned subjects implied the integrated quality management of the tourist destination and to which extent. The interviews were conducted between February and March 2016. The questions have been formed in several groups: the first one was related to strategic documents for the tourism development, the communication with the stakeholders and to the partnerships. The second one was related to CRM systems, Wi-Fi hotspots, QR codes and the communication with the visitors and the market, while the third group of questions was related to the standardization and the quality system in tourist destinations.

3.1. **The interpretation of the research results**

The results of the surveys conducted with the owners and managers of the food service facilities about the 4E realms in their products are visible in Figures 2 to 5.

**Figure 2:** Rating an Entertament element by question “Do you hire musicians that play traditional music in your facility and when?”

![Graph showing ratings of musicians by type and frequency](source: author’s calculation)
Figure 3: Rating an Estetics element by questions: “Do you use the traditional folklore elements on the official uniforms of your employees, table linens, plates, glasses or your offered means such as the menu?”

![Diagram showing the percentage of facilities using traditional elements in their offerings.](source)

Source: author’s calculation

Form the results shown in the graphics it is evident that the most abundant realm in the daily offer of the observed facilities is the realm of the Esthetic, with 80% of the facilities following the traditional elements of decorating, 40% of which to the fullest extent. The realm of Education is the second, due to the fact that 55% of the questioned subjects have affirmed to be providing the guests with the information about the gastronomic heritage and the specifications and nutritional values of their traditional dishes. It is remarkable that the most of fun and escapist activities are only organized in special occasions and that they are not largely represented in the daily offer of the observed facilities.

Figure 4: Rating an Educational element by question: “Do your employees provide the guests with the information about the culinary heritage and the nutritional composition while offering traditional dishes?”

![Diagram showing the frequency of employees providing information about dishes.](source)

Source: author’s calculation
Figure 5: Rating an Educational element by question “Are your guests able to participate in designing their own gastronomic or enological experience, for example by preparing the dishes, choosing the ingredients from your garden, or by decorating the venue for special occasions?”

![Figure 5: Rating an Educational element by question “Are your guests able to participate in designing their own gastronomic or enological experience, for example by preparing the dishes, choosing the ingredients from your garden, or by decorating the venue for special occasions?”](image)

Source: author’s calculation

With regard to the results gained by interviewing the directors of tourist offices, as can be seen in Table 1, the best results can be seen at establishing Wi-Fi hotspots in tourist attractions as well as QR codes which enable the tourists to access the useful information about the destination. These results match both in county and lower-structure tourist associations. Satisfactory results of tourist associations at the county level are also visible when speaking of strategic documents for tourism development and the structure of clusters, i.e. other partnerships associated with the development and managing of the tourist product, while the lower-structure tourist association, on the other hand are better in respect of questionnaires and monitoring the visitor’s level of satisfaction. They usually survey visitors during the tourist events and occasionally on the social media. The greatest lacks can be seen in the fact that only one of the surveyed tourist associations has established the CRM system, while none of them have presented the quality standards of certain segments of tourist offer.
Table 1: In-depth interviews results

<table>
<thead>
<tr>
<th></th>
<th>County Tourist Associations (respons in %)</th>
<th>Lower-structure Tourist Associations (respons in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Strategic documents, Clusters...</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>WiFi hot spots, QR codes</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>CRM</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>interviewing the guests</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td>Quality standards</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: author’s calculation

4. CONCLUSION

The establishment and implementation of the system of the integral management of tourism product, as well as the creation of recognizable tourism products based on the 4E are essential for differentiation and raising the competitive advantages of tourist destinations. This is particularly pertinent to destinations of the continental Croatia which have yet to build their recognition at the overall market of Croatian tourism. The traditional and cultural heritage and the lifestyle of the local inhabitants should be the basis for designing the integral tourism products based on the experience economy as a new paradigm, and the destination management should be the one to gather the dispersed holders of tourist offer and to care about the delivery of original tourist products based on the needs and preferences of ‘new tourists’ by establishing and implementing the IQM. This work has pointed out the deficiencies in the integral management of tourist destinations in the observed counties especially in the segment of presenting the quality standards and establishing the CRM system. With regard to using the 4E of the experience economy in designing the gastronomic and enological tourism products, the improvements are needed in the realms of Fun and Escapism. The future researches should also include interviewing of guests, i.e. their impressions about the observed 4E of the experience economy by the application of the method of Oh, H., Fiore, A. M., & Jeoung, M. (2007).

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Abstract

Globalization process in information driven society is causing a rift by dividing a society to ones that have access to information and are evolving by it, and those that are more times than often left to the margins of that same society, excluded from any economic life of the community. Well known sociologist Manuel Castells thinks that the main cause of this conflict in society is technocracy and that because of that conflict between technocracy and society new initiatives and civil movements are emerging.

State as a regulator needs in a globalized economy take a lead role in creating a civil coexistence. This is particularly highlighted in problem with active population that has been out of work for a long period of time. State as an institutional body that is dealing with redistributing income hasn’t fixed the problem with active population that is out of work in the long run. Only thing that is there left for society in globalized economy to do is to start taking care of itself and its own problems. By doing so new culture will be needed to grow in every individual, enterprise and even the state.

The concept of corporate social responsibility is driven with actively including enterprises in social life of the community they are in. Luigia Brunnia, who is counsel economy of communion, has said that ethics and sociability are not responsibility but a culture. How to come up with a way out of this situation? Solution isn’t to throw away technocracy and global economy but to transform the values of individuals, enterprises and society in general. Society influences enterprises, and social inequity is endangering survivability of certain enter-
prises. Main goal of this paper is to explore modern day understanding of what the role of the state is in developing civil society and creating necessary preconditions for insuring functionality and development of enterprises. In that light, in this paper, movement of active population in Croatia between years 2011 and 2014 is analyzed, which shows multifaceted problem of unemployment and marginalization of individuals in Croatian civil society. The concept of corporate social responsibility leaves enough room for interaction with society to grow to another level.

After reading the results there can be seen that there is a clear need of having another approach to the problem of unemployment which is a result of globalization, and that is to create a new model of relationship between enterprises, society and state.

Public, private and civil sectors need to find new ways on how to cooperate between each other and in same time how to achieve justice and sustainability in society in the long run, which was compromised by globalization. From that comes conclusion that there is a registered part of society which has been neglected and isolated from economic life of society. Creating more balanced and righteous society is not only an ideal to which we should be aiming for but an obligations economically justified, and by that necessary.

The involvement of the population that is on the margins of society events is a project for Croatia’s future which requires to begin the transformation of enterprise culture, society and the country as a whole.

Keywords: Corporate social responsibility, state, civil society, management, active population

JEL Classification: F01, F6

1. INTRODUCTION

Sociologist Manuel Castells believes that the processes of globalization in the information society caused a fundamental gap in the society, dividing the society by those who have access to information and are developing, and to those who are often on the margins of that same society. The development of information technology has enabled the creation of a cluster of companies in which information, innovation and technology become engines of development network. (Mesarić; 2005, page 390). In doing so, the most power is held by financial markets which, according to Manuel Castells, are becoming
“real, collective capitalist” and the main features of this market are: information economy, the global economy, network company, the transformation of labor and employment, real virtuality culture and accentuated social polarization and marginalization (ibidem; p. 391). This paper focuses on this last feature of the new global social model - social polarization and marginalization, looking at it in terms of Croatian society through the analysis of the working population in the Republic of Croatia in the period from 2011 to 2014.

In the first part of the paper analysis of the characteristics of globalization and normative regulation of the Croatian as a modern welfare state and the state of social justice will be conducted. The second part analyzes the existing active workforce among Croatian population, which is long marginalized by registered phenomenon of long-term unemployment. Parallel development of civil society and development of the concept of corporate social responsibility is a new way in which the Croatian society can go in developing their own social life and achievements of the welfare state and the state of social justice.

The central part of this paper presents the findings and discussion of results on the structure of the working population in the Republic of Croatia from 2011 to 2014. This section identifies the area of improving cooperation between civil society, businesses and the state. The paper ends with conclusions and recommendations for further research.

2. GLOBALIZATION AND THE SOCIAL DIMENSION OF THE CROATIAN SOCIETY

Social justice, equality, respect for human rights, preservation of nature and the environmental are some of the fundamental and highest values of the Croatian state (Constitution, Art. 3). where everyone is required to abide by the Constitution and law and respect the legal order of the Republic of Croatian (ibidem; Article 5). The Croatian Constitution as the basic and highest legal act is the compass for all public bodies to have in its activities applied, thus promoting economic and cultural progress as well as social welfare (ibidem, Art. 1). In addition to public bodies, the Constitution and its values bind each individual to achieve these values, no matter how it’s organized (institutions, companies, associations, unions, etc.).

The modern welfare state fulfills its function through a form of income redistribution from the rich to the poor. Globalization has erased the boundaries of the countries, so that the place (location) to create enterprise value is no longer associated with the country where the company has its headquarters. In conditions when, due to globalization borders virtually erased this is the role of the welfare state in question. (Sinn; 2002., page 79).

In his encyclical Centesimus Annus, Pope John Paul II confirmed the views of Pope Leo XIII presented in the encyclical Rerum Novarum, that “peace is building on the foundation of justice. (John Paul II; 1991., page 5), that the worker and work are dignified and that “work has a social dimension because of its internal relations being towards the family or towards the common welfare because it must be said without a doubt that the work a worker does creates wealth of the society”; (ibidem). Pope John Paul II in his encyclical Sollicitudo Rei Socialis adds and Opus solidaritatis pax - peace is the fruit of solidarity (John Paul II; 1987., page 37).

Croatian Government in the National Strategy for Creating and Enabling Environment for Civil Society Development from 2012 to 2016, highlights the importance of the civil sector, such as “civil society activities that contribute to the realization of the highest values of the constitutional order in Croatia” as well as “freedom, equality, national and gender equality, peace, social justice, respect for human rights, inviolability of ownership, conservation of nature and environment, and a democratic multiparty system.” (Croatian Government, 2012., National Strategy for Creating an Enabling Environment for Civil Society Development from 2012 to 2016).

The mission of civil society organizations focused on building “a democratic, open, inclusive, prosperous and socially just, sustainable and environmentally friendly society”, the creation of the common good community in which organizations operates. All other parties involved are part of and operate in this area of activity, which is for common welfare. Companies that are socially responsible require a developed and organized civil sector which will, through named needs,
act like partner in communication and exchange of ideas and project activities. It was the civil organizations who acted as a link between state, society and the market, were able to identify local needs, to address the socially responsible businesses and create local initiatives that can contribute to the common good. The existence of civil organizations in an area is necessary for the formation of local county development strategy where the civil sector is an important partner for local and regional self-government in identifying strategic development priorities in the preparation of local development strategies.

According to the European Economic and Social Committee in organizations of civil society the following categories of organizations include: (ibidem; page 6)

a) the social partners - organizations dealing with the protection of the environment, human rights, consumer rights, educational organizations and others,

b) organizations established in the community, such as youth organizations, organizations for the protection and promotion of the family,

c) other organizations whose members participate in local community life and

d) religious communities.

When it comes to the legal structure of the organizations of civil society in Croatia, we are talking about associations, foundations and funds, private institutions, trade unions and employers organizations, organizational forms of religious communities, as well as the various types of informal civic initiatives. (ibidem; page 6).

The strategy for combating poverty and social exclusion in the Republic of Croatia (2014 -2020.) is a document intended to achieve social coordination of all relevant parties to solve the problem of poverty and social exclusion. Key areas of the said strategy include “the fight against poverty and social exclusion and the reduction of inequalities in society; preventing the emergence of new categories of the poor, as well as reducing the number of poor and socially excluded people; the establishment of a coordinated system of support for groups at risk of poverty and social exclusion.” (Croatian Government: Strategy for Combating Poverty and Social Exclusion in the Republic of Croatia, page 2). In the above mentioned strategy, the following groups of society have been identified as having the potentially highest degree of risk of poverty and social exclusion: children and
youth, the elderly and pensioners, the unemployed and people with disabilities. It should be distinguished two different concepts, poverty and social exclusion. Poverty is understood as a shortage of material and financial resources, compared to the concept of social exclusion, which in addition to economic poverty include: social, cultural, political and other dimensions. 20. (Šućur: Poverty, unemployment and social exclusion, UNDP, Zagreb, 2006. taken from the Strategy for poverty and social exclusion in the Republic of Croatia 2014 to 2020).

3. CORPORATE SOCIAL RESPONSIBILITY AND CIVIL SOCIETY

The concept of Corporate Social Responsibility seeks to identify the impacts of the company to the wider community, so that in addition to economic objectives of operations it is necessary to manage the influence of companies in the broader context, not just reactive but proactive.

Philip Kotler and Nancy Lee defined the social responsibility of business as a “commitment to the company to improve the well-being of the community through voluntary business practices and contribute to the expense of their own resources” (Kotler and Lee; 2011., page 14).

Sociability, as the ability of the entity to cooperate with others, necessarily becomes a new dimension of business enterprises. Luigino Bruni in terms of sociability advocates the creation of a new culture in the spirit of community, of giving and helping the poor to reintegrate into the community. (Bruni; 2013., page 6). For sociability to be achieved it is necessary to recognize community values, needs and own contribution to the development of society. In this sense, there is a chance for many companies, which can recognize their specific contribution to society and social life, and thus build their image and achieve a competitive advantage in the market. A company’s reputation in an all connected society can become dominant assets.

Some of the possible projects of socially responsible companies are as followed: employee volunteering, sponsorship of community, charitable donations and so on. (Ćorić; 2007., p. 386).

The issue of the social dimension of corporate responsibility to the community is the question of whether the enterprise recognizes the fundamental social values and are they putting them as values in business goals? Sociability is
a new dimension of business enterprises, and thus one of the designated company goals. As the business success of the company is measured by quantitative criteria so is the question of where the company is actually going considered as the measure the qualitative nature. The question of where the company is really going should be answered by strategic management, visionary and inner compass of management in companies.

Often times what is good for long-term survival of the company could jeopardize the operating result at the end of the year. For example, investing in improving the quality can ultimately lead to invest in machinery and systems, the methods and procedures, which in the long run lead to the survival of the company, or will in the short term certainly reduce company profits. Such conflicting decisions (long-term horizon vs. short-term horizon) has been the case many times for the management of the company. For example, investing in staff training is considered as operating costs, but the effects are long term.

In the foundations of these decisions it is always a value system of capital owners and management companies. Strategic management you always questioning where the company wants to go and how fast there wants to get there. It can be said that a combination of fundamental options of a way the companies are taking (objectives that the company has and the speed with which it wants to achieve it) is based on just-mentioned value system of capital owners and management companies. There is a feeling of need to thoroughly examine the core values of the correlation between state - civil society - enterprise. Companies that declare themselves as socially responsible in any case can help local initiatives of the civil sector in the realization of certain projects. The development of the civil sector in the Republic of Croatia should be the subject of specific research because there are certain indications in less developed areas in Croatia that the sector is in the early stages of development. (Bartolović; 2015., page 24).

The Republic of Croatia is a member of the European Union since July 1, 2013. The recommendations of the European Commission member states are going in the direction of the need to create jobs, encourage investment and increase economic activity, which should result in reduction of dependence on the economies of the European Union external trends. (Croatian Employers’ Association; Work Program 2015)
In the real sense, these recommendations put before the Member States challenge in such a way as a change of culture and mindset through strengthening local capacity to create new value in terms of national economies. Solving the problem of unemployment and the labor market is what the Commission requires. In this way both economic and social dimensions of society are combining. A characteristic of the European Business Ethics is that it has a category of responsibility, the common good and sensibilities. (Krkač; 2007., page 222).

The forecasts of the Croatian Association of Employers for 2015 are clearly articulated the risks of the company and the needs of the implementation of a series of essential reforms needed to facilitate investment in companies, increased employment and growth in economic activity. What Croatian Employers’ Association highlights is the lack of having a feeling for importance and urgency and the lack of initiative in solving problems. In the same document, the Croatian Employers’ Association underlines the view that the reforms that have been undertaken in the previous period mainly came from the European Commission in the process of adapting the Republic of Croatia and later through the process of the European semester. (Croatian Employers’ Association: Work Programme 2015).

This passive approach to the reforms that are largely imposed from outside, mainly from the European Commission, according to the Croatian Employers’ Association, may result that priorities are still not recognized in what is needed to develop their own society, and therefore no substantial reforms are undertaken.

4. **ACTIVE POPULATION IN THE REPUBLIC OF CROATIA**

The population of unemployed persons in Republic of Croatia are selected according to the following characteristics: the duration of unemployment, gender and age. As a basis for analysis the data from the Croatian Employment Service is used for the following time periods 2011, 2012, 2013 and 2014. Table 1 shows the structure of unemployment by duration of unemployment as of December 31, of the current year that is under review.
Table 1. Unemployed persons by duration of unemployment in the period 2011. to 2014.

<table>
<thead>
<tr>
<th>A</th>
<th>Period of unemployment</th>
<th>2011.</th>
<th>%</th>
<th>2012.</th>
<th>%</th>
<th>2013.</th>
<th>%</th>
<th>2014.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Up until 3 months</td>
<td>89.269</td>
<td>28,30</td>
<td>93.606</td>
<td>26</td>
<td>94.379</td>
<td>25,97</td>
<td>85.694</td>
<td>27,05</td>
</tr>
<tr>
<td>2</td>
<td>From 3 months to 6 months</td>
<td>41.474</td>
<td>13,15</td>
<td>60.250</td>
<td>16,82</td>
<td>55.538</td>
<td>15,28</td>
<td>41.802</td>
<td>13,20</td>
</tr>
<tr>
<td>3</td>
<td>From 6 months to 9 months</td>
<td>24.979</td>
<td>7,92</td>
<td>26.733</td>
<td>7,46</td>
<td>25.064</td>
<td>6,90</td>
<td>19.609</td>
<td>6,19</td>
</tr>
<tr>
<td>4</td>
<td>From 9 months to 12 months</td>
<td>19.781</td>
<td>6,27</td>
<td>26.645</td>
<td>7,44</td>
<td>22.952</td>
<td>6,32</td>
<td>19.559</td>
<td>6,17</td>
</tr>
<tr>
<td></td>
<td>Total (1+2+3+4)</td>
<td>175.503</td>
<td>55,64</td>
<td>207.234</td>
<td>57,85</td>
<td>197.933</td>
<td>54,47</td>
<td>166.664</td>
<td>52,61</td>
</tr>
<tr>
<td>5</td>
<td>From 1 year to 2 years</td>
<td>52.176</td>
<td>16,54</td>
<td>61.009</td>
<td>17,03</td>
<td>66.272</td>
<td>18,24</td>
<td>50.862</td>
<td>16,06</td>
</tr>
<tr>
<td>6</td>
<td>From 2 years to 3 years</td>
<td>27.907</td>
<td>8,85</td>
<td>29.483</td>
<td>8,23</td>
<td>33.500</td>
<td>9,22</td>
<td>32.166</td>
<td>10,15</td>
</tr>
<tr>
<td>7</td>
<td>More than 3 years</td>
<td>59.852</td>
<td>18,97</td>
<td>60.488</td>
<td>16,89</td>
<td>65.706</td>
<td>18,08</td>
<td>67.071</td>
<td>21,17</td>
</tr>
<tr>
<td>C</td>
<td>More than 1 year (5+6+7)</td>
<td>139.935</td>
<td>44,36</td>
<td>150.980</td>
<td>42,15</td>
<td>165.478</td>
<td>45,53</td>
<td>150.099</td>
<td>47,39</td>
</tr>
<tr>
<td>D</td>
<td>Total (B+C)</td>
<td>315.438</td>
<td>100,00</td>
<td>358.214</td>
<td>100,00</td>
<td>363.411</td>
<td>100,00</td>
<td>316.763</td>
<td>100,00</td>
</tr>
</tbody>
</table>


In addition to the high unemployment rate in the Croatian society, which ranged from 315,438 in 2011 and grew by 2013 to a record high of 363,411 unemployed, it can be seen in Table 1 that the extremely high rate of long-term unemployed working-age population. Thus, in 2011 the number was 139,935 people, and in 2013 rose to 165,478 people, which is in the structure amounted to 45.53% of the population unemployed. Almost every other unemployed resident has been excluded from the labor market, from the economic life of the community, from the creation of value, from contributing to society, deprived of an essential dimension of his personality. This data points to the conclusion that the problem of long-term unemployment and exclusion from the labor market should be accessible through the creation of a new model of social co-existence between the state-enterprise-organization of civil society, in order to mitigate the effects on the lives of people who have long belong to the population of long-term unemployed working-age population and their families. Especially this part of society should be reintegrated through a variety of activities in social life, through various forms not only help but also social activities. Chart 1 shows the structure of unemployment due to the unemployed up to one year and long-term unemployed (more than one year).
Chart 1. Unemployed persons by duration of unemployment (December 31, 2014)


The structure of the unemployed shows an adverse relationship between men and women at the expense of unemployment of women. Table 2 provides an overview of trends in unemployment in the period from 2011 to 2014 by sex unemployed.

Table 2. The average number of unemployed by sex in the period 2011 to 2014

<table>
<thead>
<tr>
<th>Sex</th>
<th>2011.</th>
<th>%</th>
<th>2012.</th>
<th>%</th>
<th>2013.</th>
<th>%</th>
<th>2014.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>141,408</td>
<td>46,31</td>
<td>152,079</td>
<td>46,89</td>
<td>163,070</td>
<td>47,25</td>
<td>153,485</td>
<td>46,77</td>
</tr>
<tr>
<td>Women</td>
<td>163,925</td>
<td>53,69</td>
<td>172,245</td>
<td>53,11</td>
<td>182,042</td>
<td>52,75</td>
<td>174,702</td>
<td>53,23</td>
</tr>
<tr>
<td>Total</td>
<td>305,333</td>
<td>100,00</td>
<td>324,324</td>
<td>100,00</td>
<td>345,112</td>
<td>100,00</td>
<td>328,187</td>
<td>100,00</td>
</tr>
</tbody>
</table>


In the observed period it can be seen a stable relative ratio between male and female population due to unemployment. In the observed period, the average share of unemployed men in the total population of unemployed is 47% and women 53%, which indicates that women are somewhat disadvantaged in the structure of unemployed able-bodied persons.

Figure 2. The unemployed by gender, with December 31, 2014.

Source: according to the Yearbook of the Croatian Employment Service
### Table 3. The average number of unemployed by age in the period 2011 to 2014

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>from 15 to 19</td>
<td>15.617</td>
<td>17.186</td>
<td>18.140</td>
<td>16.683</td>
<td>110 106 92</td>
</tr>
<tr>
<td>from 20 to 24</td>
<td>41.078</td>
<td>44.877</td>
<td>47.619</td>
<td>42.593</td>
<td>109 106 89</td>
</tr>
<tr>
<td>from 25 to 29</td>
<td>41.929</td>
<td>45.445</td>
<td>47.441</td>
<td>43.207</td>
<td>108 104 91</td>
</tr>
<tr>
<td>from 30 to 34</td>
<td>34.308</td>
<td>37.031</td>
<td>39.361</td>
<td>36.513</td>
<td>108 106 93</td>
</tr>
<tr>
<td>from 35 to 39</td>
<td>29.936</td>
<td>32.146</td>
<td>35.013</td>
<td>33.440</td>
<td>107 109 96</td>
</tr>
<tr>
<td>from 40 to 44</td>
<td>29.624</td>
<td>31.009</td>
<td>32.949</td>
<td>31.106</td>
<td>105 106 94</td>
</tr>
<tr>
<td>from 45 to 49</td>
<td>31.582</td>
<td>33.204</td>
<td>35.584</td>
<td>33.900</td>
<td>105 107 95</td>
</tr>
<tr>
<td>from 50 to 54</td>
<td>37.430</td>
<td>36.553</td>
<td>37.653</td>
<td>36.380</td>
<td>98 103 97</td>
</tr>
<tr>
<td>from 55 to 59</td>
<td>33.154</td>
<td>35.057</td>
<td>37.708</td>
<td>39.304</td>
<td>106 108 104</td>
</tr>
<tr>
<td>60 +</td>
<td>10.675</td>
<td>11.816</td>
<td>13.644</td>
<td>15.061</td>
<td>111 115 110</td>
</tr>
<tr>
<td>Total</td>
<td>305.333</td>
<td>324.324</td>
<td>345.112</td>
<td>328.187</td>
<td>106 106 95</td>
</tr>
</tbody>
</table>


Based on Table 3 we can see that young people in total from 20-24 years and 25-29 years are in disadvantaged social position with regard to unemployment. Also, it’s specifically noted the growth dynamics of the unemployment in the age group 55-59 years, and a group of 60 years and more. Based on the data it can be concluded that the most vulnerable groups are young people aged 20-29 years and people between 55 and 60 and older.

### 5. CONCLUSION

The Republic of Croatia is in its constitutional arrangements a welfare state. However, the process of globalization and the globalization of erasing the borders between the states are putting before them new challenges in terms of performing their roles, one of which is the redistribution of income from rich to poor. Based on the data we can see the need to change the culture of society, where greater focus should be placed on the public good, and change ways of thinking by encouraging substantial reforms within the country, identifying the right priorities, rather than imposing the reform of the external environment.

The concept of corporate social responsibility can help the civil sector and the country in search of new forms of cooperation in the common good. It can
help companies in building competitiveness through reputation in the community, through the implementation of a new way of business conduct of enterprises in the framework of Corporate Social Responsibility. A special focus is placed in front of the management of the company to devise new ways of cooperation with the community. In the results, we can see the need to take the problem of unemployment in the society as a result of globalization approaches in a new way, through the creation of a new model of relations between the company, civil society and the state.

Public, private and civil sectors undoubtedly have to find new models of cooperation and achieve fairness and sustainability of society in the long term, which is threatened due to the globalization process.

The conclusion it leads is registered persons who are considered as a long-term unemployed population that has long been neglected and isolated from the economic life of the community. The involvement of the population that is on the margins of society is a project for Croatia’s future which requires to begin the transformation of enterprise culture, society and the country as a whole.

**LITERATURE**


Krkač Kristijan: Temeljna pitanja korporacijske društvene odgovornosti, Uvod u poslovnu etiku i korporacijsku društvenu odgovornost, editor K. Krkač
THE ROLE AND THE IMPORTANCE OF PROMOTION IN THE DEVELOPMENT OF OENOTOURISM IN BARANJAN

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Abstract

Touristic trends and the crisis of mass tourism for passive relaxation influenced the creation of new, selective forms of tourism and tourist offer, which increases the development opportunities of continental tourism in Croatia. One of the selective type of tourism, which offers Baranja, as part of the Osijek-Baranja County, is the wine tourism. Leadership of Osijek – Baranja County, local and regional tourist boards and local entrepreneurs-vintners recognized the opportunity of wine tourism and launched the project “Wine Tour” financed by the European Union. Thanks to the project “Wine Tour”, the current wine routes were regulated and new one were built with cultural and tourist attractions through which tourists will be able to meet the production of wine and other local products in the region. Improved infrastructure is the basis for the development of wine tourism. Appropriate promotion of Baranja is neces-
The aim of this paper is to highlight the role and importance of the promotion of wine tourism in Baranja as one of the most important marketing activities which transmitted created authentic values and experiences to consumers and tourists. The optimal marketing mix and well-selected media for the transmission of information to domestic and foreign tourists are an important factor that affects the identification and development of wine tourism and positioning Baranja as a unique wine region and tourist destination.

**Keywords:** Baranja, marketing, promotion, wine roads, wine tourism

JEL Classification: Z3, Z32

1. **RESEARCH PROBLEM AND SUBJECT**

The starting thesis is that Baranja can achieve much better results in tourism, especially in oenotourism, having in mind its wine and gastronomy tourism offers, including oenotourism offer, its natural resources, its viniculture and wine-making traditions, and improved infrastructure, thanks to successful projects such as the Wine Roads. On top of the above tourism development factors in Baranja, special attention needs to be paid to marketing activities, with a special emphasis on tourism product marketing mix, in this case the wine and wine amenities offer. Given marketing efforts, and especially a carefully chosen and designed promotional mix, Baranja and its tourism products will be promoted as a region with a unique offer in the national and the international tourism markets.

2. **RESEARCH OBJECTIVES AND HYPOTHESES**

The main research objectives are:

- Research and identify the existing forms of promotion of the wine roads as Baranja’s tourism product
- Research and identify the promotional mix that can be used to advance Baranja’s wine tourism and more

Applicable objectives of the research come down to informing all Baranja’s tourism offer operators about:
• Advantages of oenotourism
• Importance and advantage of networking and cooperation among tourism operators, i.e. small winemakers
• Impact of promotion and other marketing activities on the development of oenotourism

The objective of this study is to develop an effective promotional mix that will accomplish the above objectives and promote the development of oenotourism and the recognisability of Baranja as a wine region. An effort will be made to test the following hypotheses based on the defined objectives:

H₁: More intensive wine road promotion will accelerate the growth and development of Baranja’s tourism offer.

H₂: Wine road promotion will contribute to the branding and to the recognisability of Baranja as a wine region that has outstanding natural resources for viniculture and a long winemaking tradition.

Primary and secondary sources of information were used in this paper to test the above hypotheses and to accomplish the above objectives. An online survey carried out on social networks on a sample of 204 respondents (N=204) is the primary source of information.¹ Scientific methods employed in the paper to test the hypotheses include the analytic-synthetic method, the comparative method, the inductive-deductive method, the classification method, the description method, and statistical methods.

3. CONCEPT, MEANING AND TYPES OF TOURISM

Tourism is a complex social and economic phenomenon spanning economic, ecological, social and cultural aspects of people’s lives. The term “tourism” is believed to be derived from the English word “tour”, which, among other things, stands for a circular journey, or the French word “tourisme”, which also stands for a journey. The word “tourist”, which has been in general use since the late 19th century, is derived from these words. The most frequently quoted definition of the term “tourist” is the definition by the American sociologist Erik Cohen from 1974: “A tourist is a voluntary, temporary traveller, travelling in the expectation of pleasure from the novelty and change experienced on a relatively long and

¹ The entire survey, carried out between 1 December and 14 December 2014, is enclosed to this paper.
non-recurrent round-trip” (Pirjavec & Kesar; 2001, 4-5). The Croatian Bureau of Statistics has its own definition that helps it maintain records about persons using tourism services: “A tourist is any person who spends a minimum of one night in a place other than their place of residence at a catering facility or another guest accommodation facility for purposes of vacation or recreation, health, studies, sports, religion, family, business, public missions or conferences”.

As has already been pointed out, the emergence and the development of tourism resulted from people’s needs and from their way of life. The progress of industry, the invention of the steamship, the railway, and other technological and transport innovations brought about the biggest changes in tourism. The development of the media and the internet, along with the application of management and marketing in tourism, resulted in the development of other specific forms of tourism and tourism products in addition to mass tourism. Changes that happened in the way of life and lifestyle have changed the needs and the characteristics of tourists, giving rise to new motives that stand out from the mass tourism offer, as the tourism consumers of today are different from the tourism consumers of yesterday “by being experienced, well-informed, heterogeneous, spontaneous, and unpredictable, by wanting other amenities in addition to a vacation, by being individual, by adding new experiences to their everyday lives, and by being independent” (Vrtiprah; 2006, 280).

Unlike the types of tourism, specific forms of tourism are based on a certain dominant tourism motive that dictates supply and demand in the tourism market. The motive for tourism (like health, culture, religion, sports, sailing, gastronomy, entertainment, adventure, hunting, events, etc) drives the tourists to travel to the destination whose tourism offer includes amenities that will provide them with the experience they desire. More than 30 different specific tourism forms are recognised today across the world, and each of them requires a certain organisational system, marketing concept, specially designed amenities, and qualified workforce. There are different forms of tourism such as “health, culture, hunting and fishing, naturist, eco, congress, nautical, religious or pilgrim, event, ‘Robinson’, and wine and gastronomy tourism” Pirjavec & Kesar; 2001, 15-17). Oenophile tourism is a special form of tourism that will be discussed in more detail below.

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2 Available at http://www.dzs.hr/Hrv/DBHomepages/Turizam/metodologija.htm (accessed on 5 January 2015)
3.1. **Oenophile tourism/ oenotourism**

The development of new trends in life and new travelling motives influenced the development of the wine and gastronomy tourism as a form of tourism that has so far mainly served as an extra tourism product supplementing one type or form of tourism or another. This specific form of tourism gave rise to food tourism, also known as gourmand or culinary tourism, and to wine tourism, also called oenotourism or oenophile tourism. The term “oenology” is of Greek origin and denotes the science of winemaking, including grape growing and harvesting and wine production. The terms “oenophile” and “oenotourism” are derived from it. The most often used definition of oenophile tourism is the definition by Hall and Macionis, who define it as “visitation to vineyards, wineries, wine festivals and wine shows for which wine tasting and/or experiencing the attributes of a grape wine region are the prime motivating factors for visitors” (Kesar & Ferjanić; 2010, 103). The authors go on to state that the definition can be partly supplemented, and oenophile tourism can be described as “a specific form of tourism that includes not only wine tasting in places outside of the visitor’s permanent place of residence, but also a number of different activities such as visits to vineyards and wineries of a specific grape wine region, participation in wine festivals and visitation of wine shows, educational and cultural aspects of wine production and consummation, and many other wine-related activities in open and closed spaces.” We could say that oenophile tourism gives the tourist an opportunity to get to know not only the wines of a certain area, but also the history, culture, cuisine, scents, tastes and sounds of a certain area and the lifestyle of the people inhabiting it. Oenophile tourism developed from travel motivated by wine and wine grape regions and by getting to know the local way of life. Wine tourism can be (Geić; 2011, 340):

- Culturally authentic (includes lifestyle, related to wine and food, festivals and events, wine villages, architectural heritage)
- Romantic (based on the fact that wine, foods, and an attractive setting can be conducive to romanticism)
- Educational (tourists want to learn more about wine and wine culture).

The interconnections and the involvement of various stakeholders who need to plan, implement and valorise this tourism product together are important for the development and success of oenophile tourism. The concept of development of the wine roads or wine routes within a certain grape wine region is also important for its development. A certain grape wine region or a geographic area is
the most important determinant of a wine road. A wine road thus unites winemakers and shapes their identity, their uniqueness, and their cultural and social heritage. Wine roads weave a story about the unique features of the grapes and the wines of this region, about the climate and the soil of the area where they are grown, and about the tradition within which the wines are produced and consummated. The local community can reap multiple benefits from oenotourism, such as generation of revenue and jobs for the local population, maintenance and construction of infrastructure, incentives for the development of other sectors (such as crafts, souvenirs, eco products etc), protection of the environment and the landscape, and preservation of the tradition and the way of life.

The tourism offer and the tourism products Baranja can and should build its image on include ethnology and gastronomy, events, cultural and historical localities, natural attractions, hunting and fishing, biking trails/routes, vineyards, winemakers and wine roads.

4. THE OENOLOGICAL TOURISM PRODUCT OF BARANJA

An etymological and semantic analysis of the name “Baranja” shows that it is derived from Hungarian “bor” wine and “anya” mother: “Baranja” thus literally means “wine mother”. The symbolism inherent in the name of this region indicates that Baranja is an ideal region for viniculture and wine production. The ancient Romans understood the quality of the soil and the suitability of the microclimate in this region, planting the first vineyards and making the first wine in the present-day Banovo brdo (altitude 241 m) in the north of Baranja, which they called Mons aureus or Golden Hill, more than 2000 years ago. Ever since then Baranja has been a viniculture and winemaking region. The Baranja wine region, located at an altitude of 150-220 metres, is one of the best Croatian wine regions and the most attractive wine region of the Osijek-Baranja County. Its wine cellars gator, dug in loess soil, make it particularly attractive and special.

As a part of its efforts to promote the development of viniculture and winemaking, the Osijek-Baranja County launched the Winetour project, which consisted of building wine roads that were supposed to support the economic development of Baranja by reinforcing its tourism business and by establishing better resources for the oenotourism offer. The wine roads, as a specific segment of oenotourism, have joined forces with Baranja’s winemaking tradition to contribute to the uniqueness and the quality of Baranja’s oenotourism.
The Zmajevac Tourist and Wine Road is the largest of Baranja’s wine roads and one of the largest wine roads in Croatia. The Baranja wine region is one of the first Croatian wine regions that joined the European Union’s wine road project Wine Tour, which focuses on the development of tourism in rural areas based on wine roads. Hungary, Italy, and Spain are members of the Wine Tour project in addition to Croatia. Each project member, including Croatia, has accepted the obligation to provide certain amenities, such as winemakers with cellars located along the wine roads, restaurants offering autochthonous cuisine, roads set up in accordance with the project’s requirements, and business hours set by the project. All these amenities are necessary so that tourists could arrive individually or in announced groups and visit interesting localities nearby in addition to wine tasting. Also, each wine region has to have a starting point. The starting points for Baranja are Prince Eugene of Savoy’s Castle in Bilje and the Nature Park Kopački rit, from where tourists are supposed to embark upon their tours of the wine roads across Baranja.

Aside from more than 50 smaller and larger private winemakers, registered as independent wineries, cellars, associations or family farms, Vina Belje, a part of Belje d.d., is the largest and the best known wine producer in Baranja. The larger and better known winemakers and wineries in Baranja include the wineries and cellars Josić, Gerstmajer, Kusić, Čočić, Kalazić, Gregurek and Kolar. Most of the wineries have agreed to form associations, which facilitate their activities in the tourism market. The oenotourism offer of Baranja is completed by the Wine Museum and the Wine Shop in Zmajevac (Vinoteka Baranyai Julia), opened in August 2013, which were also established as a part of the Wine Tour project. The Wine Shop showcases the offer of Baranja’s winemakers on a surface area of 320 m². Theoreticians and practitioners agree that the following factors are essential for the development of oenotourism: a favourable geographic and traffic location, winemaking tradition (quality of wines), diverse cultural and historical heritage, numerous wine and food festivals, and correlations with other forms of tourism.

All of the above factors are present in Baranja’s tourism offer and constitute the basis for further development of oenotourism in this region. In addition to cultural and natural monuments, museums, belvederes, restaurants and events, winemaking and wine roads are a unique oenotourism product Baranja can build its destination image on even in the times of the economic crisis, but it requires timely reaction, careful planning and sophisticated advertising, and continual marketing activity.
5. THE PROMOTION OF BARANJA’S WINE ROADS AS A PART OF MARKETING ACTIVITIES

Marketing is defined as a process of value generation by business operators with their consumers (Grbac; 2005, 403). Marketing as a management process can be defined as “the sum of skills to analyse, plan, implement and control marketing activities programmes designed to establish and maintain a useful exchange with the buyers in the target markets with the ultimate objective of attaining the organisation’s goals” (Kotler & Armstrong, 2006). One of the definitions of marketing in tourism (Senečić & Vukonić; 1998, 38) is: “Marketing in tourism is a systematic and coordinated adjustment of tourism companies’ policies and tourism policies on the local, regional, national and international levels to optimally satisfy the needs of certain consumer groups and thus make a profit.” Promotional activities are definitely the most prominent part of marketing activities and efforts. The Tourism Board of the Osijek-Baranja County and Baranja’s tourism boards are the leaders of the promotion of Baranja’s wine roads and Baranja as an oenotourism destination. To a smaller extent, the winemakers, wineries and family farms as the creators and main exponents of Baranja’s tourism leaders also manage the promotional activities. The tourism boards mostly use the internet in their promotional activities as the most influential medium and method for the communication of information. The tourism boards post information about the activities offered and launched in their respective areas on their websites. Almost all tourism operators also advertise on the web. The web presence of the business operators is no longer a matter of prestige, but a constituent part of a business operator’s reputation and seriousness. However, a web presence by itself is no longer enough; it has to be continually promoted and regularly advertised and innovated.

5.1. Survey about the awareness and promotion of Baranja’s wine roads and oenotourism

The objective of the survey about the awareness of Baranja’s wine roads and oenotourism was to determine how well-informed the participants of the survey were about Baranja’s oenotourism offer and where they got their information. A total of 204 respondents participated in the survey (N=204). The survey was carried out in the period between 1 December 2014 and 20 December 2014 on social networks and by email. A demographic analysis of the respon-
dents showed that half of them were between 25 and 35 years of age (47.32%),
that 150 of them (73.17%) were employed or had a source of income, and that
145 (71%) were based in the Osijek-Baranja County, meaning that most of the
respondents belonged to the regional population.

Expectedly, most of the respondents, to be more precise, 118 respondents or
58%, primarily associate Baranja as a region with the Nature Park Kopački rit.
Restaurants and family farms are the next associations, and wine roads are only
number four. Only 17 respondents (8%) primarily associate Baranja with wine
roads, which is our first sign that a more intensive effort is needed to promote
the wine roads and Baranja’s oenotourism, especially if the objective is to posi-
tion Baranja as the top wine region of this part of continental Croatia.

The analysis of survey respondents who visited Baranja in 2014 showed that
31 respondents or 15% had not visited Baranja once in this period, whereas 57
respondents or 18% said that they visited Baranja often or very often (Chart 1).

![Chart 1. Frequency of visits of Baranja](chart.png)

The survey found that the past promotion of Baranja’s wine roads and oeno-
tourism, which rests partly on the wine roads, is not enough, because some of
the survey respondents (29 or 14%) are not aware of the existence of wine roads
in Baranja, whereas 175 respondents or 86% are aware of their existence. Even
though most of the respondents know about Baranja’s wine roads, only 94 re-
spondents or 46% visited one of the wine roads, 54 of them women, and 40
of them men, which translates to 52% of all male respondents and 44% of all
female respondents in the survey. The respondents who visited one or more of
Baranja’s wine roads, 94 of them or 46%, answered questions pertaining to how
they learned about the wine roads, why they visited them and when, whether
they were satisfied or not with Baranja’s wine roads and oenotourism offer, and
what they would recommend for the advancement of the promotion of wine roads and the development of Baranja’s oenotourism.

The primary reasons and motives for visiting Baranja’s wine roads (Chart 2) mentioned by the respondents are visits to wineries and winemakers and entertainment, whereas the food and wine offer is only number three. People mostly visited the wine roads during the weekends, and much less on weekdays, which could be expected considering that entertainment and leisure were the primary motives for their visits to wine roads.

Chart 2. Motives for visits to wine roads

As for the satisfaction of the survey respondents with the amenities offered on the wine roads, 71 participants (35%) were satisfied, which can be taken to mean that they got the expected value for money as guests, and 18 participants (9%) were exceptionally satisfied, which can be taken to mean that they got greater satisfaction than expected or a value greater than their investment.

Most of the survey respondents learned about the wine roads (Chart 3) by the recommendation of their friends or acquaintances (37%). We may therefore conclude that the secondary form of propaganda, the so-called “word of mouth”, is currently the dominant form of communication in the promotion of wine roads. The internet has a substantial influence on communication (17%), and outdoor advertising media – billboards and road signs pointing to the wine roads – also have a substantial influence. Even though the tourism boards are investing a considerable amount of effort in the promotion of specific forms of tourism in Baranja, including oenotourism, their influence is very low (3%), and TV and radio ads have the lowest reach (2%).
Chart 3. How the respondents learned about the wine roads

The recommendations of survey respondents about the communication of information and promotional communication about the wine roads (they were allowed to recommend several options) mainly pertained to the internet: 63 respondents or 17% recommended specialised tourism websites. Attractive TV ads are the next, having been recommended by 48 respondents or 24%, followed by tourism fairs, which were recommended by 40 respondents or 20%, and printed tourist guides and promotional fliers, which were recommended by 31 respondents or 15%. Other possible activities mentioned by the respondents included TV documentaries and travel shows and sponsored TV or radio shows.

One fact confirms that wine road visitors are interested in learning about winemaking, wines, wineries and related events: all visitors who visited the wine roads were most interested in the Wine Museum in Zmajevac (38 respondents or 19%), Regional Wine Museum in Osijek (32 respondents or 16%) and other museums (24 respondents or 12%). Below are the answers to the question about the importance of promotion for wine tourism, which expectedly highlight its importance, as shown in Table 1.

Table 1. Descriptive statistical analysis about the importance of promotion of Baranja’s wine roads

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>The importance of promotion of Baranja’s wine roads</td>
<td>95</td>
<td>26.32</td>
<td>4.04</td>
<td>9</td>
<td>30</td>
</tr>
</tbody>
</table>

Legend: N-number of respondents, M-arithmetic mean, SD-standard deviation, Min-minimal total result of the respondents, Max-maximal result of the respondents

Source: own calculation

The results showed that there was a positive connection between the satisfaction with Baranja wine roads offer and the importance of wine road promotion: the respondents who were more satisfied with the offer also believe in the
The greater importance of Baranja wine roads promotion, as confirmed by the correlation coefficient ($r=0.205; p<0.05$).

6. CONCLUSION

Baranja has all the prerequisites for the marketing and tourism valorisation of different forms of selective tourism, including oenotourism. The existence of folklore heritage, cultural and historical monuments, specific gastronomy, natural attractions, and numerous events can be an excellent addition to the oenotourism offer. The existence of different resources and a well-built wine road infrastructure by themselves do not mean the existence and development of an oenotourism product. The efforts of all stakeholders in Baranja’s tourism offer must be focused on putting resources in operation in the capacity of tourist attractions and shaping them into an attractive tourism product, which would contribute to the competitive advantage and recognisability of Baranja as a wine region and as a tourist destination. Marketing activities, and promotion in particular, play an exceptionally important role in the development of tourism. Survey results confirmed the hypothesis that a more intensive promotion of the wine roads would accelerate the development of Baranja’s tourism offer. Wine road promotion can also have a significant impact on the branding of Baranja as a wine region that has exceptional natural resources for viniculture and a long winemaking tradition, excellent foundations for further development of oenotourism. Accepting the recommendations of survey participants, promotional activities associated with wine roads and oenotourism should focus even more on the web and its possibilities, from updating and modernising the existing websites and more active presence in the social networks to TV and radio advertising. The winemaker associations should join forces and split costs to develop ads or at least recognisable slogans and intensify their activities. A joint effort, cooperation and coordinators of all stakeholders and all Baranja tourism business operators is needed to intensify the promotion of wine roads so that Baranja can quickly develop into a recognisable oenotourism destination.
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APPLICATION OF INTEGRATED MANAGEMENT SYSTEMS WITH HIGH LEVEL STRUCTURE IN ENTREPRENEURSHIP

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Abstract

Quality can be defined as a degree of authenticity when using a product or service. By development of technology there has been a development in system quality. By all general globalization the demands of consumers and the number of competitors have grown, therefore initiation of system quality isn’t considered a competitive advantage any more. By development of management system there was a need to merge more management systems into one system – integrated management system. Integrated management system can be a combination of two or more management systems: Quality Management System (ISO 9001), Environmental Management System (ISO 14001), Health and Safety Management System (OHSAS 18001), Information Security Management System...
(ISO 27001) and others. One of the most important fact for every organization is ensuring the quality and reliability of products, health, safety and satisfaction of employees, compliance of environmentally friendly standards for environment, proving the safety of classified data and reducing energy consumption. Primary goal of the paper is to show the frequency of application of integrated management systems in Croatian companies in practice. The other goal of paper is to show which are the management systems that are most frequently integrated in Croatian business practice. Qualitative research methodology was used in work while the information was collected combined from primary and secondary sources. Three working hypotheses were set up based on analysis of the literature. First hypotheses is that the most companies in the Republic of Croatia with the implemented management system have an integrated management system. The second hypotheses is that the most companies integrate QMS (ISO 9001) and the EMS (ISO 14001). The third hypotheses of the paper is to determine will the new “High Level” Structure of revised standards ISO 9001:2015 and ISO 14001:2015 make the system integration easier. Introductory part of the work shows the short theoretical review on the most important management systems and the second part shows the research result of application of integrated management systems in the Republic of Croatia.

Keywords: ISO 9001, ISO 14001, OHSAS 18001, integrated systems, HLS
JEL Classification: L2, L26

1. INTRODUCTION

By development of national economy industries and globalization processes economies have experienced certain advantages result, but also certain problems. According to that, term of quality is changing, in a way that goals and objectives connected with quality management are changing and increasing. Importance of quality control of products, processes and overall business and company management is of exceptional importance for company survival on the market. Today, in the time where is great struggle for survival, especially when the company is fighting to take the position of a leader in it’s segment, the company achieves competitiveness if the quality is in the first place in all of the business segments. Buyers more often demand from the supplier (and more often the other way around) a very high level of quality and a safe and environmentally acceptable product or service. In order to assure their customers that they
operate according to the highest standards of Quality, Environmental Management, Occupational Safety and Social Sensitivity, they implement, and after implementation, they certify their management systems by accredited international bodies. The certificate itself is a confirmation that is used by companies in order to convince their business partners and interested parties that they operate according the requirements of certain ISO standards. Subject in this paper are integrated quality management systems. From the perspective of managing business systems, management systems can be categorized as strategic management systems or operative management systems. Top management of business organization has an objective to integrate management systems on two levels, strategic and operative. That kind of integration needs to be focused on building and long term sustainability of TQM. Integration of management systems can be pervaded with Quality System Standards. Indeed, for removing risks from organizational failures, integration of management systems with the purpose of achieving quality imposes as a necessity. Nevertheless, it does not have to be that way in practice. Often business organizations integrate different Quality Systems in order to satisfy legal standards and similar, and not with the purpose of ensuring quality in all key processes. From the perspective of management of quality systems, different quality systems can be categorized depending on purpose they achieve in business organization. Therefore, the purpose of the quality systems is integration of quality in all or key processes, regardless if they are processes of strategic or operative management. The greatest benefit business organizations achieve is when integration of management systems is carried out with the purpose to ensure quality and excellence on all levels of business organization. In other words, in integrated management systems quality is implemented on all levels. In the introduction part, paper covers development phases of quality management and integration of quality system into one quality system. This paper doesn’t cover the problems of implementation of different quality systems into management systems of business organization. Therefore, the paper is focused on integration of ISO standards into integrated quality system. In the second chapter, ISO standards that are most common applied in practice (according to data of ISO organization) are defined. In the third chapter methodology is described, while in the fourth chapter discussion is brought up about research results.
2. INTRODUCTORY ABOUT MANAGEMENT SYSTEMS

2.1. SYSTEM MANAGEMENT DEVELOPMENT PHASES

The first phase of Quality management system development refers to a period when the demand was greater than the offer. Capacity, quality and design are defined by the manufacturers without including the final customer because he has to be satisfied with ever he gets. In that situations management is oriented on production what means on the ensuring of quantity. In such kind of surrounding, innovations and education of employees are not a primary topic. Increase of the amount of produced goods, with time had effects of equalization of offer and demand, and that represents second phase. That enabled that the manufacturer and the seller could pay more attention to forming the product, and that means to fulfil basic requirements for quality. Then comes to an agreement of an acceptable level of quality between those who offer and those who demand products or services. Result of that are the first systematic measures of quality testing (Lazibat, 2003).

Third phase marks the increase of supply that is moving the intersection point of supply and demand. By increasing the supply, buyer can pick a product with the least mistakes. On that way buyer doesn’t just set the quality of a product, he is also interested in the quality systems of the supplier, in order to prevent eventual mistakes. There has been a breakthrough that an independent quality management system needs to be defined in order to increase product and service quality. From the previously stated reasons, in 1987 standard ISO 9000 was created, what enabled independent certification and comparison of quality insurance system from a third party point of view. Standard ISO 9000:1987 ensured the competitive advantage and created trust between supplier and the buyer (Lazibat, 2003).

Fourth phase is important by changes and by product expansion and actual situation in modern organizations oriented on long term. Buyer sets the conditions on the market, demands quality of the service and flawless quality of the product. Supplier is compelled to offer extra services in the area of concern for the customer. Certification of quality management system turns on companies in the service areas. The product is no longer available in material form, product becomes a combination of goods and services. Customer satisfaction becomes a more important measure for service quality and it’s based on motivation and
growth of awareness in the company, that is on human resources. Standard ISO 9001 from 1987 to 2016 has experienced four revisions in which there were significant changes in content and demands of the standard. The last revision of standard ISO 9001 from 2015 redefines the standard according to High Level Structure (HLS). On the same principle are based all other system management standards issued after 2010, that is on HL structure following standards are based ISO 27001:2013, ISO 14001:2015, ISO 22301:2013 BCM and ISO 50001:2011. The main task of management becomes recognition of organization surrounding and analysis and risk control on which basis business goals and companies strategy are set up.

Fifth phase characterizes connecting buyer and supplier, service quality, significance of life environment protection and orientation on the future and business sustainability. First comes joint planning of buyers and suppliers requirements for quality, as connecting different companies with the purpose of creating a product because of system optimization. Globalization plays a significant role at expansion of introducing the concept of quality. With the suitable documentation and certification of quality management system, a connection can be accomplish between the buyer and the supplier. Modern quality management needs to include aspect of significance of protection of life environment, employee health safety, food chain safety, social sensitivity, information security and energy efficiency. Because of these requirements this standards were created: ISO 14001, OHSAS 18001, ISO 22000/HACCP, ISO 26001, ISO 27001 and ISO 50001. Combining two or more of stated management systems the organization creates an integrated management system.

2.2. The most common management systems


2.2.1. ISO 9001

Basic standard of an integrated quality management system is considered standard ISO 9001 – System for quality management. Stated standard is based on process approach. Standard ISO 9001 defines requirements for process ap-
approach in development, application and improvement of effectiveness of the quality management system, with the goal of increasing satisfaction of users by satisfying their requirements. Term process is defined in the standard ISO 9001 itself as a set of interrelated or interdependent actions that turn inputs into outputs. Process determination and interaction, and process management in organization are the main objectives of every organization. Should take into account that often a way out from one process is a direct in into another process. Because of easier functioning, methodology known as PDCA matrix, can be applicable to all processes. Every action in the frame of the process can be done according to the PDCA principle, which constantly seeks improvement (Milčić, Donevski, Banić, 2008). As this standard was revised for the fourth time in 2015, the currently valid version has a mark ISO 9001:2015.

2.2.2. ISO 14001

Purpose of standards that deal with problems of environmental management is to provide organizations with an effective and useful environmental management system that can be conjoint with other management requirements. By environment, we mean air, water, sea, ground, climate, wildlife and their mutual activity as part of the human environment. Environmental protection is based on respect of international and domestic regulations and laws regarded to environment and generally accepted principles. Environmental quality can be analysed from many aspects, that is why quality can be expressed through physical, chemical and aesthetic indicators. International Standardization Organization in 1993 has established a special technical committee under the name TC 207, which’s main task was to standardize world environmental management systems (Lazibat, 2009). Even though by that time there was already a great number of national standards and regulations regarded to environmental aspects because of cultural specifics, often that kind of regulation represented a brake to international trade. Because of those reasons there was a need for a unique international standard that would remove stated problems, that is for a new standard ISO 14001. Generally, there are two basic types of ISO standards:

1. Normative: states requirements that must be fulfilled, and verification of fulfilment of those requirements is carried out by audit.

2. Informative: give only certain guidelines, as that they, don’t offer possibilities of certification and aren’t suitable for audit.
ISO 14001 – Environmental management systems – specifications with instructions for use is the only normative standard form the family of ISO 14001. Every other standards from this “Family” of standards are informative (Lazibat, 2009). The last revision of this standard was in 2015 and organizations have a deadline for transition to the new version of the standard by the end of 2018.

2.2.3. OHSAS 18001

Purpose of occupational safety is prevention of injuries on work, professional illnesses and other diseases regarded to work and protection of working environment. Occupational safety is an integral part of work organization and is the Employers responsibility. The goal of occupational safety management is to achieve high levels of occupational safety by a systems approach reducing danger, harmfulness and efforts that occur during work. Specification OHSAS 18001:2007 (Occupational Health and Safety Assessment Series Specifications), is a specification for introduction and confirmation of a management system for Health and Safety of persons in professional activities (Milčić, Donevski, Banić 2008). “Standards/specifications OHSAS 18001, ISO 14001 and ISO 9001:2008 are mutually compatible and in some parts completely matched” (Lazibat, 2009:408). Issuing of a new standard by the end of 2016 is announced, ISO 45001:2016 which will be the successor of specification OH-SAS 18001. Standard ISO 45001 is also based on HL structure.

3. RESEARCH METHODOLOGY

In 2009 Lazibat states how mostly in practice under the integrated management system occurs combination of standards ISO 9001 and 14001. He also states how ISO organization approached to development of all standards with the idea that in practice, they are often going to be used together, and made them compatible. In modern business there is a series of management systems that are possible to integrate into one unique system called IMS (Lazibat, 2009). Goals of the paper, were defined according to studied literature. Primary goal of the paper is to check how frequent in practice, is application of integrated management systems in Croatian companies. The second goal is to show which are the management systems that are most frequently integrated in Croatian business practice. Based on analysis of literature three hypothesis are set. The first hypothesis is that the most frequently independently implemented standard is ISO 9001, while the
second hypothesis is that most frequently ISO 9001 and ISO 14001 standards are integrated into one Quality and Environmental Management System. The third hypothesis is that respondents think that implementation and maintenance of management systems according to new “High Level” Structure will be simpler and easier. For purpose of collecting data, qualitative research has been used, while the data was collected combined out primary and secondary sources. The first step was collection of secondary data that was used for choosing research samples. Secondary data was collected with the help of portal kvaliteta.net. In the kvaliteta.net database a sample was chosen out of 300 organizations that were certified according to standard ISO 9001:2008 across area of the whole Republic of Croatia, and which were certified between 1995 and the end of 2015. Primary data was collected through a structured questionnaire, which is shown on the picture no. 1. Questionnaire was sent to a chosen sample through e-mail, while the gathering of filled questionnaires was done by e-mail and part by fax. Questionnaires were collected in the range of 60 days, and there was overall collected 121 correctly filled questionnaires.

**Picture no. 1: Questionnaire**

![Questionnaire Image]

*Source: Made by authors*
4. RESULTS AND DISCUSSION

Collected questionnaires point out that the most commonly implemented standard in organization is ISO 9001. All organizations, tested by questionnaires, have an implemented ISO 9001 standard, what was expected, because the implementation of standard ISO 9001 itself represents the criteria for the chosen sample. Also, processed literature and data of ISO organization point out that the mentioned standard is the most frequently implemented standard in practice. Standard ISO 14001 was implemented in 53 organizations, while OHSAS 18001 was implemented in 18 organizations. Chart 1 displays shares of implemented standards on the sample of 121 organizations.

Chart no.1: Display of shares of implemented standards

Processing of collected data on the sample of 121 organizations points out on a significant yearly growth of number of ISO 9001 standard implementations in the period between 1997 and 2008. After 2008, a significant drop is noticed of the yearly number of implementations of standard ISO 9001. It’s not the same case in standard ISO 14001 which from 1997 notes a consistent but significantly slower growth of yearly number of implementations in regard to ISO 9001. Specification OHSAS 18001 notes a little growth of yearly number of implementation from 1997 to 2008, followed by drop of yearly number of implementation of specification OHSAS 18001. The stated is shown in Chart no. 2.

Source: Made by authors
Source: Made by authors

Processing of collected data points, that organizations that were “pioneers” in implementation of ISO standards in Republic of Croatia, usually implemented only the ISO 9001 standard. Since 2008 implementation of integrated system appears more often, most commonly combinations of ISO 9001 and ISO 14001 standards, while the number of implementations of standard ISO 9001 as an independent standard is dropping. The stated is displayed on Chart 3.

Chart no. 3: Display of integrated systems implementation trends in the period 1997 - 2015

Source: Made by author

Research results don’t confirm the first hypothesis, that is the statement, that most of the organizations with an implemented management system in Republic of Croatia, have an integrated management system implemented. Research result have shown that 175 organizations have an implemented only ISO 9001 standard while 35 organizations have an implemented integrated management system, and it is the combination of ISO 9001, ISO 14001 standards and OHSAS 18001 specification. The stated is displayed on Chart 4.
Research results confirm the second hypothesis, that most organizations integrate Quality Management Systems (ISO 9001) and Environmental Management System (ISO 14001). Research results have shown that out of 54 organizations with an integrated Management Systems, 53 of them have an implemented integrated Quality and Environmental Management System ISO 9001 and ISO 14001. Sixteen organizations have an implemented integrated ISO 9001, ISO 14001 and OHSAS 1801, that is ISO 9001, ISO 1400 and OHSAS 18001. Only one organization out of 121 researched has an implemented integrated ISO 9001 and OHSAS 18001. The stated is displayed on Chart 5.

The third hypothesis, that the respondents will think how implementation and maintenance of management systems according to the new “High Level”
Structure will be simpler and easier, is also confirmed. On the question that implementation and system maintenance will be simpler and easier than it was with previous versions of the standards, 109 respondents positively answered, while 12 answered that there will not be difference regarded on the previous version of the standard. The answer that it will be harder, was not chosen be neither respondent. The stated is displayed on Chart no. 6.

Chart no. 6: Display of respondent answers on the consequences of revising standards according to HL Structure

![Chart](chart.png)

Source: Made by authors

5. CONCLUSION

Importance of management systems gains more on significance with the growth of integrations of international trade and cooperation. Modern way of business of companies and organizations becomes hard to imagine without standardized management systems. Processed literature and conducted research have shown tendencies of management system integration. More and more common is the implementation of integrated management systems, most frequently the combination of ISO 9001 and ISO 14001 standards, what confirms the second hypothesis. However, still the most implemented is the ISO 9001 standard as an independent management systems which disproves the first hypothesis. With further study of the literature, it has been determined that ISO 9001 is the basic standard, that implementation of that standard is the foundation for creating good basis for further development of management systems, that is, eventual integrations. Authors conclude that the originally given goals of the paper have been achieved, and they were the checking of frequency
of appliance of integrated managements systems in practice of Croatian companies and answering the question which management systems are most frequently integrated in practice of Croatian companies. Research has shown that respondents expect that newer versions of standards based on HL Structure will ease further integration and maintenance of management systems to users. Authors conclude that this research has pointed that there is a need to conduct further research. New research is necessary to carry out from the perspective of management systems, strategic and operative, with the purpose of determining the level of quality in the integrated management systems in Republic of Croatia. Conduction of that research needs to discover reasons of implementation of integrated managements systems and monitor trends of integrations of standards processed in this paper. Research also needs to cover the monitoring of trends of implementation of new ISO standards. Monitoring trends and comparison with other economies would point out the level of awareness of Croatian Managers and entrepreneurs about the importance and advantages that standardized managements systems bring.

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RESHAPING REGIONAL ECONOMIC DEVELOPMENT – TIME FOR REINDUSTRIALIZATION?

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Abstract

Industrial base characterized by minor innovation capacity and determined by other economic problems within a certain region cannot ensure the development of new competitive industries for the modern global market nor can it ensure long-term sustainable economic growth and development for both its own region and on the whole national level. Consequences may be dramatic: negative migrations of young and highly educated population towards developed EU countries – demographic and social problem, decrease of regional capacities in the number of segments (fiscal, innovation, absorption) – economic and social problem, which weakens the national capacities in the terms of globalization and increasingly harsh competition. Industrial policy had to shift from industrial policy centred on the state level, to top-down and production-specific industrial policy. The question is how decentralized approach to industrial policy should look like? Modern regional policy adds strategic importance to industrial restructuring, finding of own strengths in the form of smart specializations and other structural adjustments in regions, especially those which are lagging behind. Many sectors on a regional level are mostly traditional (agriculture, food industry, transport and alike) and therefore specialization among sectors, application of new technological solutions into the existing sectors and specialization in specific sectors are needed.

The purpose of this paper is to better understand the meaning of reindustrialization in time of new and green economy, as well as to create basic preconditions for incorporating reindustrialization into the regional development strategy (according to the principles of smart specialization strategy). Key enabling technologies (KETs) of the new European industry are biotechnology, nanotechnology, advanced materials and manufacturing systems that can provide
the basis for a wide variety of new processes, goods and services, including the
development of entirely new industries over the next decade. In order to ac-
complish that, there is a need to explore those industrial branches which could
be the generator of the future economic growth, as well as possible institutional
solutions, and which will have a supporting role.

**Keywords:** reindustrialization, regional dimension of industrial policy,
KETs, smart specialization

JEL Classification: P25, P48

1. **INTRODUCTION: WHY DO WE NEED TO RESHAPE REGIONAL ECONOMIC STRUCTURE?**

The new industrial policy is stimulated by new patterns of regional revival
and has to be based on the strength of regional industries and regional coop-
eration networks. In territorial concepts like clusters, innovative milieus and
regional innovative systems, regional innovative differences are no longer the
result of location parameters, but depend on the ability of economic operators
to establish intra and inter regional information and production networks on
a regional level in order to participate in network integration and make profit
from those networks by means of the collective learning processes (Koschatzky,
2005, in: Säll, 2008). Two key areas should be distinguished during the re-
search of the regional dimension of industrial policy (Becattini, 1989, Brusco,
organisational and territorial characteristics (generic industries, generic clus-
ters and local production systems) and 2) location with its social and economic
characteristics and evolutionary processes (state territory, location, industrial
location). Similarly, Boschma and Lambooy (1999) summarized different ap-
proaches and issues of adjustment old industrial regions which are important
and could answer to the question *why do we need to reshape regional economic
structure*: 1) external factors such as political or technological ‘shocks,’ 2) decline
of the mono-structure when the dominating sectors is at the end of this ‘product
life-cycle’ or ‘technology trajectory’ (firstly emphases by Swann et al in 1998), 3)
‘overcrowding’ and ‘congestion’ of the space, 4) inflexibility of factor markets, 5)
combination of external shocks, specialisation and high factor mobility (firstly
emphases by Krugman in 1993), 6) entry barriers (cartels and monopoly) and
Evolutionary thinking refers to ‘technological lock-in’ in order to explain the poor ability of old industrial regions to learn and innovate (Storper, 1992; Boschma and Lamboooy, 1999 in: Boschma and Lamboooy, 1999). Marshall’s industrial district analysis showed that economies of scale may even be “external”, emerging from outside the firm because of asset-sharing, such as the provision of specific goods and services by specialized suppliers or the emergence of a localized labor pool due to the concentration of production. In addition, due to Grilliches (1979, in: Monga, 2013:211), the very proximity of firms working on similar products or competing closely against each other eventually yields collective benefits in new research, new managerial and organizational practices. These industries usually produce low-value-added or low-end goods in the global division of labor, which essentially resembles trade-based specialization.

2. CONCEPTUAL ISSUES AND PRINCIPLES OF REINDUSTRIALIZATION

“Don’t ask why, ask how” (Rodrik, 2008)

Productivity growth is the key determinant of a country’s living standards and its ability to compete in the world market, and economic development implies structural transformation, typically from low productivity to high productivity activities, from agriculture and simple manufacturing activities to modern industry (Haque, 2007). Without a vibrant manufacturing base, societies tend to divide between rich and poor – those who have access to steady, well-paying jobs, and those whose jobs are less secure and lives more precarious. Manufacturing may ultimately be central to the vigor of a nation’s democracy (see Rodrik, 2011). There emerged some major studies highlighting new thinking about frameworks of new approach to industrial policy (Freeman & Loucâ, 2001; Rodrik, 2004, 2008; Hausman & Rodrik, 2006; Bianchi & Labory, 2006; O’Connor & Kjölleström, 2008; Cimoli, Dosi & Stiglitz, 2009; Aiginger, 2007a, 2014; Bianchi & Labory, 2011; Stiglitz & Yifu Lin, 2013; Nolan, 2015), “reawakening through reindustrialization” (Murtha, Lenway & Hart, 2001; Spar, 2001; Vernon, 1971, 1998, in: Spencer, Murtha and Lenway, 2005), “systemic industrial policy” (see Aiginger, 2007b), “manufacturing imperative” (Rodrik, 2011) and “green industrial policy” (Rodrik, 2013; Verley & Demaily, 2013).
Industry is the backbone of the European economy. The European Commission considers that a strong industrial base will be of key importance for Europe’s economic recovery and competitiveness (COM14, 2014). As Rueda-Cantuche, Sousa, Andreoni and Arto (2012) pointed, the economic importance of industrial activities is much greater than suggested by the share of manufacturing in GDP. Industry accounts for over 80% of Europe’s exports and 80% of private research and innovation. Nearly one in four private sector jobs is in industry, often highly skilled, while each additional job in manufacturing creates 0.5-2 jobs in other sectors. As Rodrik (2011, but also see Jurčić, 2011) argued, the service industries that have absorbed the labor released from manufacturing are a mixed bag. At the high end, finance, insurance, and business services, taken together, have productivity levels that are similar to manufacturing. These industries have created some new jobs, but not many—and that was before the financial crisis erupted in 2008. Industrial restructuring, viewed in the perspective of many discussions, rarely takes place without significant government assistance (Rodrik, 2007:109). The renewed interest in manufacturing is based on two economic arguments: 1) emerging-market countries’ increasing share of global GDP and 2) the evidence from the financial crisis that a decline in the manufacturing sector combined with a current account deficit delayed recovery—as a result, politicians and industrial policies experts are unanimously calling for a new industrial policy in high-income countries (Aiginger, 2014). Countries such as South Korea, Taiwan, and China have developed not by suddenly perfecting their institutions, argue Rodrik (2008:5), but by coming up with policies that overcame the market obstacles that their investors faced in modern tradable industries. Industrialized countries are losing market share to emerging-market manufacturers, which are making inroads in ever more sectors and not only in traditional, labour-intensive ones (Aiginger, 2014) (see Table 1).

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1 An hour of work generates nearly 32 Euro of added value, a productivity level that is about 15% higher than in the services sector; accounting for 75.6% of merchandise exports and 57% of total exports; every unit of additional demand in the manufacturing sector generates 1.68 units of additional output in the total economy; with a share of 15% of added value in the total economy, industry is responsible for 65.3% of R&D and 49.3% of innovation investments; manufacturing directly employs around 32 million people and indirectly accounts for an additional 20 million jobs in related sectors across Europe (see more: Pellegrin, Giorgetti, Jansen and Bolognini, 2015; Business Europe, 2014).

2 But, as The Economist magazine reports, for example, that some companies’ production costs in California are now only 10% higher than those in China if transport costs and customs duties are included (see: Heymann and Vetter, 2013).
Deindustrialization is not a negative phenomenon, but is the natural consequence of the industrial dynamism in an already developed economy (Rowthorn and Ramaswamy, 1997). But, now days, especially after financial crisis in 2008, deindustrialization is no longer perceived as a natural process of economic development especially as Prisecaru (2015) notes, in Western countries with a low share of manufacturing industry but with a high share of financial services. Also, more problematic are new EU countries with negative deindustrialization phenomena: economy is lagging behind in structural adjustments and service sector is not “value added” oriented. Dhéret (2014) pointed that the high volatility of financial markets and the recent bursting of the financial sector have obviously contributed to revive the interest in manufacturing. In addition, the comparative resilience of some EU countries with a strong industrial base to the economic recession, together with the positive role that the state played in robust and/or emerging economies, debunked the laissez-faire mantra and encouraged EU Member States to recognize both the need for industrial policy and the importance of having a proactive state supporting strategic industries (Dhéret, 2014). On UNIDO’s industrial competitiveness index, most industri-
alized countries lost ground in the last three years. Among the five most competitive are four high-income countries (Germany, Japan, the Republic of Korea and the United States), along with China ranking fifth. The four are among the world’s most industrialized countries and, with China, account for 59 percent of world manufacturing value added (MVA) (UNIDO, 2015:12) (see Table 2).

### Table 2. Manufacturing value added share in GDP by region, current prices, 1970-2010 (percent)

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>23.4</td>
<td>22.0</td>
<td>20.3</td>
<td>20.5</td>
<td>19.0</td>
<td>18.0</td>
<td>16.5</td>
<td>15.7</td>
<td>15.8</td>
</tr>
<tr>
<td>Developed countries</td>
<td>24.0</td>
<td>22.6</td>
<td>20.9</td>
<td>20.3</td>
<td>18.7</td>
<td>17.5</td>
<td>15.5</td>
<td>14.0</td>
<td>13.3</td>
</tr>
<tr>
<td>Americas</td>
<td>22.2</td>
<td>21.2</td>
<td>19.4</td>
<td>18.2</td>
<td>16.6</td>
<td>16.1</td>
<td>14.0</td>
<td>12.5</td>
<td>12.0</td>
</tr>
<tr>
<td>Asia</td>
<td>31.3</td>
<td>26.9</td>
<td>26.1</td>
<td>25.3</td>
<td>23.5</td>
<td>21.0</td>
<td>19.3</td>
<td>18.8</td>
<td>18.0</td>
</tr>
<tr>
<td>Europe</td>
<td>24.7</td>
<td>23.3</td>
<td>21.3</td>
<td>20.5</td>
<td>18.5</td>
<td>17.4</td>
<td>16.0</td>
<td>14.4</td>
<td>13.6</td>
</tr>
<tr>
<td>Developing countries</td>
<td>21.1</td>
<td>20.1</td>
<td>18.7</td>
<td>21.5</td>
<td>20.2</td>
<td>19.8</td>
<td>20.1</td>
<td>19.9</td>
<td>20.1</td>
</tr>
<tr>
<td>Americas</td>
<td>23.6</td>
<td>24.3</td>
<td>22.9</td>
<td>24.6</td>
<td>20.6</td>
<td>16.6</td>
<td>16.7</td>
<td>15.4</td>
<td>13.5</td>
</tr>
<tr>
<td>Asia</td>
<td>23.3</td>
<td>23.0</td>
<td>20.4</td>
<td>22.6</td>
<td>23.0</td>
<td>25.2</td>
<td>26.0</td>
<td>26.8</td>
<td>26.8</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>27.3</td>
<td>26.8</td>
<td>25.8</td>
<td>25.4</td>
<td>18.8</td>
<td>16.6</td>
<td>15.5</td>
<td>15.5</td>
<td>15.8</td>
</tr>
</tbody>
</table>

Source: UNIDO, 2015:33

Strong industrial base requires highly skilled workers and supports the labour markets in other sectors as well through the demand that it generates for business-related and other services. What this trend ultimately demonstrates is that ‘industry’ is no longer synonymous with smoking chimneys: instead, it increasingly involves research-intensive activities and cutting-edge, environmentally friendly production and opens up new export channels (Heymann and Vetter, 2013). As Prisecaru (2015) notes, cohesion policy, research policy, competition policy may boost industrial performance, since it must be taken into account the fact that industrial policy has a strong social dimension, a regional dimension, an educational dimension and a business dimension, affecting/involving many producing companies, consumers, universities, research centres. Boschma and Lambooy (1999) distinguish the following stages of the transformation process: 1) physical environment (good image-building, infrastructure etc.), 2) private investment (promoting an entrepreneurial climate, co-operation), 3) institution building (‘learning or network’ and ‘the costs of forgetting’ approach), and 4) searching for new competitive advantage. Industrialization, a major force in structural change, shifts resources from labour-intensive activities to more capital and technology-intensive activities. It will remain crucial to the future growth of developing countries (UNIDO, 2015). Transformative
power and growing impact of digital technologies\(^3\) across all sectors is redefining traditional business and production models and will result in a range of potential new products and notably service innovations by industry – ‘servitization of industry’ (COM14, 2014:11), but also reconfigurable manufacturing system (see Mehrabi, Ulsoy and Koren, 2000, Appendix – Table 2).

Echoing the argument of Lee (2013:247), the goal of industrial policy for middle-income countries is to promote technology-based specialization, as opposed to traditional trade-based specialization that may be more relevant to low-income countries (see Table 3). According to Aiginger (2007b), “systemic industrial policy” supports basic education, training and entrepreneurship in developing countries, promotes FDI and exports in catching-up economies and merges with innovation strategies, cluster policy and dynamic competitiveness in high income countries. More detailed, it acknowledges limited knowledge of policy makers, mutual learning and co-operation between firms, institutions and government. The most important factors for industrial modernization are: 1) investing in innovation, 2) new technologies and digitalisation\(^4\) (industry 4.0), 3) production inputs and 4) skills. It must turn companies to innovation, productivity, resource-efficiency and high value-added to compete in global markets (COM14, 2014).

**Table 3. Dynamics of industrial policy from low-to middle-income and beyond the middle-income trap**

<table>
<thead>
<tr>
<th>Stages</th>
<th>Low or lower-middle income</th>
<th>Upper-middle income toward high income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy tools</td>
<td>Industrial policy: tariffs, undervaluation of currency, entry control</td>
<td>Technology policy: public-private R&amp;D consortium, R&amp;D subsidies, standardization policy</td>
</tr>
<tr>
<td>Access to External/ Foreign knowledge</td>
<td>FDI, OEM/Assembly work/Licensing</td>
<td>Collaboration with public research labs and universities, Overseas R&amp;D outposts, International M&amp;As, contracted R&amp;D</td>
</tr>
<tr>
<td>Type of specialization</td>
<td>Trade specialization</td>
<td>Technology specialization</td>
</tr>
<tr>
<td>Criterion of Specialization</td>
<td>Labor or resource-intensive industries</td>
<td>Short cycle/emerging technologies</td>
</tr>
<tr>
<td>End goal</td>
<td>Competitive export industries</td>
<td>Indigenous knowledge creation and diffusion</td>
</tr>
<tr>
<td>Background theory</td>
<td>Product life cycle (inheriting)</td>
<td>Catch-up cycle (leapfrogging)</td>
</tr>
</tbody>
</table>

*Source: Lee, 2013., p. 254*

\(^3\) Cloud computing, big data and data value chain, developments, new industrial applications of internet, smart factories, robotics, 3-D printing, and design.

\(^4\) Improving digitalisation, by promoting the digital single market and removing existing legal fragmentation, as this could add more than EUR 2000 billion to the EU’s GDP by 2030 (Lithuanian Confederation of Industrialists, 2015).
In the leapfrogging stage latecomers do not aim to imitate the existing products or plants, but explore ways to develop emerging products in short-cycle technologies (micro-chips, laptops, software, high-definition TVs, “own design (IPRs)-based production) (Lee, 2013:262). But, leapfrogging is more likely to happen when there are more frequent changes in technologies or generation changes in products, and when there are certain technological sectors with such features. Why short-cycle technologies? This is because the sectors with short-cycle technologies imply the fields or sectors, in which new technologies always emerge to replace obsolete ones. Also, dominant technologies require more resources, thereby more time to build a minimal level of competitiveness requiring for international competition (but the significance might not matter if we concerned only with domestic market) (Lee, 2013:268). Manyika and others (2013, in: UNIDO, 2015) identify and analyse the potential effect of radical technologies that can revolutionise the production process and the life of future societies by 2025. Radical technologies are: 1) mobile internet (combination of mobile computing devices, high speed Wi-Fi and applications), 2) knowledge work automation (the use of computers to perform tasks), 3) internet things (from roadways to pacemakers), 4) cloud, 5) advanced robotics, 6) autonomous and near autonomous vehicles, 7) next generation genomics (next generation sequencing technologies, big data analytics, recombinant techniques, DNA synthesis), 8) energy storage, 9) 3-D printing, 10) advanced materials, 11) advanced oil and gas exploration and recovery, and 12) renewable energy (see more in: UNIDO, 2015).

3. SMART SPECIALISATION AND RE-BALANCING REGIONS

In order to be supported by European Structural and Investment Funds member states needs to elaborate their smart specialization strategies. Smart specialization strategy could become the most important document for creation and implementation regional dimension of industrial policies. By means of regional dimension of industrial policy it is possible to organize incentive programs which will favorite regional “winners” and develop regional innovation network to solve regional problems (poor economic structure, high unemployment rate, negative migrations and negative trends alike). Innovation performance in Croatia has not improved in recent years and industrial production
has been falling since 2009, and, in contrast to most other Member States, did not recover in 2010-11 (SWD, 2014), so we could say that only way to improve industrial structure is smart specialization strategy platform.

Regions which are lagging behind can grow rapidly by absorbing known technologies and processes from more advanced countries/regions. Typically, they lack the 1) organizational (organizational structures; tacit knowledge), 2) technological (of workers and managers refer to their abilities to use machines and technologies properly; learning-by-doing (see Bardhan, 1971); and so one) and financial capabilities (governance capabilities; learning support; specific financing instruments) embedded in firms that are necessary for using new technologies to produce competitive products. The most important problem for developing and middle develop countries (also regions) is to learn how to produce an improving range of products from the qualities that already exist, at a price that is equal to or lower than the ones already available (Khan, 2013:84). The notion of smart specialisation establishes a link between regional policy and the Innovation Union of the EU 2020 agenda. It is a strategic approach to economic development through targeted support for research and innovation. Smart specialisation strategies shall be developed through involving national or regional managing authorities and stakeholders such as universities and other higher education institutions, industry and social partners in an entrepreneurial discovery process (Pellegrin, Giorgetti, Jensen and Bolognini, 2014:34). Smart specialisation chosen by regions could lead (see Gulc, 2015) – in short term – to: technical transformation of existing sectors, the increase of assets productivity and diversity of economic structure, while in long term – to new technologically advanced industries and service (and they should be linked with Key Enabling Technologies – KETs). Building the capabilities of local technology transfer offices, and ensuring that both potential academic entrepreneurs and technology personnel have opportunities for training about the nature and mechanics of the new firm formation process is critically important (Lerner, 2013:118). The smart specialisation strategy attempts to create 12 competitiveness clusters by encouraging cooperation between the public, private and research sectors. The clusters were identified during a largely top-down process to emphasise potential for innovation, value added, export potential, and value

5 The sectors are: automotive, wood processing, food processing, chemical, defence, electrical and machinery, health, cultural and creative industries, ICT, maritime, textile leather and footwear, and construction.
in the domestic market. However, none of these three strategies has been adopted yet, and the links between them are unclear (SWD, 2014:147) (but, see Table 4).

Table 4. Major contracting failures affecting technology acquisition

<table>
<thead>
<tr>
<th>Contracting failures affecting investment</th>
<th>Likely policy instruments</th>
<th>Governance capabilities required for implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriable problems facing investments in skills: investors cannot capture full benefits of training</td>
<td>Public co-financing of labour training and investments in skills</td>
<td>Capabilities in relevant agencies to ensure financing for training is not misallocated or wasted</td>
</tr>
<tr>
<td>Appropriable problems facing innovators: poor protection of innovation rents can discourage advanced technology investors</td>
<td>Protection of IPRs. But TRIPS may be too restrictive and MNCs may lack incentives to transfer technologies</td>
<td>Enforcement capabilities for IPRs but also policies and strategies to encourage technology transfer by MNCs</td>
</tr>
<tr>
<td>Appropriable problems facing “discovery”: first movers do not capture full benefits of discovering comparative advantage</td>
<td>Subsidies for first mover start-up companies in new sectors</td>
<td>Capability to make subsidies time limited</td>
</tr>
<tr>
<td>Failures of Coordination: complementary supporting sectors do not develop, constraining investment</td>
<td>Indicative or incentivized strategies for coordinating investments</td>
<td>Significant governance capabilities required to coordinate and discipline investments across sectors</td>
</tr>
<tr>
<td>Problem of Contracting High Effort in Learning: financing technological-organizational learning fails because of low effort</td>
<td>Public co-financing or sharing of risks of financing the learning of tacit technological and organizational capabilities</td>
<td>Financing instruments must be compatible with governance capabilities to ensure credible compulsions for high effort learning-by-doing</td>
</tr>
</tbody>
</table>

Source: Khan, 2013., p. 97

According to Gulc (2015 due to: COM, 2014), the process of elaboration of Regional Research and Innovation Strategies for Smart Specialisation include six stages: 1) regional context and potential for innovation (analysis of regional economy, society and innovation structure), 2) inclusive governance structure, 3) shared vision about the future of the region, 4) priorities for regional development, 5) policy mixes and 6) monitoring and evaluation. As Cimoli, Dosi, Nelson and Stiglitz (2006) emphasized, in a world characterized by multiple forms of localized increasing returns (both “localized” in terms of technologies and in spatial terms), greater integration may well lead to phenomena of increasing differentiation with self-reinforcement and lock-in of particular production activities, specialization patterns, technological capabilities (or lack of them).

Various empirical studies find evidence of localized academic knowledge spillover in US (Anselin, Varga & Acs, 1997; Adams, 2002) and in EU as well (Andersson, Quigley & Wilhelmson, 2004; Fritsch & Slavtchev, 2007; Rodríguez-Osuna, 2011).
guez-Pose & Crescenzi 2012). Casper (2013) also argues the importance of university researchers in knowledge spillover from university, but also emphasizes the importance of university environment for developing knowledge flows. As Zhang (2013:237) stated, there are multiple channels that clusters can foster entrepreneurship, including the three classical Marshallian agglomeration effect and an emerging set of additional drivers, such as the presence of a network of suppliers (Chinitz, 1961), supporting and related industries (Porter, 1990), and anchor firms (Agrawal and Cockburn, 2002). But, importance of cluster-based industrialization model has not been fully recognized by policy-makers in large because many enterprises in clusters are very small and informal, completely flying off the radar of official statistics, and in many countries, local officials' incentives are not embedded in the process of local economic development.

4. INSTEAD OF CONCLUSION

The most important thing is to create an environment in which companies – those from both the industrial and service sectors – are able to operate in the right conditions so that they can compete successfully against non-European countries. This will require investment in education, research and infrastructure as well as a benign investment climate, affordable energy prices and intelligent regulation (Heymann and Vetter, 2013). As Aigiger (2012:5) noticed, in “midlife” crisis of the European Union three questions arise: 1) whether the EU should, to some extent, go back to its original size, often called “Core Europe” or alternatively whether the EU should carry all 28 members with it on its future path and even risk further enlargement; 2) whether EU should try to copy the current frontier economy (the US) or whether it can and should develop its own economic model; and 3) whether EU should try to become more dynamic by cutting costs, social benefits and taxes, thus taking the low road of competitiveness or whether it should go for the high road by striving for the best education and innovation, trying to become the leader in new technologies, sustainability and the most sophisticated quality segments. “The basic need is, of course, the alignment of European, Member States’ and Regional policies on industry, clarity is needed on who does what, transparency is needed in policy development, and stability of policy is needed for companies to understand their environment and invest accordingly” (ERRIN in: Pellegrin, Giorgetti, Jansen and Bolognini, 2015:55).
Boschma and Lambooy (1999) noticed that the two views are related to various restructuring processes: 1) ‘path-dependent innovations’ in established organisations (firms and other institutions) that set in motion a process of ‘adaptive restructuring’, and 2) ‘pathless innovations’ in new organisations, resulting in a process of ‘deep restructuring’. Aiginer (2014:12) summarize elements of “new approaches” of industrial policy: 1) industrial policy should be a state of “mind” and create a climate of cooperation between government and the private sector; 2) it is a discovering process which generate positive spillovers to other sectors; 3) it is necessary to prevent “lock-in” situations of investing in old technologies (producers of “dirty products” tend to innovate in “dirty programs”; 4) it should create new comparative advantages and favor competition and help countries to diversify – it should stimulate exports, not prevent imports; 5) governments should only intervene where they have a long-term interest (not short-term goals such as saving jobs in distressed regions, etc.); 6) industrial policy is not isolated policy- it merged with innovation policy supported by education and financial policy. The major priorities and pushing forces are: 1) competition, openness and globalization; 2) activated, trained and retrained labor force (flexicurity), competitive advantages (supported by policy) and climate change and ageing (Aiginger, 2012:12).

Finally, as Rodrik (2008:26) noticed, the debate on industrial policy still hung up on the question “should we or should we not?” — because economic analysts and development professionals have not fully come to grips with this point. The way to move forward is to understand that industrial policy is not that special: it is just another government task that can vary from routine to urgent depending on the nature of growth constraints a country faces (Rodrik, 2008:26). And, as Monga (2013:221) simply emphases, allow firms to engage into any legal economic activity they deem profitable, including manufacturing, warehousing, transshipment, etc. To improve new EU member’s position in European industrial “story”, analysis should address the main challenges: 1) what are and what could become the main value-added “winning” industries, 2) how could industrial policy connect and improve cooperation between universities, labor market and industry 3) what is the role of industrial policy in economy and how could it help in recovery, 3) how to take the best of EU industrial policy (and EU funds) to support reindustrialization and benefit new EU member’s economy? Make it easy (and easier) and be aware that “one-size-fits-all” type of industrial policy (Rodrik, 2007) may not apply to regional industries.
In our case, a key question at the outset is: 1) which high value-added industries that exist in advanced EU countries are missing in their industrial structure (needing of the Schumpeterian approach of the “new combination” and “creative destruction”; model; R&D support), 2) among their existing industries which are still within the global technological frontier (upgrading and diversification; discrete government’s interventions and incentives), 3) which are already on the global technological frontier. Companies must adapt to new trends, must invest in to internationalization but also, companies must have right framework conditions (smart government), friendly entrepreneurship climate (smart regulation), shortages in terms of science, technology, engineering, mathematics – STEM - skills and dynamic labour market (flexicurity).

References


**APPENDIX**

**Table 1. Innovation for different stages of development for developing and emerging countries**

<table>
<thead>
<tr>
<th>Country category</th>
<th>Objective of innovation</th>
<th>Type/source of innovation</th>
<th>Main agents involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early stage</td>
<td>Improve productivity and process technology</td>
<td>Incremental innovation based on adoption of foreign innovations and technologies;</td>
<td>Universities and research institutes, private businesses, especially those with exposure to foreign markets</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Innovation needs to respond to specific “local” conditions for outcomes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Favour the generation of inclusive innovation to improve welfare and access to business opportunities</td>
<td>Incremental innovation based on combination of foreign technology and/or local, traditional knowledge</td>
<td>Nongovernmental organizations, GOs, small firms, public and private associations engaged in disseminating knowledge via networks</td>
</tr>
<tr>
<td>Middle stage</td>
<td>Build up innovation capacities to reach the world technological frontier</td>
<td>Incremental and radical innovation capacity to compete with leading world innovators</td>
<td>Private firms, universities and research institutes, public institutions</td>
</tr>
<tr>
<td></td>
<td>Build-up niche competencies</td>
<td>Incremental innovations based on applying foreign innovations and technologies strategically to support industrial development</td>
<td>Public institutions to address coordination challenges, private sector initiative including foreign companies</td>
</tr>
<tr>
<td>Middle and late stage</td>
<td>Climb the value ladder in global value chains</td>
<td>Incremental and radical innovation capacity to differentiate contributions</td>
<td>Private sectors with support from public agents, intermediaries, diasporas, large firms</td>
</tr>
<tr>
<td></td>
<td>Keep competitiveness in frontier industries</td>
<td>Innovation is identical to that in developed countries exposed to the global market</td>
<td>Private sector in interaction with public research institutions, universities and large firms</td>
</tr>
</tbody>
</table>

**Source:** OECD, 2012 in: UNIDO, 2015

**Table 2. Key characteristics of a reconfigurable manufacturing system**

1. **Modularity:** Design all system components, both software and hardware, to be modular.
2. **Integrability:** Design systems and components for both ready integration and future introduction of new technology.
3. **Convertibility:** Allow quick changeover between existing products and quick system adaptability for future products.
4. **Diagnosability:** Identify quickly the sources of quality and reliability problems that occur in large systems.
5. **Customization:** Design the system capability and exibility (hardware and controls) to match the application (product family).

**Source:** Mehrabi, Ulsoy and Koren, 2000: 407
CAN CROATIAN TOURISM REACH PROFESSIONAL MARKETING?

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Abstract

The Strategic Marketing Plan (SMP) of Croatian tourism, adopted in 2015 by the Council of the Croatian National Tourist Board (CNTB), is of great importance for the positioning of Croatia in the competitive Mediterranean environment. This extremely complex and demanding plan, structured in four chapters: Marketing Vision and Objectives of Croatia, Marketing Strategies, Marketing Plans, and Implementation Plan, fully reforms the logic and method of functioning of Croatian tourism marketing.

Keywords: Strategic Marketing Plan, tourism, reform
JEL Classification: Z3, Z32

1. INTRODUCTION:

All relevant tourist countries, including Croatia, need a professional marketing plan that sets strategies and initiatives for the creation of added value in tourism (Weber & Boranić; 2000, 33). It also serves as a tool for canvassing
consumers from the existing and new markets, improving the management of
visitors’ satisfaction as well as creating the feeling of loyalty towards Croatia.

Croatia had adopted its first Tourism Marketing Plan for the Period 2001-
2006. After previous wandering with slogans (brands), this plan, with its well-
received brand (The Mediterranean As It Once Was), produced decent effects
through the creation of the global image of an intact Mediterranean country.
It enabled rapid growth of tourist trade, primarily by strong offline marketing
through powerful TV campaigns and joint advertising.

After the expiration of this plan, the second Marketing Plan for the Period
2008-2012 remained unnoticed due to crisis and lack of sensibility of the then
tourism authorities. Marketing management was reduced to annual contin-
gency plans, moving away from innovation as a result of the absence of strong
structural changes in Croatian tourism, i.e. its vision and strategies were focused
on creation of added value. Croatia’s marketing strategy remained “The Medi-
terranean As It Once Was”, although it became clear that this brand, oriented on
selling pure nature, already became counter-productive, as it still supported the
seasonal business model of Croatian tourism and reduced our tourism business
to a period of about ten weeks.

After the announcement of an international tender for development of the
marketing plan for the period 2014-2020, development of the plan was en-
trusted to THR Barcelona and Horwath HTL, which have been, due to their
objective references, but also lack of stronger international competition, almost
sacrosanct in servicing business marketing for the Croatian National Tourist
Board. During the preparation of this plan in 2013 and 2014 (the plan was de-
layed due to internal turbulence between the Croatian National Tourist Board
and the Ministry of Tourism, as well as long period of harmonisation of the
authors and the Tourism Council), a number of questions were raised; for ex-
ample, why the plan could not have been designed by the Head Office of the
Croatian National Tourist Board, Croatian institutions, etc. Consultants were
also publically criticised that they were running Croatian tourism marketing,
that they incorporated their own interests in the Plan, and so on. Public con-
troversy lasted several months and was mostly the source of gossip about the
relationships in our tourism marketing and the CNTB system, which seems to
have difficulties transforming into a modern and effective marketing agency in
terms of international experience.
Therefore, the logical question is what this is all about. What is the plan, what does it offer and why is it accompanied with various controversies? Is this plan adequate for our environment and will anyone finally be able to implement it?

The plan has four key chapters: a) Marketing Vision and Objectives of Croatia, b) Marketing Strategies, c) Marketing Plans, and d) Implementation Plan.

2. MARKETING VISION AND OBJECTIVES OF CROATIA

The marketing vision and objectives of Croatia start from the basic qualification of the current business model of Croatian tourism. Namely, Croatia easily meets seasonal demand of guests from neighbouring countries who come during the summer to relax by the sea and stay in accommodation of low/medium value, and are offered a relatively simple value proposition; experience of the sea and Mediterranean lifestyle. This value proposition is supported by a wide range of attractions, a relatively developed infrastructure and transport services as well as numerous accommodation facilities, restaurants, marinas, etc. This model is supported by about 35-40 million euros of funds allocated for promotion, and the statistics based on this model are as follows: e.g. in 2012, there were 11.8 million arrivals, 62.7 million overnights and about 58 euros of daily expenditure per visitor.

Therefore, the plan is based on the thesis that the current business model, which is based on the exploitation of natural resources, is unsustainable in the long run. Thus, a new marketing vision imposes on Croatia a more important role in the market by providing more experiences and products that aim to reduce sesonality and raise profitability per visitor with a powerful tourism brand. On the grounds of additional internal and external research, the marketing plan is based on the following elements:

- Croatia has potential that expands beyond the-sun-and-the-sea products, the current brand is limited, current visitors are satisfied, but the position of Croatia on the market significantly lags behind the competition.
- There is a lot of room for creating brand reputation as well as development of its power, because Croatia is not well-known, nor understood as a destination.
Namely, of the established market potential of 258 million people, many are unaware of the Croatian tourist offer, do not understand our offer, think it is unattractive, or that they could not afford it. Of the remaining 33 million people, more than a half will not be travelling to Croatia in the next 3-4 years, so if no action is taken, we can expect from 12 to 12.5 million arrivals in the next 2-3 years. Therefore, the key issue is that our market is focused on a simple value proposition (the sun and the sea), and this calls for necessary changes in marketing efforts in order to change this situation to the greatest extent possible.

In addition to extensive external research, this Marketing Plan has provided evaluation and established that the Head Office of the Croatian National Tourist Board has had serious difficulties in the implementation of previous marketing plans and that, in fact, 60% of planned marketing tactics were not fulfilled.

Taking all of this into consideration, this marketing plan has set three very clear, pragmatic, and measurable objectives:

- To increase the power of Croatian tourism brand, i.e. rebranding;
- To further increase the number of arrivals in PPS (before and after four summer months) for at least 1 million guests, which will give additional impetus to staying in our hotels;
- To increase the average daily expenditure of tourists for at least 15%.

These objectives clearly indicate that the beautiful nature, attractions, islands, and hospitality are insufficient, because they are accompanied by a weak income generation model, high seasonality, weak brand, insufficient value design, ineffective network of representative offices of the Croatian National Tourist Board, and lack of innovation in marketing. Therefore, marketing funds should not be spent in a way which does not contribute to the realisation of some of the above-mentioned three objectives.

In order to achieve this plan, and to avoid the fate of the previous one, it is necessary to make fundamental changes in the CNTB system. The Head Office should become a national professional marketing agency that creates and protects Croatian tourist brand, implements national tourism marketing and closely co-operates with regions and private businesses. Therefore, in order to change the classic routine, this office needs to make radical changes in the following manner:

- From orientation to volume to orientation to profitability,
- Instead of canvassing guests, to focus on creating loyalty,
• Turning from activity management to result-oriented management,
• From little effort invested in marketing education to high investments in education,
• From immersion in the transition of one’s own organisation to rapid organisational changes and professional communication with lower levels,
• From helping tour-operators to forming strategic alliances with them,
• From ineffective international network to a network in line with marketing objectives.

3. MARKETING STRATEGIES

Only by changing the logic and new professional structure of the Head Office is it possible to count on the implementation of very demanding strategies proposed by this plan.

The Target Segment Strategy aims at four key segments: vacationists, touring guests, guests with special interests, and business guests. Through its motivation and needs it aims to meet, each segment complies with a unique Croatian proposition in order to adequately understand the profile of potential guests.

The Geo-Zone Target Strategy proposes a shift from the classic strategy which targeted the general market, for example German, to targeting the so-called urban zones, for example Berlin, Stuttgart, etc. As marketing resources are limited, it is crucial to target specific geo-zones depending on their attractiveness and Croatia’s competitiveness in their respective frameworks, but also their capacity for “generating“ new guests (by air or land). Based on the criterion of the existence of direct flights, or air routes with one stop, 56 air geo-zones were defined. Furthermore, 27 land geo-zones were targeted based on the potential demand in the reach between four and six hours by car in the direction of Zagreb, Rovinj, Zadar, and Dubrovnik.

The Value Creation Strategy emphasises Croatian strengths and points of differentiation in comparison with other destinations. Croatia emphasises the beauty of nature and the sea along the coastline, intact nature, rich history, art and culture, a wide gastronomic offer, and diversified lifestyle. These values are a foundation of the future Croatian tourism product defined in four product categories that become content and basis of the offer related to four motivation elements (to relax, to discover, to enjoy, and to meet). Product portfolio explains
the diversified offer to the target market that can suit a variety of motivations of the market to visit Croatia.

The Positioning Strategy implies that Croatia needs to be recognised, not only for its beautiful nature, but also diversification of lifestyles and variety of experiences. The new positioning proposal defines that Croatia is a destination for vacationists, explorers on round trips, tourists with special interests, and business travellers looking for a unique and enjoyable vacation time, to whom it offers an unforgettable holiday of relaxation, exploration, enjoyment, or meetings based on the diversity of Croatian lifestyle, preserved and long coastline with more than 1000 islands, natural and cultural heritage, and rich and diverse gastronomy, which in a hospitable way combines authenticity, natural charm, and tradition.

4. MARKETING PLANS

This Strategic Marketing Plan of Croatian Tourism has seven individual plans, three of which are focused on achieving three key objectives (increasing brand power, increasing PPS tourism business, improving average daily expenditure), and four so-called traditional plans: the plan to support the tourism industry, product plan, region plan and source market plan.

The Croatian Brand Power Plan (the so-called BRP plan) develops the Croatian branding system through integrated communication brand system and introduces the brand to the new digital age through a digital strategy. The recently adopted slogan of Croatian tourism „Croatia Full of Life”, with its new visual and text image, represents the new „big idea“ of Croatian tourism which in this way defines and completes a kind of its own „Incredible India“ or „100% Pure New Zealand“ story.

The Pre- and Post-Season Plan (the so-called PPS plan) develops the solution for the PPS issue, primarily occupancy rate, but also long-term maintenance of employment. Solutions like Croatia 365, which has already been used by the Croatian National Tourist Board for the implementation of this plan, also include the launch of other planned activities such as strong communication campaigns on specific selected markets which have the greatest inclination of arrival and stay in Croatia, public relations in foreign markets (for which it is announced that an international PR agency will be selected in a public
competition), creating certified PPS destinations, i.e. destinations which, in the so-called PPS period, have open and available accommodation facilities, restaurants, bars, cultural institutions, as well as special events designed in this period.

The Plan to Increase Expenditure per Tourist (the so-called PCE+ plan) covers activities like the so-called Croatian Premium Programme (the Best of Croatia), specially designed messages and offers for guests during their stay in the destination with the purpose of increasing tourist expenditure and creating added value in the Croatian economy.

The Industry Support Plan (the so-called IS plan) provides valuable resources and tools that help in the decision-making process and improvement of the value-added offer (through destination management companies and destination marketing organisations). The plan also includes a proposal for the restructuring of CNTB representative offices abroad, focused on developing a stronger role in sales and communication in the tourist markets.

Although the first three plans are the backbone of the Strategic Marketing Plan of Croatian Tourism, the tourism industry needs to promote specific tourism products and, at the same time, marketing regions need to achieve better ranking on international markets, while source markets also require special attention. The question is, how can the three focused plans (the backbone of the Strategic Marketing Plan of Croatian Tourism) be combined with marketing activities of promotion of products and regions on tourist markets? The method and the answer is that each focused plan includes the following components: product, region, and tourist market.

The Product Plan defines the basic strategy for each product and the associated marketing tools. The Region Plan proposes that, although each region manages its own marketing, it should implement strategic guidelines of regional marketing elements which are crucial for establishing co-operation between the regions and national marketing. The tourist market plan lists the activities proposed in each of the plans which should be carried out in individual tourist markets (i.e. sub-defined geo-zones).

5. IMPLEMENTATION PLAN

All plans consist of 35 operational activities and initiatives that reflect the efforts that need to be invested in order to transfer strategies into a specific set of
operational activities. Activities are classified into five categories – value design (establishing an attractive offer and designing an alluring brand for target segments of guests), communication of values (informing the guests about “destination benefits” and reinforcing the brand through advertising or PR), distribution or sales of values (creating effective distribution channels and an effective sales system), satisfaction and retention of the guests (meeting expectations and stimulating satisfaction and loyalty), and supporting the industry (transfer of technology and knowledge to the industry).

6. CONCLUSION

This is, without a doubt, a complex and demanding plan that reforms the logic and the way of functioning of Croatian tourism marketing. The adopted ambitious plan is that, during 2015 and 2016, Croatian tourism should achieve at least these objectives: a new brand, a single PR agency for Croatian tourism, a digital strategy, a new digital platform, new promotional campaigns for PPS and PCE+, a simplified system of representative offices, key events plan, visitors’ satisfaction programme, implemented research system, implemented system of monitoring marketing activities through measurement tools, and the Premium Programme.

However, such an affirmative and impressive list of new contents and solutions raises a number of important questions, such as whether the existing organisation and human resources are ready and able to implement such an ambitious plan. Namely, in the Croatian Tourism Development Strategy for the Period 2014-2020, which was also adopted by the Croatian Parliament, it was established that there was a deficit in human resources within the Croatian National Tourist Board. For the aforementioned reason, the transformation of bureaucratic management matrix is imposed as one of the essential preconditions for the implementation of the Strategic Marketing Plan.

As illogical as it sounds, it still remains unclear whether the Ministry of Tourism supports this plan or not. Namely, if it does support it, it is unclear why it does not propose legislation that would lead to professionalisation of the Croatian National Tourist Board system, primarily solutions by which the institute of destination management would be implemented in the Croatian National Tourist Board system. It implies institutionalisation and management of various tasks related to marketing and other harmonisation of interests of
the institutions in the private and public sector operating in the area of a specific destination (country, region, town, municipality, settlement).

Another open issue is co-operation of the tourist board system with the tourism industry, the stakeholder structure of which is still unambitious, and is mainly interested in money from joint advertising through members of the Tourism Council.

Finally, it is also justified to ask the question whether this plan is possible in terms of co-operation with regions, if we know that our tourist regions are passive in the sense that they do not show any interest or responsibility for their tourist profiling and restructuring.

LITERATURE
Proposal of the Act on Tourist Boards and the Promotion of Croatian Tourism
MIGRATION INTENTION AMONG YOUTH IN BROD POSAVINA COUNTY

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Abstract

Croatia is a country with one of the highest rates of youth unemployment. That is why more and more young and educated people decide to leave their home. This paper focuses on young people as human resources for development of the County. Area of consideration will be substantiated by survey results, conducted among full time students of 3rd year at the College of Slavonski Brod, direction Management, direction Plant production, direction Production Engineering, and students of 3rd year of Faculty of Mechanical Engineering, part of the population that should be the bearer of future demographic and positive social changes. The survey aims to answer the questions what is the opinion of students towards the existence after finishing the education and whether it is better to continue living in Brod Posavina County or to go somewhere else. Analysis of the results will show the opinion in relation to students of different study.

In this paper particular attention wanted to focus on exploring the ways in which students - young people themselves perceive the situation in which they are. It represents the main goal of the work. To get closer to a defined purpose was used descriptive qualitative data analysis.

Keywords: migration, young people, students, Brod Posavina County

JEL Classification: F22, O15

1. INTRODUCTION

The principle of free migration is one of the fundamental principles of the EU. However, the positive impact of migration on the market and income occurs only in countries of immigration, because in this way can satisfy the needs of the labor market and to maintain the existing level of workforce. “The spe-
cific form of population migration is migration of higher education experts, scientists and intellectuals from some countries. Highly educated professionals, scientists, intellectuals and artists are holders of economic and social development of each country, and therefore are referred to as human capital." (Šverko, I. (2005), p. 1151) This is one of the most serious problems that Croatia faces today. This negative trend is a direct result of poor economic situation, but also the marginalization of science, increasingly smaller investment, and the general appeal of social lack of prospects that prevail in Croatia. In recent years Brod-Posavina has recorded one of the most significant outflows of population.

2. **MIGRATION OF YOUTH EDUCATED PEOPLE FROM BROD-POSAVINA COUNTY**

Brod-Posavina County is the southern Slavonian County. Its center is the city of Slavonski Brod and it spreads along the left bank of the Sava River, hence the name Posavina. "It covers an area of 2,034 km2, which makes 3.61% of the total Croatian territory (56,542 km2) and is the 14th largest Croatian county." (http://www.bpz.hr/opci_podaci/polozaj/default.aspx#.VpqoFFJ8E5M) The population density is 78 people per km2. Occupation and Civil War of the 90s have resulted in great migrations, which directly influenced on unfavorable dynamic and structural characteristics of the population. As of the 2011, 2001 Census, the County "in 2011 had 158,575 residents, in 2001 had 176,765 residents and in 1991 had 174,998 residents."(www.dzs.hr) Reduction of the number of residents is undeniably noticeable feature of Brod-Posavina County (from 1991 to 2011 County population reduced for 16,423 residents).

Permanent high unemployment rate is one of the key social and economic problems of Brod-Posavina. The registered "unemployment rate of 31.3% in 2014" (http://www.hzz.hr/UserDocsImages/Analiticki_bilten_2014-4.pdf) was one of the higher in Croatia. High unemployment rate leads to an insufficient use of free labor force and economic potential of the county, and finally the migration of human capital. The following graph shows the migration in Brod-Posavina County from and into another county from 2010 to 2014.
Graph 1 Migration in Brod-Posavina County - from and into another county

Source: Made by Author according to Statistical Yearbooks

Graph 1 shows the number of immigrants from another county and emigrants into another county. For a period of five years it is noticeable that much more people leave Brod-Posavina County and emigrate into another county. However that number is slightly lower in 2014 unlike 2010 (25,3% lower). Next graph shows the migration in Brod- Posavina County from and into abroad from 2010 to 2014.

Graph 2 Migration in Brod-Posavina County - from and into abroad

Source: Made by Author according to Statistical Yearbooks
Graph 2 shows the number of immigrants from abroad and emigrants abroad. For a period of five years it is noticeable that much more people leave Brod-Posavina County and emigrate abroad. It is especially noticeable high growth from 2012. The following graph shows the net migrations in Brod-Posavina County.

**Graph 3** Net migrations in Brod-Posavina County

![Net migrations graph](image)

*Source: Made by Author according to Statistical Yearbooks*

Graph 3 shows the negative situation of net migration - total net migration, net migration between counties and net migration with foreign countries. For a period of five years it is noticeable that total net migrations have negative sign and especially decline after 2012. According to the Central Bureau of Statistics in 2014, “the largest share of migrants that migrated is the population from 25 to 29 years (11755).”(www.dzs.hr) It can be assumed that a large proportion consists of highly educated, and those who complete their studies. There are no data on the number of highly educated who left the County, but the next graph shows the number of students who finished University or professional studies in Brod Posavina County.
Graph 4 Students who finished University/professional studies in Brod Posavina

Source: Made by Author according to Statistical Yearbooks

Graph 4 shows the total number of students and full time students who finished university or professional studies in Brod-Posavina County. Total number of students is in imperceptible decline from 2012.

3. YOUTH OPINION ON MIGRATION INTENTION IN BROD POSAVINA COUNTY

Considering the purpose of this study, selected population are students who by their age are in the category of young people, and for time of study, live and reside in Brod Posavina County. Similarly, with regard to students of 3rd years are in the period of life when begin to think more intensively about their future, it is relevant to examine their views, opinions and expectations. In accordance with the objectives of the research, it has been prepared survey. For the purpose of collecting these data was created an instrument in the form of online survey, and used Google services for creating online surveys (Google Docs Survey). The survey was conducted in January 2015 per 131 full time students. The selected universities/studies offer a variety of educational opportunities, employment and continuing education, and all are located in Slavonski Brod.
3.1 Analysis of the survey

The survey was conducted on a representative sample of 131 respondents – students of Brod Posavina County. Among the surveyed respondents 32.1% of them were students of Management, 25.2% were students of Plant production, 21.4% were students of Production Engineering and also 21.4% were students of Faculty of Mechanical Engineering.

Among the surveyed respondents were insignificantly more males (51.9%) while women were 48.1%. An equal ratio is primarily a result of the fact that the gender structure of students of Faculty of Mechanical Engineering and Production Engineering dominates male population while on direction Management and Plant production dominates female population. Considering the fact that respondents are full-time students of 3rd year, the largest share of them (49.6%) are 21 year old; 20.6% are 22 year old; 9.2% are 23 year old. The rest of the students are in the percentage less than 5%.

Although all respondents currently have a residence in Brod Posavina County, the great majority of them (67.9%) has a permanent residence in Brod Posavina County, respectively can be assumed they live there with their family. The rest comes from other counties of eastern Croatia: Vukovar-Srijem County (10.7%), Osijek-Baranja County(9.2%), Požega-Slavonia County(5.3%) and Sisak-Moslavina County(3.8%). The share of other counties (Primorje-Gorski Kotar County, City of Zagreb, Krapina Zagorje County and Zagreb County) is 0.8%. The following graph shows the respondents’ opinions on the greatest problems of young people in Brod Posavina County.

Graph 5 The greatest problems of young people in Brod Posavina County

Source: Made by Author
The obtained results show that all the listed problems - economic and social (career development) to be a problem for young people. Unemployment is very serious problem for 77,9% of respondents, lack of perspective is very serious problem for 69,5% respondents, emigration of young people is very serious problem for 64,1%. Considering the fact that unemployment rate in Brod Posavina County is one of the highest in Croatia this high percentage for respondents is expected. Only 4,6% of respondents think emigration isn’t problem at all. None of the problems did not get a percentage higher than 17% that is not important at all (except something else 55%).

The following graph shows the respondents’ opinions of the reasons why young people leave Brod Posavina County.

**Graph 6** The reasons why young people leave Brod Posavina County

![Graph](image)

*Source: Made by Author*

The obtained results show that 78,6% respondents think young people the most leave because they are unable to find a job in profession, 67,9% think they are unable to find job because of lack of experience, 67,2% because of poor wages and 61,1% because of poor economic conditions. These are factors that very influence the emigration of young people. Only 19,1% thing it is because of family and friends that live somewhere else and 26% because they want to get know the world (other culture and so on). All the listed reasons are equally affecting the emigration of young people. None of the reasons did not get a percentage higher than 22% that is not important at all (except something else 45,8%).
Considering that the respondents are students of third year they were asked about their future plans. The following graph shows the respondents’ opinions where they see themselves after finishing the fax.

Graph 7 The vision of life after finishing the fax

![Graph 7](image)

**Source:** Made by Author

The obtained results show that even 43% of respondents see themselves after finishing the fax in another part of Croatia, 34% of respondents want to go abroad and only 23% of respondents want to stay in Brod Posavina County. The following graph shows the respondents’ opinions where they see themselves after finishing the fax but in relation to students of different study.

Graph 8 The vision of life after finishing the fax in relation to different study

![Graph 8](image)

**Source:** Made by Author
The obtained results show that the inequality in relation to different study. Respondents from Management in the highest percentage of 47.6% want to go in another part of Croatia, 33.3% of them want to go abroad, and only 19% want to stay in Brod Posavina County. Respondents from Plant Production in the highest percentage of 59.4% want to go in another part of Croatia, 21.9% of them want to go abroad, and only 18.8% want to stay in Brod Posavina County. Respondents from Production Engineering in the highest percentage of 39.3% want to go abroad, 35.7% of them want to stay in Brod Posavina County, and 25% want to go in another part of Croatia. Respondents from Faculty of Mechanical Engineering in the highest percentage of 42.9% want to go abroad. Slightly lower share of 35.7% want to go in another part of Croatia, and only 21.4% wants to stay in Brod Posavina County. The highest percentage of respondents from Faculty of Mechanical Engineering and Production Engineering want to go abroad which is expected considering that this is profession very required abroad, respondents from Management and Plant Production want to go to another part of Croatia, while the respondents neither the one study didn’t express the highest percentage of remaining in Brod Posavina County.

CONCLUSION

Demographic trends - net migration (total net migration, net migration between counties and net migration with foreign countries) in Brod-Posavina County have no positive characteristics, which have an impact on the whole society. This demographic trend is a serious threat to regional economic growth and development which is reflected in the overall economic progress. Ignoring the above demographic trends may affect the unfavorable economic, cultural and social consequences.

Based on the results obtained from the survey, it can be determined that population decline will long be the main feature of this part of Croatia. Besides that it is also noticeable dissatisfaction of youth especially due to the inability of employment and at the same time believes that their lives will be better if they leave Brod Posavina County. Such a strongly expressed wishes of respondents for leaving the Brod Posavina County certainly leaves no room for optimism in regard to revitalization this area, respectively its demographic and economic perspective.
References


Abstract

This paper presents the research into characteristics of growth of chickens and ducklings, as well as their economical breeding in the outdoor system on a family farm in rural area. Studies have indicated that there are differences in genetic abilities of those two types of poultry. The logistic function was applied to describe the growth of chickens, and the generalized logistic function was applied in the model of growth for ducklings. It was determined that intensive growth phase of ducklings begins earlier and ends earlier ($T_i = 3.90$ weeks; 1820 g) than in chickens ($T_i = 4.90$ weeks, 1790 g). The research also proved that breeding of ducklings was more economical than of chickens until the age of 56 days. Gross profit per group of ducks was 193.43 €, and per group of chickens the profit was 62.33 €. Economy coefficient was 1.59, and 1.30, re-
respectively, and the profit rate was 37.24% and 12.23%, respectively. Overall conclusion points out the fact that it was more profitable for agricultural farms to breed ducks than chickens in the outdoor system.

Keywords: chickens, ducklings, growth curve, cost-benefit coefficient, gross income rate

JEL Classification: Q1, Q18

1. INTRODUCTION

Commercial hybrids with different production characteristics are used in the production of poultry meat. In order to fully exploit genetic potential of poultry, production factors be optimal in both indoor and outdoor breeding system. Production of poultry in an intensive indoor system is more widely applied than keeping of poultry outdoor, although the latter is recently being more recommended (Mikulski et al., 2011; Chen et al., 2013). According to the OECD criteria, a total of 91.6% of Croatian area is classified as rural, and only 8.4% as urban area. There are 47.6% of population residing in rural areas, while the remaining 52.4% live in urban areas. Rural Development Strategy of the Republic of Croatia aims to improve the quality of living in rural areas and to expand economic program to the rural economy. Rural areas can adapt quickly to economic, environmental and technological changes, to become market-oriented. Profitable production would provide an additional steady income for family farms, thus ensuring overall benefits for family farms and production of quality meat. In developed societies, meat and meat products are a part of daily diet. Poultry meat is the most consumed among all types of meat. In 100 g of poultry breast meat, there is contained 21.5-24.1 g protein, 0.29-2.5 g fat and 64-80 mg cholesterol. For this reason, the poultry breast meat is considered a dietary product suitable for children and patients. Based on previously conducted research, Kralik et al. (2011), Kralik I. et al. (2011), Mahmutović (2014) determined the performance of 56-day old chickens and ducklings being kept in outdoor production system. The aim of that research was to investigate the outdoor production system of chickens and ducks on family farms within a pilot project, referring to the productivity of poultry and cost-benefits of their production.
2. MATERIAL AND METHODS

Growth characteristics of animals and plants are constantly being investigated. There are several models of biological growth and life cycle of live organisms (Bertalanffy, 1957; Kralik and Scitovski, 1993; Kralik et al., 2001). When analyzing the growth rate of an organism, it is assumed that the weight gain in a given moment is proportional to the current weight of poultry (ft) and current biological potential. These two factors have different effects on the weight gain at different moments. This paper elaborates application of generalized logistic function in assessment of ducklings’ growth, which graph is negative symmetrical (coefficient of asymmetry \( \gamma < 1 \)). The growth stages are estimated by using the following parameters

\[
f(t, a, b, c, \varepsilon) = \frac{a}{(1 + b \varepsilon^{2 \gamma})^{1/\varepsilon}}
\]

The model of chickens’ growth is estimated by using logistic functions with the coefficient of asymmetry being \( \gamma = 1 \). If knowing the values of optimal parameters of generalized logistic function or logistic function, it is possible to estimate the phases of poultry growth. Interval \( T_b \leq T \leq T_c \) is interesting as one shall find the point of maximum \( t_b \) in the interval of progressive growth, and the point of minimum \( t_c \) in the interval of digressive growth.

\[
T_b = -\frac{1}{\varepsilon} \ln \frac{2b}{z(z+3) + z\sqrt{(z+1)(z+5)}} \quad T_c = \frac{1}{\varepsilon} \ln \frac{2b}{z(z+3) + z\sqrt{(z+1)(z+5)}}
\]

Based on fattening characteristics, the product number is calculated by using the form \( PN = \text{final weight} \times \% \text{ of survival} / \text{duration of fattening} \times \text{conversion} \times 100 \). While taking into account income and costs (variable and fixed), the gross income rate and cost-benefit coefficient are calculated for production of chicken and duck meat in an outdoor system. The calculation refers to breeding of poultry in terms of cooperative agreement, where the cooperant provides its own facility and complete service (depreciation for facility and equipment, labor costs, energy costs, etc.). Based on the results in this research, estimation of cost-benefits is done for farms producing more than 500 chickens or ducks.
3. RESULTS AND DISCUSSION

Parameters of generalized logistic function (ducklings), as well as logistic function (chickens) are overviewed in the Table 1. The assessment of parameters for logistic function or generalized logistic function confirms the differences in biological characteristics between chickens and ducklings. Among the groups of poultry, differences are found in manifestation of growth capacity. Chickens start to grow intensively after 3.04 weeks ($T_B$) until 6.83 weeks ($T_C$), and in that period they achieve body weight of 0.75 kg to 2.83 kg. Ducklings start to grow earlier, from 2.46 weeks until 5.35 weeks. Different inflection points for chickens ($T_i = 4.90; 1.790$) and ducklings ($T_i = 3.90; 1.820$) show a specific response of poultry genotypes in the same breeding conditions. Progressive growth phase of chickens lasts for 26.33 days and of ducklings 20.23 days (it starts earlier and ends earlier), which means that ducklings have a higher growth intensity than chickens.

Table 1. Function parameters – growth model

<table>
<thead>
<tr>
<th>Group</th>
<th>Parameters</th>
<th></th>
<th></th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a</td>
<td>b</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Chickens</td>
<td>3.5955</td>
<td>31.0142</td>
<td>0.6659</td>
<td>1</td>
</tr>
<tr>
<td>Ducklings</td>
<td>3.6513</td>
<td>35.1739</td>
<td>0.9136</td>
<td>0.9985</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Growth phase and inflection point</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chickens</td>
<td>4.90</td>
<td>3.04</td>
<td>6.83</td>
</tr>
<tr>
<td></td>
<td>1.79</td>
<td>0.75</td>
<td>2.83</td>
</tr>
<tr>
<td>Ducklings</td>
<td>3.90</td>
<td>2.46</td>
<td>5.35</td>
</tr>
<tr>
<td></td>
<td>1.82</td>
<td>0.77</td>
<td>2.87</td>
</tr>
</tbody>
</table>

Differences in performances of chickens and ducklings (Table 2.) occur because of their biological characteristics that are confirmed by analysis of the growth curve. One-day weight of ducklings was 18.5 g higher than of chickens, and at the end of fattening, body weight at the same age was increased for 500 g. The increase in body weight and food consumption affected the feed conversion (kg/kg of body weight). It is evident that ducklings consume more feed per kg of weight gain than chickens. Results of this experiment are correlated with respect to performances of poultry types and breeding conditions. Fattened chickens until age of 56 days (mixed sample) reach 2.9-3.9 kg live weight, and male chickens grow faster than females (Kralik et al., 2011). Mikulski et al.
(2011) and Chen et al. (2013), as well as Tong et al. (2014) studied the performances of poultry being kept in outdoor and indoor systems and they reported that the production system had no influences on growth and meat yield, but the chicken meat produced in the indoor system was less juicy. Poultry kept outdoor had lower mortality and less deposited abdominal fat than poultry kept indoor system (Wang et al., 2009; Santos et al., 2005).

Table 2. Performances of fattened chickens and ducklings

<table>
<thead>
<tr>
<th>Performance parameters</th>
<th>Chickens</th>
<th></th>
<th>Ducklings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>g/pcs kg/group</td>
<td>g/pcs kg/group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial body weight</td>
<td>40.5</td>
<td>4.05</td>
<td>59.0</td>
<td>5.90</td>
</tr>
<tr>
<td>Final body weight</td>
<td>2950</td>
<td>292.05</td>
<td>3450</td>
<td>338.10</td>
</tr>
<tr>
<td>Average daily gain</td>
<td>51.9</td>
<td>5.21</td>
<td>60.55</td>
<td>5.93</td>
</tr>
<tr>
<td>Food consumption</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>starter</td>
<td>1000</td>
<td>99.00</td>
<td>2137</td>
<td>209.43</td>
</tr>
<tr>
<td>grower</td>
<td>-</td>
<td>-</td>
<td>4211</td>
<td>412.68</td>
</tr>
<tr>
<td>finisher</td>
<td>4550</td>
<td>450.45</td>
<td>2148</td>
<td>210.50</td>
</tr>
<tr>
<td>Total</td>
<td>5580</td>
<td>549.45</td>
<td>8496</td>
<td>832.61</td>
</tr>
<tr>
<td>Conversion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food/weight</td>
<td>1890</td>
<td>1.88</td>
<td>2460</td>
<td>2.46</td>
</tr>
<tr>
<td>Carcass weight</td>
<td>2070</td>
<td>204.93</td>
<td>2404</td>
<td>235.65</td>
</tr>
<tr>
<td>Dressing percentage (%)</td>
<td>-</td>
<td>70.2</td>
<td>-</td>
<td>69.7</td>
</tr>
<tr>
<td>Mortality (%)</td>
<td>-</td>
<td>1.0</td>
<td>-</td>
<td>2.0</td>
</tr>
<tr>
<td>Production number</td>
<td>-</td>
<td>279</td>
<td>-</td>
<td>240</td>
</tr>
</tbody>
</table>

It is perceived that poultry kept in natural conditions produces meat of better quality. Outdoor breeding system causes less stress for poultry (Jones and Millis, 1999) and achieves poorer performances (Mendl, 1999). Bartlett et al. (2015) concluded that chickens kept outdoor had similar performances as of those kept in conventional system. Breeding system of ducklings, as an important factor in production of duck meat, affects production parameters, as well as efficiency and cost-benefits of production. Kralik et al. (2008) stated that intensive fattening of young Peking duck produced ducks of 3-3.5 kg live weight over 49 days. Bašić and Grujić (2013) stated that ducks of the same age reached live weight of 3.2 kg, while consuming 8 kg feed, with feed conversion of 2.7 kg. Mortality of ducklings was 5%, and dressing percentage was 72-73%. Janječić et al. (2005) reported that fattened Challey Valley ducklings at the age of 49 days reached live weight of 3118-3298 g, with feed conversion of 2.28-2.34 kg/kg of weight gain, and dressing percentage was 71.24-72.26%. Mazanowski et al. (2003) reported that 7-8 week old ducks were optimal for slaughter because
in that period the carcass contained relatively low portion of fat and had favorable dressing percentage that was economically very important. According to the stated authors, the dressing percentage depends on the age of ducklings at slaughter. Santos et al. (2005) used the Gompertz curve to confirm that male broilers had higher growth potential and lower feed conversion (1.96 kg) in both production systems than female chickens, which had feed conversion of 2.0 kg at the age of 49 days.

The Table 3 presents income and costs in production of chickens and ducklings at the age of 56 days. It also overviews economic indicators, such as gross profit, cost-benefit coefficient and % of gross income rate per groups of poultry.

Table 3. Costs of production of chickens and ducklings and economical indicators

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Chickens</th>
<th></th>
<th>Ducklings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€/pcs</td>
<td>€/group</td>
<td>€/pcs</td>
<td>€/group</td>
</tr>
<tr>
<td>Income</td>
<td>5.50</td>
<td>269.50</td>
<td>10.82</td>
<td>519.36</td>
</tr>
<tr>
<td>One-day old poultry</td>
<td>0.88</td>
<td>44.00</td>
<td>1.33</td>
<td>63.84</td>
</tr>
<tr>
<td>Feed total</td>
<td>2.29</td>
<td>112.21</td>
<td>4.36</td>
<td>209.28</td>
</tr>
<tr>
<td>Other costs</td>
<td>1.04</td>
<td>50.96</td>
<td>1.10</td>
<td>52.80</td>
</tr>
<tr>
<td>Costs total</td>
<td>4.21</td>
<td>207.17</td>
<td>6.79</td>
<td>325.92</td>
</tr>
<tr>
<td>Gross profit</td>
<td></td>
<td>62.33</td>
<td>193.43</td>
<td></td>
</tr>
<tr>
<td>Cost-benefit coeff.</td>
<td></td>
<td>1.30</td>
<td>1.59</td>
<td></td>
</tr>
<tr>
<td>Income rate, %</td>
<td>23.12</td>
<td></td>
<td>37.24</td>
<td></td>
</tr>
</tbody>
</table>

Note: costs of one-day old poultry, feed and other costs, as well as income are presented in €, by taking into account market prices at the time of research

In the structure of costs, the greatest part refers to costs of feed, amounting to 54.41% for chickens and 64.21% for ducklings. At the same time, income from the sale of duckling carcasses is for 18.59% higher than of chicken carcasses. This is understandable because duck meat is more preferred by some consumers and they are ready to pay more for it. Assessment of cost benefits of production of chickens and ducklings on a farm of 500 heads indicates that is more profitable to breed ducks than chickens, because in the same period of time, gross profit achieved is 635.00 € and 2,015.00 €, respectively. During 56-day long indoor breeding, cost-benefit coefficient of the tested farms was 1.59 for ducklings, or 1.33 for chickens. Gross profit rate was also significantly more favorable in production of ducklings than of chickens.
4. CONCLUSION

This research into comparative growth of chickens and ducklings over 56 days in the same conditions allows the following conclusions:

The logistic function is the most suitable for estimation of the growth of chickens, and generalized logistic function shall be used to assess growth of ducklings. The effect of poultry genetic basis is crucial in specific response of poultry. Chickens start their intensive growth from the week 4.3 ($T_B$), which lasts up to the week 6.83 ($T_C$). Ducklings begin to grow intensively from the week 2.46 weeks ($T_B$), which lasts until the week 5.35 ($T_C$). Different points of inflection, $T_I = 4.90$; 1790 g for chickens and $T_I = 3.90$; 1820 g for ducklings, show their growth characteristics. Type of poultry, i.e. their genetic basis, influences the efficiency of production. Gross profit per group of ducklings was 193.44 €, and per group of chickens 62.33 €. The cost-benefit coefficient was 1.59 and 1.30, respectively, which indicates that it is more profitable to produce ducks than chickens in the described production conditions. In the structure of costs, the highest portion refers to feed costs, which are for 10% higher for ducklings than for chickens, but the income from sales of duckling carcasses is for 18.59% higher than for chicken carcasses, which affected the overall indicators of economical production.

REFERENCES


Miscellaneous Categories
PAVING THE WAY TO THE KNOWLEDGE-BASED ECONOMY IN CROATIA: DOCTORAL STUDY AT THE FACULTY OF ECONOMICS IN OSIJEK

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Abstract

This paper points out the fact that the Faculty of Economics in Osijek has a good potential of conducting doctoral programs. Ten Salzburg Principles on doctoral programs, that provide the basis for Bergen Communique text, have been also used as the foundation for the University's doctoral program.

The unique character of the third cycle driven by its core component - the advancement of knowledge through research - needs to be recognized within the Bologna process. At the same time implementation of the three Bologna cycles should be seen as a whole, and the inclusion of research component as well as of transferable skills development ensured also in the first and second cycles.

The Faculty of Economics in Osijek accepts its responsibility for embedding doctoral programs in institutional strategies and policies. Being a part of regional university, it contributes to the (regional) human capital development, which is an irreplaceable variable in the function of (regional) development.

Keywords: Doctoral programs, supervision, Salzburg Principles, Bergen Communique, employability, practitioners, researchers

JEL Classification: A2, A29
1. INTRODUCTION

As a former transitional economy, Croatia has placed significant efforts to create a market-oriented economy and political democracy after abandoning socialism and commanded economy in 1991. Its aspirations to further develop in political and economic sense have been supported by improvement of higher education and utilization of its benefits on (economic) development. According to demographic criteria, number of universities and percentage of GDP invested in higher education, Croatia does not significantly lag behind other countries in the region. However, the small percentage of highly educated population (10%) and the modest macroeconomic performance of the country suggest that Croatian higher education seems to be underutilized source of economic development of the country. Thus, it is of great importance to encourage Croatian universities to develop and grow in their teaching and scientific activities in accordance to European and international standards.

The knowledge-based economy as an overarching goal of European Union requires the creativity and flexibility of the research mindset for a number of different functions and careers, also beyond those directly related to research. The doctorate has increasingly achieved recognition as a key part of this process.

For this reason, reform of doctoral education has been central to both the European Research Area and the European Higher Education Area over the past few years. The reforms are vital for the sustainable development of Europe and essential for the global research community. Indeed, Europe is emerging as a global leader in reforming doctoral education (EUA, European University Association).

This paper focuses on Faculty of Economics in Osijek as a member of Josip Juraj Strossmayer University of Osijek, which is the only university in the Eastern part of Croatia and which assumes the important role in the regional economic and social development. In the context of European and global integration processes, this paper reviews doctoral program of Faculty of Economics which has been set up in accordance with ten Salzburg Principles on doctoral programs that provided the bases for Bergen Communiqué text. The structure of the paper is as follows. After introductory remarks, the second of the paper discusses the importance of doctoral programs for European higher education and research. The third part of the paper is focused on doctoral programs in Bologna process while the fourth part discusses the role of universities in the vertical education. The fifth part is focused on the doctoral program at the Faculty of
Economics in Osijek whereby various aspects of doctoral research and teaching has been reviewed and discussed. The paper concludes with some policy suggestions how to advance doctoral programs in order to meet the challenges of contemporary economic and social reality.

2. THE IMPORTANCE OF DOCTORAL PROGRAMMES FOR EUROPEAN HIGHER EDUCATION AND RESEARCH

Promoting “closer links between the European Higher Education and Research Areas as a means of strengthening Europe’s research capacity, and improving the quality and attractiveness of European higher education” has been a major priority for the European University Association (EUA) since 2003. These objectives have been translated into action through a focus on doctoral programs and researcher careers that led to the adoption of the Salzburg principles in February 2005 that have become the framework for the intensive discussion on the development and future direction of doctoral programs that has been gathering momentum over the last two years.

Half a decade after the Salzburg Principles, the European landscape of doctoral education has changed profoundly. The adaptation and implementation of the principles have been driven by Europe’s universities themselves, and they have attained great expertise and experience through this process.

The achievements of Europe’s universities, in their very different contexts, have proven the validity of the Salzburg Principles as a foundation for continuous improvement of doctoral education. They have accumulated experience and developed promising practices, which affirm and enrich these Principles.

Growing awareness of the importance for Europe of increasing its research potential and the increasing spotlight on the role of universities as the providers of doctoral programs and responsible for providing the unique environment in which young researchers are trained by and through research, has served to highlight still further the crucial role of doctoral programs for Europe.

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The Bergen Communique

Specifically in relation the Bologna Process, the Ministers meeting in Bergen in May 2005 recognized that in order to improve the synergies between the higher education sector and other research sectors and between the EHEA and the European Research Area “doctoral level qualifications need to be fully aligned with the EHEA overarching framework for qualifications using the outcomes-based approach. The core component of doctoral training is the advancement of knowledge through original research. Considering the need for structured doctoral programs and the need for transparent supervision and assessment, we note that the normal workload of the third cycle in most countries would correspond to 3-4 years full time. We urge universities to ensure that their doctoral programs promote interdisciplinary training and the development of transferable skills, thus meeting the needs of the wider employment market. We need to achieve an overall increase in the numbers of doctoral candidates taking up research careers within the EHEA. We consider participants in third cycle programs both as students and as early stage researchers.”

Two projects have been set up related to the doctoral program: (1) Development of the Salzburg Principles and (2) Doctoral careers which deal with the employability of doctoral candidates.

3. DOCTORAL PROGRAMS IN BOLOGNA PROCESS

Doctoral programs are the third cycle of the Bologna process and at the same time constitute the first phase of a young researcher’s career.

The core component of the third cycle is the advancement of knowledge through original research. This makes the third cycle unique and different from the first and second cycles. For this reason the doctoral training phase constitutes the main link between the European Higher Education Area (EHEA) and the European Research Area (ERA). High quality doctoral programs are crucial in achieving Europe’s research goals.

The specific character of the third cycle needs to be taken into consideration in the Bologna context. However, this does not mean that doctoral programs

should be seen in isolation, but rather as part of a continuum, closely linked to and following on from the first and second cycles, and in the context of the implementation of the three Bologna cycles as a whole. It is important for all institutions offering research based higher education to ensure that a research component is included and developed in all cycles thus allowing students to acquire research experience and encouraging an interest in research as a possible career. Particular attention should be paid to the articulation between the second and third cycles. This applies also in relation to the acquisition of transferable skills.

4. THE ROLE OF UNIVERSITIES

Universities have the main responsibility for the development of high quality doctoral programs. Providing training in and through research is one of their core tasks, both to prepare young researchers for careers in academia but also increasingly to be able to play a significant role in other areas of society, be it in the public sector or other research agencies, in industry, commerce or the service sector. This requires autonomous institutions able to act responsibly, and develop and implement institutional strategies for doctoral programs in a number of different areas.

The Josip Juraj Strossmayer University of Osijek has a main responsibility in development of the qualitative doctoral program in the Eastern part of Croatia. Conducting training through research is also the main goal to prepare students for the university career or to be able to play a significant role in the society in the various business sectors. That requires an existence of autonomous institution which is able to develop and apply institutional strategies for the doctoral programs in various areas.

Doctoral studies are oriented towards education of higher institutions’ scientific novices, scientific institutes, as well as other institutions interested. Thus, the University of Osijek places an emphasis on high quality scientific researchers at the level which corresponds to the European and world standards.

Recent developments and an analysis of practice across Europe points to the emergence of doctoral/ graduate/or research schools in addition to individual training. However, a mix of different organizational types seems to be common practice in most countries. This reflects the need to achieve a critical mass of doctoral candidates in many cases, but also the existence of disciplinary differences that need to be taken into consideration in the organization of doctoral training.
The University postgraduate doctoral study in duration of three years according to the Bologna process is the highest level of the education in the Republic of Croatia. Study programs of the postgraduate specialist studies, as well as doctoral programs, are created in accordance with the Act on Scientific Activity and Tertiary Education (National Gazette, No. 123/03), instructions for setting up proposals for postgraduate study programs by Rectors’ Assembly, Conclusions of the National Council for Higher Education and forwarded through the Ministry of Science, Education and Sports to the National Council for Higher Education for evaluation.

5. DOCTORAL PROGRAM MANAGEMENT AT THE FACULTY OF ECONOMICS IN OSIJEK

The first postgraduate doctoral study “Management”, which started in 2007, represents the top of education was the top educational program of the Faculty of Economics in Osijek (Croatia). In the spirit of Bologna process, the Faculty of Economics in Osijek has achieved unique (educational) vertical in the field of management. It had started with the undergraduate study of management science and then has continued through the graduate study all the way up to the master program of the “Organization and Management” up to the doctoral program “Management” for those who seek excellence in the management education in both theory and practice.

This study program is intended for postgraduate education for those working in the business and other sectors as well as for those who pursue their academic careers at universities, research and other institutions. Doctoral program is also proposed for those candidates who graduate from faculties and higher schools other than in the field of economics but whose professional engagement involves organization and business management. In such cases the candidate is required to pass certain mandatory courses which provide him/her with basic knowledge in scientific areas of study based on previously completed education.

For researchers who are trying to discover something new, a cooperative spirit present at the doctoral program of the Faculty of Economics in Osijek is par-

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3 According to the International Standard Classification of Education (ISCED 97, UNESCO BPE-98/WS/1, November 1997), which is used in international education statistics and enables comparability of data on education at the international level, the doctorate of science (PhD) corresponds to the level 6 ISCED 97.
particularly motivating. For scholars who wish to turn their ideas into practice, the program offers well established network of business partners in the country but abroad as well. One of key goals of the program is not only to provide excellence in the management education but also to prepare future academic staff who will find their professional careers in various institutions of higher education. In addition, new PHDs with their research results as well as theoretical and empirical insights expressed through writing, speaking and teaching, are helping business world to express itself to variety of audience beyond solely business community.

The doctoral program meets its objective of educating students for academic research career in the field of business through teaching and direct research.

In accordance with the general university values and strategies, doctoral program is based on: generating a broad base of intellectual capital, innovative educational experiences, collaborative relationships with students as active participants, connecting theory and practice established on the action-based learning.

The doctoral study programs, which has been designed based upon various programs of American and European universities, has been approved by numerous doctoral students from all parts of the Republic of Croatia because it successfully combines teaching and research component of the academic activity. So far, the doctoral program “Management” has been placing strong emphasis on the required subjects such as economics for managers, organizational behavior, operation management, marketing management and information management supported by fifteen (15) elective courses that allow further profiling of doctoral candidates.

Students, who enrolled in the doctoral program “Management” at the Faculty of Economics in Osijek, find themselves in an intense intellectual environment that requires their full involvement in the study. The academic staff help them in their efforts to successfully pursue various challenging projects and research that are aimed for publishing in domestic and international publications. While many PHD candidates publish on their own interesting research results, many of them opt to work with co-author(s) in order to capitalize on joint synergetic effort. One may add that the practical side of this program is equally worth of mentioning. Namely, the academic staff takes very much into consideration life interests of students, their professional path, aspirations and goals and tries to be supportive in their search of professional and private excellence.
Management skills are required for everyone who is on the top (managerial) position. For example top positions in the production, trade, health, education, law, non-profit, recreation and scientific organizations include managerial responsibility. On the other hand, management is equally applicable to self-employment, small business, national business, government organizations and multinational companies.

The doctoral program “Management” has a strong support from its foreign academic partners, particularly when it comes to organizing scientific conferences and publishing already traditional publication entitled “Interdisciplinary Management Research - Interdisziplinäre Management Forschung”, which editions have been indexed in the well-known international databases such as Thomson ISI, RePEc, Econ Papers, Socionet.

Nine PhD generations from the beginning of the doctoral program at the Faculty of Economics in Osijek encompasses 120 PhD candidates and 26 professors who have been engaged together in the scientific-teaching activities as well as the have been professionally bonding through organized study tours in Madrid, Barcelona, Lisbon, Rome, London, Vienna, Bruxelles, Istanbul, Copenhagen, Strasbourg, Pforzheim, Budapest etc. These study tours represent a value added to the PhD candidates in terms of expanding their experiences outside the faculty premises.

**Mentoring philosophy**

Although Faculty of Economics in Osijek has significant resources for students at their disposal, doctoral program is deliberately small in size. Every year fewer than 25 PhD students have been chosen among numerous applications of interested candidates.

**Collegial spirit of the community**

Unlike the programs of graduate studies at the master’s level that offer principles, methods, techniques of direct benefit to the world of business, the doctoral program requires students certain deviation from the everyday world of business in favor of researching why that business world functions in a way it does, as well as to encourage them to pose long-term questions that are intended to bridge the gap between theory and practice. One of the characteristics of this doctoral program is a collegial spirit and non-competitive nature of the community.
Well-educated management

The concept study at the doctoral study “Management” develops well-educated managers, who will be able to solve the real challenges in the global business environment of today and tomorrow. Experts are teaching students to define problems in all areas of their organization - marketing, finance, supply chain, management - and to come up with solutions that will bring the entire organization to a higher level.

It is a challenge for the doctoral program to bridge the gaps between organizational practices, as experienced by practitioners (practice) and the theoretical accounts of the same, as explained by academic scholars (theory). Theoretical rigour and organizational realities should be blended to get a holistic perspective and close the gaps between “knowing” and “doing” (Burgoine and Reynolds, 1997; Pfeffer and Sutton, 2000). Pettigrew (2001) has noted the need for simultaneously delivering practitioner relevance and scholarly excellence.

Both practitioners and academics capitalize on such collaborative form of inquiry which helps them leverage their unique perspectives to have a holistic understanding about an organizational phenomenon, making for what Van de Ven and Johnson term “intellectual arbitrage” (2006, p. 803). As Burgoine and Reynold (1997, p.1) put it, “Practice ... needs theories to shape it. [And] theory on the other hand, is tested and developed through practice”.

Practitioners should provide researchers with organizational problems, and researchers with their expertise should provide practitioners with useful and relevant solutions. Simon (1967) has urged researchers to view the real world as a generator of basic research problems and a source of data. Academic scholars should view organizations as important stakeholders and take up organizationally relevant problem centric research. Organizationally relevant studies provide insights that help managers understand themselves and their organizations better (Markides, 2007).

Reasons to initiate doctoral programs

Each member of the University of Osijek, as well as the Faculty of Economics in Osijek, has their own specific reasons for initiating establishment of the doctoral programs which corresponds to the particularities of their own profession.
The common ground for initiating doctoral programs is the awareness that the Republic of Croatia needs even development not only in the economic sense, but also in the area of science and education. Just like the European Union, the Republic of Croatia can have relatively well based and equipped university, which is highly ranked at the European and global level. However, Croatia also must have “regional lions”, i.e. the university which will be more modestly ranked at the European ladder of excellence, which represents a crucial base for scientific, educational, cultural and economic development of areas (regions) which gravitates towards that university.

**Comparability of the doctoral programs with programs of international higher education institutions**

The study program at the Faculty of Economics in Osijek is an autonomous responsibility of the University of Osijek. It is evident that the advancement of the university, scientific-research activity, academic staff, students, equipment, financial power and tradition differ for each university. Thus, it is necessary to have an open dialogue and adjustment of important elements of the doctoral study programs from same scientific areas at the national and international level.

**The crucial role of supervision and assessment**

Mentoring and supervision are important processes in educating and professionally developing the PHD candidate to win the PHD title. While mentors and supervisors often have overlapping roles, one cannot use these terms interchangeably without emphasizing their important distinctions (Barković, 2014). **Mentoring** is a process for the informal transmission of knowledge, social capital, and the psycho-social support perceived by the recipient as relevant to work, career, or professional development; mentoring entails informal communication, usually face-to-face and during a sustained period of time, between a person who is perceived to have greater relevant knowledge, wisdom, or experience and a person who is perceived to have less (Bozeman & Feeney, 2007). On the other hand, **supervision** in the academic contest is a process to facilitate the student becoming an independent professional researcher and scholar in their field, capable of adapting to various research arenas, whether university or industry based (Pearson & Brew, 2002).

The crucial question of supervision, monitoring and assessment of doctoral researchers has been a major topic of discussion for universities in the course of
this project. Already a major issue in 2005, and included in the Salzburg Principles, it is important that discussion continues, and that universities encouraged and supported in the development and dissemination of good practices in the management of research degrees. Not only recent debates but also the publication of several national evaluation reports shows that there is a great need to develop new supervision practices in doctoral training.

Arrangements need to be developed based upon a transparent contractual framework of shared responsibilities between doctoral candidates, supervisors and the institution, and, where appropriate other partners as mentioned in the Salzburg Principles. Attention should be paid in particular to ensuring: multiple supervision arrangements, the continuous professional skills development of academic staff, and performance reviews of supervisors. Multiple supervision arrangements should be encouraged also at international level through tutoring and co-tutoring by supervisors from academic and research institutions in different European countries.

The importance of ensuring good supervision needs to be properly recognized as a task of staff supervising doctoral candidates, should be included in their workload and task descriptions, and thus also taken into consideration in academic career structures and decisions on promotion. Some universities report that it is useful to develop workload models to ensure that a supervisor dedicates enough time in support of each doctoral candidate.

As doctoral programs change in response to changes in the labor market, thus also the role of the supervisor. This has led to a growing awareness of the importance of ensuring professional skills development for supervisors. This discussion is, however, in its early stages and has not yet begun in many European countries.

Such training is usually organized in an informal way, as one-day-out meetings, based on case studies, discussions, sharing of good practices and experience. Innovative ways of motivating supervisors to introduce effective and high quality practices of supervision also include practices such as annual awards/incentives for the best supervisors.

The final stage of the doctorate, i.e. the assessment of the thesis, is crucial, and assessment procedures should be based on objective and transparent criteria. Due recognition should be given to the original research contribution made by the doctoral candidate. Assessment should be done by an expert university.
Doctoral program has changed as the answer to the changes at the labor market, particularly when it comes to the employability. Namely, employability is the key notion in the contemporary changing world which represents a set of skills, knowledge and personal traits enabling greater security to individual as well as success in business while it also contributes to the individual’s job, community and the community as whole.

UNIVERSITY-ENTERPRISE COLLABORATION

For many years, universities have fostered extensive and successful collaborations with business enterprises. More effective collaboration between universities and industry is vital to enhancing innovation and promoting greater competitiveness in Europe. Based on its members’ experience, EUA launched its Responsible Partnering Initiative at the European Business Summit in Brussels on 17 March 2006 with the aim to widen consultation with stakeholders on the further development of the “Responsible Partnering” guidelines and to seek to promote their broad implementation.4

Doctoral study “Management” find their partners in realizing the doctoral study mostly within the units of local and regional self-government of the Eastern Croatia, whose center is Osijek, as well as among companies which are not only from the region but also from the broader area.

EMBEDDING OF DOCTORAL PROGRAMS IN THE INSTITUTIONAL STRATEGIES FOR INCREASING INTERNATIONALIZATION

Doctoral programs are key components in a discussion about European higher education in the global context, while at the institutional level they serve to attract good doctoral candidates from the world, encouraging mobility within doctoral programs. For smaller countries and their institutions, the mobility may be a mean of training their own young researchers in disciplinary and trans-disciplinary research if the own environment lacks these capacities.

Internationalization within a university, particularly at the doctoral level is important and should not be forgotten. Doctoral study itself is international in its nature. That is achieved, for example, through engaging international academic staff, organization of international workshops and conferences, summer

schools, etc. Naturally, teleconferences, e-learning and the like are also considered. Doctoral programs should provide mobility to doctoral candidates.

**Increasing and diversifying funding streams**

There is a huge diversity of public funding mechanisms across Europe which vary enormously in volume, legal base, methodology, policy, thrust, and in degree to which central authorities control institutional budgets.

Due to the extreme importance of the postgraduate doctoral study for the existence and progress of the higher education in Croatia, postgraduate studies need to be a priority of state authorities and that is why they have been financed to the most part by the means of state budget, which does not exclude the possibility and need to use other sources of financing. The postgraduate doctoral studies for scientific novices and teaching assistants are financed by the Ministry of Science, Education and Sports in a way that they are employed by the institution in which the scientific project is registered and within such a project the doctoral thesis is being defined and written. The second type of institutional financing comes from study fees.

**Quality of Doctoral Programs**

Quality processes and Institutional mission should encourage a culture of risk-taking which attaches greater importance to success than to failure, in order to produce an institutional milieu favorable to creativity, knowledge creation and innovation. Universities reconfirm their commitment to continuous quality development and improvement in all aspects of their institutional mission. Institutional quality processes should be based on, as well as should adequately reflect, institutional values and mission. External and internal quality systems should take into account these aspects as starting points of any evaluation. The quality is directly understood under the national and internal regulations of programs.

Faculty of Economics in Osijek is highly equipped with PC and doctoral students may have a free access to internet. Roles of doctoral supervisors are regulated according to national and internal regulations of doctoral studies. Doctoral supervisors organize studies of doctoral candidate and supervise researches.
6. CONCLUSION

There are numerous important aspects for the Faculty of Economics in Osijek and our region that are playing an important role in developing modern doctoral schools meeting society’s needs, some of which include following:

- Creation of knowledge-based economy needs the valuation of top specialists with doctoral degree in all the fields across society. The doctoral degree can be valued by creating a flexible career path, i.e. the possibility of favorable career switching between academic sector, public sector and industry.
- Doctoral study “Management” has been deeply embedded in the institutional strategies and policies at the Faculty and University level.
- The importance of ensuring good supervision needs to be properly recognized as a task of staff supervising doctoral candidates, should be included in their workload and task descriptions, and thus also taken into consideration in academic career structures and decisions on promotion.
- The increase in doctoral studies can only be based on increase of research activities. In order to quadruple the number of new PHDs, it necessary at least to double the volume of research activities by involving support from the state, from the future employers of the PHDs as well as from the support foundations.
- To guarantee the quality of increasing and diversifying doctoral study, it is important to monitor the acquisition of theoretical knowledge and skills necessary for research activities as well as the level of research paper and PHD dissertations.
- Strengthening the relationship between governments, higher education institutions and other stakeholders is essential to anchor and sustain the goals of Bologna process. One major priority must to be broaden debate with employers, students, parents and other stakeholders, and thus enhance trust and confidence in the quality and relevance of institutional engagement.

Doctoral study “Management” of Faculty of Economics in Osijek is committed to continue this debate with other University units, partners and other stakeholders, as well as to provide the necessary support to its members, in particular through the establishment of a permanent framework for the further development, cooperation and exchange a good practice between doctoral programs and doctoral schools across Europe’s universities. The Faculty of Economics together with the Josip Juraj Strossmayer University of Osijek will...
continue to invest efforts to pave the way to the knowledge-based economy in Croatia by developing and improving the capacity of people as the most valuable resource of economic growth and development.

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THE SOUND OF BRANDS – DO ASSOCIATIONS OF BRANDS WITH MUSIC STYLES AFFECT BRAND PERSONALITY?

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Abstract

Brand personality is an important concept in marketing research and brand management. Whereas there are many different validated instruments to measure brand personality, there is a limited amount of systematic research identifying influence factors. This study addresses the question whether the association of brands with certain music styles (e.g. in the context of sponsoring activities) has an impact on the perception of different brand personality dimensions. As brand personality is influenced by many different aspects, it is difficult to detect the causal impact of a single factor. Therefore the study used two artificial, non-existent brands that were associated with different music styles in an experimental research design. In an online survey with 241 students from Pforzheim university the influence of this association with music on brand personality measured with a German brand personality questionnaire (Bosnjak et al., 2007) was investigated. Results indicate that certain music styles have an impact on different brand personality dimensions. Implications for further research using more realistic brand descriptions and additional music-related influence factors are discussed.

Keywords: human personality, Faktorenanalyse,

JEl Classification: L6, L69
1 EINLEITUNG

Da sich in gesättigten Märkten Produkte durch funktionale Aspekte zunehmend schwerer voneinander differenzieren lassen, kommt dem Konzept der Markenpersönlichkeit als Aspekt des Markenimages eine wachsende Bedeutung für die Markenführung zu (Freling & Forbes, 2005). Durch die Schaffung eines symbolischen und emotionalen Mehrwerts ergeben sich weitere Möglichkeiten der Differenzierung für Marken (Weis & Huber, 2000).

Während bereits zahlreiche Instrumente zur Messung der Markenpersönlichkeit existieren (z. B. Aaker, 1997; Mäder, 2005; Bosnjak, 2007), wurden die Faktoren, welche Einfluss auf die Markenpersönlichkeit nehmen, noch nicht hinreichend systematisch untersucht (Kilian, 2011), wobei in der Forschungsliteratur davon ausgegangen wird, dass eine Vielzahl an Aspekten des Marketing-Mix Einfluss auf die Markenpersönlichkeit nimmt (Batra, Lehmann & Singh, 1993; Kilian, 2011).


2 THEORETISCHER HINTERGRUND

2.1 Markenpersönlichkeit

lichkeit als “the set of human personality traits that are both applicable to and relevant for brands”.

Der Ansatz von Aaker (1997), welcher die Markenpersönlichkeit in Anlehnung an die Big Five-Persönlichkeitsmerkmale der differenziellen Psychologie (McCrae & Costa, 1986) betrachtet, sieht fünf Dimensionen der Markenpersönlichkeit vor: Sincerity (Aufrichtigkeit), Excitement (Erregung/Spannung), Competence (Kompetenz), Sophistication (Kultiviertheit) und Ruggedness (Robustheit). Diese werden mit Hilfe eines Fragebogeninventars erfasst, dessen dimensionale Struktur sich insbesondere bei Studien außerhalb der USA teilweise nicht replizieren ließ (Aaker et al., 2001; Mäder, 2005).

Dadurch entstanden in verschiedenen Ländern und Kulturkreisen weitere Instrumente zur Erfassung der Markenpersönlichkeit, die meist eine gewisse Schnittmenge hinsichtlich der postulierten Dimensionen zu Aakers Instrument aufweisen, sich aber in bestimmten Dimensionen unterscheiden.


### 2.2 Musik und Marke


Des Weiteren existieren Befunde aus der Sozial- und Persönlichkeitspsychologie, die darauf hinweisen, dass Musikpräferenzen einer Person Einfluss

2 FRAGESTELLUNGEN

Da die Studie im deutschsprachigen Raum durchgeführt wurde, sollte ein deutschsprachiges Instrument zur Messung der Markenpersönlichkeit eingesetzt werden. Da die Skala von Bosnjak et al. (2007) günstige psychometrische Werte aufweist und eine differenzierte Erfassung von Marken unter Berücksichtigung auch negativer Markeneigenschaften ermöglicht, wurde diese für die Messung der Markenpersönlichkeit eingesetzt.

In zahlreichen Studien mit unterschiedlichen Markenpersönlichkeitsinventaren erwies sich die Faktorenstruktur des Markenpersönlichkeitskonstrukts häufig als abhängig von der Art der verwendeten Marken (Austin et al., 2003; Caprara et al., 2001), weshalb zunächst die Dimensionalität des Inventars von Bosnjak (2007) überprüft werden sollte. Daher wurden folgende Fragestellungen untersucht:

1. Inwiefern lassen sich die von Bosnjak et al. (2007) postulierte Dimensionen der Markenpersönlichkeit im Rahmen der Studie bei künstlichen Modemarken replizieren?
2. Inwieweit erweisen sich die von Bosnjak et al. (2007) angenommenen Skalen als homogen?


(3) Inwieweit werden verschiedene Dimensionen der Markenpersönlichkeit durch Musikstile, die mit Marken in Verbindung gebracht werden, beeinflusst?

3 METHODE

Zur Untersuchung der Fragestellungen wurde eine Onlinestudie durchgeführt, mit der sich in effizienter Weise eine hinreichend große Stichprobe erreichen lässt. Dazu wurden die Studierenden der Hochschule Pforzheim über den Hochschulmailverteiler angeschrieben und um Teilnahme gebeten. Da die Teilnahme an der Studie freiwillig war, ergab sich eine selbstselektierte Stichprobe.

4.1 UNTERSUCHUNGSDESIGN


Mit Blick auf die jüngere Zielgruppe der Studie wurden zwei Marken aus dem Bereich Mode konzipiert, also eine Branchenkategorie, mit der die Befragten Erfahrung haben. Ziel dabei war es, einerseits jeweils durch bestimmte Informationen einen ersten Eindruck zu vermitteln, auf dessen Basis die Markenpersönlichkeit bewertbar gemacht werden sollte, andererseits sollten
sich die einzelnen Beschreibungen jedoch auch mit unterschiedlichen Musikstärken kombinieren lassen, ohne Widersprüchlichkeiten entstehen zu lassen. Die beiden Markenprofile sind in Abbildung 2 dargestellt.

**Abbildung 2:** Beschreibungen der beiden gebildeten künstlichen Marken.


**Tabelle 1:** Verknüpfung der Marken mit einem Musikstil (exemplarisch für zwei Stile)

<table>
<thead>
<tr>
<th>Musikstil</th>
<th>Beschreibung</th>
</tr>
</thead>
</table>


4.2 Erhebungsinstrument


Darüber hinaus enthielt die Studie weitere Inhalte zu persönlichen Musikpräferenzen sowie weitere Kriterien, nach denen die Marken bewertet werden sollten, die im Rahmen dieser Arbeit jedoch unberücksichtigt bleiben.

4 Ergebnisse

Die Feldzeit der Studie betrug zwölf Tage (06.08.2015-17.08.2015). In die Analyse gingen 241 auswertbare Fragebögen ein.

Daranunter waren 158 weibliche (65,6 %) und 83 männliche (34,4 %) Teilnehmer, überwiegend Studierende der Hochschule Pforzheim. Der Altersdurchschnitt lag bei M = 22,9 Jahren.

Des Weiteren wurde die interne Konsistenz der einzelnen Skalen für die beiden Marken durch die Berechnung von Cronbach's Alpha-Werten geprüft.


### 5.1 Dimensionen der Markenpersönlichkeit

In Tabelle 2 sind für die beiden untersuchten Marken die rotierten Komponentenmatrizen aus der Faktorenanalyse dargestellt.

Die durchgeführten Faktorenanalysen lieferten akzeptable Kaiser-Meyer-Olkin-Measure of Sampling Adequacy-Werte größer als 0,78. Ebenso wurde der Bartlett-Sphärizitäts-Tests in beiden Fällen signifikant (p < 0,05), was ebenfalls die Eignung der Datensätze für die Faktorenanalyse belegt.

Nach Beseitigung der Items kleinbürgerlich und verantwortungsvoll ergaben sich für beide Faktorenanalysen die von Bosnjak postulierten vier Dimensionen, wobei die Items der Unterdimension Langeweile erwartungsgemäß negative Ladungen auf Faktor 1 aufweisen. Die Varianzaufklärung lag bei 57,8 beziehungsweise 57,2 %. Die Mehrzahl der in der Analyse verbliebenen Items wiesen klare Ladungen auf jeweils einem Faktor auf; lediglich die Items der Unterdimension Langeweile zeigten bei Marke 1 noch substanzielle Doppelladungen auf einem weiteren Faktor.
Tabelle 2: Rotierte Komponentenmatrizen auf Basis der Markenpersönlichkeitsitems

<table>
<thead>
<tr>
<th>Item</th>
<th>Marke A (57,8 % erklärte Varianz)</th>
<th>Marke B (57,2 % erklärte Varianz)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Faktor 1</td>
<td>Faktor 2</td>
</tr>
<tr>
<td>Aufregend</td>
<td>0,774</td>
<td>-0,086</td>
</tr>
<tr>
<td>Abenteuerlustig</td>
<td>0,747</td>
<td>-0,001</td>
</tr>
<tr>
<td>Temperamentvoll</td>
<td>0,695</td>
<td>0,027</td>
</tr>
<tr>
<td>Frech</td>
<td>0,732</td>
<td>-0,046</td>
</tr>
<tr>
<td>Spiessig</td>
<td>-0,581</td>
<td>0,454</td>
</tr>
<tr>
<td>Langweilig</td>
<td>-0,554</td>
<td>0,448</td>
</tr>
<tr>
<td>Altmodisch</td>
<td>-0,559</td>
<td>0,476</td>
</tr>
<tr>
<td>Kompetent</td>
<td>0,179</td>
<td>-0,194</td>
</tr>
<tr>
<td>Ordentlich</td>
<td>-0,263</td>
<td>-0,077</td>
</tr>
<tr>
<td>Zuverlässigkeit</td>
<td>0,166</td>
<td>-0,145</td>
</tr>
<tr>
<td>Gutmütig</td>
<td>-0,130</td>
<td>0,082</td>
</tr>
<tr>
<td>Herzlich</td>
<td>0,086</td>
<td>-0,196</td>
</tr>
<tr>
<td>Gefühlvolll</td>
<td>0,160</td>
<td>0,068</td>
</tr>
<tr>
<td>Liebewoll</td>
<td>0,012</td>
<td>-0,147</td>
</tr>
<tr>
<td>Scheinheilig</td>
<td>-0,342</td>
<td>0,604</td>
</tr>
<tr>
<td>Aufdringlich</td>
<td>0,042</td>
<td>0,771</td>
</tr>
<tr>
<td>Arrogant</td>
<td>-0,049</td>
<td>0,748</td>
</tr>
<tr>
<td>Egoistisch</td>
<td>-0,035</td>
<td>0,727</td>
</tr>
</tbody>
</table>

Fett markiert: Dominierende Faktorladungen; %-Werte: Durch die extrahierten Faktoren aufgeklärte Varianz. Die Items kleinbürgerlich und verantwortungsvoll wurden vorab aus der Analyse entfernt.

Da die Items für die nachfolgenden Analysen zu Skalen zusammengefasst werden sollten, wurde zusätzlich zur Faktorenanalyse die interne Konsistenz der Dimensionen für beide Marken bestimmt. Die Cronbach’s Alpha-Werte sind in Tabelle 3 dargestellt. Die einzelnen Dimensionen weisen bei beiden Marken überwiegend akzeptable Cronbach’s Alpha-Werte größer als 0,7 auf (Cortina, 1993), lediglich die Dimension Gewissenhaftigkeit unterschreitet diesen Wert leicht. Somit kann von einer hinreichenden Homogenität der Skalen ausgegangen werden. Daher wurden die zu einer Skala gehörenden Items durch arithmetische Mittelung zu Skalenwerten zusammengefasst.
Tabelle 3: Cronbach’s Alpha-Werte der Skalen

<table>
<thead>
<tr>
<th>Skala</th>
<th>Marke A</th>
<th>Marke B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antrieb (Erregung)</td>
<td>.770</td>
<td>.759</td>
</tr>
<tr>
<td>Antrieb (Langeweile)</td>
<td>.735</td>
<td>.706</td>
</tr>
<tr>
<td>Gewissenhaftigkeit</td>
<td>.647</td>
<td>.650</td>
</tr>
<tr>
<td>Gefühl</td>
<td>.707</td>
<td>.764</td>
</tr>
<tr>
<td>Oberflächlichkeit</td>
<td>.757</td>
<td>.717</td>
</tr>
</tbody>
</table>

5.2 Einfluss des Musikstils auf die Markenpersönlichkeit

Für jede der fünf Markenpersönlichkeitsskalen wurde bei jeder der beiden Marken eine einfaktorielle Varianzanalyse durchgeführt. Tabelle 4 stellt deskriptive Kennwerte sowie die Ergebnisse der Signifikanztests dar.


Bei Marke A ergab die Varianzanalyse zusätzlich einen signifikanten Haupteffekt bei der Skala Gewissenhaftigkeit, der sich auf Basis der Post-hoc-Tests ausschließlich auf den signifikanten Unterschied zwischen Jazz und HipHop zurückführen ließ.

Bei Marke B ergaben sich zusätzlich signifikante Haupeffekte für die beiden Antriebsskalen Erregung und Langeweile. Bei beiden Skalen zeigten sich in den Bonferroni-Post-hoc-Tests lediglich signifikante Unterschiede zwischen Jazz und Electro/Dance.

Insgesamt hebt sich somit der Musikstil Jazz am deutlichsten hinsichtlich bestimmter Aspekte der Markenpersönlichkeit von den anderen Musikstilen ab.
### Tabelle 4: Varianzanalysen zur Ermittlung des Einflusses des Musikstils auf die Markenpersönlichkeit

<table>
<thead>
<tr>
<th>Skala</th>
<th>Marke A</th>
<th></th>
<th></th>
<th>Marke B</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Musikstil</td>
<td>n</td>
<td>M</td>
<td>s</td>
<td>F</td>
<td>p</td>
</tr>
<tr>
<td></td>
<td>Rock</td>
<td>53</td>
<td>3,24</td>
<td>.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HipHop</td>
<td>74</td>
<td>3,45</td>
<td>.87</td>
<td>1,66</td>
<td>0,169</td>
</tr>
<tr>
<td></td>
<td>Jazz</td>
<td>62</td>
<td>3,31</td>
<td>.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electro/Dance</td>
<td>52</td>
<td>3,55</td>
<td>.68</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erregung</td>
<td>Rock</td>
<td>53</td>
<td>1,99</td>
<td>.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HipHop</td>
<td>74</td>
<td>1,71</td>
<td>.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jazz</td>
<td>62</td>
<td>1,82</td>
<td>.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electro/Dance</td>
<td>52</td>
<td>1,67</td>
<td>.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Langeweile</td>
<td>Rock</td>
<td>53</td>
<td>2,05</td>
<td>.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HipHop</td>
<td>74</td>
<td>2,05</td>
<td>.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jazz</td>
<td>62</td>
<td>1,90</td>
<td>.76</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electro/Dance</td>
<td>52</td>
<td>1,89</td>
<td>.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oberflächlichkeit</td>
<td>Rock</td>
<td>53</td>
<td>3,28</td>
<td>.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HipHop</td>
<td>74</td>
<td>3,05</td>
<td>.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jazz</td>
<td>62</td>
<td>3,40</td>
<td>.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electro/Dance</td>
<td>52</td>
<td>3,28</td>
<td>.72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gewissenhaftigkeit</td>
<td>Rock</td>
<td>53</td>
<td>3,26</td>
<td>.66</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HipHop</td>
<td>74</td>
<td>3,22</td>
<td>.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jazz</td>
<td>62</td>
<td>3,72</td>
<td>.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electro/Dance</td>
<td>52</td>
<td>3,16</td>
<td>.84</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Teilstichprobengrößen (n), Mittelwerte (M), Standardabweichung (s) sowie F-Werte und Signifikanz (p) zu den einzelnen Skalen der beiden Marken. Signifikante Ergebnisse (p<0,05) sind durch * gekennzeichnet und mit Fettdruck hervorgehoben. Wertebereich der endpunktbenannten Skalen: 1 = trifft überhaupt nicht zu, 5 = trifft voll und ganz zu.

### 6 DISKUSSION

Die Analyse der Faktorenstruktur ergab für beide Marken die von Bosnjak et al. (2007) postulierte Struktur mit den vier Dimensionen **Antrieb** mit den beiden Subskalen **Erregung** und **Langeweile**, **Gewissenhaftigkeit**, **Gefühl**, **Oberflächlichkeit**. Allerdings mussten zwei Items (kleinbürgerlich und verantwortungsvoll aus den Skalen **Langeweile** und **Gewissenhaftigkeit**) vorab aus der Faktorenanalyse entfernt werden, da sie keine eindeutigen Ladungen aufwiesen. Die damit nur geringfügig modifizierten Skalen wiesen allerdings überwiegend hohe interne Konsistenz auf. Lediglich für die reduzierte Skala **Gewissenhaftigkeit** fand sich ein Cronbach’s Alpha-Wert knapp unter 0,7, wobei gerade bei sehr kurzen Skalen das Erreichen hoher Alpha-Werte erschwert ist (Cortina, 1993).
Insgesamt kann somit von einer stabilen Dimensionsstruktur des Markenpersönlichkeitsinventars ausgegangen werden. Dass zumindest zwei der Items keine eindeutigen Ladungen aufwiesen, könnte auch dem Umstand geschuldet sein, dass die Probanden lediglich auf Basis weniger Informationen künstliche Marken bewerten sollten. Bestimmte Aspekte, die bei bekannten Marken klar bewertbar sind, könnten in diesem Fall schwerer beurteilbar gewesen sein und sich dadurch nachteilig auf die Iteminterkorrelationen ausgewirkt haben.


Obwohl bei der Auswahl der Musikgenres Stile berücksichtigt wurden, die auf sehr unterschiedlichen Präferenzfaktoren laden (Rentfrow & Gosling, 2003), zeigen sich somit lediglich Effekte für die Kombination von Marken mit dem Musikstil Jazz, der je nach Marke und Dimension von mehreren oder einzelnen anderen Musikrichtungen abwich. Durch die systematische Variation lediglich des Musikstils und Konstanthaltung der anderen Aspekte der jeweiligen Marken kann allerdings davon ausgegangen werden, dass die einzelnen Effekte tatsächlich ausschließlich auf die Verbindung mit unterschiedlichen Musikstilen basieren.

Somit zeigen die Ergebnisse, dass zumindest in einem kontrollierten experimentellen Setting die Verbindung einer Marke Musik (zum Beispiel in Form von Sponsoring von Musikveranstaltungen oder durch Werbekampagnen mit bestimmten Künstlern) einen Einfluss auf die Bewertung der Marke nehmen kann. So führt insbesondere Jazz dazu, dass eine Marke im Rahmen des Inventars von Bosnjak et al. (2007) gefühlvoller wahrgenommen, allerdings zumindest bei einer Marke auch etwas negativer auf der Antriebsdimension bewertet wird.
7 LIMITATIONEN UND AUSBlick

Einschränkungen der Studie ergeben sich insbesondere aus der Stichprobenzusammensetzung sowie dem kontrollierten experimentellen Ansatz.

Durch die Beschränkung der Untersuchung auf eine praktisch ausschließlich studentische Stichprobe ist davon auszugehen, dass die Musikpräferenzen nicht repräsentativ sind. Dies könnte zumindest die Wirkung auf die Markenpersönlichkeit in ihrer Richtung verändern. Während Jazz im Rahmen dieser Studie teilweise auch negative Auswirkungen auf die Markenpersönlichkeit hatte, könnte sich die Richtung des Einflusses bei einer anderen Zielgruppe unterscheiden. Allerdings zielte die Studie primär auf die Untersuchung eines generellen Einfluss von Musik ab, weniger auf die Richtung dieses Einflusses.


In künftigen Studien sollten die ermittelten Effekte somit auch mit unterschiedlichen Zielgruppen untersucht werden, wobei auch die Präferenz für Musikgenres bei der Untersuchung des Einflusses auf die Markenpersönlichkeit stärker mitberücksichtigt werden sollte. Experimentelle Untersuchungsdesigns mit stark kontrollierten Bedingungen erscheinen durchaus zielführend,
um den Effekt von Musikwirkung zu erfassen. Ergänzend sollten Befunde daraus auch mit realistischere Settings verglichen werden. Selbst beim Einsatz künstlicher Marken wäre es denkbar, Musikstile realitätsnäher zu kommunizieren, indem sie beispielsweise nicht nur in Form von Textinformationen zum Genre, sondern auch über spezifischere Informationen zu Künstlern, Bildern oder akustisch vermittelt werden.

**Literaturverzeichnis**


Abstract
Die Stopptheorie ist ein Teilbereich der sequentiellen Entscheidungstheorie. Sie findet ihre Anwendung in Situationen, in denen sukzessive Beobachtungen gemacht werden können, die man mit den vorherigen Beobachtungen vergleichen kann, um den Informationsstand zu verbessern. Letztlich muss der Beobachtungsprozess aber irgendwann abgebrochen werden, um eine finale Entscheidung zu treffen.


JEL Classification: A1, A19
1. KLASSISCHE STOPPPROBLEME


den Eigenschaften

\{T = n\} \in A_n := \mathcal{A}(Y_1, ..., Y_n) \quad \text{und} \quad P(T < \infty) = 1

Die erste Eigenschaft besagt, dass die Ereignisse \{T = n\}, also das nach genau n Beobachtungen gestoppt wird, Elemente der von den Beobachtungen Y_1, ..., Y_n gebildeten σ-Algebra sind, auf die hier jedoch formal nicht näher eingegangen werden soll. Inhaltlich bedeutet dies, dass die Entscheidung, zum Zeitpunkt n zu stoppen, ausschließlich auf den ersten n Beobachtungen basiert. Die zweite Eigenschaft besagt, dass mit Wahr scheinlichkeit eins nach endlich vielen Beobachtungen gestoppt wird.

Die Auszahlung X_n gibt den geeignet monetarisierten „Erfolg“ beim Stoppen zum Zeitpunkt n an. Diese Auszahlungen sind selbst Zufallsvariablen. Die Zufallsvariable

\[ X_T := \begin{cases} X_n & \text{für } T = n \\ 0 & \text{für } T = \infty \end{cases} \]

gibt die Auszahlung bei Verwendung der Stoppregel T an. Das Ziel ist es, die erwartete Auszahlung zu maximieren. Mit

\[ V := \sup E(X_T) \]
bezeichnet man den Wert (engl.: value) des Stoppproblems, wobei das Supremum über alle Stoppregeln gebildet wird, deren erwartete Auszahlung endlich ist.

Lieg in einem Stoppproblem der Fall vor, dass nur \( N \in \mathbb{N} \) Beobachtungen möglich sind, dann spricht man vom Fall endlichen Horizonts. Es gibt auch Untersuchungen und Modelle, in denen diese Annahme nicht getroffen wird. Im folgenden soll jedoch der Fall endlichen Horizonts angenommen werden.

Zur Berechnung der optimalen Stoppregel definiert man rekursiv die folgenden Zufallsvariablen:

\[
U_n := X_n, \quad U_n := \max\{X_n, E(U_{n+1} | A_n)\}, \quad n = 1, \ldots, N - 1
\]

Mit diesen Zufallsvariablen lautet die optimale Stoppregel (vgl. z.B. Chow/Robbins/Siegmund, S. 50):

\[
T^* := \min\{n : U_n = X_n\}
\]

Eine weitere Annahme lautet, dass die Beobachtungen \( Y_n \) in eine eindeutige Rangfolge bezüglich ihrer Güte gebracht werden können. Ist \( \pi = (\pi(1), \ldots, \pi(N)) \) eine Permutation der Zahlen 1,\ldots, \( N \), dann kann \( \pi(n) \) als Rang der Beobachtung \( Y_n \) betrachtet werden. Dieser Rang wäre natürlich erst nach einer vollständigen Durchführung aller \( N \) Beobachtungen bekannt. Was man jedoch zu jedem Zeitpunkt kennt, ist der relative Rang:

\[
r_n(\pi) := \{i : i \leq n \land \pi(i) \leq \pi(n)\}, \quad n = 1, \ldots, N
\]

Es handelt sich dabei um die Anzahl der bisherigen Beobachtungen, die nicht schlechter waren als die aktuelle \( n \)-te Beobachtung. Ein relativer Rang von eins bedeutet beispielsweise, dass die aktuelle \( n \)-te Beobachtung die beste aller bisherigen ist. Damit hat die erste Beobachtung stets den relativen Rang eins.

Als Auszahlung betrachten wir die bedingte Wahrscheinlichkeit, bei dem besten aller \( N \) Werte zu stoppen, wobei die Bedingung in der bis zum Zeitpunkt \( n \) verfügbaren Information besteht:

\[
X_n := P(\pi(n) = 1 | A_n)
\]

Wenn man zu einem Zeitpunkt \( n \) den bis dahin besten Wert beobachtet und damit \( r_n = 1 \) ist, dann lautet diese Auszahlung folgendermaßen:
Dabei wurde die Unabhängigkeit der relativen Range benutzt, die sich kombinatorisch recht einfach nachweisen lässt. Für die bedingten Erwartungen der Zufallsvariablen $U_n$ gilt nun:

$$E(U_{n+1}|A_n) \geq E(E(U_{n+2}|A_{n+1})|A_n) = E(U_{n+2}|A_n)$$

In der ersten Abschatzung wurde lediglich die Definition von $U_{n+1}$ genutzt. Die letzte Gleichung ist eine charakteristische Eigenschaft bedingter Erwartungswerte (vgl. z.B. Chow/Robbins/Siegmund, S. 6). Insgesamt besagt diese Abschatzung, dass mit dem Informationsstand zum Zeitpunkt $n$ die „optimale“ Auszahlung $U_{n+1}$ nicht schlechter sein kann als eine spätere erwartete Auszahlung. Dies lässt sich so interpretieren, dass es für die optimale Stoppregel $T^*$ eine natürliche Zahl $n^*$ gibt, so dass die Stoppregel die folgende Gestalt hat:

$$T^* = \min\{n : X_n = n/N \geq E(U_{n+1}|A_n)\} = \min\{n \geq n^* : r_n = 1\}$$

Zur Herleitung von $n^*$ betrachtet man zunächst den Wert des Stopproblems. Wegen

$$P(T^* = i) = P(r_{n^*} > 1) \cdot P(r_{n^*+1} > 1) \cdots P(r_{n-1} > 1) \cdot P(r_i = 1)$$

lautet der Wert

$$V = E(X_{r^*}) = \sum_{i=1}^{n^*} \frac{i}{N} \cdot P(T^* = i) = \sum_{i=1}^{n^*} \frac{i}{N} \cdot \frac{n^* - 1}{i - 1} \cdot \frac{i - 2}{i - 1} \cdots \frac{1}{i - 1} =: V(n^*)$$

Dieser Wert ist in Abhängigkeit von $n^*$ zu maximieren. Dazu betrachtet man die Differenzen:

$$V(n) - V(n + 1) = \frac{1}{N} \cdot \left(\frac{n - 1}{\sum_{j=1}^{n} \frac{1}{j-1} - n} \cdot \sum_{i=1}^{N} \frac{1}{i - 1} \right) = \frac{1}{N} \cdot \left(\frac{1}{\sum_{j=1}^{N} \frac{1}{j-1} - n} \right)$$

Die nochmaligen Differenzen dieser Differenzenfolge lauten $-1/(nN)$ und sind also negativ. Daher wird der Wert $V(n)$ maximal für die kleinste Zahl $n$, für die $V(n) \geq V(n + 1)$ ist:
Mit diesem Wert für $n^*$ lautet die optimale Stoppregel also:

$$T^* = \min\{n \geq n^* : r_n = 1\}$$

Die kleinste natürliche Zahl, für die die angegebene Summe in der Definition von $n^*$ den Wert eins nicht übersteigt, ist also die Anzahl der Beobachtungen, die auf jeden Fall gemacht werden sollen. Ab dieser Stelle (einschließlich) wird gestoppt, sobald eine Beobachtung den bis dahin besten Wert aufweist. Für $N = 5$ ergibt sich wegen

$$\frac{1}{2} + \frac{1}{3} + \frac{1}{4} = \frac{13}{12} > 1 \quad \text{und} \quad \frac{1}{3} + \frac{1}{4} = \frac{7}{12} \leq 1$$

der Wert $n^* = 3$. Für große Werte von $N$ wird der Rechenaufwand zur Bestimmung von $n^*$ natürlich größer. In der Mathematik ist aber wohlbekannt, dass für große Werte von $n$ die folgende asymptotische Gleichheit besteht:

$$1 + \frac{1}{2} + \frac{1}{3} + \cdots + \frac{1}{n} \approx \gamma + \ln(n)$$

mit der Eulerschen Konstanten $\gamma \approx 0.5772$. Daraus folgt die Approximation

$$\frac{1}{n} + \frac{1}{n+1} + \cdots + \frac{1}{N-1} \approx \ln(N-1) - \ln(n-1)$$

$n^*$ kann daher für große Werte von $n$ und $N$ folgendermaßen approximativ bestimmt werden:

$$\ln(N-1) - \ln(n-1) \leq 1 \quad \iff \quad n \geq 1 + \frac{N-1}{a} \quad \Rightarrow \quad n^* \approx \frac{N-1}{a} + 1$$

Wegen des asymptotischen Zusammenhangs der Summe mit dem natürlichen Logarithmus und wegen der asymptotischen Formel für $n^*$ folgt für den Wert des Stoppproblems:

$$\lim_{N \to \infty} V_N = \lim_{N \to \infty} \left( \frac{(N-1)/a}{N} \cdot \left( \ln(N) - \ln\left(\frac{N-1}{a}\right) \right) \right) = e^{-1} \approx 0.368$$

Mit dieser Wahrscheinlichkeit wird man bei großem $N$ und bei Anwendung der angegebenen Stoppregel den besten aller $N$ Werte erwischen. Die folgende Tabelle zeigt, dass die Approximation schon für recht kleine Werte von $N$ als gut gelten kann:
ANWENDUNG IN DER FINANZWIRTSCHAFT

Wir betrachten in diesem Beispiel die Preise einer Kaufoption auf Gold vom 23.06.2011 bis zum 22.07.2011, was 30 Börsentagen entspricht:

<table>
<thead>
<tr>
<th>N</th>
<th>r²</th>
<th>zN</th>
<th>V_N</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>3</td>
<td>2.47</td>
<td>0.433</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>4.31</td>
<td>0.309</td>
</tr>
<tr>
<td>15</td>
<td>6</td>
<td>6.15</td>
<td>0.389</td>
</tr>
<tr>
<td>20</td>
<td>8</td>
<td>7.89</td>
<td>0.384</td>
</tr>
<tr>
<td>25</td>
<td>10</td>
<td>9.83</td>
<td>0.381</td>
</tr>
<tr>
<td>30</td>
<td>12</td>
<td>11.67</td>
<td>0.379</td>
</tr>
<tr>
<td>40</td>
<td>16</td>
<td>15.95</td>
<td>0.376</td>
</tr>
<tr>
<td>50</td>
<td>19</td>
<td>19.03</td>
<td>0.374</td>
</tr>
<tr>
<td>60</td>
<td>23</td>
<td>22.70</td>
<td>0.373</td>
</tr>
<tr>
<td>70</td>
<td>27</td>
<td>26.38</td>
<td>0.372</td>
</tr>
<tr>
<td>80</td>
<td>30</td>
<td>30.06</td>
<td>0.372</td>
</tr>
<tr>
<td>90</td>
<td>34</td>
<td>33.74</td>
<td>0.371</td>
</tr>
<tr>
<td>100</td>
<td>38</td>
<td>37.42</td>
<td>0.371</td>
</tr>
</tbody>
</table>

Der letzte Termin ist das Verfallsdatum der Option oder der spätesten Termin für einen geplanten Verkauf, weil man beispielsweise dann das Kapital für einen anderen Zweck benötigt.

Optionspreise sind häufig zufällig in ihrer Reihenfolge. Der Iterationstest von Wallis-Moore testet die Nullhypothese der Zufälligkeit der Reihenfolge (vgl. z.B. Rinne, S. 564ff.). Eine Iteration (engl.: run) ist hier eine Folge identischer Ungleichheitszeichen bei den Beobachtungen:

\[ Y_1 < Y_2 < Y_3 > Y_4 > Y_5 < Y_6 > Y_7 > \ldots \]

Mit der Anzahl \( R \) dieser Iterationen berechnet man

\[ R^* = \frac{R - [(2(N - 1) - 1)/3]}{\sqrt{16(N - 1) - 29}/90} \]

Für \( N > 25 \) ist \( R^* \) approximativ standardnormalverteilt. Die Nullhypothese der Zufälligkeit ist also auf dem Signifikanzniveau \( \alpha \) abzulehnen, falls

\[ \Phi(|R^*|) > 1 - \alpha/2 \]
Das empirische Signifikanzniveau, auch p-Wert genannt, lautet
\[ \alpha = 2 \cdot (1 - \Phi(|r^n|)) \]


Aus dem vorigen Abschnitt ist bekannt, dass bei \( N = 30 \) Preisen insgesamt zunächst \( n^* = 12 \) Preise beobachtet werden sollen. Ab diesem Zeitpunkt (einschließlich) kommt es auf die relativen Range an. Die folgende Tabelle zeigt die Zeitpunkte \( n \geq n^* = 12 \), die relativen Range \( r_n \) und die — in der Realität nicht bekannten — absoluten Ränge \( \pi(n) \):

<table>
<thead>
<tr>
<th>( n )</th>
<th>( r_n )</th>
<th>( \pi(n) )</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>12</td>
<td>26</td>
</tr>
<tr>
<td>13</td>
<td>11</td>
<td>23</td>
</tr>
<tr>
<td>14</td>
<td>14</td>
<td>27</td>
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<tr>
<td>15</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>16</td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td>17</td>
<td>15</td>
<td>28</td>
</tr>
<tr>
<td>18</td>
<td>13</td>
<td>25</td>
</tr>
<tr>
<td>19</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>20</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>21</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>22</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>23</td>
<td>1</td>
<td>8</td>
</tr>
</tbody>
</table>

Man erkennt, dass in diesem konkreten Beispiel zum Zeitpunkt \( n = 23 \) die Option verkauft wird, weil dann erstmals der relative Rang 1 auftritt. Im Beispiel führt dies dazu, dass man den achthbesten aller 30 Werte trifft.

**Literatur**


Abstract

This article is a brief introduction to Ibn Khaldūn and his contribution to economy. It sets its focus on the factor risk and tries to highlight some thoughts about this subject, leading us from Ibn Khaldūn’s work to the modern insights of the book “Why nations fail”. What are the reasons for income inequality? What are we actually talking about? And which lessons can we take out of this?

Keywords: Ibn Khaldūn, Income inequality, risk

JEL Classification: H8, H89

1. INTRODUCTION

I will use this limited space on this few pages to introduce to you Ibn Khaldūn, one of the fathers of economic thought. As Ibrahim Oweiss, professor for economics of the Georgetown University, states in his essay: “His significant contributions to economics […] should place him in the history of economic thought as a major forerunner, if not the “father”, of economics, […]. Not only did Ibn Khaldūn plant the germinating seeds of classical economics, whether in production, supply, or cost, but he also pioneered in consumption, demand, and utility, the cornerstones of modern economic theory” (Oweiss, n.d.).

First of all, I will give a brief introduction to his life and to his important work the Muqqadimah (trans. Introduction). This book surprisingly was included in the list of 14 books you should read in 2015 by Facebook CEO Mark Zuckerberg and was vividly commented by users on this social network. At the end we will see, if we can get some lessons out of this interesting material.
2. IBN KHALDŪN – HIS LIFE AND HIS CONTRIBUTION TO ECONOMY

2.1. His life – brief overview

Ibn Khaldūn is regarded as the founder of modern historiography, sociology and economics. He was born in Tunis the 27th of May 1332 AD. His life can be divided into three periods. The first 20 years comprise his childhood and education. He was educated very young and studied grammar, poetry and jurisprudence. The next 23 years are dominated by his involvement in study and political affairs. So he started his public life at the age of 20 and became secretary of the Sultan of Fez (Morocco). His life was very turbulent and after losing the favor of the Sultan he spent two years in prison. This episode did not do any harm to his political career and so we find him appointed in 1362 AD as ambassador for the king of Granada to the King of Castile, Peter the Cruel and afterwards he became Prime Minister of a Sultanate in Algeria. In the final period, the last 31 years, he worked as a teacher and judge. Political affairs and conspiracy were his followers during his work for different political leaders. He became tired of all this political plotting and retired from public office and started writing his work around 1375 AD. When he emigrated to Egypt around 1379 AD he started teaching and become a judge working for the Mamluke Sultan. The Sultan took him 1400 AD to Damascus where Ibn Khaldūn had the possibility to meet Tamerlane, the founder of the Timurid Empire, whose army was threatening the city. We will come back on this episode later. He died the 16th of March 1406 AD and was buried in Cairo.

2.2. His work

Ibn Khaldūn is best known for his work the Muqqadimah (introduction) in which he describes a theory of production, distribution, value, money and prices (Boulakia, 1971). Actually this “book” is only part of a larger work with the title Kitāb al-‘Ibar, a Universal History, consisting of seven volumes which themselves appear in three large books. Book one is the introduction (Muqqadimah), book two and three concentrate on the history of the Arabs and the Berbers and in the last volume we find an autobiography of Ibn Khaldūn. The major aim of his work was to make history a science and his scientific analysis led to the conclusion that the foundations for a rising dynasty were solidarity
and the availability of money. The historical process is considered to be cyclical and not linear in his case.

The Muqqadimah itself can be divided into six parts dealing with:

1. Human society
2. Rural civilizations
3. Forms of governments and different institutions
4. Society of urban civilization
5. Economic facts
6. Science and humanity

Many of his ideas are based on his political knowledge and he uses his knowledge in order to explain how governments and civilizations work.

3. INCOME INEQUALITY – IN THE MUQQADIMAH

The major question really is: Why in fact do we have income inequality? It is obvious, that societal and economic forces form the base for the unequal distribution of resources and prosperity. Following Ibn Khaldūn the income inequality is based on following factors:

1. **Work**: “Affluence comes to those people who work and produce these things by their labor”. So working people produce things that are bought by others and people that do not work, do not receive wages.

2. **Chance**: This factor can increase the wealth of a person. So people that do not spend a lot of effort can get a higher income if the market fluctuations are favorable.

3. **Status and power**: Wealth also depends on the rank and the special interest of an individual which depend on their rank and their power. They can create more wealth and more income for themselves without even working and this leads to the exploitation of other individuals who have to work for him.

4. **Corruption**: In the free market we can find traders that manipulate the market with methods that actually are unlawful. The government plays a crucial
role in getting rich by corruption because it actually should be the regulator of the markets but the government overlooks these actions.

5. Inheritance: You can get rich without working if you are heir of someone or a family who accumulated wealth over a long time.

6. Risk: You have to take risks in order to be the first in a certain field.

As we can see, Ibn Khaldūn sets the base for his own theory about income inequality. He already shows a profound understanding of poverty as a multi-dimensional problem. So the lack of work does not make you poor, if you have status, power or are rich by inheritance. On the other hand, you can have a good work, but if the market fluctuation is not favorable you can become poor. If one of this factors changes in a way, that is not good for you, you can lose everything and find yourself at the end of the social ladder. The only thing no one can influence but you, is risk. Risk requires a certain personality and is a completely self-directed action you either take or not. So, even if all other factors are not so good for you, risk always can be your loyal companion and the biggest risk would be not taking any risk at all. What is actually really new in his observations is his “risk factor”. With this Ibn Khaldūn can be seen as one of the forerunners of business theory and especially of the role of the entrepreneur in the economic world. This is a revolutionary momentum in his work long before Cantillon (1755) and Schumpeter (1934).

The above mentioned factors are valid till today in order to reach prosperity and we get faced with this factors every day. Maybe today it would be necessary to add another point to this list: Information. The one who holds the information has certain advantages compared to the others. This does not mean, that information was not an important factor during the time where Ibn Khaldūn lived but it seems it was not considered that important as today where our personal data actually is one of the most precious goods in the World Wide Web. Today information is a much more visible factor due to our inflationary use of Internet and so it is not very surprising, that also perceived factors of poverty can suffer modifications or amplifications. I am sure, that a further discussion would bring other points to the surface or also oblige us to modify some of the mentioned factors.
4. LESSONS FOR THE WORLD

Let us take a look at the two countries that are forerunners for the model of the market economy: Germany and the USA. Both countries are facing the problems that were analyzed by Ibn Khaldūn nearly 700 years earlier. We cannot deny that. Income inequality, poverty and other economic problems are daily business.

In the Country Notes for Germany from 2008 and 2011 the OECD highlights, that income inequality and poverty “have grown faster in Germany than in any other OECD country” and that it “has risen sharply [in Germany] since 2000”.1 In the US income inequality and relative poverty have increased over the past years, so that their numbers are under the highest in the OECD. But what are the reasons for these circumstances?

Ibn Khaldūn wrote in his 14th century work, that more “civilized” people can be found in temperate zones. This also influences in wealth since he says, that in the temperate regions you can find more science, crafts or political leadership. Poverty is till nowadays linked to climate obliging us to divide the world in a moral geographical way. It is ironical, that this moral geography influenced in works of modern scientist labeling the Arab Muslim civilization that had produced Ibn Khaldūn as inferior to our European “temperate” civilization (Whitman, 2008, p. 14). Is this “moral geography” actually part of our modern knowledge-base or is it just based on prejudices?

The differences between rich and poor countries are not the sole fruit of the warm climate in certain world regions, but we cannot deny, that ground and climate seem to influence the economy of the “warmer regions”. Another crucial factor that leads to differences between rich and poor states are doubtlessly the political and economic institutions which have the power in every country. Here we have to make a distinction between integrative institutions and exploitative institutions. The first type of institution can be found in the wealthy countries and stands i.e. for the democratic institutions that make their citizens be a part of the economic success. The second type are exploitative institutions where a so called “elite class” has the power over the society and this is the case in the poorest countries (comp. Acemoglu/ Robinson, 2013). So the biggest creators of poverty are exploitative governments.

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Also Ibn Khaldūn, like Adam Smith 350 years later, mentioned the important functions of the State in the economic life of his citizens. The State as an institution has the obligation to secure the well-being of society. Actually the state should be able to balance out those differences or at least be in the position to prevent the formation of bigger segregating disparities in society. But, this would mean a nonexistent interconnection between the political and the economical „Elite“. Recent examples like Berlusconi, Sarkozy or even Trump reflect exactly the opposite. Political influence is in many cases linked to economical influence (lobbyism) and vice versa. Detractors would go further and say that lobbyism is undermining democracy because the real exertion of influence takes place behind closed doors after the elections. A good example for this are the TTIP negotiations in Brussels. They will affect all citizens in the EU and will restrict the political decision-making scope of the EU in the future, but the details of the contract drafts are not accessible for the general public, which contradicts the philosophical principal of democracy.

For Ibn Khaldūn, just to get to the most important point in my opinion, the best State is what I would call a “minimalistic State”. A State with “minimal bureaucracy, minimum mercenary armies to keep law and order, and minimal taxation on its citizens to finance the activities of the State” (Karatas, 2006). Having these points in mind we really should ask us, why do we find income inequality and poverty in such “temperate countries” like the US or Germany? Are our governments really integrative institutions or did we shift in the course of history towards a “more exploitative institution”? Are the benefits of growth only available for a certain group in our society? Why are our governments not able to lower income inequality?

As you can see a lot of questions arise during reflection but the real lesson out of this is, that we can only make changes for us and for our society if we understand the exploitative mechanisms behind. It is not about you, as an individual, it is about us. About our future. About how we will live our lives in the future. It is all about the society as a team since the “whole is always greater than the aggregate of its parts” (Goodman, 1972, p. 253). In order to understand better what we can find in the work of Ibn Khaldūn concerning the “team”, we have to take a closer look at the terminus asabiyya. This is what in his opinion holds a group together and this concept is one of his major contributions to the theory of politics. Asabiyya, the “nerve” that holds a group together is actually the relation between individuals that binds them into effective groups (Good-
man, 1972). This is necessary because an individual cannot survive alone and *asabiyya* can only be reached, if an individual is able to:

- identify himself with the group.
- take responsibility within the group.
- be loyal towards the group.

These points in his opinion are the base for all social forms of cooperation and in fact for all political relations (Goodman, 1972).

But, *asabiyya* is not only responsible for the building of groups. It is logical, that throughout history, and underlined by the cyclical view of Ibn Khaldūn, we always experienced political changes. Also for this the “group” has the responsibility. When the sense of community suffers changes, also the political regimes start to change and *asabiyya* is the founding substrate of all kinds of political change and more it is an observable law of history and should therefore be considered also in the other social sciences (Goodman, 1972). Believing that social cohesion and an effective group are important for a good working wealthy society and the observation, that an individual cannot survive alone are surprising insights from a man that suffered a lot of ups and downs in his life and in his career. If we look back on the historical facts he wrote his *Muqqadimah* at the age of 43 and had suffered before already the imprisonment of two years. Would he have changed some parts of his work at the age of 68, when he was ordered to Damascus? I think no, because what he experienced in Syria is actually again underlining his proper observations. So let’s go back to the siege of Damascus. Tamerlane standing in front of the gates of the city and Ibn Khaldūn, inside the city, was left behind in this situation, together with some of his associates. So he took the risk and decided to meet Tamerlane. Since the guards did not want to let him pass through the city gates he was lowered in a basket from the walls. It was the first interview of several meetings he had with the Mongol conqueror and since the city refused to surrender Ibn Khaldūn remained in the camp of Tamerlane. The city was plundered and burned but Ibn Khaldūn could return save to Egypt.

So it is again the factor “risk” playing a decisive role because it is self-directed and in this case it not only made Ibn Khaldūn rich in terms of knowledge expansion but it also saved his life and the life of his companions. So, if you want to create something really new, in this case, the interview with Tamerlane, you have to take the risk. Ibn Khaldūn not only wrote it down in his work. He was
able to take the “innovative role” as a historian to break out of his situation and to offer the market new insights to one of the giants of history. He carried the risk from the beginning and became an innovator in his subject and this is what Cantillon and Schumpeter clearly state as an important pillar of a successful entrepreneur.

5. CONCLUSION

This article is only a small clip of the economic and political thoughts which we can find in this work of the fourteenth century which is labeled by historians like Toynbee as “undoubtedly the greatest work of its kind that has ever yet been created by any mind in any time or place” (Toynbee, 1935). One of the purposes of Ibn Khaldūn’s study of economics is to show the relation between economics and welfare and promote welfare of “masses” instead of welfare of individuals (Ahmad, 1953). Every person wishes to live a decent life where workforce has a certain value. But if we look again on the numbers for Germany we can see clearly, that we are experiencing an increase in precarious jobs with extremely low wages creating “working poor” and with a big loss of protection of workers’ rights and security. The number of this type of jobs has nearly doubled between 2001 and 2010 (Oxfam Case Study, 2013). This leads to inequality in income and wealth distribution and will be a great harm for our society. There are two important factors that can help us to overcome this crisis. And a crisis is, following Gronemeyer, “always the result of a lack of innovation” (Gronemeyer, 2000, p.6). First of all, we need more “team-work” where people meet at the same level and are able to unmask exploitative mechanisms which are patronized by the governmental structures. Even Aristotle observed, that “poverty is the parent of revolution and crime” and I would go further stating that the mother of poverty is exploitation. And, we need more “risk”. People with new ideas, even if these ideas might seem weird at the beginning, deserve a chance.

Bibliography


IMPLEMENTATION OF GEOGRAPHIC INFORMATION TECHNOLOGY IN MARKETING – GIS MARKETING

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Abstract

Technological progress and the use of computers have enabled numerous changes in all areas of human life including the field of cartography and marketing. Although developed independently from each other, marketing as science and geographic information systems (GIS) are experiencing an upturn from the last quarter of the 20th century onwards. With current technology as an enabler, society’s reliance on more precise and accurate spatial data is rapidly increasing, even though citizen awareness of this trend is to some degree lagging its implementation (Morrison, 1995.). Moreover, the introduction of GIS in the mapping process has produced a completely new type of user different from the traditional map user (Capriolli, 2003.). The process of globalization and rapid technological progress are solid foundations for the fusion of the above mentioned sciences in the area named geomarketing. The concept of GIS systems is not a novelty on the market, but wider use in business decision making has not taken the expected momentum. Several reasons have...
caused the current situation. Users, including businesses, yield before the tool’s complexity and often seem not to recognize its possibilities and its vast potential on the market. It is often seen as a tool used by Google Maps or services such as Navigation Systems in cars (GPS). Although Google is used as a provider of useful information to the companies for the development of maps, specialized software for geomarketing analysis allows companies to build far more complex content that will be able to visually present and analyze given data. Also, the main application in business sector is within the area of urban planning and its area of logistics but the possibilities are vast and GIS tools should be utilized more in the future.

**Keywords:** geographic information technology (GIS), geographic information system marketing (GISM), marketing mix

JEL Classification: R5, R58

**IMPORTANCE OF GIS IN MARKETING MIX ELEMENTS**

Every company bases its performance and potential success on carefully designed elements of marketing mix that are expressed in conceptual form that includes product, price, distribution and promotion. Geographic information is the key to better decision-making; just about everything a community, business, or public agency does, whether in day-to-day operations or long-term planning, is related to its geography (Lennox et all, 2012.). Closer examination of four marketing mix elements together with three additional elements included in the marketing of services - People, Process and Physical evidence (Boom and Bitner, 1981.), brings us to the conclusion that geographical position and the answer to the question “where” has a strong influence on each of the marketing mix elements. A great asset of GIS as a marketing tool is that it is not primarily focused on the customer but on the producer thus the company. Unfortunately, as a resource it is underused when it comes to its utilization for better positioning of companies on the market. A great omission in the business strategy would be not to integrate geospatial information in decision making and everyday business since geo information could be a highly relevant resource for future success.

As never before, all aspects of business, sales and marketing are intertwined, integrated with each other and within society thus it is crucial to create a holistic approach to the market, its sales and marketing efforts (Mcdonald and
By using GIS as a tool, companies could make more timely and cost effective decisions. Finding the optimal and most efficient way of doing business is one of the company’s goals due to adverse market conditions and business risks that all types and sizes of firms are facing. The method and tool that could provide more comprehensive and holistic approach, where decisions are additionally supported by visual solutions, chosen direction propped by quantitative and qualitative explanations is the GIS. The fact that certainly favors the use of GIS as a business tool is the range of free or reasonably priced digital spatial data available to entrepreneurs. There are sources such as digital atlas of Croatia (cities depicted down to street and house number level), census which provides a large number of attributive data (socio-economic and demographic data at the county, town and village level, population, age, number of family members, professional qualifications). Moreover, companies often have considerable spatial data in their databases (information obtained during the signing of the contract, different subscriptions, information collected through credit cards or customer clubs) that can be utilized for better planning of marketing mix components, i.e. for the further development of the company.

Understanding the demographic and other characteristics of target group members connected to spatial data is crucial when calculating the return of investment and possible success and growth of the company.

THE ADVANTAGES OF USING GIS TOOLS IN MARKETING

GIS may be characterized as a computer-based system consisting of hardware, software, data and applications allowing for integrated digital capture and editing, storing and organizing, modeling and analyzing, presenting and visualizing spatially referenced data of multiple time-dependent and time-independent media (Bill, 1999.). We can observe it as more than a computer database and a set of tools. GIS is a philosophy of information management and integration of spatial analysis techniques and digital spatial data with computer technology.

There is almost no human activity where there is no need for spatial display and data analysis. GIS is not a system that will state what to do, but provide an opportunity for a better organization and analysis of information as well as sup-
port for making the right decision (Jurišić and Plaščak, 2009.). Geospatial data are not intended to be miniature replicas of ‘reality’ (Veregin, 1999.). The sole application of GIS is intended to improve information management, contribute to higher quality of parameter analysis and to increase efficiency of companies. The need for better service, greater accessibility and better understanding of consumers slowly but surely will, in the long run, encourage companies to use geomarketing.

Producers of geospatial data are aware of the limitations of these data (Veregin, 1999.) but also the power that lies within the integration of different data types and possibilities to make simple and more complex inquiries regarding the location of an object or possible suitability of an area or a terrain for a certain cause. Possibilities offered by GIS tools are particularly evident in the data modeling when answering complex “what if” questions. An example is the answer regarding road construction and its impact on the traffic. The user is granted with the possibility of visual presentation thus a better understanding of analysis and/or simulation results. Ultimately, it will probably lead to better problem solving or selection of the most optimal solution for companies. Complexity of layers in the map is an important asset. Data are incorporated from various sources such as land registry departments; urban plans and associated planning acts that define the area plans and space usage; areas of particular significance; guidelines for the development of an area, preservation of natural and/or cultural heritage; database of state roads, regional roads and the pathways of local importance.

In addition, GIS comprises spatial data of regional importance that contain infrastructure of public companies: Utilities (water, sewer, garbage, landfill sites and cemeteries); transport (road, traffic signaling); Electric Power Grid (high, medium, low voltage network); Water Management (watercourses, wells, water management facilities); Energy (gas).

GEOMARKETING

Geomarketing allows the formation of spatially oriented databases and establishment of a correlation between geographic location and any information which can be assigned to spatial dimension. It is primarily focused on modeling and analysis of information for decision-making and visualization of strategic
information, which should result in the selection of the best possible business action.

Based on these analyses, strategic decisions on the market are made based on the objectives, mission and goals of the company. So, the market to be served and products to be developed are determined, as well as prices, locations of activities, promotional activities, and the implementation of the strategic plan of activities is monitored and evaluated. (Jurišić and Plaščak, 2009). The scope of geo-marketing is wide and opportunities are ranging from sales management (analysis and selection of potential location, market segmentation, monitoring of market shares, sales network optimization, optimization of routes, etc.) to the marketing management (demographic and socio-economic analysis, identification of customers and their characteristics, presentations, reports, etc.).

Geomarketing can also process internal company data (addresses of clients, sales figures, etc.) and data that are characterizing consumers (age, qualifications, etc.) with a spatial analysis of consumer activity which ultimately can serve as a foundation for decision-making and determine the direction of the business or marketing mix elements.

The far-sighting firms while conducting the marketing do not limit it to the simple ‘geosegmentation’ and ‘geopositioning’, but try to take into account all peculiarities of geographic environment of the place, including its regional development perspectives, economic-geographical location, and environmental awareness of population (Anderson, 2004.).

GEOMARKETING SYSTEMS

Geomarketing consists of marketing support systems and decision making (MDSS); Geographic Information System (GIS); the geographical database (linked to GIS); Expert System (ES) and database (associated with the ES). MDSS (Marketing Decision Support Systems) consists of information technology, marketing data and abilities for data modeling that allows the system to predict the outcomes of various scenarios and marketing strategies and also to answer the “what if” questions. With the MDSS a company can collect and interpret relevant information and turn them into the basis for management level decisions. Marketing support system and decision-making associated with GIS form a geomarketing system to support the decision-making - Geomarketing
Decision Support System (GDSS), which enables the analysis of geographic information by including the spatial components in models [bib.irb.hr/datoteka/246399.lsinosic.pdf].

Expert System (ES) is a computerized system that mimics the human ability to make decisions. It is designed to solve complex problems based on knowledge as an expert and not by following the programmed templates that is common in conventional programming. ES is one of the first successful forms of AI software. When using GIS tools, by selecting the object or feature on the map, the corresponding row in the table with the attributes is selected and vice versa. After the attributes are associated with the data layer, it is possible to use the analytical abilities of GIS in the form of selective display of certain facilities in the area based on the established criteria.

GIS tools provide a way to represent the different data in a cartographic and implementation databases (Cliquet, 2006). It displays a three-dimensional surface (the globe) on two-dimensional surface (computer monitor). By using GIS tools, marketing analysis can provide information from which it is clearly visible what product and/or services are the most suitable according to the needs of the target group members in a specific area.

GEOMARKETING IN COMPANIES

Companies are investing substantial financial amounts in the promotion and promotional campaigns which is certainly a good reason for finding the most efficient advertising channel. Companies are doing everything in their power to ensure that advertisements reach a potential customer. It is the sole aim of advertising. The main objective of all commercial campaigns is to increase brand awareness and create a greater consumer preferences toward a product or service. Geomarketing provides the possibility to enhance business performance through a better understanding of consumers and their socio-demographic categories (age, gender, profession, etc.). Being aware of the fluctuating trends in consumption, in terms of today’s fast pace open market economy, is of undeniable importance for the company since it can gain advantage while exploiting that market potential. Geomarketing provides the company with a possibility to perceive the market in a new way because it has the power to display the data in a different, animated way which is impossible in case of tables and graphs, hence can serve as a common foundation of different spatial data when it comes to dis-
AN EXAMPLE OF BUSINESS PROBLEM SOLVING
- REDUCING THE COST OF MARKETING CAMPAIGNS USING GIS TOOLS

Task:
Printed advertisements, promotional leaflets and direct marketing will be used for the new marketing campaign. Based on the location of targeted consumers, possible customers and potential business partners how to best optimize marketing channels?

Solution:
Using the display of traffic in a given interval on the map, it is possible to spot the areas that are underutilized and represent an opportunity that company could benefit from by investing additional efforts in marketing. It is possible to reduce costs and increase efficiency of the funds provided for marketing activity by using this method. An illustration of the problems and potential areas of activity helps the adjustment and modification of marketing strategy of the company to the actual conditions in the targeted area. [www.neomapper.com]. On the basis of geomarketing analysis, the company selects a way in its media strategy to enable its product to reach a greater number of so-called useful individuals or consumers. Choosing the right media company will spread
the advertising message across the desired geographical area at a lower cost. The company cannot influence the spatial distribution of demand but may strive to meet the needs of the targeted market in geographical area by placing its products. When demand involves consumer behavior and their preferences for the product, behavioral data and preferences get spatial dimension.

**Picture 1: Turnover and income from distributive trade**

*Source: (https://bib.irb.hr/prikazi-rad?&rad=796991)*

**CONCLUSION**

Geomarketing allows analyses of measurable parameters that ultimately provide better marketing performance of a company. The use of spatial data provides the creation of useful cartographic representations in marketing and other decisions. Geomarketing is the key to decoding the significance that territory has on the way that companies operate. A better understanding of the connection between the consumer and the space (geographic location) opens many possibilities for innovation in the approach to marketing which might increase the competitiveness and other advantages of enterprises on the market.

The main advantage of GIS tools is the adequate adaptation to the needs of consumers, finding the most profitable future markets through access to demographic, socio-economic and other relevant circumstances in the targeted area.

From all the aforesaid we can conclude that the role of geomarketing can have a major impact on all strategic decisions made by a company since it can give a great contribution to the understanding of customers, attraction of new customers, market expansion, increase of the frequency of purchase and reve-
nue per purchase, reduction of operational costs and higher level of satisfaction and long-term customer loyalty.

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Abstract

Nowadays, the media heavily reports on white-collar crime, especially accounting fraud. As public awareness about accounting fraud continues to grow, the role of CPA becomes seemingly more important.

Attributable to the increase in the number of accounting fraud cases and the fact that fraud can cause an enterprise a tremendous amount of loss; the auditing work of a CPA is highly valued.

Typical perpetrators of white-collar crime usually act out due to the same pattern: „motivation“, „opportunity“, and „subjective justification“.

EINFührung

In jüngster Vergangenheit wurde oft von Bilanzskandalen, bedingt durch bewusste Manipulationen in der Rechnungslegung, berichtet. Spätestens nachdem in der Presse ausführlich von Delikten bei Unternehmen wie Flowtex, Toshiba, Siemens oder auch Enron berichtet wurde, stieg das Problembewusstsein und die Bedeutung, die Accounting Frauds in Unternehmen zugemessen wurde.

In wirtschaftlich schwierigen Zeiten steigt für die Unternehmen ebenfalls das Risiko von bewussten Bilanzmanipulationen, welche nicht zuletzt durch gesetzliche Vertreter oder Aufsichtsratsorgane ausgeführt werden, dem sogenannten „Management Override“. Dies bedeutet, dass ein funktionierendes Internes Kontrollsystem des Unternehmens bewusst und zielgerecht außer Kraft gesetzt wird, um genau diese Handlungen mit Bezug auf den Jahresabschluss auszuführen und simultan zu verdecken.

Hintergrund für eine solche Tat kann z.B. die Erreichung bestimmter Kennzahlen sein, die Kreditgebern vorgelegt werden müssen (Covenants), oder auch die allgemeine Täuschung der Adressaten hinsichtlich des Erfolgs des Unternehmens.


WIRTSCHAFTSKRIMINALITÄT IN DEUTSCHLAND

Wirtschaftskriminalität ruft in Deutschland durchschnittlich die Hälfte aller durch Straftaten entstandenen Schäden hervor, obgleich sie lediglich zwischen ein und drei Prozent der gesamten Straftaten darstellt. Nicht zu unterschätzen sind auch die darauf resultierenden hohen Schadenssummen. Im Jahr 2011 lag dieser Betrag bei 4,1 Milliarden Euro.

Insbesondere durch die Qualität der Straftaten, welche durch aufwendige Handlungen verschleiert werden, zeichnet sich die Wirtschaftskriminalität aus.
Typische Delikte in diesem Bereich sind beispielsweise Veruntreuung, Insolvenzdelikte, Korruption oder auch Falschbilanzierung.

Der Begriff Wirtschaftskriminalität wird allgemein definiert als „Summe der Straftaten, die in Unternehmen, an Unternehmen und durch Unternehmen begangen werden“, wobei bisher keine Legaldefinition dazu existiert.

Die polizeiliche Definition richtet sich nach den in § 74c Abs. 1 Nr. 1-6b Gerichtsverfassungsgesetz aufgelisteten Delikten. „So liegt eine wirtschaftskriminelle Handlung dann vor, wenn zur Beurteilung einer Straftat besondere Kenntnisse des Wirtschaftslebens erforderlich sind und eine Wirtschaftsstrafkammer den Sachverhalt beurteilen muss“, wie beispielsweise bei Verstößen gegen die Rechnungslegungsvorschriften.

In Deutschland wird speziell das Frisieren der Bilanz nach wie vor als Tabu angesehen. Zu diesem Ergebnis kommt eine Studie der Prüfungs- und Beratungsgesellschaft Ernst & Young, für die mehr als 2700 Vorstandsvorsitzende, Finanzvorstände, Leiter der Revision, der Rechtsabteilung und des Compliance Managements aus 59 Ländern befragt wurden, davon 50 aus Deutschland. Nur 4 Prozent der Befragten in deutschen Unternehmen bejahten die Frage „Kann die Falschdarstellung von Finanzergebnissen Ihrer Ansicht nach gerechtfertigt sein, wenn es dazu beiträgt, ein Unternehmen über einen Wirtschaftsab- schwung zu retten?“.

Im Gegensatz dazu wird die bewusste Falschdarstellung von Finanzergebnissen in Indien von fast jedem vierten Manager als potentiell angemessen angesehen.

TÄTERPROFILE UND TATGELEGENHEITEN

Eine kriminelle Handlung in Form von Täuschungen wird üblicherweise von Tätern begangen, wenn drei bestimmte Kriterien vorliegen, nämlich die des „Fraud Triangles“.

![Diagramm: Motivation, Gelegenheit, Fraud Risk, Innere Rechtferigung]

Quelle: Eigendarstellung in Anlehnung an ISA 240
Kriterium 1: Persönliche Motivation

Der Druck von außen oder anderen Personen, oder auch ein bestimmter finanzieller oder persönlicher Anreiz liegt vor, um die Tat zu begehen. Dies ist etwa dann der Fall, wenn das persönliche Gehalt an den Unternehmenserfolg gekoppelt ist.

Kriterium 2: Die Gelegenheit

Die Gelegenheit zur Täuschung ist durch nicht funktionierende, oder selbst deaktivierte Kontrollmechanismen gegeben.

Kriterium 3: Die persönliche Rechtfertigung

Die innere Einstellung und die eigene ethische Wertvorstellung erlaubt das Begehen der Tat.¹

Ein Viertel der Täter stammt aus dem Top-Management oder Bereichen wie Finanzen oder Verkauf des jeweiligen Unternehmens und ist bereits einige Jahre im betroffenen Unternehmen als Arbeitnehmer tätig. Sie weisen meist ähnliche Charakterzüge vor. 70 Prozent der Täter sind männlich und im Alter zwischen 36 und 45 Jahren. Des Weiteren sind sie gebildet und im Unternehmen respektiert.²

In Bezug auf die Tätausführung werden einerseits der „Gelegenheitsgreifer“ und andererseits der „Gelegenheitssucher“ unterschieden.³ Der Gelegenheitsgreifer ist meist seit längerer Zeit im Unternehmen und verfügt über eine höhere Position. Durch das im Unternehmen erlangte Wissen ist es ihm möglich, Lücken in der Kontrolle zu erkennen und diese zugunsten seiner Tat zu nutzen. Der sogenannte Gelegenheitssucher ist äußerst zielstrebig und agiert mit einer langfristigen Planung. Bei ihm liegt eine klare Tendenz zur kriminellen Energie vor.⁴

Wirtschaftskriminelle unterscheiden sich nach Risikotypen:

Typ 1: Der Chronische

Er sucht gezielt Gelegenheiten und ergreift diese. Er ist der einzige Tätertyp mit eventuellen Vorstrafen.

³ Vgl. Prof. Dr. Hendrik Schneider, (o.J.), S.10.
Typ 2: Der Krisentäter

Ist ein Gelegenheitssucher oder Gelegenheitsgreifer. Er wird durch ein besonderes berufliches oder privates (Krisen-) Ereignis zum Täter.

Typ 3: Der Abhängige

Er ist ein Gelegenheitssucher. Ebenso ist er ein Tätentyp welcher oftmals weisungsgebunden handelt.

Typ 4: Der Unauffällige

Ist ein typischer Gelegenheitsgreifer. Die Tat erklärt sich nur aus der Tatgelegenheit, ansonsten ist er sozial unauffällig.

WIRTSCHAFTSKRIMINALITÄT IN DER BUCHFÜHRUNG

In den Prüfungsstandards basieren viele Handlungen des Abschlussprüfers im Rahmen der Jahresabschlussprüfung auf dem Punkt der Risikobeurteilung. So wird zunächst die Wahrscheinlichkeit für bewusste Falschangaben eingeschätzt, um diese durch spätere Prüfungshandlungen konkretisieren zu können. Die Risikobeurteilung beinhaltet die Identifikation und Beurteilung von Risiken, welche zu wesentlichen Falschangaben aufgrund von Bilanzmanipulationen führen können.5


Unter den Begriff Bilanzmanipulation fällt sowohl die Bilanzfälschung als auch die Bilanzverschleierung. Hierbei handelt es sich um Verstöße gegen Ge-

5 Vgl. IDW PS 300, Tz. 14 und IDW PS 210, Tz. 22-23.
setze oder die Grundsätze ordnungsgemäßer Buchführung. Es werden insbesondere die Punkte Bilanzwahrheit und Bilanzklarheit missachtet.\(^7\)

Bewusst vorgenommene Fälschungen in der Buchführung werden als Accounting Fraud bezeichnet. Diese Bezeichnung umfasst die Verstöße des IDW PS 210. Darunter zählen beispielsweise Buchungen ohne entsprechenden Geschäftsvorfall, unterlassene Buchungen, unerlaubte Änderungen der Buchführung oder die bewusst falsche Anwendung von Rechnungslegungsnormen.\(^8\)

**DIE VERANTWORTUNG DES ABSCHLUSSPRÜFERS**

In welcher Hinsicht der Abschlussprüfer Verantwortung für die Aufdeckung von Bilanzmanipulationen innerhalb der Jahresabschlussprüfung trägt, ist gesetzlich und innerhalb der berufsständischen Verlautbarung konkretisiert. Den Worten des § 317 Abs. 1 S.3 HGB zufolge, ist die Jahresabschlussprüfung so auszulegen, dass Unrichtigkeiten und Verstöße gegen [die gesetzlichen Vorschriften und die ergänzende Bestimmungen des Gesellschaftsvertrags oder der Satzung], die sich auf die Darstellung des sich […] ergebenden Bildes der Vermögens-, Finanz- und Ertragslage des Unternehmens wesentlich auswirken, bei gewissenhafter Berufsausübung erkannt werden.“ Eine lückenlose Prüfung ist dagegen auf Grund des Konzeptes der hinreichenden Sicherheit nicht erforderlich und wirtschaftlich nicht darstellbar, so dass auch stets das unvermeidbare Risiko bestehen bleibt, trotz ordnungsgemäßer Prüfungsplanung und -durchführung wesentliche falsche Aussagen unentdeckt zu lassen.\(^9\)

**DIE BEDEUTUNG DES PS 210 UND ISA 240**

Für wirtschaftskriminelle Handlungen in der Buchführung werden oft auch die Begriffe Unregelmäßigkeit, deliktische Handlung, dolose Handlung oder auch fraudulente Handlung eingesetzt.\(^10\) Letzterer Begriff wurde an die Worte des IDW angelehnt. Dieses unterscheidet zwischen Gesetzesverstößen, welche

\(^7\) Vgl. Schiel, Andreas (2012), S.38ff.
\(^9\) Vgl. IDW PS 200, Tz.24 und IDW PS 210, Tz.19.
die Rechnungslegung betreffen und solchen, welche die Rechnungslegung nicht tangieren.

Quelle: IDW PS 210


Basis einer Abschlussprüfung ist zwar die kritische Grundhaltung des Abschlussprüfers. Das bedeutet, dass der Prüfer gewahr sein muss, dass die ihm vorliegenden Unterlagen Fehler, Täuschungen Vermögensschädigungen oder sonstige Gesetzesverstöße enthalten können – die Unterlagen also nicht den Tatsachen entsprechen. 12 Ein über diese kritische Grundhaltung hinausgehendes besonderes Misstrauen ist aber nicht angebracht. 13 Hierfür genügt die theoretische Möglichkeit, dass ein relevanter Fehler in der Rechnungslegung aufgetreten sein könnte, nicht. Anders verhält es sich freilich, wenn der Prüfer Hinweise vorliegen hat, die einen konkreten Anfangsverdacht begründen.

11 Vgl. IDW PS 210, Tz.58.
12 Vgl. IDW PS 210 Tz. 17.
Es ist zu beachten, dass eine Jahresabschlussprüfung keine Unterschlagungsprüfung darstellt und das primäre Ziel nicht darin besteht, Verstöße aufzudecken. Der Prüfer sucht deshalb nicht gezielt nach Unrichtigkeiten und Verstößen, da es sich eben nicht um eine Unterschlagungsprüfung, wie irrtümlicherweise oft angenommen, handelt. Eine kritische Grundhaltung des Prüfers gegenüber dem Unternehmen ist jedoch (wie bereits erläutert) die Basis jeder Jahresabschlussprüfung und somit unabdingbar. Sowohl deutsche als auch internationale Prüfungsstandards verlangen vom Abschlussprüfer, dass wesentliche Falschangaben mit hinreichender Sicherheit festgestellt werden.\textsuperscript{14} Wesentliche Falschangaben stellen nicht nur Accounting Frauds dar, sondern beinhalten ebenfalls unbewusste Unrichtigkeiten.\textsuperscript{15} Gezielt nach Manipulationen und Falschbewertungen wird in einer Accounting Fraud-Prüfung gesucht, welche eine Sonderprüfung darstellt und auf freiwilliger Basis durchgeführt wird. Sie dient der Prävention von Manipulationen im Unternehmen.\textsuperscript{16}

Bei der Einschätzung, ob Fraud-Risikofaktoren im Unternehmen vorliegen, können als Hilfe Red Flags (Warnsignale)\textsuperscript{17} eingesetzt werden. Dies sind exemplarische Sachverhaltsgestaltungen oder Umstände, die auf einen Anreiz bzw. Druck hindeuten oder eine Gelegenheit für Verstöße bieten.\textsuperscript{18} Jedoch hängt die Relevanz von Red Flags als Warnmechanismus bei den einzelnen Unternehmen von deren Größe, den Eigentumsverhältnissen, der Geschäftstätigkeit, der Branche und anderen Kriterien ab.\textsuperscript{19}

Red Flags zur Erkennung und Aufdeckung von dolosen Handlungen werden aus Daten, Sachverhalten und Tatumständen bekannter Fraud-Fälle gewonnen, die statistisch ein Muster aufweisen. Entsprechend der von Donald R. Cressey entwickelten Fraud-Triangel kann angenommen werden, dass beim Vorliegen eines ähnlichen Musters bei einem anderen Unternehmen eine Fraud-Risikokonstellation vorliegt.\textsuperscript{20} Red Flags kommt deshalb primär eine Unterstützungsrolle zu. Sie können sinnvolle Denkanstöße für das Prüfungsteam geben und zu einem frühen Zeitpunkt der Prüfung ein Warnsignal sein. Die Schluss-

\textsuperscript{14} Vgl. Schiel, Andreas (2012), S.44.
\textsuperscript{15} Vgl. Boecker, Zwirner (2012), S.2.
\textsuperscript{17} vgl ausführlich IDW PS 210, Tz. 35-37.
\textsuperscript{18} vgl ausführlich Häfele, M./Schmeisky, J. (2010), S 233 ff.
folgerung aus den festgestellten Warnsignalen obliegt jedoch der Einschätzung und Würdigung des Abschlussprüfers im konkreten Einzelfall.\textsuperscript{21}

Da die Prüfung einzelner Belege und Systemprüfungen Grenzen aufweisen, weil beispielsweise Belege mit krimineller Energie gefälscht worden sind oder das Management die Kontrollen umgeht, eröffnet eine gesonderte Fraud-Risikoanalyse einen objektiven Ansatz, Fraud-Muster zu erkennen. Subjektive Komponenten wie die Motivation und Moral von Mitarbeitern und die des Managements sind vom Abschlussprüfer nur schwer greifbar und deshalb kaum zu prüfen, auch wenn er durchaus indirekt Informationen darüber erlangen kann. Methodische Verfahren bauen dagegen auf den objektiven Gegebenheiten als Red-Flag-Indikatoren auf. Durch maschinelles Lernen (wie der Automatisierung der Analyse von Daten durch Einsatz von IT) werden objektiv die besten Indikatoren ausgewählt und aus bekannten Fällen eine Regel erstellt. Maschinelle Verarbeitungen haben zudem den Vorteil, komplexe Abhängigkeiten und Regeln zu identifizieren. Die daraus gewonnen Einsichten ermöglichen es, durch Beantwortung einiger gezielter Fragen eine verlässliche Aussage über das objektive Fraud-Risiko zu erhalten. Dieser sogenannte methodische Ansatz ermöglicht es, mit hoher Genauigkeit das Vorliegen eines Fraud-Musters zu erkennen. Der Ansatz objektiviert die Risikobeurteilung. Im Prüfungsprozess kommt dem eine (Früh-) Warnfunktion zu.\textsuperscript{22}

**FEHLERHAFTE BEURTEILUNG DES RISIKOS UND KONSEQUENZEN**


Wird das Risiko als zu hoch eingeschätzt, werden unter Umständen zu umfangreiche Prüfungshandlungen durchgeführt und/oder auch falsche. Diese Fehleinschätzung führt zu höheren Kosten für den Abschlussprüfer, da ein nicht gerechtfertigter Mehraufwand nicht in Rechnung gestellt werden kann. Zwar mag diese Fehleinschätzung unter Umständen zu einem Vertrauensverlust führen, was


möglicherweise zum Verlust des gesamten Prüfungsmandats führen könnte.\footnote{Vgl. Schiel, Andreas (2012), S.10f.}

Für die Aufdeckung von kriminellen Handlungen ist diese Fehleinschätzung aber nicht als negativ einzustufen, da sich in diesem Fall wohl die Möglichkeit, auf Unregelmäßigkeiten zu stoßen, tendenziell eher erhöhen wird.

Das Risiko wird als zu gering eingeschätzt, somit werden die Prüfungshandlungen nicht umfangreich genug ausgeführt oder gar die falschen. Hier besteht ein erhöhtes Risiko, dass Bilanzmanipulationen nicht aufgedeckt werden und ein uneingeschränktes Testat des Abschlussprüfers ausgestellt wird, obwohl Bilanzmanipulationen vorliegen. Hierbei ergeben sich u.U. immense Schäden für den Abschlussprüfer und sein Unternehmen. Im Falle einer Aufdeckung ist die Korrektur und deren Veröffentlichung unabdingbar.\footnote{Vgl. Schiel, Andreas (2012), S.11.}

Unabhängig in welcher Weise das Risiko falsch eingeschätzt wird, führt dies zwingend zu einer Ineffizienz der Prüfung.

**LITERATURVERZEICHNIS**


