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SELECTED PAPERS PRESENTED
AT 4TH INTERNATIONAL
M-SPHERE CONFERENCE FOR
MULTIDISCIPLINARITY IN
SCIENCE AND BUSINESS



M-SPHERE

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Promote multidisciplinary approach by encouraging and providing the circumstances to exchange of experiences and ideas from different disciplines, in order to further encourage scientific curiosity in research and practical work, with the aim of achieving positive change in all spheres of science and business – respecting multidisciplinary.

OBJECTIVES

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TABLE OF CONTENTS

DEVELOPING A BEST PRACTICE SOCIAL MEDIA MODEL FOR RURAL TOURISM SMES IN THE PEAK DISTRICT, U.K. NOËLLE O'CONNOR; TONY JOHNSTON	1
MULTIPLE NEIGHBORHOODS IN TABU SEARCH: SUCCESSFUL APPLICATIONS FOR OPERATIONS MANAGEMENT PROBLEMS NICOLAS ZUFFEREY	12
THE FINANCIAL INCENTIVES MANAGEMENT INCLINED TOWARDS ENTREPRENEURS AND ITS APPEARANCE ON E.U. COUNTRIES AND TURKEY A. NIYAZI ÖZKER	25
FACILITY MANAGEMENT AS A MOTIVATOR OF NEW ENTERPRENEURIAL INITIATIVES ALENKA TEMELJOTOV SALAJ; NIKOLAJ SALAJ	35
BITCOIN & CO: AN ONTOLOGY FOR CATEGORISING CRYPTOCURRENCIES JEFF HERBERT; MARTIN STABAUER	45
ON THE MICRODYNAMICS OF ENTREPRENEURIAL LEARNING AND EXISTENCE. DIALOGUES AND PLACES TO BE(COME) IN ENTREPRENEURIAL BA PRACTICE. ØYSTEIN RENNEMO; HÅVARD ÅSVOLL	56
CONSUMERS' AGE AND WORD OF MOUTH DRAŽEN MARIĆ; ALEKSANDAR GRUBOR; DRAGAN ĐURANOVIĆ	67
SERBIAN CONSUMERS' ATTITUDES AND BEER CONSUMPTION RUŽICA KOVAČ P. ŽNIDERŠIĆ; NENAD ĐOKIĆ; KSENIJA LEKOVIĆ	77
THE PROSECUTOR'S LEGAL STATUS IN COMPARATIVE LAW PERSPECTIVE HERKE CSONGOR	83
QUALITY OF EDUCATION AND EDUCATIONAL COMPETITIVENESS RENATA MARINKOVIĆ	91
TOURIST DESTINATION IMAGE IN THE NEW TECHNOLOGICAL ENVIRONMENTS: DIALOGISM UNDER THE PUBLIC RELATIONS GAZE. LUÍSA AUGUSTO; MARIA JOÃO SILVEIRINHA	97
THE IMPACT OF MONETARY AND FISCAL POLICY ON CONSUMPTION (NACE G 47.11), CONSUMER (CPI) AND PRODUCER (PPI) PRICES IN CROATIA DARKO KARIĆ	105
TERORRISM AS A THREAT TO A DEVELOPING GLOBAL SOCIETY ROMANA NOVOSEL PRKLJAČIĆ; ZVONKO NOVOSEL-DOLNJAČ	113
GAME PATTERNS IN THE MANAGEMENT OF RELATIONSHIPS BETWEEN BANKS AND BORROWERS OF MORTGAGE LOANS JORDANKA JOVKOVA	118
POTENTIAL OF EQUESTRIAN TOURISM IN PORTUGAL. NUNO MAGALHÃES; CRISTINA BARROCO; JOAQUIM ANTUNES	125
DETERMINATION OF PRIORITY SERVICE SECTORS IN REPUBLIC OF CROATIA ZRINKA LACKOVIĆ VINCEK; STJEPAN DVORSKI; VLADIMIR KOVŠKA	131
PERCEPTION AND INTENTION FOR BUYING PRIVATE LABEL IN PARTICULAR PRODUCT CATEGORIES AMONG MACEDONIAN CONSUMERS. EZENI BRZOVSKA; NIKOLINA PALAMIDOVSKA-STERJADOVSKA	138
'GIVE ME MY MONEY BACK' OR WHY THE CONSUMER RIGHTS DIRECTIVE CAN HARDLY DO WHAT IT IS SUPPOSED TO DO. MORTEN JARLBÆK PEDERSEN	147
DARK TOURISM: CONCEPTS, TYPOLOGIES AND SITES ANA PAULA FONSECA; CLÁUDIA SEABRA; CARLA SILVA	159

CONSCIENTIOUSNESS AND INTRINSIC MOTIVATION AS PREDICTORS OF PERCEIVED LEARNING AND ACADEMIC ACHIEVEMENT	168
ANA PAULA CARDOSO; MANUELA FERREIRA; JOSÉ LUÍS ABRANTES; CLÁUDIA SEABRA	
A CASE OF SOCIAL UNIVERSITY RESPONSIBILITY. A LEARNING-SERVICE EXPERIENCE THROUGH THE SOCIAL BUSINESS GUIDANCE SERVICE	176
CONSUELO BENITO; CARLOS BALLESTEROS	
PLACE OF HUNGARY IN THE GLOBAL COMPETITION	182
NIKOLETTA KOVÁCS	
THE EFFECTS OF CONSUMER PERCEPTION ON STORE IMAGE AND PRIVATE LABEL: COMPARATIVE STUDY BETWEEN TAIWAN AND JAPAN	188
MASAE KANAI; SHIH-YI CHEN; MASA AKI TAKEMURA	
MODERNIZATION OF THE CONSUMPTION IN EUROPE	198
ÁKOS KOZÁK	
ADAPTING THE COMMUNICATION TO SENIORS	212
DAGMAR LESAKOVA	
LOCAL AUTHORITY ENGAGEMENT IN INFORMING THE PUBLIC ON ISSUES RELATED TO PHYSICAL PLANNING	218
MERICA PLETIKOSIĆ	
ADVANTAGES AND DISADVANTAGES OF COOPERATION AMONG COMPANIES	226
TATIANA ČOREJOVÁ; MARIO AL KASSIRI; CORINNA LUDWIG	
INTERNATIONAL DIVERSIFICATION AND PERFORMANCE IMPROVEMENT IN PORTUGUESE SMEs: THE MEDIATING ROLE OF INTERNATIONAL LEARNING	231
ANTÓNIO JOSÉ FIGUEIREDO; ANTÓNIO ROBALO	
COMPARATIVE ANALYSIS OF MATURITY LEVEL ASSESMENT OF E-PUBLIC SERVICES IN THE REPUBLIC OF MACEDONIA BY BUSINESS PROCESS INTEROPERABILITY METHODOLOGY	242
KALINA TRENEVSKA BLAGOEVA	
HOW TO EVALUATE THE LOCAL IMPACT OF UNIVERSITY	253
TATIANA ČOREJOVÁ; MÁRIA ROSTÁŠOVÁ	
PERCEIVED SERVICE QUALITY AND PERCEIVED CUSTOMER VALUE IN RETAIL	265
SANDRA JELČIĆ	
ORGANIC AND LOCAL FOOD MARKET – ALTERNATIVES OR COOPERATION POSSIBILITY?	271
VIKTÓRIA SZENTE; DORISZ TORMA; KATALIN SZENDRŐ	
PROGRAM „CROATIA 365“ IN A FUNCTION OF STRONGER MARKET POSITIONING OF THE CONTINENTAL PART OF CROATIA ON FOREIGN TOURISM MARKETS	282
BILJANA LONČARIĆ; DRAGO RUŽIĆ	
FREQUENCY DOMAIN CAUSALITY ANALYSIS OF INTERACTIONS BETWEEN FINANCIAL MARKETS OF TURKEY	291
MUSTAFA ÖZER; MELIK KAMIŞLI	
ORGANIZATIONAL STRUCTURES – INTERFACE MANAGEMENT	301
ELISABETH FRÖHLICH; SABINE GRIMM	
ORGANIZATIONAL DEVELOPMENT IN THE BUSINESS STRATEGY	306
TAMÁS KOZÁK	
IMPLEMENTATION OF DIRECT MARKETING BY THE LEADING COMPANIES ON CROATIAN MARKET	312
IVA GREGUREC; DAMIR DOBRINIĆ; TIHOMIR VRANEŠEVIĆ	
SECURITY PROBLEMS AND PRIVACY CONCERNS IN INTERNET MARKETING	319
IVA GREGUREC; PETRA GRD; IGOR BERNIK	
E -BUSINESS CUSTOMER RELATIONSHIP AND PERCEPTION IMPROVEMENT BASED ON PROCESS ORIENTED APPLICATIONS	325
MARTINA TOMIČIĆ FURJAN; KATARINA TOMIČIĆ-PUPEK; IGOR PIHIR	

MARKETING VIA E-MAIL	332
VALENTINA HORVAT; DAMIR DOBRINIĆ	
MARKETING SYSTEM OF THE COMPETITIVE ADVANTAGE OF MICROENTERPRISES AND CRAFTS	337
MAJA MAGIĆ; DAMIR DOBRINIĆ	
GOVERNMENT SIZE AND ITS IMPACT ON AIR POLLUTION	343
ŽIGA KOTNIK; MAJA KLUN	
HEALTHY (FUNCTIONAL) FOODS IN HUNGARY: DIRECT SELLING STRATEGIES IN THE NETWORK MARKETING INDUSTRY	346
SZILÁRD BERKE	
THE ROLE OF VISUAL IDENTITY: CASE STUDY OF A NATIONAL AIRLINE COMPANY	357
SANJA ROCCO; KATARINA KAŠNAR	
COMPARATIVE ANALYSIS OF AGRICULTURAL PRODUCTION IN NEIGHBORING BUT DIFFICULT TO COMPARE COUNTRIES	361
KATALIN TÓTH	
FINANCIAL EDUCATION OF SECONDARY SCHOOL STUDENTS	366
PETRA MEDVEĐOVÁ; MARTA URBANÍKOVÁ; MARTA VRÁNOVÁ	
STRATEGIC ANALYSIS OF THE INDUSTRY OF ROUTINE MAINTENANCE OF PUBLIC ROADS WITHOUT TOLL CHARGE (RMPRWTC) IN THE REPUBLIC OF CROATIA	375
DINKO STANKOVIĆ MOČAN	
NEOLIBERALISATION OF LOCAL COMMUNITIES: A CONTENT ANALYSIS OF SELECTED TEXTS FROM ANTIPODE – A RADICAL JOURNAL OF GEOGRAPHY, 2010-2013	386
PETAR KUREČIĆ; LUKŠA LULIĆ; GORAN LUBURIĆ	
RESEARCH ON STUDENTS' SATISFACTION WITH BANKING SERVICES	394
MIROSLAV MANDIĆ; MATEJA REŠETAR	
THE IMPORTANCE OF MARKETING MIX IN SUCCESSFUL POSITIONING OF PRODUCTS AND SERVICES ON THE MARKET.	405
TAJANA MARUŠIĆ	
A CASE STUDY ON THE THE INFLUENCE OF FACEBOOK COMMUNICATION ON THE BRAND EQUITY OF MOJPOSALO JOBSITE	413
PETRA RULEK; HRVOJE RATKIĆ; ANA BAČIĆ	
A REVIEW OF SPECIFIC FEATURES OF HUMAN RESOURCE MANAGEMENT FUNCTIONS IN THE MEDIA INDUSTRY ...	419
MARIJA SLIJEPČEVIĆ; ANITA ZELIĆ; SVEA KRŠUL	
MARKET RESEARCH OF CARD OPERATIONS OF SELECTED BANKS IN CROATIA	426
DIANA PLANTIĆ TADIĆ; MARKO DUBROJA; KRUNOSLAV BABOGREDAC	
INDEX OF AUTHORS	431

DEVELOPING A BEST PRACTICE SOCIAL MEDIA MODEL FOR RURAL TOURISM SMES IN THE PEAK DISTRICT, U.K.

NOËLLE O'CONNOR
TONY JOHNSTON

ABSTRACT

This paper presents a discussion pertaining to an analysis of the primary data conducted in relation to developing a best practice social media marketing model for rural tourism SMES in the Peak District, England (UK). In 1951, the Peak District became Britain's first national park and it includes parts of Cheshire, Derbyshire, Greater Manchester, Staffordshire and Yorkshire. Due to its central location, it attracts millions of visitors every year. This report will provide an in-depth presentation of the results pertaining to this overall study intertwined with relevant literature. The population for the study included key stakeholders who are responsible for or own tourism businesses within the boundaries of the Peak District. A total of 53 stakeholders took part in the primary research from different tourism businesses. As is evident from analysing the primary research in this study some tourism SME's in the Peak District seem to be more marketing orientated than others with regard to utilising social media platforms. Some use social media just to inform customers about their service offerings and to increase sales. Other SME's seem to be aware that they are not utilising the platforms to their full extent. The main reason being lack of knowledge with regards to the different social media platforms. Even though it is evident that not all SME's evaluate their performance in relation to reaching customers through social media most agree that it is becoming a necessity in today's world. Business owners realise that the advances in information and communication technology has brought both opportunities and challenges (Munar, Gyimothy and Cai 2013). Tourism SME's therefore, need to develop a social media campaign that is systematic in nature and be proactive rather than reactive (Bertrand, 2013).

KEY WORDS: Social media, Peak District, SMEs.

1. INTRODUCTION

Tourism accounted for €127 billion (which is 9% of the United Kingdom's Gross Domestic Product) and supported over 3.1 million jobs in 2013 (Visit Britain, 2014a). The impact and importance of social media within the tourism industry has come to the fore in recent years (Sigala *et al.* 2012). This is due to the fact that tourism social media is a relatively novel form of value creation, based on a fast evolving technological structure which is shaping tourism culture both on and off line (Munar *et al.* 2013). Tourism technology can be utilised to alleviate the challenges related to rural tourism (Ali and Frew, 2013) which SME's within a rural milieu may face. These SME's play a vital role within the economy and they underpin the economic social life of local communities (Middleton and Clarke, 2001). Visit Britain (2011) identified that social media does in fact play an important role in relation to the decision process when planning a trip. Multiple sources or strands of social media information can influence potential visitors (Visit Britain, 2014b) so a social media strategy must be managed correctly. Thomas (2004) indicates, however that some SME's in fact lack in-depth knowledge related to identifying and measuring tourism demand. Therefore, this study presents a discussion pertaining to an analysis of the primary data conducted in relation to developing a best practice social media marketing model for rural tourism SMES in the Peak District, England. This report will provide an in-depth presentation of the results pertaining to this overall study intertwined with relevant literature. The population for the study included key stakeholders who are responsible for or own tourism businesses within the boundaries of the Peak District. A total of 53 stakeholders took part in the primary research from different tourism businesses. The following sections will highlight the results of the data from an SPSS analysis. The tables in the appendices indicate the frequency of responses in terms of numbers, percentage, valid percentage and cumulative percentage and the number of missing responses.

1.1 Primary Research

Having defined the research topic which is 'to develop a best practice social media marketing model for rural tourism SMES in the Peak District' the aim was translated it into questions which were posed to the stakeholders in order to yield primary data (both quantitative and qualitative data). In the case of this study, there are several basic concepts which are operationalized in the stakeholder survey which include:

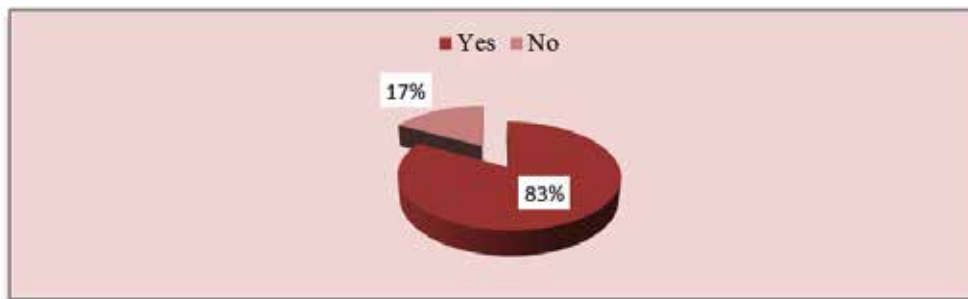
- A qualifying question;
- Business details and demographics;
- Social media usage (personal);
- Social media usage (business);
- Social media approach.

1.2 Primary Research Results

The following sections will outline the primary research results in line with the SPSS analysis. The sections will be divided into the basic concepts which were operationalized in the survey.

1.2.1 Qualifying Question

Figure 1.1. Qualifying Question



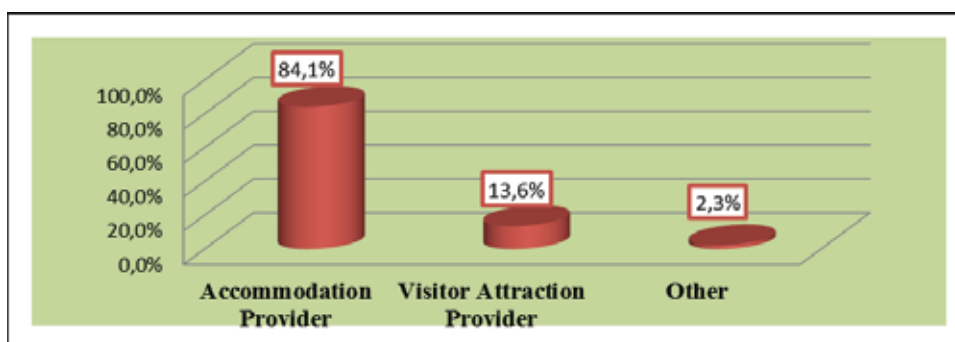
Each respondent indicated whether they owned or worked in a tourism business within the boundaries of the Peak District. As is evident from the SPSS analysis of the primary data (**See Table 1.1 and Figure 1.1**) 83% of the population qualified to take part in the survey.

1.2.2 Business Details and Demographics

This section will detail different aspects and demographics of the businesses included in this study.

1.2.2.1 CATEGORISATION OF BUSINESS TYPE

Figure 1.2. Categorisation of the Respondents Business

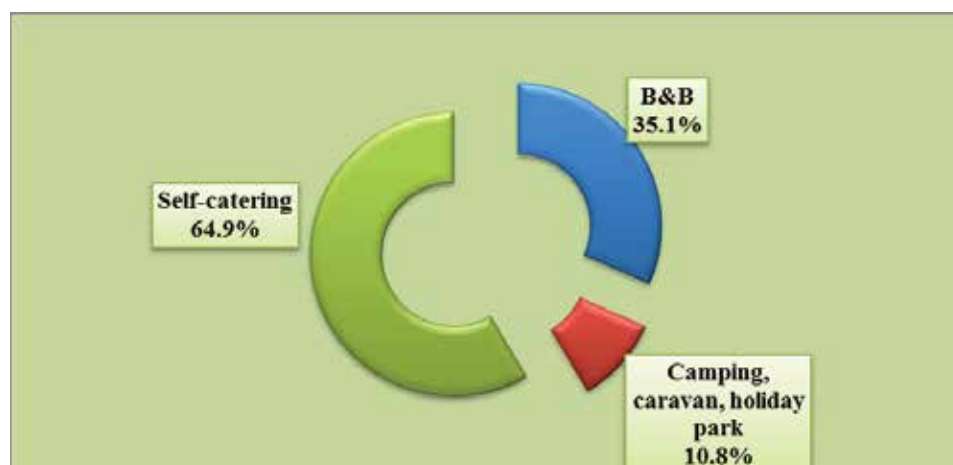


Tourism suppliers act as providers of services which are consumed by tourists, as Inskon and Minnaert (2012;p.100) suggests *'they are broadly defined by the sector in which they operate, namely transport, accommodation, attraction'*. With regard to categorising the types of businesses which the respondents own or work in, the primary data indicates (**See Table 1.2**

and 1.2a) that 84.1% of respondents were accommodation providers, 13.6% owned or worked in a visitor attraction while a further 2.3% owned or worked in a vintage bike/guided bike ride company as highlighted in **Figure 1.2**. Bhatia (2007) indicates that a large number of tourism employment stems from direct service jobs, primarily from the accommodation sector with other employment coming from travel intermediaries, supply services and travel enterprises.

1.2.2.2 ACCOMMODATION TYPES

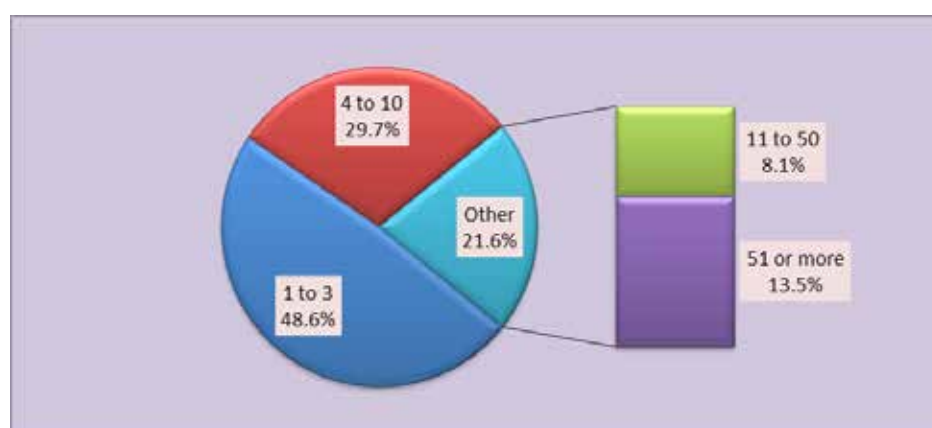
Figure 1.3. Type of Accommodation Establishment in Operation



Having ascertained that 84.1% of the population were accommodation providers, it was necessary to establish which types of accommodation are in operation (See Table 1.2b). Therefore, **Figure 1.3** outlines that 64.9% of accommodation providers have self-catering establishments, 35.1% have B&B's and a further 10.8% operate a camping, caravan or holiday park. As the respondents could tick more than one response a multiple response variable is used, therefore, the percentage of cases figures are used from Table 1.2b, this means that the total percentage will not add to 100%. These percentages are not surprising, of the 8,557 International visitors who visited Central and Northern England in 2013, 41.13% stayed in a hotel or B&B, 13.64% stayed in self-catering and a further 1.52% stayed in a campsite, caravan or holiday park (Visit Britain, 2013).

1.2.2.3 No. OF BEDROOMS/UNITS/PITCHES

Figure 1.4. Bedrooms/units/pitches across serviced or non-serviced properties



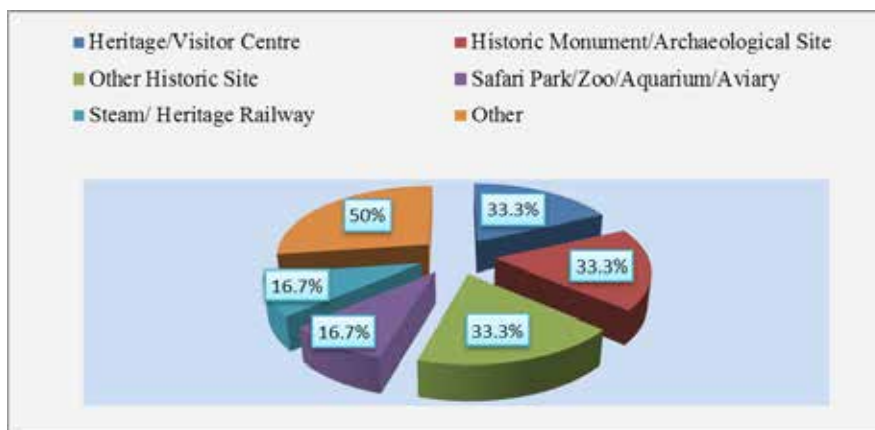
To further analyse the accommodation sector of this population, the SPSS analysis (See Table 1.2c) breaks down the bedrooms/units/pitches across the serviced or non-serviced properties. As Figure 1.4 indicates 48.6% of the respondents have between 1 and 3 bedrooms/units or pitches. Another 29.7% have between 4 and 10, 13.5% have 51 or more and 8.1% have between 11 and 50.

Figure 1.5. Mean of bedrooms/units/pitches - Statistics

N	Valid	37
	Missing	16
Mean		1.86
Median		2.00
Mode		1
Std. Deviation		1.058

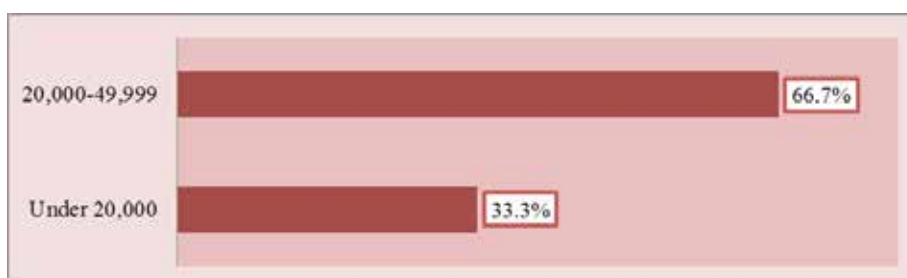
It is therefore evident that the average number (mean) of bedrooms/units/pitches of accommodation providers in the Peak District is 2 (1.86) as indicated in **Figure 1.5**.

1.2.2.4 TYPE OF VISITOR ATTRACTION

Figure 1.5. Types of visitor attraction

Having previously indicated that 13.6% of the population owned or worked in a visitor attraction (**See Figure 1.2**) it is necessary to extract more specific information pertaining to these attractions to highlight the business details further (**See Tables 1.2 d-f**). As the respondents could tick more than one response a multiple response variable is used, therefore, the percentage of cases figures are used from **Table 1.2d**, this means that the total percentage will not add to 100%. With regards to the types of visitor attraction, **Figure 1.5** shows that 50% of respondents owned or worked in a different type of attraction, 33.3% either worked or owned a heritage/visitor centre, 33.3% a historic monument/archaeological site and a further 33.3% another historic site. While 16.7% owned or worked in a safari park/zoo/aquarium/aviary, another 16.7% in a steam or heritage railway. Briassoulis and Van der Straaten (2000) indicate that culture/heritage plays an important role in rural tourism. Therefore, rural attractions like those in the Peak District tend to be related to culture/heritage and as Ivanovic (2009) points out include an indigenous traditional community. Main attractions will include heritage centres (Ramsey *et al.* 2010) and historic sites (Swarbrooke, 2002).

1.2.2.5 VISITOR ATTRACTION NUMBERS

Figure 1.6. Visitor No's for Visitor Attractions

In relation these visitor attractions it is evident from **Figure 1.6** that 66.7% have between 20,000-49,999 visitors per year while 33.3% have fewer than 20,000. Creating viable visitor attractions in rural regions is a major task (Fyall *et al.* 2008) and tourists must be encouraged to make the effort to travel to such locations by the provision of free attractions and services. It must be stated however, that care must be taken in terms of increasing visitor numbers, as Singh (2010) indicates, increasing numbers often results in complex management. This can be problematic for rural SME's who are often owned and run by a sole proprietor.

1.2.2.6 FEE OR NON-FEE-PAYING ATTRACTION

Figure 1.7. Visitor Attraction Free or Fee-Paying



As **Figure 1.7** indicates from the SPSS analysis (**See Table 1.2f**) of the 13.6% of the survey population which were visitor attractions, 11.3% had fee paying visitors, the other 88.7% did not respond to the question on the survey therefore it cannot be insinuated that the remaining 88.7% are in fact free attractions.

Figure 1.8. Descriptive Frequency of Visitor No's and Fee Paying or Free Attraction

Q7 = 1 & Q8 = 2 (FILTER)

	Frequency	%	Valid Percent	Cumulative Percent
Valid	2	33.3	100.0	100.0

Q7 = 2 & Q8 = 2 (FILTER)

	Frequency	%	Valid Percent	Cumulative Percent
Valid	4	66.7	100.0	100.0

To further analyse the visitor numbers with those attractions who are fee paying a descriptive frequency was carried out. As **Figure 1.8** indicates 33.3% of the respondents who owned or worked in a visitor attraction have fewer than 20,000 visitors per year, whereas 66.7% of the attractions which are fee paying have between 20,000-49,999 visitors per year.

1.2.2.7 LOCATION OF THE BUSINESS IN THE PEAK DISTRICT

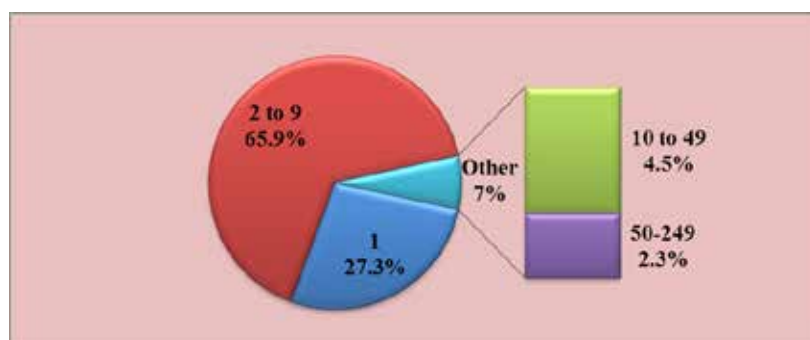
Figure 1.9. Location of businesses in the Peak District

	Frequency	Percent	Valid Percent	Cumulative Percent
Ashbourne	2	3.8	3.8	22.6
Ashford-in-the-Water	1	1.9	1.9	24.5
Bakewell	4	7.5	7.5	32.1
Belper	1	1.9	1.9	34.0
Blackshaw Moor	1	1.9	1.9	35.8
Brassington	1	1.9	1.9	37.7
Buxton	2	3.8	3.8	41.5
Buxton town centre	1	1.9	1.9	43.4
Castleton	1	1.9	1.9	45.3
Chapel en le Frith	1	1.9	1.9	47.2
Chesterfield	1	1.9	1.9	49.1
Earl Sterndale	1	1.9	1.9	50.9
Elton	1	1.9	1.9	52.8
Foxt	1	1.9	1.9	54.7
Gt Longstone	1	1.9	1.9	56.6
Hadfield	1	1.9	1.9	58.5
Hartington	1	1.9	1.9	60.4
Ilam	1	1.9	1.9	62.3
Litton	1	1.9	1.9	64.2
Matlock	5	9.4	9.4	73.6
Monyash	2	3.8	3.8	77.4
Over Haddon	1	1.9	1.9	79.2
Parwich	1	1.9	1.9	81.1
Rudyard	1	1.9	1.9	83.0
Sheffield	1	1.9	1.9	84.9
Tansley	1	1.9	1.9	86.8
Tideswell	2	3.8	3.8	90.6
North Nottinghamshire,	1	1.9	1.9	92.5
Winster	2	3.8	3.8	96.2
Youlgrave	1	1.9	1.9	100.0
Total	53	100.0	100.0	

As **Figure 1.9** shows the businesses which took part in the primary research are from varied locations in the Peak District. The most common location was Matlock where 9.4% of the businesses reside. This is closely followed by Bakewell at 7.5% and Ashbourne, Buxton. Monyash, Tideswell and Winster each represent 3.8% of the survey population.

1.2.2.8 NUMBER OF EMPLOYEES

Figure 1.10. Employees including the respondent who are currently employed in each organisation (including those who work 5 or more hours a week and excluding contractors and those not directly employed)



As **Table 1.2g** and **Figure 1.10** indicate 65.9% of the organisations who work or own a business in the tourism industry in the Peak District employ 2-9 people, 27.3% employ 1 person, 4.5% employ 10-49 and 2.3% employ 50-249 people. As previously indicated tourism accounted for 3.1 million total jobs in the UK in 2013 (**See 1.2.2.1**). The Office of National Statistics (2014) highlight that the cumulative growth in employment in the tourism industry in the UK between 2009 and 2013 was 5.4%. Whereas, cumulative jobs in the non-tourism sector experienced 2.8% growth over the same period. Thus, tourism plays an important role in relation to economic growth in the UK.

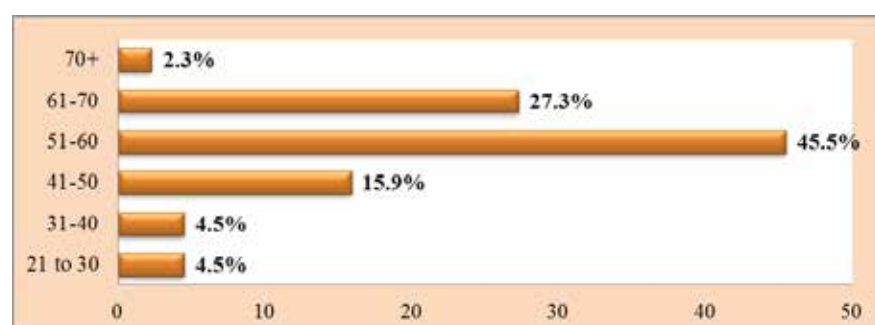
Figure 1.11. Business category * No of employees Cross tabulation

Business Category	No of employees				Total
	1	2-9	10-49	50-249	
A visitor attraction	1	3	2	0	6
An accommodation provider	11	25	0	1	37
Other	0	1	0	0	1
Total	12	29	2	1	44

It is evident from the cross tabulation between the number of employees and the different business categories in **Figure 1.11** that the accommodation sector which accounts for 84.1% of businesses (**See Figure 1.2**) also accounts for 84% (37/44) of employees and furthermore 67.56% (25/37) employ mainly between 2-9 persons. In contrast, the visitor attraction sector which accounts for 13.6% of businesses (**See Figure 1.2**) also accounts for 13.63% (6/44) of employees. The data also indicates that 50% (3/6) of this sector also employees between 2/9 persons. The Office for National Statistics (2014) indicated that employment in the accommodation sector showed an increase of 8.8% (99,900 jobs) between the periods of 2009-2013. In contrast, the visitor attraction sector which accounts for 13.6% of businesses (**See Figure 1.2**) also accounts for 13.63% (6/44) of employees. The data also indicates that 50% (3/6) of this sector also employees between 2/9 persons.

1.2.2.9 AGE GROUP

Figure 1.12. Age Group



With regard to the age groups of the respondents **Figure 1.12** and **Table 1.2h** show that the majority (45.5%) are between the age of 51-60, 27.3% are between 61-70, 15.9% between 41-50 and 4.5% are either 31-40 or 21-30. Getz (2004) highlighted that the main goals of owners and managers of small businesses in rural areas were lifestyle, stimulus and business opportunity. Those aged 50+ are less likely to be driven by prestige.

Figure 1.13. Business category * Age group Cross Tabulation

Business Category	Age group						Total
	21-30	31-40	41-50	51-60	61-70	71+	
A visitor attraction	0	0	1	3	2	0	6
An accommodation provider	2	2	6	16	10	1	37
Other	0	0	0	1	0	0	1
Total	2	2	7	20	12	1	44

A cross tabulation between the age group of the respondents and the business category (**Figure 1.13**) reveals that the accommodation sector is owned by and/or employs 43.24% (16/37) of employees aged between 51-60 and a further 27% (10/37) between the age of 61-70 and 16.21% (6/37) between the age of 41-50. The visitor attraction sector indicates similar results with 50% (3/6) owners/employees being between 51-60 years old and 33.33% (2/6) aged between 61-70. There are no individuals aged between 21-40 working in the visitor attraction sector while this age group accounts for 10.81% (4/37) of those working in the accommodation provider sector.

1.2.3 Social Media Usage (Personal)

The ensuing section will analyse the personal use of social media with regard to the respondents. Social media can be defined as '*web based tools for interaction that, in addition to conversation, allows users to share content such as photos, videos and links to resources*' (Gould, 2013; p.3). Many social media sites offer different platforms for users to communicate with one another (Brunty and Helenek, 2014).

1.2.3.1 USE SOCIAL MEDIA TO STAY IN CONTACT WITH FRIENDS AND FAMILY

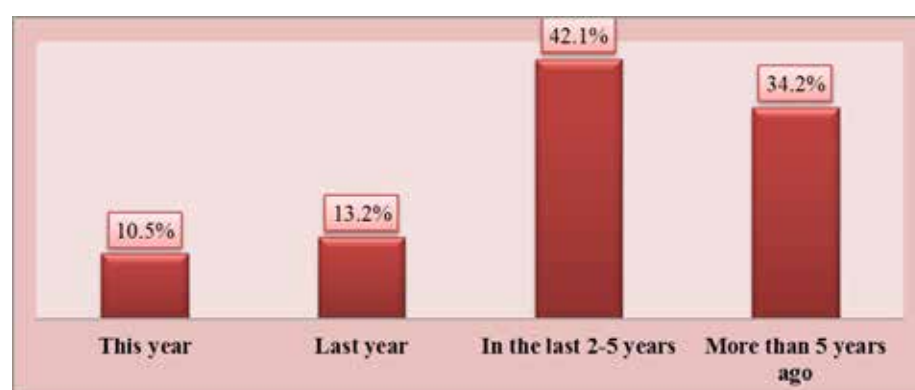
Figure 1.14. Use social media to stay in contact with friends and family



Individuals utilise social networking in general to stay in touch with friends and family or to find online communities who share the same interests (Albarran, 2013; Minton, 2014; Waters and Lester, 2010). In relation to using social media for personal use **Figure 1.14** and **Table 1.3a** indicate that 59.1% of respondents utilise the networks, whereas, 40.9% do not use social media networks.

1.2.3.2 WHEN RESPONDENTS BEGAN TO USE SOCIAL MEDIA

Figure 1.15. Length of time using social media for personal or business use



The emergence of social media began in the early days of the internet as people began sharing information and in turn communicating with one another. As technology matured platforms were developed and businesses began to realise that by embracing social media they could align themselves or their business to consumer needs (Taprial and Kanwar, 2012). It is evident from **Figure 1.15** and **Table 1.3b** that 42.1% of the population began to utilise social media in the last 2-5 years, 34.2 % have been using networks for more than 5 years, 13.2% began using social media last year and a further 10.5% just began using it this year.

Figure 1.16. Business category * When starting using social media Cross Tabulation

Business Category	When starting using social media				Total
	This year	Last year	In the last 2-5 years	More than 5 years ago	
A visitor attraction	2	0	3	1	6
An accommodation provider	2	5	12	12	31
Other	0	0	1	0	1
Total	4	5	16	13	38

When cross tabulating between the different business categories and social media usage over time (**Figure 1.16**) it is evident that 38.7% (12/31) of accommodation providers have been utilising social media networks for more than 5 years, a further 38.7% (12/31) in the last 2-5 years, 16.1% (5/31) have been using social media in the last year and 6.5% (2/31) have begun to use it this year. This is not surprising as Mehta (2013; p.76) indicates that accommodation providers cannot escape the reality that social media sites are '*a seismic shift in buyer behaviour*,' this is due to that fact that accommodation is '*inexorably linked to online parties*' (Xiang and Tussyadiah, 2013; p. 486). With regard to the visitor attraction sector, the data reveals that 50% (3/6) have been using social media in the 2-5 years, 33.33% (2/6) utilised the networks this year and 16.7% (1/6) more than 5 years ago. Utilising information communication technologies such as social media platforms adds an additional layer in relation to the marketing of a visitor attraction (Staiff *et al.* 2013).

CONCLUSION

The analysis of the primary data which was carried out in this section will be used to aid with developing a best practice social media marketing model for rural tourism SMEs in the peak District. The research aim was translated into questions which were analysed in this section. The basic concepts which were analysed in relation to the study were as follows;

- Business details and demographics
- Social media usage (personal)
- Social media (business)
- Social media approach

As previously stated, tourism social media is based on a fast evolving technological structure (Munar *et al.* 2013). It can be utilised to help alleviate challenges in rural tourism SME's (Ali and Frew, 2013). The choice of social media platform is often influenced by the ease of use and affordability (Stefanou, 2014). As is evident from analysing the primary research in this study some tourism SME's in the Peak District seem to be more marketing orientated than others with regard to utilising social media platforms. Some use social media just to inform customers about their service offerings and to increase sales. Other SME's seem to be aware that they are not utilising the platforms to their full extent. The main reason being lack of knowledge with regards to the different social media platforms. Even though it is evident that not all SME's evaluate their performance in relation to reaching customers through social media most agree that it is becoming a necessity in today's world. Business owners realise that the advances in information and communication technology has brought both opportunities and challenges (Munar *et al.* 2013). Tourism SME's therefore, need to develop a social media campaign that is systematic in nature and be proactive rather than reactive (Bertrand, 2013).

LITERATURE

1. Albarran, A. (2013) *The Social Media Industries*. Routledge : Oxon.
2. Ali, A. and Frew, A. (2013) *Information and Communication Technologies for Sustainable Tourism*. Routledge: England.
3. Augostino, R. (2007) *Social Media for Business*. LuLu: USA.
4. Belew, S. and Elad, J. (2012) *Starting an Online Business*. John Wiley and Sons: New Jersey.
5. Benckendorff, P., Sheildon, P. and Fesenmaier, P. (2014) *Tourism Information Technology*, 2nd Ed. Cabi: UK.
6. Bertrand, S. (2013) *The Use of Facebook by Companies*, GIN Verlag: Germany.
7. Bertrand, S. (2013) *The Use of Facebook by Companies*, GIN Verlag: Germany.
8. Briassoulis, H. and Van der Straaten, J. (2000) *Tourism and the Environment: Regional, Economic, Cultural and Policy Issues*, 2nd Ed. Kluwer Academy Publishers: USA.
9. Brunty, J. and Helenek, K. (2014) *Social Media: Investigation for Law Enforcement*. Routledge: Oxon.
10. Chambers, D. (2013) *Social Media and Personal Relationships: Online Intimacies and Networked Friendships*. Palgrave Mac Millan: New York.
11. Chaney, P. (2012) *Social Media for Small Businesses*. Booktango: USA.
12. Clapperton, G. (2010) *This is Social Media, Link and Post Your Way to Business Success*. John Wiley and Sons: New Jersey.
13. Cohen, S. (2010) *Secrets, Techniques and Strategies*. Atlantic Publishing Group: USA.
14. Diamond. (2014) *Social Media Superstar*. Google E book [Online] Available at: http://books.google.ie/books?id=koqaAwAAQBAJ&source=gbs_navlinks_s [Accessed 20th October 2014].
15. Finton, J. (2012) *Twitter for Dummies*. John Wiley and Sons: New Jersey.
16. Funk, T. (2012) *Advanced Social Media Marketing*. A Press: USA.
17. Fyall, A., Garrod, B., Leask, A. and Wanhill, S. (2008) *Managing Visitor Attractions: New Directions*, 2nd Ed. Butterworth-Heinemann: Oxford.
18. Getz, D., Carlsen, C. and Morrisson, A. (2009) *The Family Business in Tourism*. CABI Publishing: UK.
19. Gould, M. (2013) *The Social Media Bible*. Liturgical Press: USA.
20. Hoffman, K. and Bateson, J. (2008) *Services marketing: Concepts, Strategies and Cases*. Cengage Learning: USA.
21. Inskon, C. and Minnaert, L. (2012) *Tourism Management: An Introduction*. Sage Publications: London.
22. Ivanovic, M., Khunov, P., Renynish, H., Pawson, R., Tseane, T. and Wassung, L. (2009) *Tourism Development: Fresh Perspectives*. Prentice Hall: India.
23. Jones, K. (2011) *Search Engine Optimization*. 2nd Ed. John Wiley and Sons: New Jersey.
24. Jue, A., Marr, J. and Kassotakis, M. (2010) *Social Media at Work*. A Wiley: San Francisco.
25. Kaser, K. (2013) *Advertising and sales Promotion*. Cengage Learning: USA.
26. Kelly, N. (2013) *How to Measure Social Media*. Pearson Education: USA.
27. Lardi, R. and Fuchs, R. (2013) *Social Media Strategy*. AG: Zurich.
28. Lee, I. (2014) *Integrating Social Media into Business; Practice, Applications, Management and Models*. Business Science: USA.
29. Mancini, M. (2013) *Introduction to Travel and Tourism*. Cengage Learning: USA.
30. Maya, L. (2012) *Profit From Social Media Revolution*. Ebookit [Online] Available at: http://books.google.ie/books?id=f80QALXsnlKC&source=gbs_navlinks_s [Accessed 19th October 2014].
31. Mehta, G. (2013) *Infinite Ripple: The Social Media Revolution 2013*. Xlibris Publishing: USA.
32. Mensah, I. and Mensah, R. (2013) *Management of Tourism and Hospitality Services*. Xlibris: USA.
33. Middleton, V. and Clarke, J. (2001) *Marketing in Travel and Tourism*. Sterling Publishers: New Delhi.

34. Middleton, V., Fyall, A. and Morgan, M. (2009) *Marketing in Travel and Tourism*. 4th Ed. Butterworth-Heinemann: UK.
35. Minton, E. (2014) *Social Networking and Social Media Safety*. The Rosen Publishing Group: New York.
36. Munar, M., Gyimothy, S. and Cai, L. (2013) *Tourism Social Media*. Emerald: UK.
37. Munar, M., Gyimothy, S. and Cai, L. (2013) *Tourism Social Media*. Emerald: UK.
38. Office of National Statistics (2014) Tourism Employment [online] Available at: <http://www.ons.gov.uk/ons/rel/tourism/tourism-employment-summaries/employment-in-tourism-industries--2009-2013/sum-tourem.html> [Accessed 16th October 2014].
39. Ramsey, D., Koster, R. and Robinson, G. (2010) *Geographical Perspective on Sustainable Rural Change*. Rural Development Institute: Canada.
40. Reed, J., Dugan, L., Turner, J. and Mitchell, M. (2013) *The social Media Starter Kit*. FT Delivers: New Jersey.
41. Rich, J. (2013) *Ultimate Guide to You Tube for Business*. Entrepreneur Press: USA.
42. Safko, L. (2010) *The Social Media Bible*. John Wiley and Sons: New Jersey.
43. Sandy, D. (2012) *50 Top Technology Tools and Tips*. Harrim House: Great Britain.
44. Sigala, M., Christov, E and Gretzel, U. (2012) *Social Media in Travel, Tourism and Hospitality; Theory Practice and Cases*. Ashgate Publishing: England.
45. Singh, S. (2010) *Handbook of Business Practices and Growth in Emerging Markets*. World Scientific: USA.
46. Staiff, R., Bushell, R. and Watson, S. (2013) *Heritage and Tourism: Place Encounter, Engagement*. Routledge: USA.
47. Stay, J. (2012) *Google + Marketing*. John Wiley and Sons: UK.
48. Stefanoug, E. (2014) *Social Media*. European Conference on Social Media. UK.
49. Sumarjan, N. (2013) *Hospitality and Tourism*. CRC Press: India.
50. Swarbrooke, J. (2002) *Development and Management of Visitor Attractions*. 2nd Ed. Routledge: Oxon.
51. Taprial, V. and Kanwar, P. (2012) *Understanding Social Media*. APS Publishing: India.
52. Taylor, G. (2013) *Give Your Marketing a Digital Edge*. Global and Amp: USA.
53. Thomas, R. (2004) *Small Firms in Tourism*. Elsevier: UK.
54. V. T (2014) *Social Media Secret Tactics*. Google eBooks [online] Available at: http://books.google.ie/books?id=aMpFAWAAQBAJ&dq=respond+to+positive+social+media&source=gbs_navlinks_s [Accessed 22nd October 2014].
55. Visit Britain (2011) *The Role of Social Media in Holiday Destination Decision Making*. Fresh Mind Research. [Online] Available at: http://www.visitbritain.org/Images/Social%20media%20in%20the%20holiday%20decision%20making%20process%20v3_tcm29-34377.pdf [Accessed 8th October 2014].
56. Visit Britain (2013) *International Passenger Survey*. [Online] Available at: http://www.visitbritain.org/bounce.aspx?PG=/Images/accom%20by%20region13_tcm29-14611.xls [Accessed 13th October 2014].
57. Visit Britain (2014a) *Economic Facts and Figures*. [Online] Available at: <http://www.visitbritain.org> [Accessed 7th October 2014].
58. Visit Britain (2014b) *Information and Inspiration*. [Online] Available at: <http://www.visitbritain.org> [Accessed 7th October 2014].
59. Visit England (2013) *Visitor Attraction Trends in England 2013*. [Online] Available at: http://www.visitengland.org/Images/VA%202013%20Trends%20in%20England-Full%20Report_FINAL%20version%20for%20publication_tcm30-42199.pdf [Accessed 19th October 2014].
60. Wang, Y and Pizam, A. (2011) *Destination Marketing and Management*. CABI Publishing: UK.
61. Waters, J. and Lester, J. (2010) *The Everything Guide to Social Media*. F&W Media: USA.
62. Xiang, Z and Tussyadiah, L. (2014) *Information and Communication Technologies in Tourism 2014*. Springer Publishing: Switzerland.

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MULTIPLE NEIGHBORHOODS IN TABU SEARCH: SUCCESSFUL APPLICATIONS FOR OPERATIONS MANAGEMENT PROBLEMS

NICOLAS ZUFFEREY

ABSTRACT

A *metaheuristic* is a refined solution method able to find a satisfying solution to a difficult problem in a reasonable amount of time. A *local search* metaheuristic works on a single solution and tries to improve it iteratively. *Tabu search* is one of the most famous local search, where at each iteration, a neighbor solution is generated from the current solution by performing a specific modification (called a move) on the latter. In contrast with most of the existing literature, the goal of this paper is to present tabu search approaches where different neighborhood structures (i.e., different types of moves) are jointly used. The discussion is illustrated for various operations management problems: truck loading, job scheduling, inventory management, and dimensioning of assembly lines.

KEY WORDS: Optimization, Operations management, Tabu search, Metaheuristics.

1. INTRODUCTION

Let f be an objective function which has to be minimized (e.g., a cost function). A solution s is *optimal* for f if there is no better solution than it, that is, there is no solution s' such that $f(s') < f(s)$. As mentioned in (Zufferey & Vasquez, 2015), an *exact* method guarantees the optimality of the provided solution. However, for a large number of applications and most real-life optimization problems, such methods need a prohibitive amount of time to find an optimal solution, because such problems are NP-hard (Garey & Johnson, 1979). For these difficult problems, one should prefer to quickly find a satisfying solution, which is the goal of *heuristic* and *metaheuristic* solution methods. There mainly exist three families of (meta)heuristics: *constructive* algorithms (a solution is built step by step from scratch, like the *greedy* algorithm where at each step, the best element is added to the solution under construction), *local search* methods (a solution is iteratively modified: this will be discussed below), and *evolutionary* metaheuristics (a population of solutions is managed, like genetic algorithms and ant algorithms). The reader is referred to (Gendreau & Potvin, 2010; Zufferey, 2012b) for more information on metaheuristics and general guidelines to adapt them.

Only the context of local search methods is considered in this work. A local search algorithm starts with an initial solution and tries to improve it iteratively. At each iteration, a modification, called a *move*, of the current solution s is performed in order to generate a neighbor solution s' . Let $N(s)$ denote the set of all neighbor solutions of s . The definition of a move, that is the definition of the *neighborhood structure* N , depends on the considered problem. Popular local search methods are the descent local search, simulated annealing, tabu search and variable neighborhood search.

In a *descent local search*, the best move is performed at each iteration and the process stops when a local optimum is found. *Tabu search* was proposed by Fred Glover in the 80's and is nowadays still considered as one of the most efficient method for exploring the search space. Tabu search has a good balance between *exploitation* (i.e., the ability to guide the search in the solution space and to take advantage of the problem structure) and *exploration* (i.e., the ability to visit various zones of the solution space). Indeed, to prevent tabu search from being stuck in a local optimum, when a move is performed, the reverse move is forbidden (i.e., set as *tabu*) for *tab* (parameter) iterations. In most tabu search algorithms, only one neighborhood structure N is used. The goal of this paper is to present tabu search approaches where at each iteration, different neighborhood structures N_1, N_2, \dots, N_q are used. The resulting method, denoted MNTS (for *Multiple Neighborhoods in a Tabu Search*), is presented in Algorithm 1, where s^* denotes the best visited solution (returned at the end to the user). The motivation of using several neighborhood structures is the following. A *local optimum* according to neighborhood structure N is a solution s such that there is no solution in $N(s)$ which is better than s . Let N_1 and N_2 be two different neighborhood structures. Obviously, if s is a local optimum according to N_1 , it may not be a local optimum according to N_2 . In other words, if a N_1 -move is not able to improve s anymore, then a N_2 -move may do it.

Algorithm 1: MNTS (*Multiple Neighborhoods in a Tabu Search*)

Generate an initial solution s and set $s^* = s$.

While no stopping criterion is met, do

- from the current solution s , generate the best non-tabu neighbor $s' \in N_1(s) \cup \dots \cup N_q(s)$;
- forbid the reverse move for tab (parameter) iterations;
- set $s = s'$;
- if $f(s) < f(s^*)$, set $s^* = s$;

In order to design a MNTS for a specific problem (P), the following ingredients have to be defined: a way to encode a solution s , an objective function f , the various neighborhood structures N_1, \dots, N_q , the tabu list structures (i.e., the nature of the forbidden moves), and the stopping condition (e.g., a time limit, a specific number of iterations). Strongly relying on (Respen & Zufferey, 2013; Thevenin et al., 2013; Zufferey, 2014; Zufferey, 2012a), the discussion is illustrated for various operations management problems, namely truck loading (Section 2), job scheduling (Section 3), inventory management (Section 4), and dimensioning of assembly lines (Section 5).

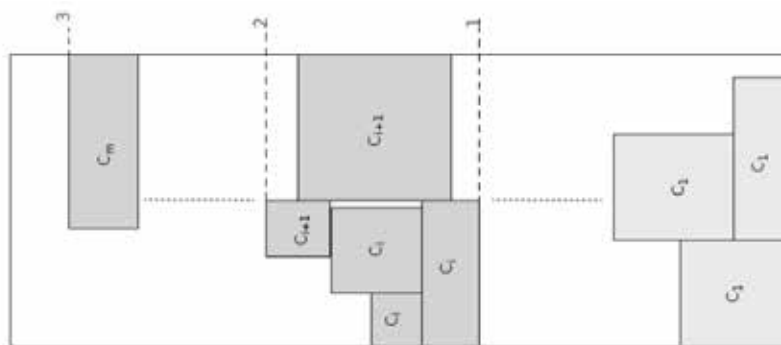
2. MNTS FOR TRUCK LOADING

2.1. Presentation of the considered problem (P)

The French car manufacturer *Renault* daily faces a complex truck loading problem (P), where items need to be placed in a truck while satisfying different constraints. More than a thousand trucks are daily considered to deliver components to the car plants. As a single truck can deliver goods to different delivery points, *classes* of items are defined, where a class is associated with a delivery point. Each problem instance contains the size of the truck and the various sizes of all the items that must fit in. The heights of the items can be ignored as they rely on complex factory constraints which are supposed to be already satisfied. At first sight, (P) seems related to a strip-packing 2D problem with rotation, which has been already covered by many research papers (e.g., Hopper & Turton, 2001; Lodi et al., 2002; Ntene & van Vuuren, 2009; Riff et al., 2009). (P) is NP-hard, and *Renault* even showed in (Nguyen & Brenaut, 2009) that no exact method can be competitive to tackle their real instances. Therefore, (meta)heuristics are more than relevant.

Problem (P) can be formally described as follows: a number n of items, each one belonging to a specific class C_i (with $i \in \{1, \dots, m\}$ such that $m \leq n$), need to be placed in a truck such that all the items belonging to the same class are adjacent. In addition, the classes must be placed in an increasing fashion from the front to the rear of the truck. More formally, the ordinate of the origin item which belongs to class C_i (label 1 on Figure 1) must be strictly smaller than the ordinate of the extremity of any item of class C_{i+1} (label 2 on Figure 1), and such that the ordinate of the extremity item (the closest one to the rear) of class C_m (label 3 on Figure 1), denoted as f , is minimized. The truck size is a hard constraint to fulfill, as it is not allowed to exceed neither its length nor its width.

Figure 1. A possible solution (view from the top of the truck, with rear on the left)



Because of the specificity of (P) (e.g., different classes of items, a significant number of items per truck in conjunction with a large standard deviation of the sizes of the items), it is not possible to take advantage of the existing exact algorithms (e.g., (Martello & Vigo, 1998; Martello et al., 2003; Lesh et al., 2004; Pisinger & Sigurd, 2005; Puchinger & Raidl, 2007)) to tackle it. Additional references on the topic can be found in (Lodi et al., 1999; Respen & Zufferey, 2013).

To solve (P), *Renault* proposes a simple but efficient greedy heuristic (denoted *SG*), and an advanced greedy heuristic called *look-ahead greedy* (denoted *LAG*). An important aspect is the tradeoff between the computing time and the solution quality. As *LAG* is fast, another metaheuristic is only relevant if it is fast and leads to improvements. *SG* builds a solution from scratch, and at each iteration, selects an item (following different possible rules) from a list *L* of non-already inserted items, and adds it to the solution at minimum cost (i.e., which minimizes the augmentation of *f*, label 3 of Figure 1). This process stops when *L* is empty. In *LAG*, at each iteration, the algorithm tries each item *j* of *L*, and for each *j*, tries the next *p* (parameter) insertions following this possible insertion of *j* (look-ahead process). At the end of the iteration, the item *j* that would involve the lowest cost in the next *p* iterations is selected and inserted at the best position. As before, this process stops when *L* becomes empty. Both *SG* and *LAG* algorithms are fast (a few seconds per run), and therefore relevant to *Renault*. The two methods perform restarts as long as a given time limit *T* is not reached. When *T* is reached, the best generated solution is returned.

2.2. Tabu search for (P)

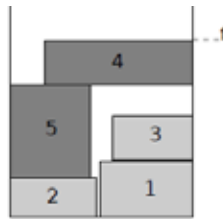
Working with *encoded* solutions is relevant to tackle (P) within the framework of local search methods. An encoded solution *s* is actually a list of elements. To build a solution and compute its quality, a *decoding greedy algorithm* (*DGA*) is performed on the encoded solution. It decodes the solution *s* into a real solution *s^{real}*, and then returns the total length of the truck load *f*. To drive *DGA*, information (some are mandatory and others are optional) are carried in each element of *s*, and can contain the item identifier (*ID*, mandatory), the class identifier (*C*, mandatory), the item orientation (*O*, optional), and the item side (*S*, optional). Thus, component *i* of the solution *s* takes the form $s_i = (ID_i, C_i, O_i, S_i)$, where $ID_i \in \{1, \dots, n\}$, $C_i \in \{1, \dots, m\}$, $O_i \in \{\text{not rotated, 90-degrees rotated}\}$, and $S_i \in \{\text{left-sided, right-sided}\}$. *DGA* thus decodes the vector *s* into a real solution *s^{real}* by inserting in *s^{real}* the items from *s* in a FIFO order, and using the *O* and *S* information (if provided) while respecting the class constraint. At each step, *DGA* pops the next item *i* of *s*, greedily loads it in the truck, while respecting *C_i*, *O_i* and *S_i*. If *O_i* (or *S_i*) is not provided, *DGA* can decide by itself its value (minimizing the augmentation of *f*), and thus owns more freedom.

The decoding process is illustrated on an example. Five items, initially oriented as presented in Figure 2, have to be placed in a truck. A possible encoded solution is the following: $s = ((ID_1, 1, \text{not rotated, right-sided}), (ID_3, 1, 90\text{-degrees rotated, right-sided}), (ID_2, 1, 90\text{-degrees rotated, left-sided}), (ID_4, 2, ?, ?), (ID_5, 2, ?, \text{right-sided}))$. The corresponding decoded solution *s^{real}* is illustrated in Figure 3. To generate this solution, *DGA* performs the following steps: it pops the first element *ID₁* and loads the corresponding item on the right side, without rotation. At that time, the next item, namely *ID₃*, is loaded on the right with a 90-degrees rotation. Then item *ID₂* is loaded on the left with rotation whereas *ID₅* is inserted at the best possible position tried by *DGA* while respecting the class constraint. Finally item *ID₄* is inserted on the right side but *DGA* decided its orientation. When *DGA* is over, it returns the value *f*, which is in this example the extremity of item *ID₄*.

Figure 2: Items (with initial orientations)



Figure 3: Decoded solution *s^{real}* (top view)



To generate a neighbor solution *s'* from the current solution *s*, the seven following neighborhood structures are possible:

- N_1 : move item *j* from position *x* to position *y*;
- N_2 (resp. N_3): move item *j* from position *x* to *y*, and switch to the opposite value its orientation *O* (resp. side *S*);
- N_4 : move item *j* from position *x* to *y*, and switch *S* and *O* to the opposite values;
- N_5 (resp. N_6): switch *O* (resp. *S*) to the opposite value;
- N_7 : switch *O* and *S* to the opposite values.

All the moves are performed while respecting the class constraint, and ties are broken randomly. Four different tabu search approaches are developed, denoted TS_1 , TS_2 , TS_3 and TS_4 . The notation TS is simply used if it refers to common features of the four tabu search algorithms. TS starts from an initial encoded solution where items are ordered by decreasing areas. TS_1 , TS_2 , TS_3 and TS_4 differ in the sense that for TS_1 , only the information ID and C is contained in each element of the encoded solution. TS_2 contains ID , C and O . TS_3 contains ID , C and S . TS_4 contains ID , C , O and S . Thus, for TS_1 , DGA can decide on its own the orientations and the sides (while focusing on the smallest augmentation of f). In TS_2 and TS_3 , DGA has the order in which the insertion must be made, and the orientation or the side of each item (but not both). Finally TS_4 constraints DGA at the maximum level due to the complete information set contained in each component s_i of the vector s . In TS , only a fraction v (set to 50%) of the possible moves are generated (it allows to performing more iterations for a same time limit, and helps in bringing more diversification). After each move, the tabu tenure tab is set to a uniformly distributed value between 25 and 55.

2.3. Results

The above methods are compared on a set of 30 real benchmark instances provided by *Renault*. Tests were performed on an Intel Quad-core i7 @ 3.4 GHz with 8 GB DDR3 of RAM memory. The time limit T is 1800 seconds (as validated by practitioners). The results are summarized in Table 1. The first two columns indicate the values of n (number of items) and m (number of classes) of each instance. Column f^* indicates to the objective function value of the best solution ever found by any of the algorithms. The following column reports the percentage gap between the solution of SG and f^* . The next columns provide the same information for the other methods. The last rows give the average gap and computing time for each method. As SG and LAG are greedy constructive methods with restarts, it is not relevant to indicate their computing times.

Table 1. Computational results (averaged over 5 runs for tabu search)

n	m	f^*	SG	LAG	TS_1	TS_2	TS_3	TS_4
23	1	12840	1.01	0.86	4.6	0.06	0.21	0.92
25	1	13000	3.85	0.31	3.85	0	0.05	0.98
24	1	12920	1.32	0.08	1.39	0	0.06	0.38
25	1	13040	3.76	0.31	3.76	0	0	0.6
26	1	13460	0.15	0.07	0.15	0	0	0.01
20	2	13610	6.83	1.25	14.11	0	1.25	0.53
23	1	12980	3.08	0.08	6.63	0	0	0.26
25	1	14120	4.02	4.01	3.75	0.07	0	0.26
18	4	13295	0.56	0.15	24.69	0	0.05	0.18
23	3	12852	5.23	0.5	18.67	0	0.03	0.16
20	2	13330	9.08	0.6	12.08	0	0.08	0.08
17	3	13070	0.23	0.15	14.77	0	0	0
25	1	13390	1.12	0.97	1.05	0	0.16	0.42
20	2	13150	7.53	1.52	12.09	0	0.61	0.67
20	4	13325	4.68	2.42	25.77	0	2.65	0.11
24	1	13010	3.69	0.46	3.61	0	0	0.52
23	4	12902	3.36	2.19	6.17	0.02	1.02	0.39
24	1	13380	1.12	0.6	4.11	0	0	0.04
24	1	13380	1.12	0.6	4.11	0	0	0.04
23	1	13040	3.68	0.23	6.75	0	0.05	0.26
25	1	13020	3.76	0.23	3.76	0	0	0.53
25	1	13380	0.82	0.6	0.75	0	0	0.2
24	1	13380	1.12	0.6	4.04	0	0	0.01
18	2	11530	10.41	0.95	11.88	0	0	0
23	1	12550	21.12	0	9.96	0	0	0

19	2	12170	6.98	0.33	9.2	0	0	0
23	1	13070	3.83	0.23	6.96	0	0.05	0.51
25	1	13380	0.75	0.6	0.75	0	0	0.12
20	1	13300	1.5	1.13	17.29	0	0.18	1.01
25	1	13080	3.59	0.08	3.59	0	0	0.28
Average gaps			3.98	0.74	8.01	0	0.21	0.32
Average times [s]					176	232	240	645

The superiority of *LAG* over *SG* is significant. This is mainly due to the fact that *LAG*, with the parameter p , explores the impact of future possible insertions. Tabu search does not show amazing improvements on the greedy heuristics. One can conjecture that it is due to the fact that f^* is not far from the optimum. TS_1 is a method to avoid as it obtains poor results. This is probably due to the full freedom given to *DGA* to build a solution, when compared to the other algorithms. TS_4 is less competitive than TS_2 and TS_3 . This can be easily explained by the fact that TS_4 does not let *DGA* any choice on the solution building. It is thus not surprising that TS_4 is the fastest method (regarding the time needed per iteration) of the *TS* family, as *DGA* does not have to perform many tests to insert an item at the best position. However, even if TS_4 is the fastest method per iteration, it is the slowest method to find its best solutions. Experiments clearly show that some freedom should be given to *DGA*, as TS_2 and TS_3 are the most powerful tabu search methods. Remember that the difference between TS_2 and TS_3 is the carried information O or S . As TS_2 has the minimum gap on 29 instances over 30, it shows that O is the most important feature to carry in the encoded solution s . This can be explained in the sense that the orientation O has an important impact, as it clearly drives s^{real} by forcing the orientation of each item.

3. MNTS FOR JOB SCHEDULING

3.1. Presentation of the considered problem (P)

On the one hand, the range of problems consisting in selecting a subset of given jobs, and then in scheduling them in order to minimize rejections and some other costs, are called *order acceptance and scheduling* problems (OAP). It has been studied in various scheduling environments and a review is given in (Slotnick, 2011). Such problems are particularly relevant in make-to-order production systems (Zorzini et al., 2008). On the other hand, earliness and tardiness penalties have captured a lot of attention due to their correspondence with the just-in-time paradigm. In (Valente & Gonçalves, 2009), it is mentioned that the use of quadratic tardiness functions is appropriate to model customers' dissatisfaction. In (Valente et al., 2011), the authors emphasize that quadratic penalties avoid situations in which only a few jobs contribute to the objective function.

When the production capacity of a company is overloaded, all received orders cannot be performed on time. It then makes sense to reject some of them. In the considered problem (P), following the customers' requirements, a *due date* corresponds to the date at which an order has to be delivered. Late deliveries lead to customers' dissatisfaction, which is modeled by a quadratic tardiness penalty depending on the completion time of the job. The *deadline* corresponds to the point in time where the dissatisfaction associated with the rejection of the order, modeled by a rejection penalty, is equal to the dissatisfaction of delivering late. In other words, it is preferable to reject the order to allow the client to get its goods by another supplier. Usually, no job can be scheduled before its *release date*. It often corresponds to the date at which all the necessary raw material is ready to be used. In contrast, release dates can be reduced in (P) if a quadratic earliness penalty (depending on the starting time of the job) is paid. Obviously, there is a lower bound and no job can start before its *available date*. The use of controllable release dates is relevant in practice. As explained in (Shakhlevich & Strusevich, 2006), it may be profitable for the manufacturer and its suppliers to cooperate. In some cases, a supplier can allow to deliver raw material earlier, which reduces the release dates at the manufacturer's level. In counterpart, the manufacturer will pay a higher price to the involved supplier, which creates a win-win situation.

Between two consecutive jobs j and j' of different families F and F' , a setup time $s_{FF'}$ must be performed and a setup cost $c_{FF'}$ is incurred. The considered problem (P) can be formally stated as follows. A set of n jobs is given, a subset of these jobs has to be selected and scheduled (without preemptions but idle times are allowed) on a single machine which can handle only one job at a time. For each job j are given: a processing time p_j , an available date R_j , a release date r_j , a due date d_j , a deadline D_j , and a rejection penalty u_j . Let C_j and B_j respectively denote the completion time and the starting time of job j . In a feasible solution, each accepted (i.e., not rejected) job j satisfies $C_j \leq D_j$ and $B_j \geq R_j$. The earliness and tardiness penalties are respectively defined as follows:

- $E_j(B_j) = w_j \cdot (r_j - B_j)^2$ if $B_j < r_j$, and 0 otherwise;
- $T_j(C_j) = w_j' \cdot (C_j - d_j)^2$ if $C_j > d_j$, and 0 otherwise.

The objective function to minimize is the sum of the three following components: (1) the setup costs $c_{jj'}$ between every successively performed jobs j and j' ; (2) the rejection penalties u_j associated with each rejected job j ; (3) the earliness and tardiness penalties $E_j + T_j$ for all accepted jobs j . In the context of (P), the reader interested in additional references is referred to (Yalçın et al., 2007; Oguz et al., 2010; Cesaret et al., 2012; Thevenin et al., 2013).

In (Thevenin et al., 2012), a greedy algorithm and a tabu search are proposed for a similar problem but with *regular* (i.e., non-decreasing) cost functions instead of earliness and tardiness penalties. In contrast with most scheduling objective functions, the one considered in (P) is not regular since earliness penalties are decreasing functions of the completion times. When objective functions are regular, most algorithms solving a single machine scheduling problem consist in finding an ordered sequence of jobs. From such a sequence, a schedule is easily built by starting each job as early as possible. In case of non-regular cost functions, the insertion of idle times may decrease the costs. Therefore, building an optimal schedule when a production sequence is given is not as easy, and can be time-consuming. The timing procedure proposed in (Hendel & Sourd, 2007) is adapted for (P), which is particularly efficient within the framework of local search algorithms.

3.2. Solution methods for (P)

To solve (P), a solution s is modeled by an ordered sequence $\sigma(s)$ of jobs, and a set $\Omega(s)$ of rejected jobs. Given such a solution representation, the timing procedure computes the starting and ending times of each job of $\sigma(s)$, such that the objective function is minimized. A greedy algorithm and a tabu search approach are now presented for (P). The first phase of the greedy method consists in sorting the jobs by increasing *slack time* $(D_j - R_j - p_j)$, where ties are broken by decreasing rejection penalties u_j . In a second phase, jobs are taken one by one in the previously defined order, and inserted in the schedule at the position minimizing the costs. Note that a job is rejected if it is better than inserting it. The insertions are enforced, that is, other jobs can be deleted to maintain feasibility. The associated repairing procedure is explained below.

Four types of straightforward moves can be used for tabu search. All moves are enforced by using one of the repairing procedures described later.

- N_1 : *Add* takes a rejected job and inserts it in the schedule.
- N_2 : *Drop* takes an accepted job and removes it from the schedule.
- N_3 : *Reinsert* takes an accepted job and inserts it elsewhere in the schedule.
- N_4 : *Swap*, exchanges the position of two jobs in $\sigma(s)$.

Five different tabu structures are designed. The first (resp. second) forbids to add (resp. removing) a dropped (resp. added) job during t_1 (resp. t_2) iterations. The third forbids to move a job which has been added/reinserted/swapped during t_3 iterations. The fourth forbids to move a job j between its two previous neighbors of $\sigma(s)$ during t_4 iterations, if j has been reinserted/swapped. As the cost function associated with each job is constant over the interval $[r_j, d_j]$, it induces plateaus in the search space. To escape from them, a tabu status is associated with the cost of the most recently visited solutions during t_5 iterations: it is forbidden to visit a solution whose cost is tabu.

As mentioned above, inserting a job may lead to an unfeasible solution due to available dates and deadlines constraints. To maintain feasibility, a repairing procedure must delete some jobs, and the choice of those jobs is a crucial point in local search methods for OAP. Note that a *Reinsert* move can be performed by a *Drop* move followed by an *Add* move, and a *Swap* move consists of two *Drops* followed by two *Adds*. As dropping a job cannot lead to unfeasible solutions, a repairing procedure is only needed for the move *Add*. Assuming that job j is inserted at position p , three repairing procedures can be compared.

- $REPAIR_1$. Remove randomly a job adjacent to position p until the insertion of j is possible. Deleting jobs which are adjacent to the insertion position reduces the shifting of other jobs, which is expensive with quadratic penalties.
- $REPAIR_2$. Let j' and j'' be two jobs such that j' is at the left of p , and j'' at its right. Jobs j' and j'' are *blocking* if by shifting j' (resp. j'') as most as possible towards the left (resp. right), the insertion of j is still not possible. $REPAIR_2$ deletes one of the closest blocking jobs to p until the insertion of j is possible. These blocking jobs are likely to be associated with large earliness/tardiness penalties, and dropping them should not be expensive.
- $REPAIR_3$. While the solution is not feasible, greedily remove a job (based on the costs).

3.3. Results

To generate a set of instances for (P), two critical values are used: the number n of jobs, and a parameter α which controls the interval of time in which release dates and due dates are generated. More precisely, a value *Start* is chosen large enough, and *End* is equal to $Start + \alpha \cdot \sum_j p_j$. Then, r_j is chosen in the interval $[Start, End]$, and d_j in $[r_j + p_j, End]$. Basically, methods are likely to reject more jobs for small values of α . n belongs to $\{25, 50, 100, 200\}$ and α to $\{0.5, 1, 2\}$. One instance for each pair (n, α) is generated. The weights w_j and w'_j are randomly chosen in $\{1, 2, 3, 4, 5\}$. D_j and R_j are chosen such that $T_j(D_j) = E_j(R_j) = u_j$. p_j is an integer randomly chosen in $[50, 100]$. As observed in realistic situations, the rejection penalty u_j is related to the processing time: $u_j = \beta \cdot p_j$, where β is an integer randomly picked in $[50, 200]$. The number of job families belongs to $[10, 20]$. Setup times and costs are likely to be related in realistic situations, therefore $s_{FF'}$ is chosen in $[50, 200]$ and $c_{FF'} = \gamma \cdot s_{FF'}$, where γ is chosen in the interval $[0.5, 2]$.

Four methods are compared. *Greedy* refers to the greedy method combined with *REPAIR*₂ (the other repairing procedures do not provide good results when combined with *Greedy*). *TS*_{*i*} is the tabu search using repairing procedure *REPAIR*_{*i*} (with $i \in \{1, 2, 3\}$). Parameters $(t_1, t_2, t_3, t_4, t_5)$ are set to $(80, 60, 90, 180, 30)$ for $n \in \{50, 100, 200\}$, and to $(20, 20, 15, 25, 10)$ for $n = 25$. Average results (over 5 runs) are presented in Table 2, where the column f^* reports the best result found by any of the presented methods for the considered instance. In each cell is indicated the percentage gap between the average result obtained by the concerned method and f^* . The results clearly show the superiority of tabu search over *Greedy*, as the gap obtained by the best tabu search is 9.22%, versus 28.70% for *Greedy*. Tabu search with repairing procedure *REPAIR*₃ obtains the best results for 8 instances over 12, however the results obtained for large instances are bad. This is not surprising as *REPAIR*₃ is efficient but very slow. *REPAIR*₂ is slightly better than *REPAIR*₁: their respective average gaps are 9.22% and 10.22%. One would thus advise the use of repairing procedure *REPAIR*₃ for small instances, and *REPAIR*₂ for larger ones.

Table 2. Computational results

n	α	f^*	<i>Greedy</i>	<i>TS</i> ₁	<i>TS</i> ₂	<i>TS</i> ₃
25	0.5	115361	0	0.13	0	0
25	1	28602	6.7	0	7.39	0
25	2	149134	0	0	0	0
50	0.5	237414	0.89	2.03	3.62	0
50	1	148237	12.88	13.12	11.39	4.22
50	2	38899	32.4	2.72	2.55	0
100	0.5	550950	5.36	3.33	4.69	1.11
100	1	339100	23.9	12.77	10.95	3.54
100	2	31706	176.18	57.88	42.38	204.47
200	0.5	934898	22.17	0.94	1.43	10.66
200	1	473244	68.62	3.03	4.62	84.63
200	2	42397	302.82	11.44	12.45	1586.88
Average			28.7	10.22	9.22	23.7

4. MNTS FOR INVENTORY MANAGEMENT

4.1. Presentation of the considered problem (P)

In most inventory management problems, two types of decision have to be made at the manufacturer level: *when* and *how much* to order to suppliers. It is assumed that setup, carrying and shortage costs are encountered during the year. Usually, inventory management models are characterized by stochastic demand and constant lead times. In contrast, the approach proposed in (Silver & Zufferey, 2005) and generalized below deals with the situation where there is a constant known demand rate, but probabilistic lead times whose probability distributions change seasonally. The lead times for different orders are assumed to be independent, thus crossovers can occur. Therefore, the interactive effects between different cycles (a *cycle* is defined as the time between two consecutive orders) due to the occurrence of shortages are difficult to model. Consequently, even if the annual *approximated* costs can be analytically computed with a mathematical function f , simulation (of the lead times) is the only way to compute the annual *actual* costs F of a solution.

The considered problem (P) was motivated by the management of raw material at a sawmill in North America. Without loss of generality, consider a 52-weeks planning horizon (a time period is a week). A solution (P, S) can be modeled by

two vectors P and S defined as follows: $P_t = 1$ if an order occurs at the beginning of week t , and $P_t = 0$ otherwise; S_t is the order-up-to-level of available inventory at the beginning of week t if $P_t = 1$, and $S_t = 0$ if $P_t = 0$. The following reasonable assumptions are made. (1) It is possible to analytically *approximate* the annual costs with a function $f(P, S)$ relying only on P , S and the probability distributions of the lead times. (2) It is possible to compute $F(P, S)$ (i.e., the annual *actual* costs) with a simulation tool. (3) Based on f , it is possible to analytically compute S from P with a so-called *Compute(S/P)* procedure. As a consequence, anytime P is modified, its associated S vector can be immediately updated with *Compute(S/P)*.

4.2. Design of a solution method

Due to the non-stationarity in the lead time distribution, the problem is combinatorial in nature (choice of the P_t 's and S_t 's). Moreover, simulation is required to compute the actual cost of a solution. Thus, it makes sense to use (meta) heuristics. The solution space $X(N)$ is defined as the set of all the solutions (P, S) with N orders. The approach consists in providing good solutions for different solutions spaces, starting with $U(N)$ orders and ending with $L(N)$ orders, where $U(N) \leq 52$ (resp. $L(N) \geq 1$) is an upper (resp. a lower) bound on N . At the end, the overall best solution is returned to the user. For a fixed solution space $X(N)$, the following steps are performed.

- (S1) Generate an initial solution (P, S) with N orders as equi-spaced as possible.
- (S2) Based on f , try to reduce the approximate costs of (P, S) with a tabu search $TS_f(P, S)$ working on P (using neighborhood N_1 , as described below).
- (S3) Based on F and without changing P , apply a descent local search $DLS(S)$ working on S (a move in this neighborhood N_2 consists in augmenting or reducing an S_t by one unit).

In $TS_f(P, S)$, a move in the neighborhood structure N_1 consists in putting an order earlier or later, but without changing the global sequence of orders. When an order is moved, then it is forbidden (tabu) to move it again for *tab* (parameter depending on N) iterations. The stopping condition is a maximum number *Iter* (parameter) of iterations without improvement of the best visited solution.

An extension of $TS_f(P, S)$, denoted $TS_f^M(P, S)$, is now presented for step (S2). Instead of only providing a single solution, a set M containing m (parameter) promising local optima is provided (promising according to the quality function f and a diversity function $Div(M)$). To achieve this, additional ingredients are now defined. The distance between P and P' is $Dist(P, P') = \sum_t |P_t - P'_t|$. The distance between P and a set M of solutions is defined as $Dist(P, M) = |M|^{-1} \cdot \sum_{P' \in M} Dist(P, P')$. The *diversity* of a set M of solution is computed as $Div(M) = |M|^{-1} \cdot \sum_{P \in M} Dist(P, M - \{P\})$. M is initialized with solutions randomly generated. Let P be a solution found by tabu search at the end of an iteration. The key idea is the following: P should replace a bad (according to f) solution of M which poorly contributes to its diversity $Div(M)$. More precisely, let M' be the subset of M containing the m' (parameter) worst solutions of M , for which the worst value is f^{**} . Let $P^{(div)}$ be the solution of M' minimizing $Dist(P', M - \{P'\})$. Then, if $f(P) > f^{**}$, M is not updated. Otherwise, P replaces $P^{(div)}$. The resulting metaheuristic is summarized in Algorithm 2, relying on neighborhoods N_1 (modify P) and N_2 (modify S). The returned solution is (P^*, S^*) with an actual cost of F^* , which is the best solution visited in all the considered solution spaces.

Algorithm 2: General approach for (P)

Initialization: set $F^* = \infty$ and $N = UB(N)$.

While $N \geq LB(N)$, do

- generate an initial solution P with N orders as equi-spaced as possible;
 - apply $TS_f(P, S)$ or $TS_f^M(P, S)$, and let $M = \{P^{(1)}, \dots, P^{(m)}\}$ be the resulting set of local optima according to f ($m = 1$ if $TS_f(P, S)$ is used);
 - for $i = 1$ to m , do: apply $DLS(S)$ on $(P^{(i)}, S^{(i)})$;
 - set $(P, S) = \arg \min_{i \in \{1, \dots, m\}} F(P^{(i)}, S^{(i)})$;
 - if $F(P, S) < F^*$, set $(P^*, S^*) = (P, S)$, and $F^* = F(P, S)$;
 - reduce N by one unit;
-

4.3. Results

The experiments were performed on a PC Pentium 4 (1.6 GHz/1 Go RAM). The parameters $Iter$, m and m' were respectively set to 1000, 10, 3. As the method has to plan the orders for a whole year, the computing time is not an issue (but an hour of computation is never exceeded). Each instance is characterized by its cost parameters (the fixed setup cost A per order, the inventory cost h per unit per period, the shortage cost B per missing unit). For each period t is known the minimum (resp. most likely and maximum) lead time a_t (resp. m_t and b_t). From these three values, discrete triangular distributions can be easily constructed. Two types T_1 and T_2 of instances were generated according to two sets of lead time distributions, with 24 instances per type (which differ according to A , h and B). Set T_1 is based on realistic data from the sawmill context, and is characterized by $a_t \in \{2, 5\}$, $m_t \in \{3, 7\}$ and $b_t \in \{6, 13\}$. Set T_2 , which represents a form of sensitivity analysis (the variation of the lead times is larger), is characterized by $a_t \in \{1, 8\}$, $m_t \in \{2, 10\}$ and $b_t \in \{5, 16\}$. In Table 3 is provided a summary of the average percentage improvements (over a basic constructive heuristic based on an EOQ analysis) provided by the general presented approach relying on $DLS(P)$ (where a descent local search is performed at step (S2) instead of tabu search), $TS_f(P,S)$ and $TS_f^M(P,S)$, respectively. The results are shown for three levels of B and for the two sets T_1 and T_2 . Unsurprisingly, the potential benefit of the three methods augments as the seasonality is increased. One can observe that $TS_f^M(P,S)$ outperforms $TS_f(P,S)$, and both methods are better than $DLS(P)$.

Table 3. Compact comparative results

Method	Set T_1			Set T_2		
	Small B	Average B	Large B	Small B	Average B	Large B
$DLS_f(P,S)$	1.39	1.52	1.61	3.75	3.58	3.47
$TS_f(P,S)$	1.72	1.82	2.01	4.15	4.05	3.74
$TS_f^M(P,S)$	1.82	1.86	2.16	4.18	4.06	3.79

5. MNTS FOR DIMENSIONING ASSEMBLY LINES

In this section, a tabu search based on various moves with different amplitudes is first presented, and then adapted to the dimensioning of assembly lines.

5.1. Tabu search within a simulation context

Let $X = (X^1, X^2, \dots, X^u)$ be a solution of problem (P) which consists in maximizing an objective function f . Each X^i is a vector of size $s(i)$ and can be denoted $X^i = (x_{1'}^i, x_{2'}^i, \dots, x_{s(i)'}^i)$, where the $x_{j'}^i$'s are real number. The following limitation constraint has to be satisfied for each i : $\sum_j x_{j'}^i = c^i$. As random events can occur, it is assumed that f can only be evaluated with a simulation tool. In such a context, within a local search framework, it is straightforward to define a move in three steps:

- (A) select a decision variable type i ;
- (B) augment (resp. reduce) an $x_{k'}^i$ by an amount of w ;
- (C) reduce (resp. augment) some other $x_{j'}^i$'s (with $j \neq k$) by a total amount of w (in order to satisfy the limitation constraint).

Within a tabu search framework, if a decision variable $x_{k'}^i$ is augmented (resp. reduced), it is then forbidden to reduce (resp. augment) it during tab^i (parameter) iterations. The three key issues are presented below, and the various neighborhood structures N_1, N_2, \dots result from these issues.

- (I1) Which type of decision variable should be selected in (A)?
- (I2) What is the amplitude w of the move in (B)?
- (I3) How should the solution be adjusted in (C)?

According to issue (I1), u types of phase are used in the solution method: each phase of type i works on X^i without modifying the other X^j 's ($j \neq i$). Each phase of type i can be performed during I_{max}^i (parameter) uses of the simulator. Working with phases (i.e., on one decision variable type at a time) allows to having a better control on the search.

To tackle issue (I2), and in contrast with classical tabu search approaches, the move amplitude w is dynamically updated during each phase of the search, within interval $[w_{min}^i, w_{max}^i]$ (parameters). Each phase starts with $w = w_{max}^i$, and anytime

l^i (parameter) iterations without improvement of the best encountered solution X^* have been performed, w is reduced by δ^i (parameter), but never under w_{min}^i . If a move leads to a solution better than X^* , the process restarts with $w = w_{max}^i$. This strategy allows to progressively focus on a promising region of the solution space.

Issue (I3) depends on the two other issues: if x_k^i has been selected for a variation of w , the search process should focus on that decision and not modify as much the other decision variables (of the same type) in order to adjust the solution with respect to the associated constraint c^i . Thus, if x_k^i was augmented (resp. reduced) by w , the process should then equally reduce (resp. augment) the $s(i) - 1$ other variables (of the same type) by a total amount of w , which means that each decision variable is in average reduced (resp. augmented) by $[s(i)-1]/w$.

The resulting tabu search method is summarized in Algorithm 3, which returns the best encountered solution X^* with value f^* . At each iteration, the neighbor solution can be the best among a set of N (parameter) candidate neighbor solutions.

Algorithm 3: Tabu search with various amplitudes

Initialization

- generate an initial solution $X = (X^1, X^2, \dots, X^u)$;
- initialize the best encountered solution: set $X^* = X$ and $f^* = f(X)$;
- set $i = 1$ and $w = w_{max}^i$;

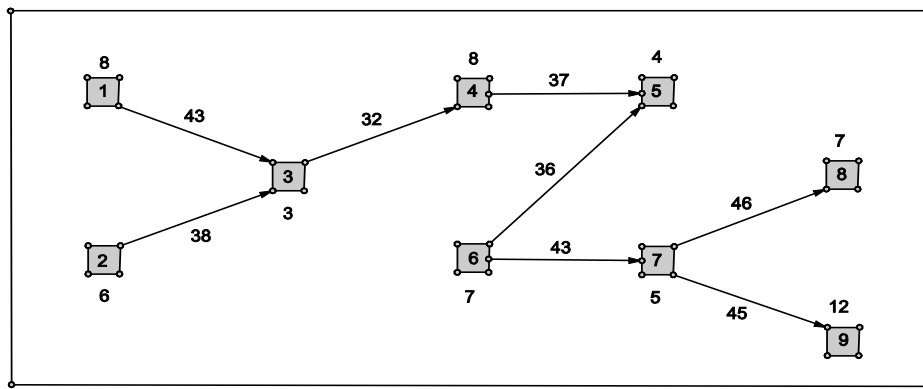
While the involved simulation software has not been used Q (parameter) times, do

- generate a non-tabu neighbor solution X_i' of X_i by modifying a variable x_k^i of X_i by w ;
 - update the current solution: set $X_i = X_i'$;
 - update the move amplitude w :
 - (a) if l^i iterations without improving X^* have been performed, set $w = w - \delta^i$;
 - (b) if $w < w_{min}^i$, set $w = w_{min}^i$;
 - (c) if $f(X) > f^*$, set $w = w_{max}^i$;
 - update the best encountered solution: if $f(X) > f^*$, set $X^* = X$ and $f^* = f(X)$;
 - update the tabu tenures: it is forbidden to modify x_k^i in the reverse way for tab^i iterations;
 - next phase: if l_{max}^i runs of the simulator were performed, set $i = (i \bmod u) + 1$ and $w = w_{max}^i$;
-

5.2. Application to the dimensioning of assembly lines

The above tabu search is relevant for dimensioning assembly/disassembly production systems. By dimensioning, one can refer to maximizing the production rate of a machine without successors, with respect to limited resources (e.g., buffer capacity between the machines, total cycle time of the machines). Papers in the field are (Dolgui et al., 2007; Shi & Gershwin, 2009). As random failures might occur on the machines, the software *Arena* is appropriate to evaluate a solution.

Consider a production system with m machines and n buffer zones, modeled by a graph $G = (V, A)$ with vertex set V and arc set A . Vertex v represents machine v and there is an arc (v, v') from v to v' if a piece processed on machine v has then to be processed on machine v' . Moreover, each arc (v, v') also represents a *buffer* (i.e., a limited zone where are stored the pieces between the associated machines). Two types of decision variables (i.e., resource types) are considered: the designed cycle time t_v for machine v , and the buffer capacity $b_{vv'}$ allocated to arc (v, v') . In Figure 4, a solution for a production network. The cycle time associated with machine 1 is $t_1 = 8$, and the buffer capacity between machines 1 and 3 is $b_{13} = 43$. The considered limitations are 60 for the total cycle time (i.e., $\sum_{v \in V} t_v = 60$) and 320 for the buffer capacity (i.e., $\sum_{(v,v') \in A} b_{vv'} = 320$).

Figure 4. Graph representation of a production system with $m = 9$ and $n = 8$ 

The above presented MNTS approach showed a very good performance on such a production system (Zufferey & Cheikhrouhou, 2012). Indeed, it was tested on the production network associated with Figure 4, for which each machine has its own role: machines 1, 2, 4, 8 and 9 are classical processing machines, machines 3 and 5 are assembling machines, and machines 6 and 7 are disassembling machines. The objective consists in maximizing the production rate of machine 5. The breakdown probability is 5% (associated with each time step) and its length is generated with a uniform distribution in interval [100, 800]. MNTS was compared with a descent local search DLS (the same algorithm as MNTS, but without considering tabu tenures), and a classical tabu search TS for which at each iteration, a move consists in augmenting/reducing any decision variable by any possible amount (followed by the adjustment of the other variables of the same type in order to meet the upper bounds). In TS, a sample of all possible amplitudes is considered at each iteration to modify the decision variable. A pool of 50 initial solutions were generated, which have an average production rate of 1.31 (pieces/minute). DLS was able to reach an average production rate of 1.39, TS obtained 1.37, and MNTS reached 1.41. It was also observed that the quality of the resulting solution negligibly depends on the initial solution, which indicates that MNTS is a robust approach.

6. CONCLUSIONS

In contrast with most of the existing literature on tabu search where only a single type of move is used at each iteration, this paper proposes MNTS (*Multiple Neighborhoods in a Tabu Search*). With a unified terminology, the success of some existing solutions methods is presented, which can be considered as belonging to the MNTS methodology. Problems in four domains are successively discussed: truck loading, job scheduling, inventory management, and assembly line dimensioning. It is important to mention that MNTS approaches were also successfully adapted in other fields (e.g., Hertz et al., 2009; Hertz et al., 2005; Schindl & Zufferey, 2013).

The performance of a metaheuristic can be evaluated according to several criteria (Zufferey, 2012b): (1) *quality*: value of the obtained results; (2) *speed*: time needed to get good results; (3) *robustness*: sensitivity to variations in problem characteristics and data quality; (4) *ease of adaptation*: the ability to organize the method so that it can appropriately apply to different specific classes of problems; (5) *ability to take advantage of problem structure* (considering that efficiency often depends on making effective use of properties that differentiate a given class of problems from other classes). MNTS has a good behavior according to these criteria. Indeed, the following ingredients make it possible: (1) the best non-tabu move is performed at each iteration, which contributes to quality; (2) speed is mainly allowed by the incremental computation used to compute the value of any neighbor solution; (3) the use of various neighborhood structures enhances the robustness as well as the quality; (4) only one solution is handled during the search, which makes the method fairly easy to adapt and quick; (5) a dedicated (in contrast with generic) solution encoding allows to accounting for the structure of the problem, and it also contributes to quality.

LITERATURE

1. Cesaret, B., Oguz, C., & Salman, F. S. (2012.) A tabu search algorithm for order acceptance and scheduling. *Computers & Operations Research*, 39(6), pp. 1197-1205. Special Issue on Scheduling in Manufacturing Systems.
2. Dolgui, A., Ereemeev, A., & Sigaev, V. (2007.) HBBA: Hybrid algorithm for buffer allocation in tandem production lines. *Journal of Intelligent Manufacturing*, 18(3), pp. 411-420.
3. Garey, M., & Johnson, D.S. (1979.) *Computer and Intractability: a Guide to the Theory of NP-Completeness*. San Francisco: Freeman.

4. Gendreau, M., & Potvin, J.-Y. (2010.) *Handbook of Metaheuristics*. International Series in Operations Research & Management Science, vol. 146. Springer.
5. Hendel, Y., & Sourd, F. (2007.) An improved earliness-tardiness timing algorithm. *Computers & Operations Research*, 34(10), pp. 2931-2938.
6. Hertz, A., Schindl, D., & Zufferey, N. (2005.) Lower bounding and tabu search procedures for the frequency assignment problem with polarization constraints. *4OR*, 3(2), pp. 139-161.
7. Hertz, A., Schindl, D., & Zufferey, N. (2009.) A Solution Method for a Car Fleet Management Problem with Maintenance Constraints. *Journal of Heuristics*, 15(5), pp. 425-450.
8. Hopper, E., & Turton, B.C.H. (2001.) An empirical investigation of meta-heuristic and heuristic algorithms for a 2D packing problem. *European Journal of Operational Research*, 128(1), pp. 34-57.
9. Lesh, N., Marks, J., McMahon, A., & Mitzenmacher, M. (2004.) Exhaustive approaches to 2D rectangular perfect packings. *Information Processing Letters*, 90(1), pp. 7-14.
10. Lodi, A., Martello, S., & Vigo, D. (1999.) Heuristic and Metaheuristic Approaches for a Class of Two-Dimensional Bin Packing Problems. *INFORMS Journal on Computing*, 11(4), pp. 345-357.
11. Lodi, A., Martello, S., & Monaci, M. (2002.) Two-dimensional packing problems: A survey. *European Journal of Operational Research*, 141(2), pp. 241-252.
12. Martello, S., & Vigo, D. (1998.) Exact Solution of the Two-Dimensional Finite Bin Packing Problem. *Management Science*, 44(3), pp. 388-399.
13. Martello, S., Monaci, M., & Vigo, D. (2003.) An Exact Approach to the Strip-Packing Problem. *INFORMS Journal on Computing*, 15, pp. 310-319.
14. Nguyen, A., & Brenaut, J.-Ph. (2009.) A truck loading algorithm for Renault's supply chain system. In: 23rd EURO Conference.
15. Ntene, N., & van Vuuren, J.H. (2009.) A survey and comparison of guillotine heuristics for the 2D oriented offline strip packing problem. *Discrete Optimization*, 6(2), pp. 174-188.
16. Oguz, C., Salman, S. F., & Yalcin, Z. B. (2010.) Order acceptance and scheduling decisions in make-to-order systems. *International Journal of Production Economics*, 125(1), pp. 200-211.
17. Pisinger, D., & Sigurd, M. (2005.) The two-dimensional bin packing problem with variable bin sizes and costs. *Discrete Optimization*, 2(2), pp. 154-167.
18. Puchinger, J., & Raidl, G. R. (2007.) Models and algorithms for three-stage two-dimensional bin packing. *European Journal of Operational Research*, 183(3), pp. 1304-1327.
19. Respen, J., & Zufferey, N. (2013.) A Renault Truck Loading Problem: from Benchmarking to Improvements. In: Proceedings of the 14th EU/ME Workshop (EU/ME 2013).
20. Riff, M.C., Bonnaire, X., & Neveu, B. (2009.) A revision of recent approaches for two-dimensional strip-packing problems. *Engineering Applications of Artificial Intelligence*, 22(45), pp. 823-827.
21. Schindl, D., & Zufferey, N. (2013.) Solution Methods for Fuel Supply of Trains. *Information Systems and Operational Research*, 51(1), pp. 22-29.
22. Shakhlevich, N. V., & Strusevich, V. A. (2006.) Single machine scheduling with controllable release and processing parameters. *Discrete Applied Mathematics*, 154(15), pp. 2178-2199.
23. Shi, C., & Gershwin, S. B. (2009.) An efficient buffer design algorithm for production line profit maximization. *International Journal of Production Economics*, 122(2), pp. 725-740.
24. Silver, E. A., & Zufferey, N. (2005.) Inventory control of raw materials under stochastic and seasonal lead times. *International Journal of Production Research*, 43, pp. 5161-5179.
25. Slotnick, S. A. (2011.) Order acceptance and scheduling: A taxonomy and review. *European Journal of Operational Research*, 212(1), pp. 1-11.
26. Thevenin, S., Zufferey, N., & Widmer, M. (2012.) Tabu search to minimize regular objective functions for a single machine scheduling problem with rejected jobs, setups and time windows. In: Proceedings of the 9th International Conference on Modeling, Optimization & Simulation (MOSIM 2012).
27. Thevenin, S., Zufferey, N., & Widmer, M. (2013.) Tabu Search for a Single Machine Scheduling Problem with Discretely Controllable Release Dates. Pages 1590 – 1595 of: Proceedings of the 12th International Symposium on Operations Research in Slovenia (SOR 2013).
28. Valente, J. M. S., & Gonçalves, J. F. (2009.) A genetic algorithm approach for the single machine scheduling problem with linear earliness and quadratic tardiness penalties. *Computers & Operations Research*, 36, pp. 2707-2715.
29. Valente, J. M. S., Moreira, M., Singh, A., & Alves, R. (2011.) Genetic algorithms for single machine scheduling with quadratic earliness and tardiness costs. *The International Journal of Advanced Manufacturing Technology*, 54, pp. 251-265.
30. Yalçın, Z. B., Oguz, C., & Salman, S. F. (2007.) Order Acceptance and Scheduling Decisions in Make-to-Order Systems. Pages 80–87 of: Proceedings of the 3rd Multidisciplinary International Conference on Scheduling: Theory and Application (MISTA 2007).
31. Zorzini, M., Corti, D., & Pozzetti, A. (2008.) Due date (DD) quotation and capacity planning in make-to-order companies: Results from an empirical analysis. *International Journal of Production Economics*, 112(2), pp. 919-933.
32. Zufferey, N. (2012a.) Dynamic Tabu Search with Simulation for a Resource Allocation Problem within a Production Environment. In: Proceedings of 4th International Conference on Metaheuristics and Nature Inspired Computing (META 2012).
33. Zufferey, N. (2012b.) Metaheuristics: some Principles for an Efficient Design. *Computer Technology and Applications*, 3(6), pp. 446-462.
34. Zufferey, N. (2014.) Tabu Search with Diversity Control and Simulation for an Inventory Management Problem. In: Proceedings of the 5th International Conference on Metaheuristics and Nature Inspired Computing (META 2014).

35. Zufferey, N., & Cheikhrouhou, N. (2012.) Tabu search using variable amplitudes for dimensioning an assembly/disassembly production system. In: Proceedings of the 13th International Workshop on Project Management and Scheduling (PMS 2012).
36. Zufferey, N., & Vasquez, M. (2015.) A Generalized Consistent Neighborhood Search for Satellite Scheduling Problems. *RAIRO Operations Research*, 41(1), pp. 99-121.

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THE FINANCIAL INCENTIVES MANAGEMENT INCLINED TOWARDS ENTREPRENEURS AND ITS APPEARANCE ON E.U. COUNTRIES AND TURKEY

A. NIYAZI ÖZKER

ABSTRACT

The financial incentives aimed at both the fiscal balances and increasing productivity, which are primary objectives by developing countries. This fact has an important systematic role as a systematic plan including the innovation strategies. All over the world, governments should be making financial development programs to the future while they keep the aimed fiscal balances and fiscal incentives in the related other macroeconomic facts. Therefore, they need the optimal fiscal management and public incentive programs having to be shaped via public decision-making, which aim to increase the market productivity level and entrepreneurs' catching the fiscal resources. In addition, developing countries, like Turkey, need taking lessons from EU countries because of their developed financial management and profitable growth, which is only occurred by means of the suitable fiscal allocation in the productivity market. Hence, the innovation strategies related to financial incentives in the scope of financial management have to be constructed by public decision makers oriented toward entrepreneurs. These structural approaches assist in GDP by the way of investments and market dynamics. On the other hand, the financial applications can inhibit some the aimed utility of financial incentives, but the national tax structure and tax applications would not be suitable and congenial in the current fiscal events. However, the public financial management that is carried on by public fiscal approach must be revised and regulated aimed at entrepreneurs and national investments. This means that financial incentives decisions have to be considered by financial market dynamics together with in the production and market entrepreneurs. It appears that this approach results in fiscal enabling factors, which regard the fiscal knowledge capabilities in the innovation-cycle management.

KEY WORDS: financial incentives, fiscal balances, fiscal knowledge, innovation-cycle management.

1. INTRODUCTION

The financial incentives that aim to develop the sectorial investments in the suitable manner entrepreneurs' decisions have an important role in the economic growth process and this fact needs to improve throughout the financial applications' structural location related to public fiscal management process. The financial application plans that go into effects have to comprise benchmarking process consulting practical process oriented towards the long-term. There are structural questions which have been inevitably dealt with in the financial applications process required because of the many studies have explored the effect of varying levels of incentive in many different tasks.

Undoubtedly, in the same process, these analyzes of structural about financial incentives are very important both the impact of trend and the course of financial inventions that are effected by public decision-making process drawing up the attention of probably business innovations throughout the extensive markets and sectoral dynamics¹. The financial practices' roadmap that integrate public law that regulate markets and business fiscal conditions shapes these tributary trends and process, which mean that the market interventions are supported via the public financial supports. We know well that the entrepreneurs assume to reach the expected utility of their investments via the aimed maximum profits within respect to the financial market dynamics together with the currency public financial politics, which should be taken into consideration macroeconomic balances in the same period.

In addition, the entrepreneurs have financial management and applications that are controlled by market dynamics and these components are usually manipulated by entrepreneurs' practice operations in the market relationships. The structural market relationships' have to be selected, as relating with their budgets constraints, by the entrepreneurs aiming to rise to the occasions². In the point, sometime the market structure covering the financial market risks directed towards entrepreneurs can be in the opposite of liberal political approaches or this phenomenon needs to public interventions aiming to regulate the structure of investment dynamics to bring into macro balance. In the other hand,

¹ Salvador Barrios Cobos, Holger Görg and Eric Strobl (2002), Multinationals' Locations Choice, Agglomerations Economies and Public Incentives, **ECONSTOR**, Working Paper-Internationalization of Economic Policy Research Paper: 2002\33, Leibniz: Leverhulme Centre for Research on Globalization and Economic Policy and Leibniz Information Centre of Economics, 2002\33, p. 3.

² Hideki Nishigaki (2008), "Are The Fiscal Policies and monetary Policies of The G-7 Countries Effective in Decreasing The U.S. Trade Deficits", **Economics Bulletin**, Vol. 6, No: 27, (July 2008), p. 4.

the matter that must be required is how it can be management in a suitable manner, which creates the optimal market value on a sustainable basis and dynamic balances³. Therefore, the entrepreneurs have to consider some important points in contact with public financial management including financial incentives in term of public applications. Certainly, these mutual approachable relations have some important futures pertaining to ensure the financial dynamics in order to maintain the desired effects of financial incentives inclined towards entrepreneurs that plan for the investments in the complex market relationships.

Many developing countries simply do not possess the resources to make these kinds of investments and the importance of innovations capability for investment decisions depend on the largely location in public financial incentives⁴ as the divided financial values. Therefore, some the prime costs for assessment of investment risks can bring up sectoral awareness programs and policy coordination to improve understanding of sustainable investing throughout financial decision making process in term of entrepreneurs in order to establish the optimal investments conditions⁵. So, the probable innovations or sectoral investments dynamics to the future have to be considered together with the oriented financial valuation assisting GDP's augmentations meaning all the publically incentives must be taken up the additive criteria giving financial values to GDP⁶. The effective financial instruments for the investments' management need to support via public decisions and interventions because of the market failures generally can be maintained by public regulations in the wrong financial approaches that which fact gives responsibility of financial obligations⁷.

In addition, investors and entrepreneurs need to more understand the level of financial management effects considered in the scope of public financial supports connecting with the macroeconomics objectives⁸. Therefore, sectoral development agencies including private investment dynamics have to being regulated in the common knowledge as a systematic management⁹. This described financial fact should bring up the potential improvements' level throughout the financial management inclined towards the desired investments in contact with the market opportunity. Promoting external funding via publically financial supports the portfolio investments should be aligned with sustainable financing strategies to supplement local and regional funds for sectoral developments by financial incentive decisions. In this respect, the public financial intensives have an important role in the being talked of sectoral development process due to the financial supports and incentives reduce entrepreneurs' investment risk as the basic principle of priority factorial costs coordinating to improve understanding of sustainable investing¹⁰.

As Turkey developing countries that aim joining to EU in their own progression, know that national investments are not enough aimed at both economic growth and integrations process. Developing countries must deal with international capital movements' advantages by way of financial regulations' positive effects. In the other hand, these being talked of countries should come to terms with the other important structure alterations appeared in their national fiscal process. Therefore, developing countries have to be considered together with theirs different fiscal futures comparing with the other members of EU countries' financial structures. Namely, their financial incentives limits inclined towards entrepreneurs have to be debated in the normative financial formation comparing with the developed countries in EU framework¹¹.

2. THE SYSTEMATIC STRUCTURE OF FINANCIAL INCENTIVES IN TOUCH WITH INVESTMENTS AND ENTREPRENEURS

We know that the classic due diligence via financial tools and financial actors interested in funding can highly assess inclined toward SMEs¹², which based on the past performance and level of assist in GDP. But, the main problem is that their can not properly determine an SME's innovation capability related to financial incentives due to legal relating to

³ Nishigaki, p. 6.

⁴ Europe Innova- Innovation Management, "The Importance of Innovation Management Performance for Financial Investors Decision-Making: Lessons Learned from The Survey of German Investors", **Europe Innova Paper February 2011**, Duesseldorf: European Commission Directorate General Enterprise and Industry-The IMP³rove-Europe an Innovation Academy, February 2011, p. 3.

⁵ Graham Elliot, Ivana Komunjer and Allan Timmerann (2005), "Estimation and Testing of Forecast Rationality Under Flexible Loss", **Review of Economic Studies**, Vol. 27, No. 2, p. 1114.

⁶ Cobos, Görg and Strobl, p. 17.

⁷ Europe Innova- Innovation Management, p. 7.

⁸ Joseph E. Stiglitz (2000), **Economics of The Public Sector**, 3rd Ed., New York: W.W. Norton & Company, p. 780.

⁹ Europe Innova- Innovation Management, pp. 3-4.

¹⁰ David Burgstahler, Luzi Hail and Cristian Leuz (2004), "The Importance of Reporting Incentives: Earnings Management in European Private and Public Firms", **Public Institutions Center**, (February 2004), p. 21

¹¹ Eva Diedrichs, Kai Engel and Kristina Wagner (2006), "Assessment of Current Practices in Innovation Management Consulting Approach and Self-Assessment Tools in Europe to Define The Requirements for Future "Best Practices", **European Innovation Management Landscape Europe Innova Paper No: 2,,** Duesseldorf: European Commission Directorate General Enterprise and Industry-The IMP³rove-Europe Innovation Academy, (November 2006), p. 19.

¹² SMEs = Small and Medium Enterprises

law publically regulations' lacks. Hence, the financial incentive structures that are supported by financial actors need to be frequently considered in the scope of innovation management with currently application towards entrepreneurs and investments. In this point, certainly the normative structure of financial regulations depends on the publically sanctions that are suggested by making the right investment decisions taking into considerations the public polls, sectoral purposes and publically choices to the future¹³.

First of all, the systematic structure financial incentives is well-adjusted and taken by public decisions in the under business conditions and the management approaches that make a change have to be involved in the line business strategies¹⁴. In the other hand, EU countries' politic cultures and involving market evaluation process are the main characteristics, which designate the institutionally financial relations related towards financial incentives management connected with entrepreneurs. The improvement of enabling factors giving a business-investment opportunity is directly committed to the financial management performance and control including the transparency of financial incentives' application in touch with financial resources' allocation¹⁵. In the other hand, these improve level express the national innovation capability aimed at both public and private sectors in order to divide up among themselves. The financial incentives being founded on the national saving and tax income in the current period including overall political stability with the degree to which rule of law is respected and enforced by the financial laws and regulations that impact access to capital and credit aimed at the improvement of entrepreneurs. The systematic structure of innovation in the financial framework can separate in appearance fundamental five points in each other as follow¹⁶:

Figure 1. Innovation Circular Process Aimed at Financial Management and Financial Reasonable Approaches



Figure 1 express the important circular circumstances in the deductive reasoning points directly aimed at the financial management process connected with investments from public incentives to entrepreneurs. This means that an effective response to meaningful capital formation that require also regulatory financial interventions covers the financial process improving the capacity of banks together with the other financial institutions¹⁷ as well. And undoubtedly, the principal objectives aimed tightening regulatory financial flush to the investment markets have the limited credit reserves in the application process including thorough more less risk and financial cost¹⁸. Hence, the financial management unit, as seen on the figure 1, that inevitably connects with in the circular flexibility is in the linear adjustment both institutional and financial applicable dynamics.

¹³ Laura Albereda, Josep M. Lozano and Tamyko Ysa (2007), "Public Polices on Corporate Social Responcibility: The Role of Governments in Europe, *Journal of Business Ethics*, Vol. 74, (Springer 2007), p. 92.

¹⁴ Europe Innova- Innovation Management, *The Importance of Innovation Management Performance for Financial Investors Decision-Making*, p. 4-5.

¹⁵ Yoshihiro Toyoma, "Privatization of Public Enterprises and It's Problems in Japan", *International of Social Economics*, Vol. 25, No: 2-4, (1998), pp. 391-392.

¹⁶ Europe Innova- Innovation Management, *The Importance of Innovation Management Performance for Financial Investors Decision-Making*, p. 8.

¹⁷ The World Bank, *Turkey Country Economic Memorandum: Sustaining High Growth: Selected Issues*, Vol. II-Expanding Report, Report No: 39194, (April 2008), p. 31.

¹⁸ Tanzi, Vito, "Financial Markets and Public Finance in Transformation Process", in *Transition to Market: Studies in Fiscal Reform*, Vito Tanzi (ed.), Washington D.C.: International Monetary Fund, (1993), pp. 13-14.

3. THE IMPACTS OF STRUCTURALLY APPROACHES IMPROVING THE ASSOCIATED FINANCIAL UNITS OF PUBLICALLY FUNDS

We know that the publicly savings funds have an effectively locations using for entrepreneurs in the market investments, which must be considered directed towards market dynamics including the other financial resources. In addition, indeed the optimal financial distributions inclined towards entrepreneurs need the fiscal transparency having their locations and effects in financial application observing process controlling too¹⁹. Especially, the desired income and productivity levels covering small and medium enterprises have effectively a determinative structure for taking encouragement credits and financial incentives because of their systematic and methodological approaches reveal the different results sometimes²⁰.

Furthermore, it is not possible to find common management values that determine all the countries' approve the standardized financial rules in in the scope of circular application reasoning²¹. The methodological structurally approaches of investment management related to economic performance and entrepreneurs who favor changes at the basic investments ground directed toward the future include some the main developing points considered by public financial supports and the other public regulations in contact with the improving process. The methodological approach points possible to order as follow²²:

Figure 2. The Interactions and Responsibilities in The Innovations' Methodological Approach Aimed at Entrepreneurs

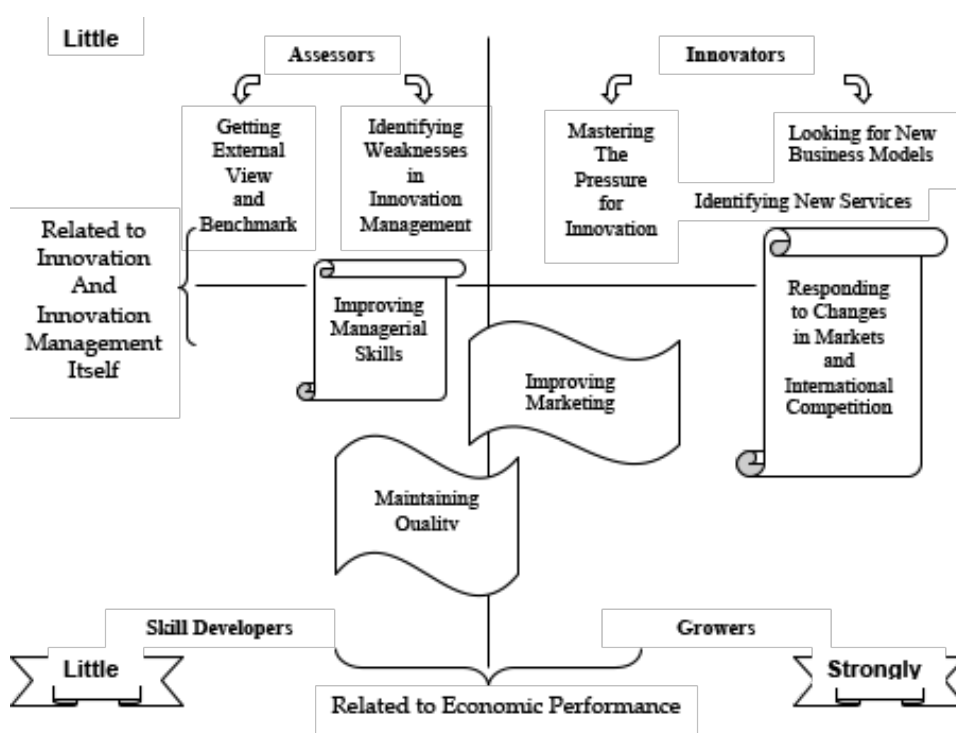


Figure 2, bring up the relationships of the investment management process including their favors change in the innovatively investments that probably result in the different impacts with their own dynamics connecting with public financial incentives turned towards firms and entrepreneurs. In this framework, the financial incentives management with its' own strongly and remarkable impacts have to bring into the investment process as both the structural innovatively dynamics related to economic performance and the publically incentive dynamics for innovatively investments that are supported via publically financial decisions to the probably financial balance options in the future taking into considerations the effects on the public budget balances connected with the currently macroeconomic balances²³. Because, the resources

¹⁹ Colin F. Camerer and Robin M. Hogarth (1999), **The Effects of Financial Incentives in Experiments: a Review and Capital-Labor-Production Framework**, Division of The Humanities and Social Science-Working Paper No: 1059, Pasadena: California Institute of Technology 1999, p. 7.

²⁰ Camerer and Hogarth, p. 20

²¹ J. Michael Steele (2001), **Stochastic Calculus and Financial Applications, Stochastic Modelling and Applied Probability**, New York: Springer-Verlag, 2001, pp. 258-259.

²² Kai Engel, Eva Diedrichs and Sabine Brunswicker et al. (2010), **Imp³rove: A European Project with Impact: 50 Success Stories on Innovation Management**, European Commission: Enterprise and Industry, Europe INNOVA Paper No: 14, Luxembourg: European Union European Commission, Luxembourg 2010, p. 23.

²³ Mark Leonard and Jan Zielonka (2012), **A Europe of Incentives: How to Regain The Trust of Citizens and Markets**, London: European Council on Foreign Relations, (June 2012), p. 17.

of public financial incentives are the national saving, the commercial banks and the other public incomes, and all the recentness investments' dynamics considered in the basic economic relations require an optimal resources allocation²⁴ in order to obtain the entrepreneurs' who favors meaningfully change investment options.

To improve the financial managerial skills especially for public financial regulations connected with public decision-making are directly affected by public decision dynamics responding to changes in the investment markets for entrepreneurs, and the fact come to mean that this is typically conducted by on-site inspections of potentially competitive projects within entrepreneurs. In addition, this national and international competitive capital operations need to establish the innovation business models via the methodological approach²⁵. Hence, the systematic-methodological structurally formations are almost in the unsuccessfully investment efforts for entrepreneurs if there are not enough limits that are ensured by directly public financial incentives required maintaining the meaningful financial quantity via the financial resources straightly dividing among themselves. Indeed, the most of EU countries have the methodological incentive applications to the investment market dynamics or market forming, and there are important structural reasons of this financial operationally fact as both the countries' strongly financial infrastructure and the desired highly levels of national savings²⁶.

4. THE STRATEGICALLY APPEARANCE OF FINANCIAL INCENTIVES ON EU COUNTRIES AND THE STRUCTURALLY FUTURES OF FINANCIAL MANAGEMENT

The financial management strategy aimed at investors and entrepreneurs with the priority objectives in the scope of productive manufacturing industrial structure have the resemblance characteristic peculiarity of the financial incentives in EU countries including the structural futures. These financial appearances on EU countries express to support related to the identification of innovation management performance within both the change needed of productive sectoral formation to the future and the harmony of the associated financial movement in them selves. In the other hand, also this fact means that the financial incentives' sustainability effects on the stabilized future of EU countries directed towards the desired financial support via largely publically incentives and the suitable allocation of financial incentive resources²⁷.

4.1. The Legislative Background Of Incentives In European Commission

The associated market formatting is the priority objective aimed for all EU countries and European Commission is concerned about the important financial obligations directed towards the member countries. The financial intensives measurement is the one of the matters related financial intensives in European Commission's relationship in touch with the other member countries of EU²⁸. And then the last assemble related to financial incentives was held on 21th September 2010 in order to the other aimed fiscal regulations and especially the environmental pollution reducing was purposed due to the business operations resulted in an important financial costs. Certainly, there are the decisions related to the fiscal regulations including financial incentives as the ensured decisions in the European Commission decision process including the opinions of European Commission's member. However, these comprehensive approaches have taken care of this more meaningful financial constituting, which have increased the financial incentives' effects, than the previous existed incentives regulations²⁹.

Hence, the European Commission gathering about the communication of the member countries in the scope of the review fiscal adjustment have recognized the demanded fiscal incentives including largely the public financial incentives in 2010 and the intended obligations ensuring the incentives' effects at the internal market of EU. In the other hand, the defectively financial coordination's negative effectives have to be exceeding for preventing the distortion of EU's internal markets, and then the commission's functionally expressions result in the European Council and European Parliament declared in order to put up with the financial intensives' guidelines. Furthermore, the taken obligations on the process

²⁴ Leonard and Zeilonka, p. 25.

²⁵ Hugh T. Patrick "Financial Development and Economic Growth in Developing Countries", in **Money and Monetary Policy in Less Developed Countries: A Survey of Issues and Evidence**, Warren L. Coate, Jr. and Deena R. Khatkhate (eds.), Oxford: Pergamon Press, 1980, p 49.

²⁶ Vittorio Corbo and Klaus Schmidt-Hebbel, **Public Policies and Saving in Developing Countries**, The World Bank Country Economics Department, Working Papers-WPS 574, 1991, p. 25. .

²⁷ Corbo and Klaus Schmidt-Hebbel, pp. 46.48.

²⁸ European Commission (EC) (2013), **Guidelines on Financial Incentives for Clean and Energy Efficient Vehicles**, Commission Staff Working Document, Brussels: 28.02.2013 SWD (2013) 27 Final, p. 2.

²⁹ Kevin T. Davis, and Mervyn K. Lewis, "Deregulation and Monetary Policy", in **Current Issues in Financial and Monetary Economics**, Kewin Dowd and Mervyn K. Lewis (eds.), New York: St. Martin's Press, 1992, pp. 131- 133.

were determined by European Council carrying out the special seminar, which was hold on 21th September 2010 and the member countries' financial experiences covering financial incentives that were accepted for enabling the identification of best practicing³⁰. In this period, also the financial incentives came to mean an important the financial policy measures as the inevitable publically polices, which have been suited via the requirements of the regularly development funding for investment encouraging and entrepreneurs' innovation opinions aimed at the productive manufactured goods and sectoral services like transporting in the more sensitive and responsibility environmental conditions³¹. It is appeared that European Commission' responsible financial policies for developing EU's internal markets and services supported by public financial subsidies in the points of E.U.s' view. And then the other fact connecting with financial incentive regulations holding on 21th September 2010 was hold at the 6 June 2012 for bring up the final report adopted in the other financial incentives regulations in the framework of these finally decisions to today's.

4.2. The Obligatory Principles of Financial Incentives Taken on The Member Countries in EU

In this approaches of financial incentives, also it is an important point interested in the management of financial incentives accepted by all the member countries is to become the familiar with basic investment concepts and learn about institutions actively providing access to capital for sustainable investment projects directed towards financial incentive applications. In addition, this structure fact has a legislation power on these EU's member countries and this adjustment process has the some inevitable characteristic futures with important criteria concerned in the financial incentives management of EU in order to achieve the productive and suitable incentives applications' ground as follow:

- First of all, the financial incentives' management have to be regulated and shaped in the European Commission directives' framework, which bring up Directive 98/34/EC including the other technical regulation (Article 1 of Directive 98/34/EC³²). It means that this interrogate and cross-examine EU's the associated financial strategy together with the different and alternative approach, which is under debate in the last period.
- Financial incentives must be distributed according to the effects of special incentives recommended by decision making to apply step by step and each of the application. The held structural formations have to be considered directed towards to transparency in the spite of financial incentives' different effects (Article 8/1 of Directive 92/59/EEC³³; Article 8/1 and Article 9 of Directive 98/34/EC). So, the proportionally financial incentives dividing among themselves are meaningful as an inevitable application and obligations' totality.
- Therefore, sometimes the super credit applications can be supported, as public subsidies concerned within EU's countries not found very strange. The solution of this phenomenon is not to be against EU's the financial objects (Article 6/2 of Directive 98/34/EC).
- All the financial adjustments in the framework of EU' member countries need to technological neutrality that can provide the financial inspection analyzes approved of the held in common acceptance by all the member countries. Therefore, the technological wholeness must bring up an inevitable associational identity provision in order to ensure that nothing goes wrong to the meaningful and suitable results (Article 7 and Article 9 of Directive 98/34/EC).
- Certainly, the extent and size of financial incentives take plane with different effects in the financial process because of the member countries have the different levels of economic growth and this phenomenon results in the declined financial standardization in themselves. In the other hand, the size and contain of incentives may bring forth some risks on the production process and especially, manufacturing sector that need the financial subsidies aimed at the other probably risk factors and sectoral balances. Hence, the financial extent has to express together with the associated financial regulations in order to reduce the probably risk factors and market failures by fair means (Article 9 of Directive 98/34/EC).
- The legislation power of EU related to incentives regulations would be into the positive effects and progressions, and then the relevant EU legislation would be put forth the clearly recommended standards (Article 1/4 of Directive 98/34/EC)³⁴. But the held in common regulations, as aimed at the financial structure and applications, are involved in the meaningfully place of decision making process inclined towards the optimal financial factors, fiscal adjustment balances or etc., in order to have not harmful effect on the member counties in EU (Article 10/4 of Regulation

³⁰ European Commission (EC) (2013), **Guidelines on Financial Incentives for Clean and Energy Efficient Vehicles**, p. 3.

³¹ Ibid.

³² European Council (EC), **Directive 98/34/EC** of The European Parliament and Of The Council of 22 June 1998 on The Laying Down a Procedure For The Provision of Information in The Field of Technical Standards and Regulations.

³³ European Economic Council (EEC), Directive 92/59/EEC at 29 June 1992 Directed Towards General Product Safety, Regulate: OJ L 228, 11.8.1992, p. 24.

³⁴ European Council (EC), **Directive 98/34/EC**, p. 4.

- (EEC) No. 793/93³⁵. In the case of an existing substance or in Article 3/2 of Directive 67/548/EEC³⁶ in the case of a new substance).

These general financial criteria have to be taken on as important printed notices that get financial incentives in shape for the candidate countries' completely new financial structures like Turkey.

5. THE APPEARANCE OF FINANCIAL INCENTIVES MANAGEMENT ON TURKEY AND ITS' SOME IMPORTANT POINTS

Turkey is not the perfectly member of EU because of Its' financial conditions are not enough and respond to the perfectly member conditions, and which mean that Turkey should achieve the based financial incentives throughout Its' financial adaptation process within financial fragility. In this point, the matter is that the productive firms -or companies- have the different approaches how to maintain and exceed the growth targets of entrepreneurs including a rough estimate of costs and potential income for the community. However, a wide variety of organizations, including government agencies, industry trade associations and research firms regularly need to financial analyses that are provided by research evaluation techniques, which are supported via the publically financial incentives in both general and specialized enterprises.

And also, these arguments' ground brings up the financial risk management considered, and furthermore, the structural phenomenon contains the effects of inevitable public decision making with the financial management arguments in Turkey. This undesired formation have continuing since a long time in order to deal with the negative structural aimed at bring to a successful conclusion. In other words, the adaptation process inclined towards being the completely member to EU make inevitable the financial regulations via the changed legislations and alterations considered in decision making in this framework. The financial criteria that are in lieu of law to the member countries in the scope of EU³⁷, as a phenomenon, can be the cause of undesired structural financial options for both financial-structural objectives arriving at the level of international standards and all the associated international trade operations in Turkey.

5.1. The Financial Incentives' Appearance on The Currently Financial Structure

In Turkey, it is apparent that the financial incentives especially are shaped via the Turkish Tax System that contain the applicative components, which have been considered in the tax operations like the other majority countries all over the world. Hence, the regulations related to the national tax structure have been the most important financial options directed towards the expression of financial alterations including the national financial incentives too.

This currently financial situation and its' location connecting with the tax operations in Turkey can attempt to bring up watching on the figure (3) in the circumstances framework to Turkey, as follow³⁸:

³⁵ European Economic Council (EEC), Regulation made by Council (EEC) in The Regulated Framework No. 23 793/93 of 23 March 1993 as a The Evaluation and Control of The Risks of Existing Substances, Regulation: OJ L 84, 5.4.1993, p. 1.

³⁶ European Economic Council (EEC), Directive Regulated by EEC in The Regulation 67/548 /EEC Framework at 27/June/ 1967 on The approximation of The Laws, Regulations and Administrative Provision in touch with The Labeled Classification of The Intensives Directed Towards Dangerous substances and The Other Manufacturing Operations, Regulation: OJ L 196, 16.8.1967, p. 1.

And also, European Economic Council (EEC) The Other Directive considered and regulated as altered by Directive 92/32/ EEC, Regulation: OJ L 154, 5.6.1992, p. 1.

³⁷ Şimşek, Hayal Ayça ve Ayşe Günay Bekar, "The Effects of Fiscal Policy Rules on Fiscal Balance: The Perspectives on Turkish Economy", *Sosyo Ekonomi*, 2008-2 080256, (Temmuz-Aralık 2008-2), pp. 102-104.

³⁸ Resmi Gazete, 19 Haziran 2012 tarih ve Sayı: 28328; Lore Danışmanlık, http://lore.com.tr/p_252_yeni-tesvik-paketi_2?gclid=CM3Bro6nmLYCFcRQ3godGxsAHQ (25.03.2013).

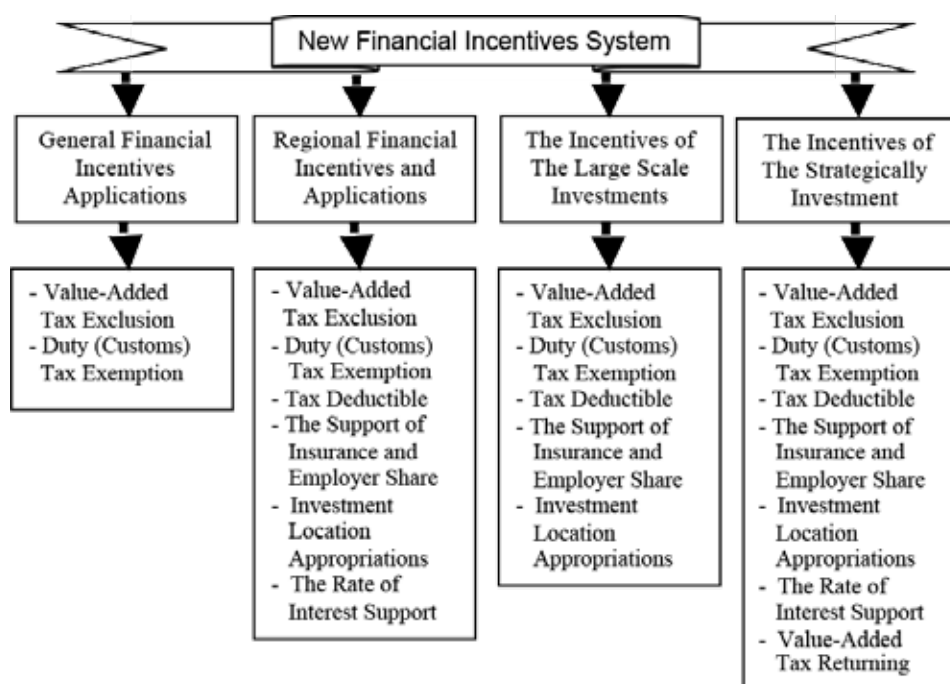
Figure 3. Financial Incentives System's Appearance and Its' Systematical Distribution of Financial Management in Turkey

Figure 3 express the fundamental appearance of Turkish financial incentives considered in the distributive financial management within the incentive items have been in the financial friendship shaped by the indirect taxes including regional incentives for a long time. But, indeed the practically important incentive applications with their remarkable effects are in the extent of the direct tax financial operations being personal income tax and cooperation tax³⁹ in spite of banks' credits and subventions. The completely adaptation matter occurs in this point and Turkey come face to face the meaningful alterations aimed at the participation process of EU including the reformist tax investigation, which are to being useful for the propose of entrepreneurs within both the effectively tax management and its' financial balances concerned with the new incentive concept.

5.2. What Must Be Done to Achieve The Obligatory Adaptation Dynamics to EU?

This structural question that has debated since a long time, is which there are any the perfectly solution or not for the desired financial adaptation process including the integrations dynamics because of the financial reform process' containing have to be defined and considered via the financial management preferences. Certainly, this ground of arguments includes the financial incentives' applications that express usually the politically process' obligatory dynamics and also this frame put forth Turkey's financial policies for consideration as the some brief objectives inclined towards the provisions view of EU for completely being membership.

- First of all, these financial entirely concept has some the adjustment matters that have to deal with related to financial investments in order to be completely EU's member via the supported entrepreneurs in Turkey. As Turkey the politic process provides not the optimal distribution of financial incentives and the negative phenomenon results in the deviated from the optimal distributive effects in order to achieve an international financial unity at the future.
- The optimal financial framework accepted by all the member countries have to give some answers related to the financial management matters directed towards entrepreneurs in Turkey and EU's financial obligations are obviously stated containing financial incentives strategies⁴⁰ for developing countries like Turkey.
- The interrogated priority matters are related to manufacturing companies that are interested in EU's financial decisions. The point of the view EU means that which sectoral enterprises priority supported by public financial resources or what the limits of publically financial supports are directed towards entrepreneurs in the market regulations aiming at the market expectations' financial limits. Usually, the financial regulations have been focus

³⁹ Ahmet Başpınar, **Tax Law and Turkish Tax System**, Ankara: Republic of Turkey Ministry of Finance Strategy Development Unit, Issue No: 2009\394, 49-50.

⁴⁰ World Bank, **Turkey Country Economic Memorandum**, Vol. II,-Expanded Report, Report No: 39194, (April 2008), p. 129.

on the provided criteria via the financial analyses due the financial analyzes are at the first sight in the incentives application process of EU.

- The being talked of financial incentives applications have a meaningful important in Turkey as well as EU countries because of these countries' financial strategies and especially these countries have the different money units regarding fiscal policy, a fiscal expansion—an increase in the fiscal deficit—may or may not be depending on the composition of the fiscal incentives. Therefore, especially Turkey's monetary and fiscal application policies must be constituted as an important fiscal contradictions arranging the integration process like all countries' financial obligations appeared in the scope of EU's financial conditions⁴¹.
- The other important matter, as a strategically approach questioned from the point of countries in EU, is the dilemma of how important to the benchmarking of innovation strategies or how much the structural alterations accepted aimed at currently the national financial balances and objectives⁴². Because, these member countries' entrepreneurs and investors connected with sectoral innovations are appraised and supported by public incentives, which are taken shape in the different national own priorities like Turkey.
- The needed manner that have to bring up connected with the appearance on EU in the financial incentives management is the structural financial alterations that are result in the different outcomes and effects. Hence, the financial analyses based on the notion of an economic development principal are the best thought of as a normative framework of EU and the financial analyses determining how different values of an independent variable impacts depend on the variable financial under a given set of assumptions in Turkey. These required conditions state that however Turkey needs to be a financial distinctiveness having on the well-used of financial incentives turned towards entrepreneurs with socially responsible investing for Turkey' member⁴³.

6. CONCLUSION

The financial incentives are the important phenomenon that must be considered in the compliance process with together with all fiscal background like tax discounts and the other financial exemptions, which should be constructed in the international normative fiscal items forms. This fact prohibits any discrimination throughout internally national taxation in the particular approaches aimed at the sporting the domestic manufacture sector under EC obligations. Moreover, this fact includes the associated adjustment fiscal rules in order to be together with the other EU countries in the same concept. In this respect, the financial incentive management reveals the different special features that appear in the member countries due to these countries' the distinctive and fragility financial structures related to their own different management ways. So, the countries' incentive systems and methodological approaches have to be constituted with the assorted effects for both financial management that came on the financial markets due to having different institutionally features and these countries' foreign commercial relationships being in the different financial expected.

In this point, the considered matter pertaining to the financial incentives aimed at entrepreneurs is the classification of financial incentives inclined towards the incentives' contents as well as the entrepreneurs' preferences in the established sectoral developments including their own aims comparing with the different investment costs. In the other hand, the entrepreneurs' investment preferences become a reality bring up a linear correlations for both investments costs and the considered investment plans that are supported via financial incentives. Because, the dominant diagnostic items of financial incentives creature the additive criteria on the desired investment, which bring forth the contributed criterion effect on the economic growth being the conclusion of financial incentive applications. As Turkey, also the financial incentives' structural location is considered in the adjustment process in order to ensure being a membership of EU as an inevitable financial condition in order to ensure to achieve the international associated incentives ground. Therefore, the analyzed adaptation process aimed at the membership of EU provide to access with the proposed financial regulations including the basic financial incentives standards in Turkey. This practically approach that is situated in the adaptation process means the accepted mutual recognitions in term of EU countries.

⁴¹ World Bank, **Turkey Country Economic Memorandum**, pp. 131-132.

⁴² World Bank, **Turkey Country Economic Memorandum**, p. 133.

⁴³ Europe Innova- Innovation Management, **The Importance of Innovation Management Performance for Financial Investors Decision-Making**, p. 10.

LITERATURE

1. ALBEREDA, Laura, Josep M. Lozano and Tamyko Ysa (2007), "Public Policies on Corporate Social Responsibility: The Role of Governments in Europe", **Journal of Business Ethics**, Vol. 74, (Springer 2007), pp. 391-407.
2. BURGSTALLER, David Luzi Hail and Cristian Leuz (2004), "The Importance of Reporting Incentives: Earnings Management in European Private and Public Firms", **Public Institutions Center**, (February 2004), pp. 1-39.
3. CAMERER, Colin F. and Robin M. Hogarth (1999), **The Effects of Financial Incentives in Experiments: a Review and Capital-Labor-Production Framework**, Division of The Humanities and Social Science-Social Science Working Paper No: 1059, Pasadena: California Institute of Technology 1999
4. COBOS,, Salvador Barrios, Holger Görg and Eric Strabl (2002), Multinationals' Locations Choice, Agglomerations Economies and Public Interventions, **ECONSTOR**, Working Paper-Internationalization of Economic Policy Research Paper: 2002\33, Leibniz: Leverhulme Centre for Research on Globalization and Economic Policy and Leibniz Information Centre of Economics, 2002\33, pp. 1-30.
5. DAVIS, Kevin T. and Mervyn K. Lewis, "Deregulation and Monetary Policy", in **Current Issues in Financial and Monetary Economics**, Kewin Dowd and Mervyn K. Lewis (eds.), New York: St. Martin's Press, 1992, pp. 128-154.
6. ELLIOT, Graham Ivana Komunjer and Allan Timmermann (2005), "Estimation and Testing of Forecast Rationality Under Flexible Loss", *Review of Economic Studies*, Vol. 27, No. 2, pp. 1107-1125.
7. EUROPEAN ECONOMIC COUNCIL (EEC), Directive Regulated by EEC in The Regulation 67/548 /EEC Framework at 27/June/ 1967 on The approximation of The Laws, Regulations and Administrative Provision in touch with The Labeled Classification of The Interventions Directed Towards Dangerous substances and The Other Manufacturing Operations, Regulation: OJ L 196, 16.8.1967, p. 1.
8. EUROPEAN ECONOMIC COUNCIL (EEC) The Other Directive considered and regulated as altered by Directive 92/32/ EEC, Regulation: OJ L 154, 5.6.1992.
9. EUROPEAN COUNCIL (EC), **Directive 98/34/EC** of The European Parliament and Of The Council of 22 June 1998 on The Laying Down a Procedure For The Provision of Information in The Field of Technical Standards and Regulations.
10. EUROPEAN COMMISSION (EC) (2013), **Guidelines on Financial Incentives for Clean and Energy Efficient Vehicles**, Commission Staff Working Document, Brussels: 28.02.2013 SWD (2013) 27 Final, p. 2.
11. EUROPE INNOVA- INNOVATION MANAGEMENT, **The Importance of Innovation Management Performance for Financial Investors Decision-Making**, Lessons Learned from The Survey of German Investors, Duesseldorf: The IMP³rove-European Innovation Academy, February 2011, p. 3.
12. LEONARD, Mark and Jan Zielonka (2012), **A Europe of Incentives: How to Regain The Trust of Citizens and Markets**, London: European Council on Foreign Relations, (June 2012).
13. NISHIGAKI, Hideki (2008), "Are The Fiscal Policies and monetary Policies of The G-7 Countries Effective in Decreasing The U.S. Trade Deficits", **Economics Bulletin**, Vol. 6, No: 27, (July 2008), pp. 1-12.
14. PATRICK, Hugh T. "Financial Development and Economic Growth in Developing Countries", in **Money and Monetary Policy in Less Developed Countries: A Survey of Issues and Evidence**, Warren L. Coate, Jr. and Deena R. Khatkhate (eds.), Oxford: Pergamon Press, 1980, pp. 37-54.
15. STEELE, J. Michael (2001), **Stochastic Calculus and Financial Applications**, **Stochastic Modelling and Applied Probability**, New York: Springer-Verlag, 2001.
16. STIGLITZ, Joseph E. (2000), **Economics of The Public Sector**, 3rd Ed., New York: W.W. Norton & Company, 2000.
17. ŞİMŞEK, Hayal Ayça ve Ayşe Günay Bekar, "The Effects of Fiscal Policy Rules on Fiscal Balance: The Perspectives on Turkish Economy", **Sosyo Ekonomi**, 2008-2 080256, (Temmuz-Aralık 2008-2), pp. 99-125.
18. TANZI, Vito, "Financial Markets and Public Finance in Transformation Process", in **Transition to Market: Studies in Fiscal Reform**, Vito Tanzi (ed.), Washington D.C.: International Monetary Fund, (1993), pp. 1-30.
19. TOYOMA, Yoshihiro, "Privatization of Public Enterprises and It's Problems in Japan", **International of Social Economics**, Vol. 25, No: 2-4, (1998), pp. 388-398.
20. VITTORIO Corbo and Klaus Schmidt-Hebbel, **Public Policies and Saving in Developing Countries**, The World Bank Country Economics Department, Working Papers-WPS 574, 1991.
21. WORLD BANK, **Turkey Country Economic Memorandum**, Vol. II,-Expanded Report, Report No: 39194, (April 2008).

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FACILITY MANAGEMENT AS A MOTIVATOR OF NEW ENTREPRENEURIAL INITIATIVES

ALENKA TEMELJOTOV SALAJ
NIKOLAJ SALAJ

ABSTRACT

The objective of the paper is to present the possibilities of FM as a contribution to value creation for user and as an entrepreneurial opportunity. To achieve value creation processes, it is necessary to have competent actors and good tools for decisions making support. The research contributes to extension of building total life, sustainability, management and entrepreneurship. The methodology and tools are a result of research project and are based on qualitative and quantitative research methods. The research findings are a result of in-depth analysis and present the possibility how to achieve more efficient business by collaboration of different stakeholders and ideas. The methods presented are mainly developed for public and private real estate sector, but the basic principles are general and relevant for other sectors. The paper will introduce better base for Asset Management, Facilities Management and added value from business and user perspectives.

KEYWORDS: Value creation, Costs, Sustainability, Users, Owners.

1. INTRODUCTION

The real estate situation in several European countries globally exposes the need for changing the business strategies in accordance with the costs of servicing core business and maintaining buildings and users' needs. Better understanding of business dynamics, logistics flows, built environment challenges and opportunities, care for the environment and users' needs enable forecasting of supply and demand for service and products, and should be the key elements of business strategies. By the Facilities Management (FM) European standard EN15221, the activities are divided in two headings, named 'space and infrastructure' and 'people and organization'. The heading 'space and infrastructure' includes among others accommodation, workplace, technical infrastructure and services that provide a comfortable climate, necessary lighting, etc., cleaning, and finally other necessary space and infrastructure. The heading 'people and organization' includes among others health, safety and security; hospitality; ICT; logistics; other support services. FM can cover the whole property area and communicate on strategic, tactical and operational level. Based on the integrated position of FM within the organization and knowledge about space and people, FM can play a key role of service innovation and implementation.

As an interdisciplinary field, it covers different services areas that can support core business services to perform more productive and satisfactory and can create value for them (Bjørberg et al, 2012). It has very strong influence on the satisfaction of the employees and end-users, thus providing facilities and services facilitating or enabling the daily activities. Satisfaction with work is one of research variables, which is important for employee effectiveness and efficiency (McLaughlin et al, 2006, Temeljotov et al, 2015). Effective and efficient supporting services from FM to core business units and clients can enrich the quality of core business and cost efficiency of organizations. Management quality is ensuring that services are delivered in a resource-efficient way (Price et al, 2015). The user involvement is a key indicator for the successful service innovation implementation, so from user's perspective FM role is seen from the possibility to develop and provide the services according to user's needs to achieve service excellence.

By strategic level of FM it is possible to collect, organize, visualize and communicate data as means for strategic planning and budgeting (Listerud et al, 2012). It is found out that FM orientation should be more focused in user's needs and value creation. From value perspective, we have to mention Rokeach (1960), according to the value is a sustainable belief, specific form of behaviour or finite state of existence, which is individually or socially more desired behavioural form from the opposite form of behaviour or finite existence. Rus (1997) sees the property market as a situation, which more than any other emphasizes the instrumental aspect of satisfying needs and action-based orientations to the property goal, which includes also motivation. From psychological perspective, every environment surrounding 'humanity' has certain features, characteristics that need special attention, simply because they are very important for humans, their life, survival, living, leisure and work (Temeljotov 2005). All of these 'directed' attentions can be evaluated, both in the sense of satisfying their personal needs, as well as economic indicators. Value can be attributed to property at any given moment of its lifecycle: planning, initiation, growth, renewal, decay and demise. Planning and development are important elements of this process, similarly as the past, present and future development of the entire micro- and macro-environment.

In many researches, the changes of value perspectives in Facilities Management through the years were compared (Jensen et al. 2013). In the findings, they state a number of different definitions and focus points on added value of FM, dependent on the academic field and the area of application. The different research perspectives provide, in combination, a holistic view by integration of an external market based view (aimed at output) and the internal resource based view (input from FM and RE). Jensen et al. (2013) put a list of emphasis for added value of FM, including at the beginning the focus on strategic aspect of FM towards the business impacts and effects. However, one of the challenges in FM is to change the focus from 'FM 1.0 (Cost Reductions) to FM 2.0 (Value Creation)' (Boge 2012). A change from FM as a mean for cost reductions to FM as mean for value creation may necessitate increased outsourcing of FM, because outsourcing of FM may facility innovation and increased value creation. But organizations that outsource FM may also face serious obstacles to value creation, such as adverse selection and moral hazard problems (Boge 2012). Jensen et al. (2013) indicated that the success of a collaborative relationship leads to the success of value delivering to the stakeholders. From the concept of 'Value Adding Management', which focuses on the relationships between FM and the core business at strategic, tactical and operational levels they argued that the relationships with the stakeholders should be managed differently at each level.

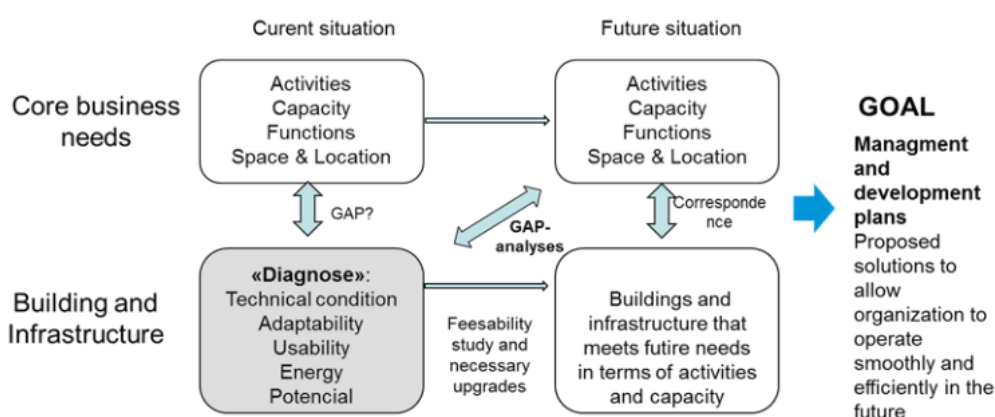
2. METHODOLOGY AND RESEARCH

The supply of business and housing units on the market can be categorized on the way of categorization according to extended care dependency scale, facility management excellence and availability of logistic services. Service innovation and service design are two approaches for further development of Facilities Management and Facility Services to maintain the users' wellbeing. The results could serve as a starting point for development of new tools and methods for development and visualisation of improved FM and new facility services tailored to the users' needs. The research is divided in different phases to follow the long life perspective of keeping value, adaptable for future needs in social and individual way. With a good interactive decision tool, we also want to get long life cycle building/ neighbourhood oriented competent players.

2.1 Different tools

The Nordic SURE (Sustainable Refurbishment) project, Guideline on Sustainable Refurbishment of Buildings, (Almås et al 2013) investigated different methods and tools to assess buildings and building portfolio. According to the basic principles of the project to develop a method with an indication of building development potential, simply collecting data and user friendly: MultiMap, LCA, BREEAM In-Use, SURE, SIA (Sustainable Impact Assessment) and LCC where evaluated. All of these methods and tools have different advantages. But for the purpose assessing building portfolios MultiMap combined with LCC should be considered.

Figure 1. Holistic Analysis Model for strategic development of building portfolios (Larssen, 2011)



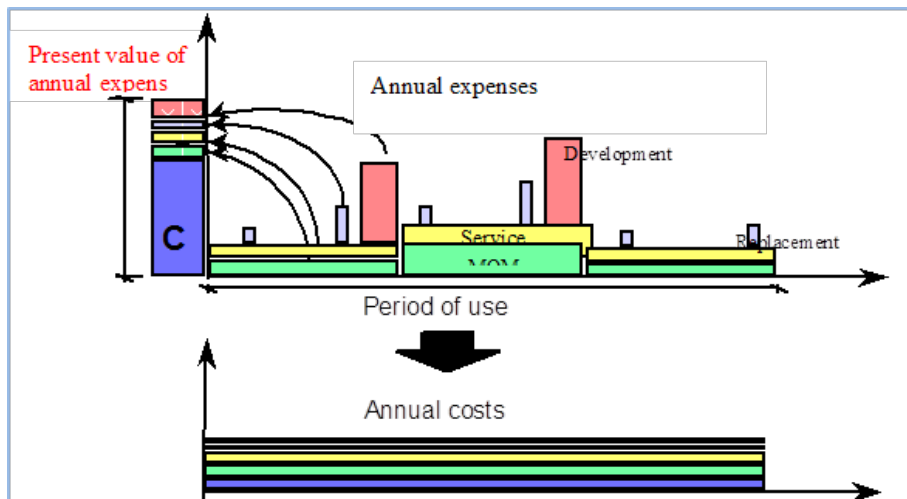
Figur: Multiconsult

MultiMap as a method is based on a holistic approach shown in Fig. 1 to assess the GAP between today status of performance and future needs or demands. The assessment method is based on two main approaches: 1) data input provided by FM-personnel with good knowledge of the actual building portfolio (space and infrastructure) with some

assistance from persons with knowledge about core business of the portfolio (people and organisation), 2) assessments of interviews of users of the portfolio (social and environmental aspects including economy). Collecting information for building portfolio gives a lot of data. For communication purpose of all data Onuma Planning System can provides possibility for visualising in 3D pictures.

Basic costs are rent of space, which is a “cost covering rent” based on annuity of net present costs (NPC) seen in a defined period as shown in Fig. 2. Anticipated costs over this period, such as yearly operating costs like energy, household insurance, cleaning, and public dues, and periodic costs like preventive maintenance, replacements and minor upgrading, should be taken down to NPC. NPC put back as an annuity will then be the calculated rent as a minimum to meet the anticipated costs.

Figure 2. Cost distribution over time (Listerud et al. 2012).



Needs are changing with ages and real estate and facilities management have to give answers or to find proper solutions, which should be based on new knowledge from the fields and environmental orientation. The economy model should also include increasing different service costs to develop healthy residential community, from physical and social perspective. An extended FM-model should be developed to cover all services from traditional FM and also to include other services for different groups of community population.

2.2 Research goal

The aim of the research Oscar is to develop knowledge, methods and tools that enable the optimization of the building design. In this way the building can contribute to good value creation for owners and users through its lifetime. The name Oscar is given by Oscar's Wilde statement from the book 'The picture of Dorian Gray': *A fool is a man who knows the price of everything, but value of nothing.*

Four objectives are put to achieve the outcome:

- to obtain the knowledge of needs to be addressed in the early phase to maximize the values for user and owner of building;
- to identify how can existing execution models (planning, construction and commissioning) be used to achieve the goal of value creation in all phases;
- to develop methods and tools;
- to increase the knowledge of value creation and competences.

The project takes into consideration a clear connection between the design and operation of the buildings and values for the owners and users. To get good, adaptable and usable buildings over time, competent players are needed who have good decision and communication tools for projects and processes. Life Cycle Aspect is essential as an input in Early Phase Planning, and the processes through the following phases have to assure its inclusion in a way that value creation

is complied with the user phase. In accordance with the objectives of the project, the relevant stakeholder group are: owners, users, planners/designers, consultants and contractors, FM providers and society. The research is conducted by 22 project partners from three countries (Norway, Slovenia, Germany) from academic, private and public sector. All stakeholder groups are covered.

2.3 Research model

The mind-map model (Figure 3) is designed on the basis of European standard EN15221, which includes two headings 'space and infrastructure' and 'people and organization'. Value creation mind-map shows the inclusion of all stakeholders within the processes to maximize the value.

Project contains four main project working groups (WG), with a goal to:

- define the knowledge how to contribute to value creation in user phase as input in Early Plan Phase – WG1;
- define execution models and processes which contribute to value creation – WG2,
- design methods and tools on cost benefit evaluation simulation model and interactive guideline - WG3,
- create a library on 'value creation' and disseminate the results – WG4.

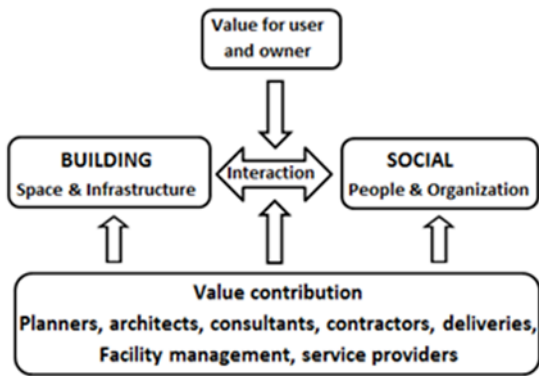
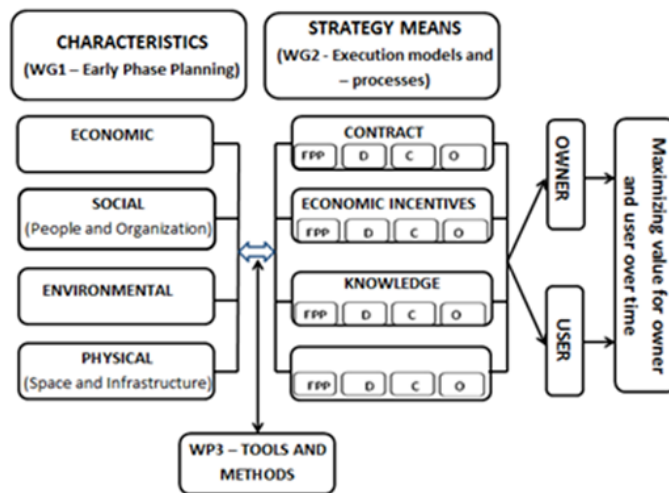
The first three working groups are closely interlinked (Figure 4), the fourth one is collective and supportive one and it works in parallel from the beginning of the project. For the purpose of this paper to show the first results, the WG1 and WG2 are presented more in details.

The focus of WG1 and questions discussing in it, are:

- Characteristics on buildings and solutions which contribute to value creation for different stakeholders during the Life Cycle.
- Characteristics on buildings and solutions which do not contribute to value creation for different stakeholders during the Life Cycle.
- Are contributions to value creation of different solutions context dependent?
- Circumstances where different solutions are advantageous or not.
- What kind of competences should stakeholders have for value creation?

The WG2 is interested in:

- Which means in different phases will motivate solutions for value creation in user-phase? (contract, economy incentives and process)
- Which means can work against?
- How can means that motivate value creation be incorporated in execution models within different projects and what demands will be put on different stakeholders?
- How can execution process with regard to transmission of information ('relay baton') between stakeholders and phases take place to ensure that premises from earlier phase live up to the next?
- What methods and tools are needed to ensure a good execution process and goal-achievement regarding value creation for owner and end-user?

Figure 3. Value contribution mind map**Figure 4.** Value contribution model (EPP – Early Plan Phase, D – Detail Design Phase, C – Construction Phase, O – Operation (Use) Phase)

The research is led by Anne Kathrine Larssen from Multiconsult from Norway. The research methodology is based on qualitative and quantitative research methods, as: literature review, case studies, questionnaire interviews, survey and workshops.

2.4 Research results

Within the first phase of the project a list of characteristics, which contribute to value creation, and means, which motivate value creation solutions, is prepared, based on literature review conducted in autumn 2014 (Table 1). Characteristics which were mentioned in the literature in connection with value creation, are divided in 4 subgroups: economic, social, environmental and physical. Also means are divided in 4 subgroups: economic incentives, knowledge, contract, process, and assurance quality.

Table 1 – Characteristics and means of value creation from Literature review (Oscar project)

Project group focus	Subgroups	Characteristics or Means
WG 1 – Characteristics which contribute to value creation	Economic (MOME, core business cost, investment cost, economic value)	Energy consumption, optimum FM organization, maintenance plan / cost (predictability), outsourcing /price of services, transparency of costs, cost of ownership, running / operational cost, cleaning cost, space efficiency cost, rental cost, interaction of costs (best solutions not lowest costs), project cost, cost reduction, green accounting, potential income, strong brand, market value, payback time, profitability for the core business, productivity in construction phase, environmental portfolio, long term commitment partnership, financial situation
	Social (People and organization)	Architectural value, satisfaction, indoor climate / comfort, individual control of conditions, aesthetic value, open view, layout (open /cell space), enough space, orientation, cleanliness, logistic service support, organizational value, social responsibility, location characteristics, historic value, usability (efficient workplace), accessibility, safety, security,
	Environmental	Renewable energy, energy efficiency, recycling and reuse of materials, waste management, minimize contamination, environmental friendly products, life time materials, green roofs
	Physical (Space and Infrastructure)	Technical condition, space distribution / logistic for core business, quality materials, construction quality, architectural solutions, life cycle design, environmental solutions, flexibility possibilities, elasticity possibilities, generality possibilities, designed for disabled persons, sufficient infrastructure, innovative solutions
WG2 – Means which motivate value creation solutions	Economic incentives	Environmental funds, financial support for testing new trends, branding, rewarding, cost productivity, orientation, investment loan for enhancement / replacement, changing energy consumption, combining different energy resources, emission reduction, support for maintenance and technical upgrading, support for refurbishment, tax reduction, competitiveness
	Knowledge	Good planner, good management, changing regulations, new demands from society, social awareness, user satisfaction, communication ability, creating value with society, organizational development, best practice design, developing know-how training of employees, implementing new cooperation models, developing strategic KPI, knowledge on sustainable efficient building, open for new technical solutions supporting innovative ideas, establishing creative technical teams,
	Contract	Contract process with dialogue, contract division, contract type, contract procedure, selection and award criteria, contracting plan, PPP practice, clear tasks and definitions, contract duration, financial capacity of contractor, allocation of responsibility and risks, clear specification of deliverables, performance targets, measurement methods and standards, active partnership dialogue, organizational measures, developing strategic SLA,
	Processes and assurance quality	Process management ability, communicating value, political support, user's participation, performance requirements for each phase, mechanisms and procedures for ex-ante evaluations, mechanisms for ex-post evaluations, monitoring, inspecting, evaluating, success / failure factors, key performance indicators

The specific questions were focused to students from two faculties HiOA (High School University of Applied Sciences in Oslo and Akershus) and NTNU (Norwegian University of Science and Technology) to work on bachelor or master thesis. Some results are highlighted in Table 2.

Table 2 – Characteristics and means of value creation from Students' works

Project group focus	Sub-focus	Characteristics or Means
WG 1 – Characteristics which contribute to value creation	Contribution to Early Plan Phase	<u>Cooperation</u> - integrated architecture and technology from the first day - good cooperation and communication - establish a platform for quality insurance of information <u>Adaptability</u> - is of high importance in buildings with changing needs (ex. hospital build.) <u>LCC</u> - an important part from the starting point - calculation of alternatives gives opportunity to choose cost effective solutions and avoid unnecessary maintenance costs
WG2 – Means which motivate value creation solutions	PPP role in the context of Value Creation	- reduced conflicts due to cooperation and life cycle perspective - introduces incentives and clearer content in contracts - has a need for SLA's in operation, maintenance and service deliveries, including condition at end of contract period - ensure maintenance, operation, management and enhancement (MOME) and quality level in the user phase

WG1 work is based on workshops and meetings with the partners. Most of the partners in the group are professionals (architect, engineers, facility managers etc.) and they have exposed uncertainty in discussions on defining and understanding 'value creation' in buildings. At the beginning of the work, questions put in discussion were like: what is the definition of value, how to quantify it, what is the correlation between value and cost, how to communicate value. Many of them have never thought of value as a factor to be considered in the projects, but are usually focused on costs. After a year working in the project, general understanding was created, using the findings of Literature review and professional experiences. Based on that knowledge, also a survey was prepared. In the table 3 some emphasis are stressed from their meetings.

Table 3 – Some emphasis from WG1 findings

Project group focus	Sub-focus	Characteristics or Means
WG 1 – Characteristics which contribute to value creation	Contribution to Early Plan Phase	<u>Safety</u> - is found interesting and important to include in development <u>Operational solutions</u> - should be included from the early beginning <u>Users involvement</u> - is positive and important part from the beginning - to be aware that users do not care of owner's strategic level (cost/benefit) - the communication with them should be end-product oriented (new buildings rather than strategic space management) <u>Multidisciplinary focus</u> - should be included from the early beginning on the equal based contribution (integrated architecture and engineering design) <u>Owner's behaviour</u> - to change the trend that it is more enticing to build new building than to refurbish old ones
	To prepare good questionnaire for ex-ante control	<u>Value creation survey</u> - should be standardized, based on value creation for the core business - should give the answers on connection between early stage of the project (including tenant management) and the results on core business value
	To increase professional competences in value creation	<u>Professional competences</u> - to understand professional competences on client and supplier side - to increase the knowledge about value creation - to find good mechanism to exchange the knowledge permanently - to develop multidisciplinary orientation
WG2 – Means which motivate value creation solutions	Project management role	-to define roles and mandates of participants from the beginning -balancing the roles from the early phase (owner, user, manager), -preparing good management strategy to involve the user in the early stage -creating good process control from the early phase -concentrating on value creation information and following them from EPP

WG2 work is based on workshops and meetings with the partners. Most of the partners in the group are experienced professionals, so they were mostly concentrated in the key problems which could be captured by the contractual level with the consequences on ensuring value through construction period. In the table 4 some emphasis are stressed from their meetings.

Table 4 – Some emphasis from WG2 findings

Project group focus	Sub-focus	Characteristics or Means
WG2 – Means which motivate value creation solutions	Contribution to Processes Contract Assurance quality	<u>Functional requirements from the beginning</u> - putting the values from user and owner perspective into contractual model - understanding the decisions/guidelines that have been adopted in early phase - to attain incentive value - selection of contractual models to keep the value for user and owner <u>Advantages and disadvantages of the current contract models / contract forms</u> Shared enterprise; General contract; General Enterprise; Total enterprise; Early partnership; Late partnership; Interaction Enterprise; PPP <u>Contractual model for the best understanding of user's and owner's values</u> - good and constructive dialogue during the construction phase - cost-effective building process - risk disclosure / distribution - balanced contractual model - interdisciplinary integrations and responsibilities clarifications - keeping incentives through the construction phase for goal achievement - good MOME addressed in a contractual model

Four special workshops with planners and designers with focus on EPP and contractual content on PPP have been held till spring 2015. The findings so far are highlighted in Table 5.

Table 5 – Characteristics and means of value creation from Special workshops

Project group focus	Sub-focus	Characteristics or Means
WG 1 – Characteristics which contribute to value creation WG2 – Means which motivate value creation solutions	Contribution to Early Plan Phase	<ul style="list-style-type: none"> – to decide crucial factors and secure them through the processes – decisions in early phase should not be easy to change later in the implementation process – if changes is to be taken the reason behind should be clarified, including consequences for core business purpose – better understanding/knowledge of core business as an important input – design team which can or should ask the right questions – integrated architecture and technology from the first day – documentation for MOME as a part of the total process
	PPP role in the context of Value Creation	<ul style="list-style-type: none"> – introduce new roles and earlier decisions – has a need for SLA's in operation, maintenance and service deliveries including condition at end of contract period – ensure MOME and quality level in user phase – ensure a better commissioning period

3. DISCUSSION AND CONCLUSION

Value creation orientation exceeds the cost orientation of RE and FM, but still the owner' and user' benefits are measured from the perceived value of theoretical exchange value. The total solutions should bring benefit to the society.

To create value from early planning phase means that the solutions should be based on increased knowledge of core business activities, physical environment and open for future changes (technical or social). In the dialogue with the client the design team should be able to ask the right questions which are important for the value creation.

As it is stated innovation processes involve the exploration and exploitation of opportunities for new or improved products, processes and services', and 'innovation is inherently uncertain' (Pavitt, 2005). A typical innovation in service sector firms is 'interactivity', which means that services are customized or tailor made to particular customer or user needs (Miles, 2005).

A lot of good characteristics of value creation and instruments for motivating value creation were found during this short time, which is presented in tables 1-5. The very intensive discussions within working groups, students and planners show the need to sharpen the definition of value creation in the project and to achieve common understanding between all stakeholder groups.

Hotels are intensive resource users and will probably always be. But even for a hotels we claim there are potentials for reducing the negative impact on society and increase the creation of environmental, social and economic benefits, as for example to prepare environmental plan with the main focus on ways of maintaining the buildings and optimising energy consumption. There are many ways of FM services to contribute to environmental solutions (Olsen et al, 2015), if the focus allow consideration of lighting, catering, logistics, modes of transportation, purchase and green areas. Through green services, the hotel can improve its performance measured in consumption of energy, water and raw materials; use of recycled materials; green operational equipment and green suppliers.

Results and observations from discussions are put forward for further development in the project: to include operational solutions, to increase professional competences on value creation, to use multidisciplinary focus, to change the owner's behavior, to prepare a new model as constructive dialogue model in which good MOME orientation is included and keep incentives through construction phase. The interactive guideline, which has to include the model of interaction between investment, MOME cost and core business cost, is an important part of making decisions. It has to show the consequences for the core business purpose, when changes has to be taken.

LITERATURE

1. Almås A.J., Bjørberg S.; Haugbølle K., Vogelis P., Huovila P., Nieminen J., Marteinsson B., Norway, Denmark, Finland, Iceland Sustainable Refurbishment-Nordic Case Studies. World Sustainable Building Conference. Helsinki
2. Bjørberg, S. and Temeljotov, S.A. (2012). Backlog of maintenance in public sector a huge challenge for FM. *Journal für Facility Management*, Heft 5/2012, pp. 8-22. University of Technology, Vienna.
3. Boge, K. (2012). Rational Reluctance? A Conceptual Discussion about Transition from FM 1.0 (Cost Reductions) to FM 2.0 (Value Creation). In Junghans, A., P.A. Jensen (eds.), *Proceedings of the 11th EuroFM Research Symposium 24-25 May 2012 in Copenhagen, Denmark*, pp. 31-38. Polyteknisk Forlag, Copenhagen.
4. Jensen, P.A., Sarasoja A.L., Voordt T. and Coenen C. (2013) How can Facilities Management add value to organisations as well to society. In Kajewski, S., Manley, Hampson, K. (eds.), *Proceedings of the 19th CIB World Building Congress 2013: Construction and Society*, pp. CIB, Brisbane.
5. Larsen, A., Larssen and K., Kampesæter, A. (2010). *Metoder og verktøy for strategisk analyse av sykehusbygninger*. Sluttrapport delprosjekt 4 i R&D project «Buildings and Property as strategic means of effective health services». Multiconsult, Norway.
6. Larssen, A.K. (2011) Buildings Impact on Hospital Effectiveness. *Doctoral Thesis*. NTNU, Trondheim.
7. Listerud, C.A., Bjørberg, S. and Larssen, A.K. (2012). LCC in Norway – State of the Art. In Strauss, A., Franagopol, D., Bergmeister, K. (eds), *Proceedings of the third International Symposium on LCC Engineering*, 435. IALCC ,Wien.
8. McLaughlin, C.P., Kaluzny, A.D. (2006). *Continuous quality improvement in health care*. Jones and Bartlett Publishers.
9. Miles, Ian (2005): “Innovation in services”, in Fagerberg, Jan, David C. Mowery and Richard R. Nelson (eds.) (2005): *The Oxford Handbook of Innovation*, pp. 433-458. Oxford: Oxford University Press.
10. Olsen, S.I., Nielsen, S.B., Ejlersten, M.L., McAloone, T. (2015). Teaching sustainable solutions in engineering. *International Journal of Innovation and Sustainable Development* 01/2015; 9(2):157.
11. Pavitt, Keith (2005): “Innovation processes”, in Fagerberg, Jan, David C. Mowery and Richard R. Nelson (eds.) (2005): *The Oxford Handbook of Innovation*, pp. 86-114. Oxford: Oxford University Press.
12. Price, I., Matzdorf, F., McCarroll, P., Zhu, X. (2015). People make, and patterns break, FM. 14 EuroFM Research Symposium, 1-10.
13. Rokeach, M. (1960). *Open and close mind*, Basic Books, New York.
14. Rus, V.S. (1997). *Socialna psihologija: teorija, empirija, eksperiment, uporaba*. Davean, Ljubljana.
15. Temeljotov S.A. (2005). The synergetic effect of the observer on the built environment. *Urbani izziv*, 16(2), pp. 48-54, 163-167.
16. Temeljotov, S.A., Maamari, B., Baricic, A, Lohne, J. (2015). The influence of workplace on overall health in Slovenia and Lebanon – empirical research. *Health MED*, vol.9 (7).

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BITCOIN & CO: AN ONTOLOGY FOR CATEGORISING CRYPTOCURRENCIES

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ABSTRACT

As cryptocurrencies like Bitcoin become more and more influential and widely spread, a steadily growing target audience coming from the most diverse disciplines takes notice and interest in them. There are lots of discussions going on around the globe, whether or not Bitcoin can be considered a “real” currency and how to deal with its ecosystem from a juridical point of view as well as within the borders of monetary policy.

This paper proposes a model and, based thereupon, an ontology for categorising the different manifestations of cryptocurrencies available today. It takes into consideration the relevant publications by the ECB and the US FinCEN and tries to find a common ground. We address various aspects related to the subject like compatible technologies, applications and their interconnections. The findings are consequently tested and validated using appropriate methodology.

Our work results in an ontology implemented in languages of the semantic web that covers many of today’s cryptocurrencies and categorises them by the aspects discovered earlier in the paper. This ontology contributes to a fairly new knowledge domain where varying interpretations and misunderstandings are common occurrences.

KEYWORDS: Cryptocurrencies, Currencies, Bitcoin, Ontology, Semantic Technologies.

1. INTRODUCTION

Today it is getting more and more difficult to ignore Bitcoin and other forms of cryptocurrencies. As the former Director of the U.S. Mint Ed Moy states: “Cryptocurrencies will likely play a pivotal role to modernizing the notions of money and finance and help usher in help a new global economy worthy of the 21st century” (Moy, 2015). While it is still unclear where the development will lead, it seems that governments, jurists and financial institutions are well advised to give more attention to the advances being made.

The financial crisis in recent years led to a loss of trust in financial intermediaries, trading platforms and payment systems. One of the most outstanding innovations of cryptocurrencies is their ability to avoid the need for a trusted third party (Blundell-Wignall, 2014). This also includes dramatically lower transaction fees, especially for international transactions. Estimations say that using Bitcoin over traditional payment providers could theoretically save over 100 billion dollars of transaction costs p.a. (Goldman Sachs 2014).

The lack of regulations and legal definitions lead to a very unclear situation. While some governments are starting to recognise cryptocurrencies, they are regulated against by others. The Chair of the Board of Governors of the U.S. Federal Reserve System said “It’s important to understand that this is a payment innovation that’s happening outside the banking industry. [...] The Federal Reserve simply does not have the authority to regulate Bitcoin in any way.” (Yellen, 2014). The ECB states that “regulatory responses are likely to be more effective if they are internationally coordinated” (ECB, 2015).

This paper should contribute to clarify the current state by proposing definitions and classifications for various types of cryptocurrency economic systems. In chapter 2 we define common terms that are used throughout the paper and in the following chapters we propose properties for currency schemes and try to find categories that they can be subsumed into.

2 DEFINITIONS

2.1. Money

From an economic point of view, money traditionally is defined as having three primary attributes (ECB, 2012; Surowiecki, 2012):

- It may be used as a medium of exchange in the role of an intermediary in trade to avoid the need for barter.
- It needs to act as a standardised numerical unit of account, thereby measuring the value and cost of goods, services, assets and liabilities.
- It has to be able to store value where the money can be consumed at a later date.

From a legal perspective, anything that is used widely to exchange value in transactions is usually seen as money (ECB, 2015). Money has been historically found in written records since 3000BC, where it was used as a commodity for trade and social exchange. Over time usage of money became more prevalent in scope as it encompassed entire countries, first using the base value of the metal of the coinage as the basis of value, through to the 15th century where paper based money was first used in China. This evolution demonstrates that the value of money depends on the willingness of economic agents to accept it, no matter what material the money is made of. Trust is the central requirement for money where all participants agree to a value of the commodity used as money (Skaggs, 1998; Surowiecki, 2012).

2.2. Currency

There are various definitions of currency. Nelson (2011) defines currency as “a country’s currency that is backed by that country’s government. This backing can either be by fiat – government regulation or law – or by commodity such as the Gold Standard the U.S. used to use”. FinCEN (2013) regulations define currency (also referred to as “real” currency) as “the coin and paper money of the United States or of any other country that [i] is designated as legal tender and that [ii] circulates and [iii] is customarily used and accepted as a medium of exchange in the country of issuance”. ECB (2012) states that currency is any legal tender designated and issued by a central authority. Currencies are regulated and centralised, and each country sets out a system that governs how the currency functions and provides monetary policy to the population that determine its monetary value.

Taking the common elements of these definitions into account, we can state that for a currency to exist, it must be written into the government regulations of a country and legally issued by a central authority of that country. This also leads to the conclusion that as soon as a single country accepts any cryptocurrency as legal tender this cryptocurrency becomes a legitimate and lawful currency in that country and as a consequence a foreign currency in every other country of the world.

2.3. Cryptocurrency

“Cryptocurrency” is commonly used to describe blockchain-based transaction systems and economic systems. We acknowledge the etymology of word cryptocurrency as being derived from: (a) cryptography, in recognition of the cryptographic methods employed by the blockchain ecosystems, and (b) currency, in recognition that the blockchain ecosystem is providing a monetary transaction system.

The Oxford dictionary defines cryptocurrency as “a digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank: ‘decentralised cryptocurrencies such as bitcoin now provide an outlet for personal wealth that is beyond restriction and confiscation’”.

However, as cryptocurrencies are not regulated by any government, they cannot be defined as a currency in accordance with the currently accepted definition of currencies as described in 2.2, and as such, the term cryptocurrency is used as a label to describe blockchain-based transaction systems. In addition to cryptocurrency we also use the term “Virtual Currency Scheme” as proposed by the ECB and described in chapter 2.4.

2.4. Virtual Currency Scheme

The ECB uses the following definition for virtual currencies: “a digital representation of value, not issued by a central bank, credit institution or e-money institution, which, in some circumstances, can be used as an alternative to money” (ECB, 2015). Based thereupon, the term “Virtual Currency Scheme” (VCS) is used “to describe both the aspect of value and that of the inherent or in-built mechanisms ensuring that value can be transferred” (ECB, 2015).

The earlier definition “A virtual currency is a type of unregulated, digital money, which is issued and usually controlled by its developers, and used and accepted among the members of a specific virtual community” (ECB, 2012) was revoked by this new term. VCS can therefore be seen as a superclass of cryptocurrencies, this is also reflected in our model.

“Virtual Currency Schemes, such as Bitcoin, are not full forms of money as usually defined in economic literature, nor are virtual currencies money or currency from a legal perspective. Nevertheless, VCS can/may substitute banknotes and coins, scriptural money and e-money in certain payment situations.” (ECB, 2015)

In comparison, FinCEN guidance focusses on the “convertible” aspect of virtual currencies and the participants involved in the exchange of “convertible” virtual currencies into fiat currency. FinCEN acknowledges the decentralised characteristic of cryptocurrencies, but does not consider types of cryptocurrencies as their focus is the Administrators and Exchangers of Virtual Currency (FinCEN, 2013). As such, FinCEN guidance does not provide much insight into types of Virtual Currency Schemes.

2.5. Currency Scheme

We define Currency Schemes as inclusive of any type of fiat or local currency or Virtual Currency Schemes used for transactions without necessarily meeting the definition of currency.

3. CRYPTOCURRENCY ECOSYSTEM

3.1. Primer

Developed by Satoshi Nakamoto and first introduced with the creation of Bitcoin, cryptocurrencies are a new form of virtual currency. A cryptocurrency is a purely decentralised peer-to-peer electronic cash system and is the first technology to successfully overcome the requirement for a centralised party to validate transactions. The cryptocurrency ecosystem combines several blended features to provide decentralised money, mint and transaction processing functions, all stored on public ledgers within a quasi-anonymous framework (Brikman, 2014).

Nakamoto defines an electronic coin as a chain of digital signatures in the form of blocks (Nakamoto, 2008), which when chained together cryptographically forms the cryptocurrency blockchain. The blockchain is the public ledger, a database of all transactions ever executed in the currency, and shared by all nodes participating in the cryptocurrency ecosystem.

Cryptocurrencies use public-key cryptography to validate transactions between all participants. The public key can be considered as the participant’s account number whilst the private key represents the participant’s ownership credentials. All participants have digital wallets that are used to store the private keys, as well as the digital signatures that represent the cryptocurrency bitcoin entitlements that the participants owns. The use of digital signatures ensures transactional integrity and non-repudiation. (Peteanu, 2014)

As a peer-to-peer decentralised technology, cryptocurrencies historically rely on a network of low cost computers called “Miners” which run software that performs the primary functions within the cryptocurrency ecosystem. This software, used by each node, creates new blocks through cryptographic mechanisms (referred to as Proof), incentivises miners for utilising their computing resources by rewarding them with bitcoins when the node discovers a new block, maintains a full copy of the blockchain; and participates in the transaction validation process.

3.2. Transactions

Cryptocurrency transactions are a message between participants, and consists of 3 segments: (i) Signature, the originator’s digital signature signed with the originator’s private key so that other cryptocurrency nodes can verify the message really came from the originating participant; (ii) Inputs, a list of the signatures of transactions already in the ledger where the originator was the recipient of the bitcoins and the input bitcoins are the funds the originator uses in the transaction;

(iii) Outputs, a list of how the funds in the inputs should be distributed. All the funds in the inputs must be redistributed in the outputs, so the originator will pay the recipient the required fund and pay themselves the remainder as change.

As the recipient is identified by their public key, cryptocurrency transactions can be traced through the blockchain through to the beginning of the creation of the bitcoin. This forms the mechanism for checking the ownership of bitcoins. Publicly verifiable transactions by any node avoids double spending and provides a high degree of certainty to the participants of the cryptocurrency ecosystem.

When a transaction occurs it is broadcast onto the cryptocurrency network for verification by the nodes to prevent double spending of the bitcoin. As nodes receive the transaction they independently verify the validity of the transaction, and the greater number of nodes accepting the transaction, the less likely it is to be a double spend. Participants can quickly ascertain if there are issues with the validity of the transaction if the immediate responding nodes reject the transaction.

4. PROPERTIES OF CURRENCY SCHEMES AND CRYPTOCURRENCIES

We have created a model for currency schemes based on ECB and FinCEN definitions, and identified the characteristics of the various types of Virtual Currency Schemes. We have applied and extended the initial ECB Virtual Currency Schemes model to include a more properties of existing (and potential future) cryptocurrencies with the outcome of create classes for cryptocurrencies. The following sections describe the characteristics that form the Currency Schemes and cryptocurrency classes.

4.1. Legal Status

Legal Status is a fundamental characteristic of Currency Schemes because a currency by definition must be incorporated into law and issued as Legal Tender by a government of a country, and as such is Regulated by the government. Other Currency Schemes and cryptocurrencies are not under the control of any government, are therefore not Legal Tender, and as such are Unregulated.

4.2. Centricity

Centricity is a new characteristic for Currency Schemes with the advent of the decentralised nature of cryptocurrencies. The peer-to-peer design of cryptocurrencies was intended to mitigate the risks associated with a central party performing transaction processing, as well as reduce threat of shutdown by a targeted attack on a node, distributed denial of service, or shutdown of the cryptocurrency through government intervention. The types of Centricity include: (i) Centralised, where a central entity undertakes transaction processing; (ii) Distributed, there is no central entity and transaction processing is undertaken through the peer-to-peer network of anonymous “miner” nodes, examples including cryptocurrencies such as Bitcoin (bitcoin.org) and NXT (nxt.org); (iii) Decentralised, a central authority controls the transaction processing which is undertaken by a network of authorised ledger nodes, such as Ripple (ripple.com).

4.3. Format

The Format for Currency Schemes is a relatively new characteristic as a result of the digital age of computing. Currency Schemes have historically been based on physical coins or paper, however most Currency today is represented in a Digital format without any underlying association with value of a physical asset (such as the abandoned Gold standard). The ECB also defines Format as shown in Figure 2 in Section 4.1.

4.4. Control & Issuance

The Control & Issuance characteristic defines the authority that controls the monetary policy and supply, and that is allowed to generate units in a Currency Scheme (ECB, 2015). We have identified three types of issuer: (i) Government, where the regulated central banking authority can issue new money; (ii) Private, where the owner of the Currency Scheme can issue new private money into the private economic system; (iii) Network, where the peer-to-peer network can issue cryptocurrency units. For example, Bitcoin network automatically issues bitcoins to miners for successful hash

solutions based on Proof-of-Work, whilst the NXT network automatically issues nxtcoins to miners based on Proof-of-Stake. However, SolarCoin uses an incentive-based allocation method for their SolarCoins, which are distributed manually by the owner on the basis that a participant can prove that they have generated 1MWh of solar energy (solarcoin.org), making Solarcoin a privately issued cryptocurrency.

4.5. Validating System

As a characteristic of Currency Schemes, the “Validating System” is defined by the ECB as “the methods used for validating the transactions made and securing the network” (ECB, 2015) with the primary goal of preventing double spending of money. The Validation System is a technical construct or mechanism that validates each transaction. There are three forms of Validating Systems: (i) A Bank computer system, which provides a centralised accounting ledger for debiting and crediting accounts using fiat currency; (ii) A Private system, where a private organisation undertakes some form of centralised function for debiting and crediting accounts using a form of private currency in a private economic system; (iii) Algorithm-based, distributed or decentralised transaction processing of cryptocurrency bitcoins for debiting and crediting accounts within the cryptocurrency economic system.

Cryptocurrencies use a variety of algorithms for validating transactions, the primary algorithms being Proof-of-Work and Proof-of-Stake, and sometimes a combination of the two algorithms. Proof-of-Work cryptocurrencies use specific hashing functions for block discovery, with leveraging a principle of hashing where a digest of a hash is relatively easy to verify, but very difficult to create. Proof-of-Work has had several weaknesses identified including security, scalability, performance, reward system, power consumption (Courtois, 2014; Kaye, 2014), hence Proof-of-Stake algorithms were proposed and implemented in an effort to overcome several of these problems. Proof-of-Stake means proof of ownership of the currency, and requires the owner to hold a certain amount of currency for some time before it is able to be used to mint a block (Buterin, 2013; Kaye, 2014). With Proof-of-Work, the probability of minting a block depends on the work done by the miner, however with Proof-of-Stake the probability of solving the block is determined by how many coins have been sitting in the miner’s wallet for at least 30 days. Proof-of-Stake is used to build the security model of a peer-to-peer cryptocurrency as part of its minting process, whereas Proof-of-Work mainly facilitates the minting process and gradually reduces its significance (King & Nadal, 2012). Proof-of-Stake also has potential security issues of a different nature to Proof-of-Work that will need to be overcome (King & Nadal, 2012; Vasin 2014)

4.7. Source

Addition of Source as a characteristic is a reflection on the transparency that the Currency Scheme provides to the stakeholders of the Currency Scheme. There are of course two types of Source – Open-Source and Closed-Source. Open Source is widely promoted for allowing anyone to investigate the source code to assess its functionality, quality, reliability, identify security issues and such like (e.g. Money et al., 2012). In order to foster trust in a distributed economic system such as a cryptocurrency, most cryptocurrencies are released as Open-Source. Closed-source maintains all code as private and confidential, and vendors do not release source code to stakeholders. As such, stakeholders must have complete trust in the Closed-source vendor, and cannot easily verify functionality or identify security risks.

4.8. Purpose

As demonstrated in this section, new characteristics are being defined through the introduction of cryptocurrencies into the family of Virtual Currency Schemes as defined by ECB (2012, 2015). Some cryptocurrencies have been designed to overcome specific issues, some have been designed to improve resource utilisation, whilst yet others have a broader vision that use combinations of methods to create new functions and applications that are grounded in cryptocurrency methodology.

Each cryptocurrency transaction includes a script capability that can provide a certain rules-based scripted intelligence to be added to each transaction. This is like each transaction having a Harry Potter™ “Dobby” house-elf holding a gold coin, and who is able to evaluate various conditions and inputs before committing the spending of that coin. First generation cryptocurrencies such as Bitcoin provides a basic script capability that is used to ensure integrity of the transaction flow for each transaction. However, second generation cryptocurrencies have additional functions that improve the level of Dobby intelligence so that smarter decision making can be implemented without requiring human input. In addition, second generation cryptocurrencies can have capabilities that allow applications to integrate with the blockchain directly and run as distributed applications.

The definition of the Purpose characteristic in the context of this work is to classify any additional benefit over and above the standard transaction function of a Currency Scheme. We have identified three Purposes currently in use, as follows.

- (i) Transaction Only Currency Schemes have the sole purpose of debiting and crediting accounts and validating transactions. Examples of Transaction Only Currency Schemes include Fiat Currency, Warcraft Gold, Linden Dollars and cryptocurrencies that are transaction only, such as Bitcoin.
- (ii) Transaction and Application type generally applies to second generation cryptocurrencies, where in addition to transaction capabilities, the cryptocurrency has some form of additional application or function integration that is useful outside of the transaction aspect of the cryptocurrency. Third party applications can directly utilise these features in the cryptocurrency blockchain.
- (iii) Transaction and Application Platform are second generation cryptocurrencies that provide a “Turing Complete” platform for third party application development and support for distributed applications (DApp), where no central node is running the application.

4.9. Function Integration

Following from Purpose, the characteristic Function Integration is used to further refine two types of cryptocurrencies: (i) those that have Native embedded blockchain applications or function integration; and (ii) those that have External blockchain applications or function integration. This distinction is essential because embedded functionality changes and innovations are provided by the cryptocurrency developers, whilst external functionality and innovations are provided by third party developers.

5. CATEGORIES OF VIRTUAL CURRENCY SCHEMES

While the quantity of established currency schemes (see 5.1.) stays straightforward and stable, the number of cryptocurrencies changes almost daily. At the time of writing, around 600 cryptocurrencies can be distinguished (coinmarketcap, 2015). This is why there is a need to introduce generically applicable categories, which not only cryptocurrencies available today can be sorted into but also are prepared to accommodate future implementations.

While FinCEN (2013) focuses on the distinction between centralised and decentralised virtual currencies, we go more into detail and differentiate even more types. The centralised virtual currency schemes are described in section 5.1. and the decentralised virtual currency schemes described in the later sections.

5.1. Summary of established currency schemes

Clearly, the first category is the established type of fiat money. This type not only includes the physical format in the form of banknotes and coins but also digital formats in the form of government backed E-money (EU, 2009) and commercial bank deposits.

The second category is called LOCAL and is intended for certain types of local currencies that were established in the past decades in various regions. One remarkable example of this category is Freigeld, a local currency established in Wörgl, Austria in 1932. The built-in demurrage of this currency has been transferred to cryptocurrencies like Freicoin. Another currency of this category that has emerged in recent years is the Detroit Community Scrip (e.g. Kavanaugh, 2009).

When it comes to digital-only currency schemes, ECB (2012) differentiates three types:

- Closed money flow schemes with almost no link to the real economy. The virtual currency can only be earned and spent within the virtual ecosystem and traded within the community. One example is Blizzards World of Warcraft Gold.
- Schemes with unidirectional flow where the virtual currency can be purchased using real currency but can not be exchanged back. Facebook credits was one of those until it was removed from the system in 2013. Another example are the frequent flyer programmes of many airlines, these programmes have reached outstanding values, even surpassing the total amount of U.S. dollar notes and coins in circulation (Economist, 2005).
- Schemes with bidirectional flow where users can buy and sell virtual money according to the exchange rates with their currency. One example for this type are Linden Dollars, the currency that can be used for buying and

selling goods and services in the virtual world Second Life. However, we exclude cryptocurrencies from this type as our proposed model and ontology have separate characteristics and classes for cryptocurrency Virtual Currency Schemes.

5.2. Transaction only Cryptocurrency

Transaction only cryptocurrencies meet the requirement of being focussed on providing monetary transactions between accounts in the economic system, whilst having a non-master Authoritative Blockchain Verification Method and Algorithm-based Validating System. These are typically the first generation cryptocurrencies such as Bitcoin, Peercoin and Ripple, built to provide the distributed or decentralised transaction validation.

Although these cryptocurrencies provide basic scripting functionality to facilitate transaction integrity, they do not provide any additional application functionality. We define Transaction only Cryptocurrency as type VCS 1.

5.3. Native Blockchain Application

Native Blockchain Applications are defined as Virtual Currency Schemes that provide additional application functionality built into the cryptocurrency or blockchain. By definition, all cryptocurrencies rely on transactions, but this type does not require an application to have monetary use-case. The blockchain has many future applications outside of the monetary context most commonly used, and we expect that many applications that leverage the blockchain will appear. Native Blockchain Application examples include: (i) NXT, with its embedded applications such as its Trustless Financial Ecosystem, decentralised marketplace, and encrypted messages; (ii) Namecoin, with its embedded private domain name service functions; (iii) Maidsafe, providing a distributed network for file storage (Massive Array of Internet Disks). We define Native Blockchain Applications as type VCS 2.

5.4. External Blockchain Application

Similarly to Native Blockchain Applications, External Blockchain Applications also provide additional application functionality to the cryptocurrency or blockchain ecosystem, but do so through an external interface to the blockchain. These applications process the blockchain natively and are programmed to interact accordingly with the blockchain. However, External Blockchain Applications are centralised in nature (they run as a service and require their own server to function) and are under the control of a third party developer.

Examples include: (i) Counterparty, which uses the Bitcoin network to provide a platform for free and open financial tools; and (ii) Gridcoin, which is the first blockchain protocol that works with Berkley Open Infrastructure for Network Computing (BOINC) hosted network, to provide almost any kind of distributed computing process such as SETI@Home (Search for Extraterrestrial Intelligence) and Poem@Home protein folding modelling.

We define External Blockchain Applications as type VCS 3.

5.5. Transaction & Application Platform

A Transaction and Application Platform is defined as a cryptocurrency and blockchain that provides an embedded Turing complete contract language that allows for full Distributed Applications (DApps) to be designed and run on the application platform. This functionality is distinct in that the Turing completeness will allow conditions and loops to be implemented, something that other cryptocurrencies do not support by design.

This capability means that the Dobby attached to each transaction can be programmatically created to provide any level of automated decision making based on any factors or given limitations. An Internet of Things vending machine can negotiate a contract with suppliers for replacement orders, with parameters including pricing, delivery schedules, loading the machine, acceptance and payment. The single example of a Transaction & Application Platform is the Ethereum Project, with its first live release called Frontier on 30 July 2015.

We define Transaction & Application Platform as type VCS 4.

5.6. Regulated Virtual Currency

Besides the possibility of some government accepting an already existing and commonly used cryptocurrency as a legal tender currency (as described in chapter 2.3.), there might also emerge cryptocurrencies specifically designed for central banks maintaining full control. One example of this category is RSCoin (Danezis & Meiklejohn, 2015), which allows for a centralised monetary policy combined with a distributed validating system for prevention of double-spending.

There are distinct advantages of cryptocurrency technology in a government sense, where transactions are taxed automatically at the time of transaction, regardless of the global location of the participants, and taxing of micro-transactions are easily supported. The government could insert various algorithms in a government controlled cryptocurrency to enable and automate many types of financial, health and social support processes. Government interest is expected to grow with comments from Moy (2015), former Director of the U.S. Mint expressing how cryptocurrencies are evolutionary.

As such, this type is a placeholder on our model, and we define Regulated Virtual Currency as Type RVC.

6. ONTOLOGY

Our ontology was built using languages of the Semantic Web. The basic idea of these technologies is to make various forms of content meaningful to computers (Berners-Lee et al., 2001). This starts with very simple and popular techniques like tagging pictures and documents with the intention of enabling the computer to understand what is depicted or written, respectively. More advanced techniques include building whole models of specific knowledge domains and have the computer generate new pieces of knowledge based on the already known by reasoning algorithms.

In our case we used the Web Ontology Language OWL in its 2nd edition (Hitzler et al., 2012) to create a model of currency schemas and their properties. We only make use of basic features of OWL2 in order to keep the ontology comprehensible and universally usable. There always is a trade-off between high-level expressiveness on one side and decidability and the availability of practical reasoning algorithms on the other.

Table 1 shows an overview of the types we built into the ontology. This does not contain all the properties or all tested cryptocurrencies but should give an idea of the model created.

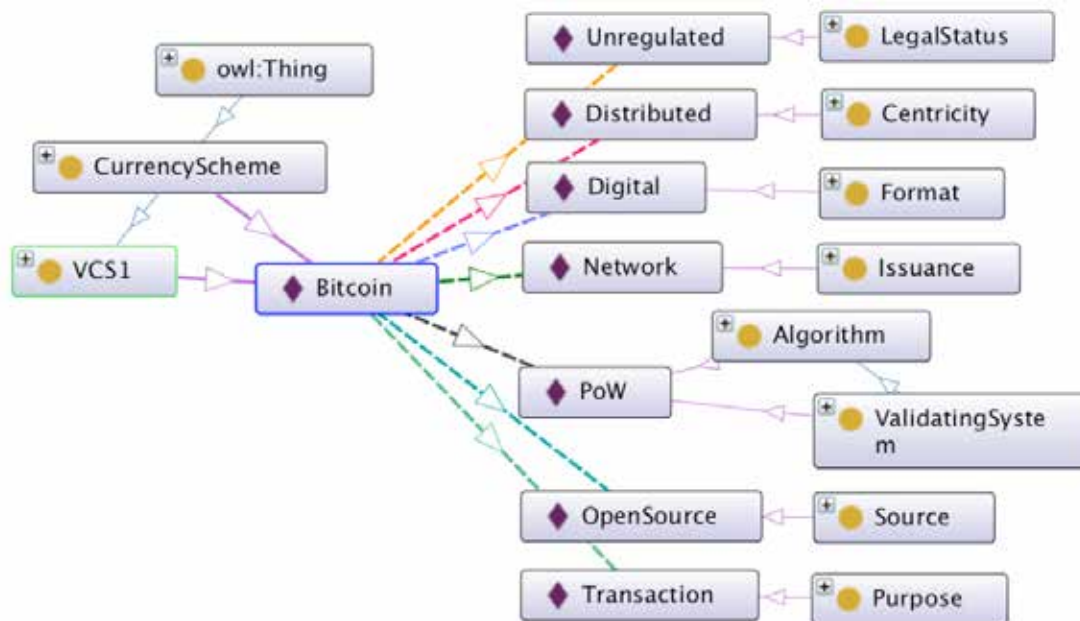
Table 1. Model of Currency Schemes

Legal Status	Regulated	Unregulated								Regulated
Centricity	Centralised						Decentralised/Distributed			
Format	Physical or Digital	Physical	Digital							
Control and Issuance	Government	Private				Network/Private				Government
Validating System	Bank	Private				Algorithm (PoW, PoS etc)				
Source	Closed Source						Mostly Open Source			
Purpose	Transaction Only						Transaction & Application		Transaction & Application Platform	?
Function Integration	Not Applicable						Embedded	External	Embedded	?
Type	FIAT	LOCAL	ECB 1	ECB 2	ECB 3	VCS 1	VCS 2	VCS 3	VCS 4	RVC
Definition	Fiat	Local Currency	Closed	Uni-directional	Bi-directional	Transaction only Cryptocurrency	Native Blockchain Application	External Blockchain Application	Application Platform	Regulated Virtual Currency
Examples	USD/EUR E-Money	Community Coins Detroit Scrip Freigeld	Warcraft Gold	Facebook credits Frequent Flyer Miles	Linden Dollars	Bitcoin, Peercoin, Ripplecoin, Solarcoin, Zerocash, Primecoin,	NXT, Namecoin, Maidsafe	Omni, Sidechains, Counterparty, Gridcoin	"Turing Complete Platform" "Bitcoin 2.0" Ethereum, Zerocash	RScoin (concept) Future

One of the main reasons for building the ontology in OWL is the ability to create new knowledge based on the known pieces of knowledge. In this case, all we did was give the Individual "Bitcoin" its correct values for all the properties, and the Reasoner automatically categorised Bitcoin as "Transaction only Cryptocurrency" of type VCS1. This can also

be seen as a special form of testing the ontology, as one can always see if a certain cryptocurrency is being categorised correctly when inputting the respective properties. 1 depicts some of the main relations of Bitcoin as an exemplary cryptocurrency in the ontology.

Figure 1: Bitcoin in the ontology



Another option is to manually classify a cryptocurrency into a specific type. The Reasoner then automatically assigns all the properties that need to be fulfilled for individuals of that class. This also makes it possible to test the ontology and see if all properties are assigned correctly.

One has to be very careful with OWL and other languages of the Semantic Web though, as they make the so called open-world assumption (OWA). The main idea of OWA is that if a statement is not known, it is not automatically seen as false like it would be seen in relational databases and most programming languages. It is simply unknown, this way there can be a distinction between false statements from missing statements (Grimm, 2010). This can have unexpected effects for those who are not familiar with OWA systems. For example, one can not define VCS1 with the following OWL triples, saying that VCS1 can not have a purpose of Application nor one of ApplicationPlatform:

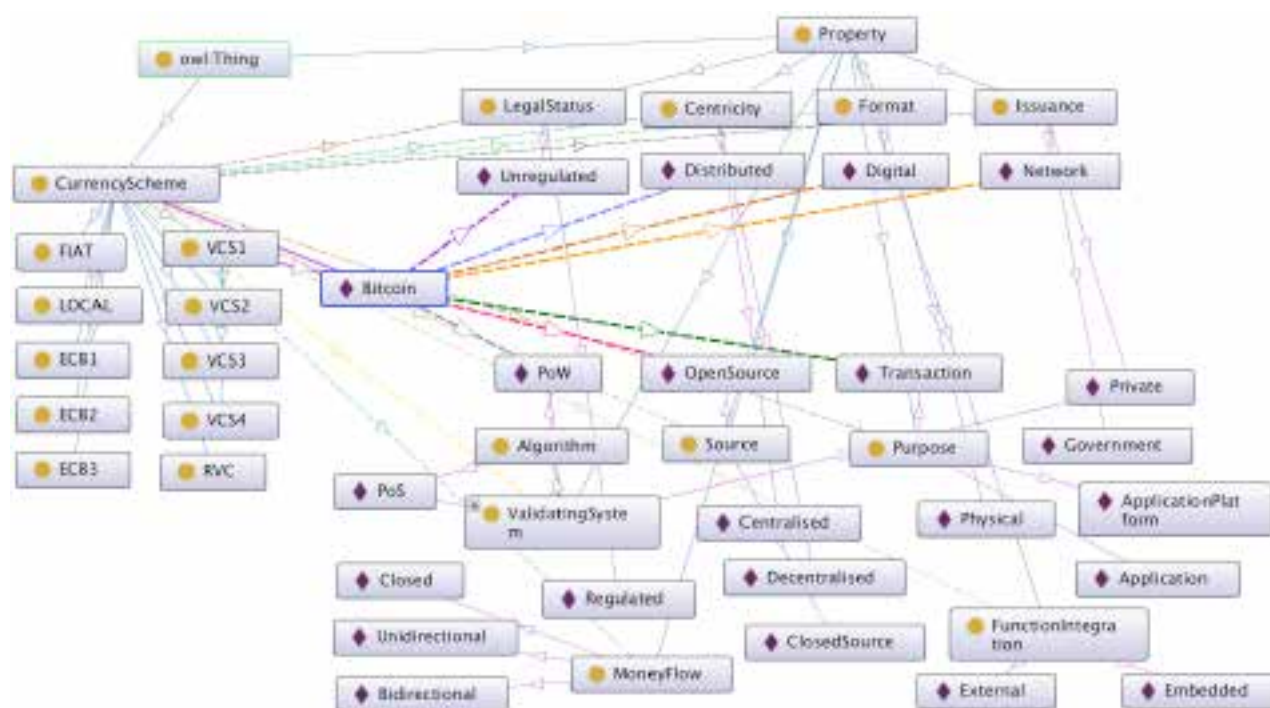
Class: VCS1

EquivalentTo:

not ((hasPurpose value Application)
or (hasPurpose value ApplicationPlatform))

The reason for this not working is that there will never be an Individual fulfilling this restriction. There can always be knowledge that's not known so far including the knowledge that a specific cryptocurrency has another purpose than transactions. In OWA systems these unknown facts lead to this class being empty.

2 shows the bigger picture, again for Bitcoin as an example.

Figure 2: Ontology

7. CONCLUSION

In this paper, we have presented an ontology for categorising established currency schemes and cryptocurrencies. First we tried to find valid and unambiguous definitions for common terms that are often used not only throughout this paper but also by other parties. We then developed a catalogue of relevant properties that help to distinguish between different variations of VCS and proposed a model of 10 types that they can be fitted into. As diverging as these cryptocurrencies seem to be, they can still be aggregated in a few categories by choosing the right properties.

The approach of this paper is to contribute in clarifying the current state as well as preparing for the possible advances in future applications of cryptocurrencies. In particular, when having a look at current publications of various governments and financial institutions, very diverging points of view come to light.

We also can conclude that although cryptocurrencies are at present correctly defined as “Virtual Currency Schemes”, all it would require is for a single country to accept any cryptocurrency such as Bitcoin as legal tender for that cryptocurrency to be recognised as a legitimate and lawful currency.

LITERATURE

1. Berners-Lee, T. et al. (2001) The Semantic Web. In: *Scientific American* May 2001, pp 34-43, New York.
2. Blundell-Wignall, A. (2014) The Bitcoin Question: Currency versus Trust-less Transfer Technology, *OECD Working Papers on Finance, Insurance and Private Pensions*, No. 37.
3. Brikman, Y. (2014) Bitcoin by analogy, <http://brikis98.blogspot.fr/2014/04/bitcoin-by-analogy.html> (accessed 31.08.2015)
4. Buterin, V. (2013) What Proof of Stake Is And Why It Matters. Bitcoin Magazine, <http://bitcoinmagazine.com/6528/what-proof-of-stake-is-and-why-it-matters/> (accessed 31.08.2015)
5. coinmarketcap (2015) Crypto-Currency Market Capitalizations, <http://coinmarketcap.com/currencies/views/all/> (accessed 31.08.2015)
6. Courtois, N. T. (2014) Crypto Currencies And Bitcoin, http://www.nicolascourtois.com/bitcoin/paycoin_may_2014.pdf (accessed 31.08.2015)
7. Danezis, G. & Meiklejohn, S. (2015) Centrally Banked Cryptocurrencies, arXiv:1505.06895.
8. ECB (2012) Virtual currency schemes, <https://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemes201210en.pdf> (accessed 31.08.2015)
9. ECB (2015) Virtual currency schemes – a further analysis, <https://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemesen.pdf> (accessed 31.08.2015)

10. Economist (2005) Frequent-flyer miles: In terminal decline? *The Economist*, 2005-01-06.
11. EU (2009) Electronic money institutions, <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0110> (accessed 31.08.2015)
12. FinCEN (2013) Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies, http://www.fincen.gov/statutes_regs/guidance/pdf/FIN-2013-G001.pdf (accessed 31.08.2015)
13. FinCEN (2014a) Request for Administrative Ruling on the Application of FinCEN's Regulations to a Virtual Currency Trading Platform, http://www.fincen.gov/news_room/rp/rulings/pdf/FIN-2014-R011.pdf (accessed 31.08.2015)
14. FinCEN (2014b) Request for Administrative Ruling on the Application of FinCEN's Regulations to a Virtual Currency Payment System, http://www.fincen.gov/news_room/rp/rulings/pdf/FIN-2014-R012.pdf (accessed 31.08.2015)
15. Goldman Sachs (2014) All About Bitcoin. In: *Top of Mind 21*, March 2014.
16. Grimm, S. (2010) Knowledge Representation and Ontologies. In: *Scientific Data Mining and Knowledge Discovery – Principles and Foundations*, pp. 111– 137.
17. Hitzler, P. et al. (2012) OWL 2 Web Ontology Language Primer (Second Edition), <http://www.w3.org/TR/owl2-primer/> (accessed 31.08.2015)
18. Hofman, A. (2014) NXT – Proof of Stake and the New Alternative Altcoin. *Bitcoin Magazine*, <https://bitcoinmagazine.com/9826/nxt-proof-stake-new-alternative-altcoin/> (accessed 31.08.2015)
19. Kavanaugh, K. (2009) 3 Cheers for Detroit's Local Currency, <http://www.modeldmedia.com/features/detroitcheers18809.aspx> (accessed 31.08.2015)
20. Kaye, M. (2014) How to Secure a Blockchain with Zero Energy, <http://bitcoinmagazine.com/9317/how-to-secure-a-blockchain-with-zero-energy/> (accessed 31.08.2015)
21. King, S., & Nadal, S. (2012) PPCoin: peer-to-peer crypto-currency with proof-of-stake.
22. Larimer, D. (2013) Transactions as proof-of-stake, <http://bravenewcoin.com/assets/Uploads/TransactionsAsProofOfStake10.pdf> (accessed 31.08.2015)
23. Money, L.P. et al. (2012) Open Source Software – Quality Benefits, Evaluation Criteria and Adoption Methodologies. In *Journal of Computations & Modelling* 2/3, 1-16
24. Moy, E. (2015) Book Review: The Age of Cryptocurrency, <http://www.newsmax.com/Finance/Ed-Moy/cryptocurrencies-bitcoin-book-money/2015/05/29/id/647430/> (accessed 31.08.2015)
25. Nakamoto, S. (2008) Bitcoin: A peer-to-peer electronic cash system, <https://bitcoin.org/bitcoin.pdf> (accessed 31.08.2015)
26. Nelson, J. W. (2011) Why Bitcoin Isn't A Security Under Federal Securities Law, <http://www.lextechnologiae.com/2011/06/26/why-bitcoin-isnt-a-security-under-federal-securities-law/> (accessed 31.08.2015)
27. Peteanu, R. (2014) Fraud Detection in the World of Bitcoin. *Bitcoin Magazine*, <http://bitcoinmagazine.com/11599/fraud-detection-world-bitcoin/> (accessed 31.08.2015)
28. Skaggs, N. T. (1998) Debt as the Basis of Currency: The Monetary Economics of Trust. *American Journal of Economics and Sociology*, 57(4), 453-467. doi: 10.1111/j.1536-7150.1998.tb03375.x
29. Surowiecki, J. (2012) A brief history of money, *IEEE Spectrum*, Volume 49, Issue 6, pp. 44 – 79. doi: 10.1109/MSPEC.2012.6203967
30. Vasin, P. (2014) BlackCoin's Proof-of-Stake Protocol v2, <http://blackcoin.co/blackcoin-pos-protocol-v2-whitepaper.pdf> (accessed 31.08.2015)
31. Yellen, J. (2014) Fed will steer clear of Bitcoin, <http://fortune.com/2014/02/27/janet-yellen-fed-will-steer-clear-of-bitcoin> (accessed 31.08.2015)

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ON THE MICRODYNAMICS OF ENTREPRENEURIAL LEARNING AND EXISTENCE. DIALOGUES AND PLACES TO BE(COME) IN ENTREPRENEURIAL BA PRACTICE.

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ABSTRACT

The framework of shared reflective intuitive knowing (S-R-I-K) is based on and should be understood in light of the central concepts found in a tentative framework of reflective intuitive knowing (R-I-K) (Åsvoll 2014). Here, R-I-K is further developed with the introduction of the concepts of 'shared' or 'sharedness'. But first a short resume, R-I reflects the *on-the-spot* way of 'thinking' more profoundly or in ways that open the world and guide entrepreneurial managers in it. This means that they deploy R-I by their intuitive grasp and *simultaneous* reflection during the course of the situation which guides further action and modify ongoing practice and enables good decisions to be made. It is proposed that the transmutation of 'reflection' and 'intuition' into R-I-K involves the three specific, interwoven and dialogical modes (abductive, deductive and inductive) of entrepreneurial practice. A *shared* reflective intuitive knowing framework (S-R-I-K) is proposed as offering a more detailed and integrative 'here and now' micro analysis of how a mode of entrepreneurship practice may contribute to organizational and relational learning. Hence, especially the concept of 'shared' are investigated in order to elaborate how R-I-K may be a condition and possibility for organizational and relational learning. In order to critically frame and elaborate on the 'shared' entrepreneurship phenomena, four entrepreneurs are interviewed both individually and in a focus group interview. The entrepreneurs are experienced and located at different sectors. Based on an instrumental case study and the S-R-I-K framework the main empirical focus are on the relational aspects of such themes as entrepreneurial knowledge creation, organizational learning and critical reflection. Especially the focus group interview may also be considered as a method of sharing experiences and creating entrepreneurial knowledge.

KEYWORDS: Dialogue, Ba, I-Other, polyphony, learning, existential.

1. INTRODUCTION

Entrepreneurship is more than an economic phenomenon, it can be understood from societal, geographical, cultural, political as well as from many other dimensions (Steyaert & Katz, 2004). The interest in entrepreneurship emanates from Schumpeter's (1934) thesis on how economic development happens as "the carrying out of new combinations". Schumpeter (1934) understands entrepreneurship as representing creative destruction, which refers to the incessant product and process innovation mechanism by which new production units replace outdated ones. Generally, entrepreneurship research today defines entrepreneurs as individuals who discover, evaluate, and exploit profitable opportunities (Shane and Venkataraman 2000, p. 218). Thus, entrepreneurs as individuals often need knowledge that does not exist in a useful or tested form but instead it must be created (Aldrich, 2000). Today one dominant focus is on the creative aspects of entrepreneurship, in other words on how opportunities can be transformed into new companies (e.g. Shane & Sarasvathy, 2000). This places the setting up of businesses in the limelight.

The aim of this paper is to unfold entrepreneurship by viewing it from the process perspective. Our focusing is on four entrepreneurs in *in situ* dialogues and places to become in entrepreneurial practice. This paper addresses the following research question: How can entrepreneurs' existence and learning unfold from their dialogues in Ba? We answer this question by developing a framework of entrepreneurial dialogue, which show some important aspects of how the microdynamics of entrepreneurial learning and existence may occur. Emphasis is given to the emergent and relational processes through which learning and being may unfold and through which future entrepreneurial opportunities may be realized. Entrepreneurship can thus be seen as a matter of entrepreneurial actors relationally 'becoming the Other' through enabling themselves, customers and symbols to 'become the Other'. This means de-centring particular entrepreneurs and, instead, centring relational processes, and letting go of talk about individuals, mind operations, sense making etc. Instead we focus on relational processes as interactions to indicate a way into the open. This facilitates the possibility that relations could have primacy and be 'dialogized' in entrepreneurial practices.

In order to develop a theoretical register with which to articulate the dialogues and places to be(come) in entrepreneurial practices, we advance a dialogic conception of Ba, based upon Nishida (1970), Nonaka (1998) and Bakhtin's (1984)

relational or 'shared' perspectives. By conceiving meaning, being and knowledge creation as the product of social interaction between different entrepreneurs and actors, this approach recognizes that dialogue is always based upon a partially shared understanding of an entrepreneurial life world and word. We explore this phenomenon through a phenomenological case study of four entrepreneurs and their project to regenerate and develop business in North Trondelag county, Norway. Drawing upon individual- and group-based qualitative material, we reflect upon how they talk about entrepreneurship and how this talk shapes the existential and knowledge creation practices.

We suggest that the notions of dialogues and places to (be) come act as central drivers and conditions for meaning around which diverse entrepreneurs coalesce. Furthermore, we argue that the dialogical and 'shared' potential inherent in temporary shared Ba or world may generate a more creative and sustainable outcome to the entrepreneurial challenges of their life projects.

1.1. Theoretical framework

In this section we will focus on two general terms called Ba and dialogue and emphasize how they mutually may benefit each other. The concept of Ba – or enabling context – is currently used in the fields of information science, information systems and management/business literature. We follow its conceptual evolution, discussions, applications and expansion since its modern introduction in 1998 by Nonaka et al. (see also Nonaka and Konno, 1998; Nonaka et al., 2000; Nonaka and Toyama, 2002; Nonaka et al., 2006). Building on the concept that was originally proposed by the Japanese philosopher Kitaro Nishida (1970), we define *"Ba as a shared context in motion, in which knowledge is shared, created, and utilized ... Ba provides the energy, quality, and places to perform the individual knowledge conversions and to move along the knowledge spiral. In other words, Ba is a phenomenological time and space where knowledge, as 'a stream of meaning' emerges (Bohm, 1996). New knowledge is created out of existing knowledge through the change of meanings and contexts."* It is possible to consider Ba as a physical space such as a meeting room, and Ba should be understood as a multiple interacting mechanism explaining tendencies for interactions that occur at any specific time and space. Ba can emerge in individuals, working groups, project teams, informal circles, temporary meetings, virtual space such as email groups, and at the front-line contact with the customer. However, Ba is also an existential place where participants share their contexts and create new meanings through interaction and relations.

According to several researchers, Ba needs to be conceptualized more carefully than scholars have done so far (Creplet, 2000; Augier et al., 2001; Ray & Little, 2001; Fayard, 2003; Nakamori 2006). Clarification requires understanding of the processes inside Ba. In this article, Ba is considered in association with a bakhtinian dialogue, which may reveal new aspects from Ba and vice versa.

Bakhtin maintains that in monologue in contrast to dialogue, a person denies that there is any other consciousness; *"another person remains wholly and merely an object of consciousness, and not another consciousness."* (Bakhtin, 1984, p. 293) Bakhtin writes: *"To be means to be for another, and through the other, for oneself. A person has no internal sovereign territory, he is wholly and always on the boundary; looking inside himself, he looks into the eyes of another or with the eyes of another"* (Bakhtin, 1984, p. 287). He continues to underline the existential and primary aspect of dialogue;

Life by its very nature is dialogic. To live means to participate in dialogue: to ask questions, to heed, to respond, to agree, and so forth ... He invests his entire self in discourse, and this discourse enters into the dialogic fabric of human life, into the world symposium. (Bakhtin, 1984, p. 293).

In Bakhtin's philosophy, dialogue or dialogism is intimately related to the concept of the "Other" and to "I-Other" relationships. Dialogic relationships between I and the Other (and ultimately between I and the Absolute Other) constitute the structure of Being understood as an "event." This fundamental ontological structure determines the forms of existence and the forms of thought, language, and cultural meaning as such. For emergence of an event of Being, at least two personal consciousnesses are needed: "co-being of being." I and the Other are two value-centers of life, different yet correlated with each other, and *"it is around these centers that all of the concrete moments of Being are distributed and arranged"* (Bakhtin, 1993, p. 74).

For Bakhtin, this distinction between monologue and dialogue is foundational not only for his epistemological ideas, but also for his ontology and his ethics. It is *"one thing to be in relation to a dead thing, to voiceless material that can be moulded and formed as one wishes, and another thing to be active in relation to someone else's living, autonomous consciousness."* (Bakhtin, 1984, p. 285; emphasis in original) Bakhtin continues by describing how human awareness is formed in the context of dialogical interaction and conversation. *"I am conscious of myself and become myself only while revealing myself for another, through another, and with the help of another. The most important acts constituting self-consciousness are determined by a relationship toward another consciousness (toward a thou)."* (Bakhtin, 1984, p. 287)

In this paper, entrepreneurs often find themselves trapped in a conflictual pattern of interaction. Inter and intra organizational conversations may become rigid, single-voiced and closed. Bakhtin describes these conversations as monologic and proposes that true dialogue is more open, responsive and multi-voiced, where an entrepreneur is able to look at themselves through the eyes of another. Entrepreneurship may sometimes be a dialogized process and a dialogized image of manufacturing (identity). Especially at a societal level, *"discourse lives, as it were, on the boundary between its own context and another, alien context"* (Bakhtin, 1973, p. 284). Therefore, one would expect that entrepreneurs present contradictions that enrich heteroglossia, so that, a deeper dialogue of opposing voices arises out of their enterprise.

To be more specific, what does this mean in everyday life? In their discussion on dialogical relationships, Markov'a (1987) and Linell and Markov'a (1993) have argued that a truly dialogical model of everyday life is not based on two steps (from A to B, and from B to A), but on three steps: Step 1: A to B. Step 2: B to A. Step 3: A to B.

In step 3 of this model A is no longer the same as A in step 1 but changes to some extent in the course of the dialogical process itself. We can observe this in conversations in which people permit themselves to be influenced by the other's point of view. In the first step, person A might say: 'This is my view.' In the second step, person B responds: 'I have another way of seeing it.' In the third step, A modifies his or her initial view: 'Now I look at it in another way.'

Drawing on Markov'a's (1987) model, Hermans and Kempen (1993) proposed a study of the self in terms of a dialogical movement of positioning and repositioning. That is, in step 1 the person takes a position, in step 2 the voice of a real or imaginal other speaks from a counter-position, and, finally, step 3 represents a repositioning, in that the original position of step 1 is reformulated under the influence of the intermediate step 2.

However, it makes sense to consider entrepreneurial practice from the perspective of Bakhtin's (1929/1973) conception of polyphony. Central to this conception is that the voice of the other is genuinely independent of the author's own voice. That is, there is genuine polyphony only if the author permits his characters to have the status of another I, standing over against the claims of his own authorial view (see also Holquist, 1990). It is precisely this independent status of the other which permits the author to disclose an extra-spatial realm, for which Bakhtin used the notion of 'surplus of vision'. When two people meet each other at a particular place and at a particular moment in time, they see, to some extent, a common environment (e.g. the table between them). At the same time they see things which the other does not see (e.g. A seeing the eyes of B which B cannot see and B seeing the eyes of A which A cannot see). This aspect of the situation which the one person sees and the other does not is what Bakhtin calls our 'surplus of vision', and he introduced this concept in order to underscore the independence of author and character as spatially and uniquely located partners in a dialogical relationship.

Polyphony builds on the idea of the utterance where speaker and listeners emerge as co-authors, recreating a dialogic relationship. When we speak with each other dialogically, there are already two consciousnesses involved, there is already a combining of several voices. However, Bakhtin departs from the concrete utterance in everyday life as the smallest unity in communication:

Every concrete utterance of a speaking subject serves as a point where centrifugal as well as centripetal forces are brought to bear. The processes of centralization and decentralization, of unification and disunification, intersect in the utterance; the utterance not only answers the requirements of its own language as an individualized embodiment of a speech act, but ... at the same time partakes of social and historical heteroglossia (the centrifugal, stratifying forces) (p. 272).

What Bakhtin brings in here is that in communication, there is not only a unitary or common language, the thing we focus habitually on as necessary for understanding, there is simultaneously a participation and creation of diversity, through which communication and meaning escapes us and yet becomes possible. This is the play of 'surplus', which Bakhtin relates to the 'addressivity' of an utterance. So we do not talk to the walls but to somebody in particular, not necessarily 'present', and who 'listens' from within certain horizons, from a specific context which can never be the same as the one speaking. Surplus emanates from this open and active listening, a kind of 'live entering' which should not be seen as empathy, where the merging evades the space for surplus.

1.2. Methodical considerations

In case studies there are challenges regarding the determination of boundaries or the unit of analysis (Creswell, 1998; Stake, 1995). In this study the boundaries were defined according to individual interviews of four entrepreneurs and one temporary Ba lasting approximately 5 hours. As such we approached the empirical case with no firm *a priori* and theoretical categories. The boundaries were eventually and after the data collection set within possible combinations of the two terms Ba and dialogue. The rationale is to rely on these potential categories, i.e. how these concepts are

combined, and then to analyze data based on those categories. The instrumental case study is thus used to provide tentative insight into an issue about how these concepts are used and combined. This involves data triangulation, i.e. choosing descriptions from various sources of research. The use of different research sources, in-depth interview, focus-group interview, document analysis, reflection notes and personal communication has been shown to be a good approach to finding information, descriptions and interpretations of the entrepreneurial practice.

1.3. Empirical data and analysis

The background to this study is a 2.5 year development and networking program called Women and Growth, between 2011-2013 (von Friedrich and Rennemo, 2013) among 24 Scandinavian women entrepreneurs. One of the researchers was part of this program and thus had some knowledge and relation to the entrepreneurs. When we wanted to find appropriate data for our study, we asked four Norwegian entrepreneurs from this group to take part in the research. This was based on our assumption that this would be a group where some basic trust between the entrepreneurs already was established. Probably because of that, we had no problems to get acceptance from the four women requested. Each of the women has businesses that are more than five years old, they own at least 50% of their business and they generate their main source of income from their business. Despite this, we wanted the group of entrepreneurs to represent different business sectors, without any competition between them. Below, these women are mentioned by fictive names: Anna is an audiometrist, selling hearing aids and consultancy to the hearing impaired. She runs five small clinics. Brenda's business is also in health care, but oriented towards rehabilitation of long-term unemployed often in combination with some kind of mental or physical disease. Cathrine is the manager and owner of an accounting office, and finally we have Deborah who is running a veterinary clinic. The data collection was conducted in several steps over a period of three months before the summer of 2015.

The first step was a recorded semi-structural interview with each of the four entrepreneurs, lasting for approximately 75-90 minutes each, with participation from both researchers. Before the interview the entrepreneurs were presented with a questionnaire where we asked about some facts about their businesses, the development history from start up until now, their own role and competence, strategies, plans and hopes for the future and external factors important for their businesses. The researchers and interviewers were eager not to bring any new ideas or proposals into the conversation. When asking question, they were strictly follow-up questions where we for instance asked for clarifications and exemplifications. Overall, these four individual interviews do not seem to evoke many genuine dialogues, that is to say, dialogues and polyphony which builds on the idea of the utterance where speaker and listeners emerge as co-authors, recreating a dialogic relationship (Bakhtin 1993). We have analyzed and listened thorough the data carefully and they are best described as monologues. The only dialogue in progress is the dialogues the entrepreneurs have with themselves, a sort of I-me dialogue with the help of follow-up questions from the researchers. These I-me dialogues, which mobilize very little friction in the conversation (or to I-Other relations), have probably the effect of strengthening positions the entrepreneurs have taken to certain problems before the question was raised. Below, we have quoted a part of the interview with Anna the audiometrist, which serves as a typical example of this sort of communication. Here she is telling about the planning of her first franchise clinic:

Anna: One of my employees, an audiometrist, will stop working in one of my clinics. Due to family reasons, she moved to... (her hometown). Since there are few appropriate jobs for her there, she wanted to establish a clinic and with pleasure under the logo of my company. Therefore, we are going to make a franchise-model, then we will see how it develops.

Us: This will be your first franchise clinic?

Anna: Yes, and then there are some questions to be considered. What will be the franchise-fee? How much rent for the logo? How much to pay for internal systems and access to data-basis. And how many percent of her sales will go back to my company?

Us: Have you finalized your answers?

Anna: In the first place, this will give us some extra income. Maybe it would be natural to charge her X thousand (Norwegian kroner) in her start-up period. Then she might take advantage of my competencies, for instance writing business plans and establishing important networks. We also need to find out which business systems she needs access to, SharePoint and Mamut for instance, and what monthly charge for this should be. Finally, there will be some percentages on the sales. Then she will have a clinic under the name of my company in her hometown, but she owns it 100% herself. I don't think it should be too easy to come to my company asking for help, that's why these services should be paid for. On the other hand, if my company runs into problems, her company will be safe.

Maybe because there was minimal friction within the I-Other relation, there was less potential for dialogue. The purpose of the individual interviews was first and foremost to gather information, experiences and data from the entrepreneurial practices, hence perhaps the need for a dialogical moments were underplayed. Maybe also dialogical relations and polyphony arise more naturally when these entrepreneurs are located together, i.e. when they understand that their counterparts are other entrepreneurs and not just researchers.

The next step was a learning and reflection day on 25 June 2015, where all of them participated in a 4.5 hour meeting, interrupted by 30 min. lunch. The day was designed by the two researchers. The whole meeting was recorded by double set of cameras, giving good possibilities to observe communication and body language from each of the participants, as shown in the picture below.



We started with a check in between the four of them since they had not met since last meeting in the development and networking program two years ago. Then we presented the plan for the day, which included story telling from each of them accompanied by free reflections from rest of the group. We also had some summing ups from each entrepreneur where they told about reactions and ideas they got from the group regarding their business and their role as managers. This was a situation where the entrepreneurs got the possibility to be involved in I-Other relations with the help of their colleagues, a more or less pure social communication situation. The material from these exercises is very convincing telling us that a lot of fundamental learning about how to develop their companies took place. Besides, from the social I-Other relational communication, some existential related questions or insights seemed to emerge. We have collected some quotes related to both leadership strategy and existence:

Leadership strategy:

Anna: Deborah is telling about trust in her company, related to the situation when employees want to leave and start for themselves. This is probably going to happen to a large extent in our business sector as well. I have realized that I need to work with this scenario. I can see a lot of challenges (she mentions several).

Cathrine: From your responses and feedback to my story, I quite clear can see that I need to be much more focused upon strategic leadership and leadership issues, as I am the only person in the company that is able to address them.

Deborah: Your idea about using a regular day for marketing activities, and involving a group of my employees in this, is something I want to try. I think this is a good idea for us. (As a response to this, Anna comments and gives further advice about how to make plans for marketing activities and how to delegate and follow up. Deborah makes notes while Anna is speaking.)

Brenda: I realize that I need to focus more on project development and delegate the responsibility of handling them to some of my employees. My challenge is related to Deborah's, and her marketing activities. I need to find a structure for this and protect myself from the operational level.

Existence:

Brenda: I am listening to your stories about responsibility. You all feel so responsible! There is so much upon your shoulders, and I am thinking that maybe this is the way it is.... This is what being an entrepreneur is about. Still, how much am I willing to fight to maintain the jobs we offer?

Cathrine: Sitting here today, I realize I probably had not survived if I had not the network that was established between us and the other women three years ago. And now sitting here today, I have the same feeling.

Deborah: I would like to get more out of the network we have established and us four sitting here as well. I think we could gain more from this network.

Cathrine: My biggest challenge as a person, is related to your reflections about me, I am a break block and need to be 150% sure before I take necessary steps. I need to be better in taking action. I need to work on this issue and it is not only related to my job, it is all over. I see this in my private life as well.

Here, the entrepreneurs indicate how they modify their existential positioning, i.e. 'look at it in another way', or in bakhtinian terms permits another I (polyphony) to enter their entrepreneurial being. Utterances like "*I realize that I need to focus more on project development and delegate the responsibility (Brenda) ... I need to be better in taking action (Cathrine)*" may exemplify what Linell and Markov (1993) calls a new 'A' created in Ba. Perhaps such utterances indicate how new 'A's show up in this network Ba.

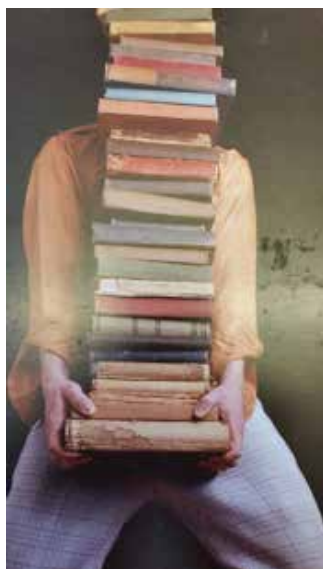
After lunch on the same day, we did another exercise, a more socio-material one so to speak. Here each of the entrepreneurs was asked to pick a picture from a pack of cards containing 100 pictures. The exercise is developed by Management in Lund, a Swedish leadership consultancy (www.milininstitute.se) as a tool for reflection. When picking up a card, we asked the entrepreneurs to search for one that spoke to them and told them something about their business, as they wanted it to develop within five years. As researchers, we wanted to find out if it was possible to become the Other through a projection task like this. After picking the picture they all were asked to tell their story related to the picture. Below we present some of our empirical findings.

Anna was the first person to start her presentation. She picked a picture showing three women participating in some kind of a party:



When she shows the rest of the group her picture she tells us: *This picture is illustrating a situation having comfortable, cozy fun together. And I can see that there have been too little energy and fun in my company in the past two years.*

Deborah was the next to come, but she picked two pictures and told something about both of them.



In this sequence, Deborah told: *I feel like this now. The picture illustrates that I'm bearing a heavy burden. Now I feel exactly like this, but I do not want the situation to continue. Within five years, I hope there are only five books to carry. Now, I do not feel my head above water. The tree is symbolizing grow, both in terms of disciplinarity, required manning, economic and with regard to necessary equipment – it grows. With regard to myself, green is also a very stress-reducing color. I think I need this tranquility, the grounding and anchoring that a tree offers. It symbolizes security regarding the decisions you have to make and also that it is here you want to be. There is a lot of energy in everything green and everything growing and then I think; this is what I want.* Below we can see a picture from the sequence when Deborah tells this.



As we can see, she is talking to the picture and the other three women entrepreneurs are listening to her, looking at her, confirming her story.

Then it was Cathrin's turn. She picked a picture illustrating a mountain climber.

The first thing I thought about when I saw this mountain climber was about my own situation within five years. When I look at the picture, I think that if the right buyer appears, then maybe I will sell my company. I also think, all the time, that it is not far to the top of the mountain. This is a mountain climber, I am doing some diving in my spare time. Within five years, I hope to spend some more time doing recreational activities.

As seen in the situational picture below, when this entrepreneur in blue colored T-shirt speaks, she is looking at the picture, becoming the Other. The picture and her become integrated into something new, a new I and the rest of the group are looking with acceptance and confirming her story. This is for instance done by nodding, as the record of the whole sequence shows.



The last person presenting her story is Brenda. She picked a picture illustrating drops falling into the water. *The picture tells about our work and that we are working within a special field where we are quite fair compared to others. However, our challenge or my challenge is that our customers or those who buy our services on behalf of our customers are changing. They are not the same as they were before. We need to communicate and spread information about ourselves and more of my employees have to take part in this information activity so that more drops will create stronger rings in the water. Today, too much of this is tied to me.*

The I-Other relation presents itself in many versions (Bakhtin, 1993). Here we have seen some dialogical I-Other relations or more concrete relations between every single entrepreneur and the symbols and perhaps also relations between entrepreneurs. That is to say, the rest of the group seems to confirm (mostly by body language) how symbols are interpreted and understood by each entrepreneur in action (looking and talking at symbols). This is not only 'looking and talking', but may be understood as I (the entrepreneur) becoming the Other (symbol/picture) in a dialogue which articulates and transcends the entrepreneurial (self)-understanding. For example, the symbols of mountain climbing (on the way to the top) and droplets (new networks/customers are needed) anticipate the future entrepreneurial practice and self-understanding. However, the Ba as an entrepreneurial setting of sharing and interpreting pictures/symbols seems to set an ambition of living out an ideology of dialogical relations and of everybody getting a voice and sharing their voice with each other in the process, and, consequently, a view of a Ba living on the plane of a polyphonic dialogue (Bakhtin 1993).

The third and final step in the data production was the collection of reflections and evaluations about the interventions offered by the researchers; especially learning reflection about the value of the meeting on 25 June. This step contained two parts.

First, we gave the entrepreneurs the possibility to give a verbal reflection immediately before leaving the meeting. This is what they said:

Anna: *We need to take a picture and place it on our Facebook site (a site including all the 24 entrepreneurs who participated in Women and Growth).*

Cathrine: *It was really fun and inspiring meeting you once again. It is good to experience that all of you are doing well.*

Deborah: *Today it was a great advantage to know each other so well from before.*

Brenda: *It is important that somebody is focusing upon our situation. Entrepreneurs in the founder-period need some type of help. What I am into right now is something quite different, it is much more demanding. People in the start-up phase are given much help. Even so, a lot of them fail later. The challenges are changing; they appear in different arenas when some time has passed.*

Cathrine: *And I can easier see this after a day like this. I have my own limitations and am making mistakes and taking steps that I should not have done. This is true of us all.*

Benda: *Mmm, no trees grow and grow.*

Deborah: *At the same time, it is so exciting to listen to you and everything you have achieved. So much happens to all of us. You have taken so many steps forward.*

Anna: *But the steps are not so visible when we are sitting thinking all alone.*

Deborah: *You are quite right, still it is inspiring for the others to see what others achieve and then you think; maybe I have achieved something important myself.*

Ba as polyphony makes it possible to understand entrepreneurship as a place and space where many voices are heard, expressing various ideas, suggestions, symbols and stories of the entrepreneurial practice. This place and the immediate 'evaluation' of it seem to make entrepreneurship polyphonic (Bakhtin, 1994), with different voices spoken simultaneously and as a result affecting each other in various dialogical ways (i.e. "the steps are not so visible when we are sitting thinking all alone"). Each entrepreneur is sometimes placed on the (existential) boundary of what is possible to say, think and do. This opens the path for different images, ideas and interpretations of symbols/pictures. In other words, the entrepreneurial world is voiced through otherness, making their entrepreneurial practice constructive and new in a sense that **when** they look into **the Other** they discover themselves again through the Other, i.e. becoming the Other. The written evaluation conducted some days after the Ba meeting seems to underline the same conclusion, that the importance and presence of the Other (entrepreneurs, symbols) makes a difference in entrepreneurial practice. In fact, all of them would like to participate in such Ba practice in the future if someone Other could be a facilitator.

Finally, we the researchers gave a prepared written questionnaire for reflection after coming home. This was sent to the four entrepreneurs by mail. They were asked to respond within short time. One of them answered within a couple of days, another one two weeks later and the last two responded after the summer time two months later, after a reminder. The content of the evaluations though are very much alike from all of them. They are very positive to the set-up and they want to take part in more of the same if they are given the possibility. Two of them would prefer a meeting more than twice a year; the other two suggest a meeting once a year. They all underline the necessity of knowing each other from before and they all want to continue, if possible, with the same group. Two of them are explicit when declaring that they feel satisfaction in helping others in same situation as themselves. It is also important to mention that all of them underline the importance of having somebody outside themselves to arrange workshops like this and to take responsibility as facilitators.

DISCUSSION

Within entrepreneurship research, the existence of differences between being an entrepreneur and being a small business leader is claimed. Being an entrepreneur is often associated with creativity and innovation, and the other to a way of doing business for the main reason of having a daily income (Bjerke, 2005). The women in our study all belong to the last group. They have all passed the start-up phase and looked for possibilities for their business to grow. Today, at least in Scandinavia, there is far more emphasis in both research and support on start-ups while programs helping entrepreneurs to secure a lifelong income and further growth are less represented (von Friedrichs & Rennemo, 2013). Most entrepreneurial companies remain small in quantitative terms (Daunfeldt & Halvarsson, 2011) and the amount of entrepreneurial companies is kept on a certain level because other newcomers replace a large group of former ones. Still, it is the newcomers that attract attention, not the reason for failure or unsuccessful growth among the already established companies (Dalborg, 2013; Dobbs & Hamilton, 2007). This study clearly shows the need for more facilitation and training programmes for post-start-up entrepreneurs if we listen to the entrepreneurs themselves. We highlight the need for educators and entrepreneurial trainers to have a fuller understanding of what we might call lifelong learning processes situated in temporary Ba's such as small group learning methods, project teams, peer exchange, and workshops.

While the freedom of every event that this temporal Ba was said to make space for, a Ba stage also opens up for a possible rebellion, outgoing frustrations, hostile comments, cynical distance etc. That is to say, monological speech may dominate. Thus, as the Ba proceeded, the entrepreneurs sometimes recalled their ambitions and frustrations after establishing the company; but moving together and addressing common challenges and issues perhaps made events for the entrepreneurial voices arise, i.e. common challenges as working with companies/institutions on long-term projects and stakeholder/partner issues. Even though all of them are quite far from fulfilling their venture ambitions, never did annoyed, selfish and long-lasting voices interrupt and dominate the Ba. This may have turned Ba into a monologue of individual freedom that could make the entrepreneurs fail in dialogue or be reluctant to obligate each other to define a more concrete path to follow. Overall, defining themselves in borderline dialogue and polyphony, and the drive to become someone and develop their venture seemed strong. Their way of practising the polyphonic ideal took into account that voices do not become voices in a Ba until they do something to each other, until they move each other in a dialogue. For example one entrepreneur's utterance; *"I shall take responsibility for my health to a greater degree... I have learnt this today while talking to the others ... It makes me feel good to contribute with my competence in relation to the challenges faced by the others"*

So where there is friction within the I-Other relation, there is potential for dialogue. The Ba seems to set an ambition of living out an ideology of dialogical relations and of everybody getting a voice and sharing their voice with each other in the process, and, consequently, a view of a Ba living on the plane of a polyphonic dialogue, where no particular author/entrepreneur holds the 'ultimate semantic authority' (Morson and Emerson, 1990, p. 238), seems sometimes to be realized. It could have turned out otherwise, i.e. Ba as an isolated, individualized and anonymous plane between them that did not leave much space for going beyond the fragile existence of good intentions and a 'good' conversation. Then it could have become the ultimate semantic authority of their existence and a (monological) alibi for being (Bakhtin, 1993). This did not seem to be the case, maybe because all four entrepreneurs are also founders and perhaps it was easier for them to recreate an ideology that got part of its momentum in events of a strongly felt otherness than it would be for people who had not experienced it first-hand. Equally important, they had 'tested' and gained trust in each other before in another project.

The four entrepreneurs report several significant learning experiences and dialogical moments, and in light of a 'secure' but challenging Ba, one question may be all the more pressing:

Why does data show so much learning experience and more existential spheres and transformations among the entrepreneurs? It seems like entrepreneurs prefer to describe themselves as competent learners eager to evaluate and learn from every relevant opportunity, always already having the capacity to be there in moments of opportunity creation or identification, always being able to be creative and innovative when needed? Is it possible that we as researchers maybe from the (positive) entrepreneurial literature expect too much and suffer from *the entrepreneurial maximization fallacy*. That is to say that all new learning, all new dialogical relations/events and relevant opportunities (subjectively perceived) is good, and the more, the better. This assumption is proposed to describe the often implicit and critically suspect set of presumptions that has grown out of the pro-entrepreneurship bias remaining unchallenged. This fallacy is perhaps too implicit and unarticulated not just in the pragmatic and scholarly entrepreneurship literature, but also across the creativity and innovation literature. It is a naive and untested assumption not only underlying many empirical studies, but the logical extension of entrepreneurial maximization at many levels of analysis could be dysfunctional. For example entrepreneurial activity at team or individual level is continuously reinventing new ways of working and thinking but failing to perform routine tasks which is also at the core of entrepreneurial success (Bledow et al., 2009a). All the four entrepreneurs in this study report sensitivity and stability to the context for entrepreneurial practice, more concrete how the (relative stabile) contingencies (economical, partners, regional/governmental institutions, competitive ventures, networks etc.) surround and influence their entrepreneurial practice, and how potential (radical) innovation processes must be planned and coexist with many established and routinized processes. This dialogic understanding of entrepreneurial practice sheds light on the process of entrepreneurship as a creative *and* destructive process; as a process that creates as well as destroys ideas, suggestions and processes. Consequently, entrepreneurial practice is not so just about the creation of a "kingdom" à la Schumpeter (1934), with a sovereign entrepreneur ruling it, but about polyphonic dialogues and interactions undertaken according to the one Ba space created by the two I-Other and borderline existential spheres. Some of the findings in this paper need to be tested in a follow-up study in order to be able to say something about the long-term effects of the learning experience that was designed for the four entrepreneurs. This is planned to take place in June 2016, also as a respond to wishes from entrepreneurs themselves. This will also respond to the criticism that the lack of longitudinal studies in the field of entrepreneurship constitutes a major methodological drawback of accumulating theory (Sexton 1997; Aldrich and Baker, 1997; Davidsson et al., 2001)

LITERATURE

1. Aldrich, H. E. (2000), Entrepreneurial Strategies in New Organizational Populations. *Entrepreneurship: The Social Science View*, 211-228.
2. Aldrich, H., and T. Baker. 1997. "Blinded by the Cites? Has There Been Progress in the Entrepreneurship Field?" In *Entrepreneurship 2000*, edited by D. Sexton and R. Smilor, 377-400. Chicago, IL: Upstart Publishing Company.
3. Bakhtin, M. (1934-35/1981). Discourse in the Novel (C. Emerson & M. Holquist, Trans.). In M. Holquist (Ed.), *The dialogic imagination: four essays* (pp. 259-422). Austin: University of Texas Press.
4. Bakhtin, M. M. (1993). *Toward a Philosophy of the Act*. Liapunov, V. (ed.). Austin: Texas University Press.
5. Bakhtin, M. (1963/1994). Problems of Dostoevsky's Poetics (C. Emerson, Trans.). In P. Morris (Ed.), *The Bakhtin Reader. Selected Writings of Bakhtin, Medvedev, Voloshinov* (pp. 89-96). London: Edward Arnold.
6. Bakhtin, M., & Voloshinov, V. (1929/1994). Marxism and the Philosophy of Language (L. Jatejka & I. R. Titunik, Trans.). In P. Morris (Ed.), *The Bakhtin Reader. Selected Writings of Bakhtin, Medvedev, Voloshinov* (pp. 26-37). London: Edward Arnold.
7. Bjerke, B. (2005). *Förklara eller förstå entreprenörskap?* Lund: Studentlitteratur
8. Dalborg, C. (2013). Tillväxt i kvinnors företag, i von Friedrichc & Rennemo (eds.), *Kvinnors företag og foretakende kvinner*, Trondheim: Akademika Forlag.
9. Davidsson, P., M. Low, and M. Wright. 2001. "Editors' Introduction: Low and MacMillan Ten Years On: Achievements and Future Directions for Entrepreneurship Research." *Entrepreneurship Theory and Practice* 25: 3.

10. Dobbs, M. & Hamilton, R.T. (2007). Small business growth: recent evidence and new directions. *International Journal of Entrepreneurial Behaviour & Research*, vol. 13, 296–322.
11. Daunfeldt, S-O., Halvarsson, D. & Johansson, D. (2011). Snabbväxande företag: En fördjupad analys av mått och definitioner. Rapport 2011:27. Östersund: Tillväxtanalys.
12. Holquist, M. (1990). *Dialogism. Bakhtin and his world*. London: Routledge.
13. Kitarō Nishida (1970). *Fundamental Problems of Philosophy*. Tokyo: Sophia University.
14. Shane, S., & Sarasvathy, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), 217-226.
15. Shane, S & S. Venkataraman (2000) The Promise of Entrepreneurship as a Field of Research, *Academy of Management Review*, Vol. 25
16. Schumpeter, J. A. (1934). *The Theory of Economic Development. An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle*. Cambridge, Mass.: Harvard University Press.
17. Sexton, D. L. 1997. "Entrepreneurship Research Needs and Issues." In *Entrepreneurship 2000*, edited by D. Sexton and R. Smilor, 401-408. Chicago, IL: Upstart Publishing Company.
18. Steyaert, C., & Katz, J. (2004). Reclaiming the space of entrepreneurship in society: geographical, discursive and social dimensions. *Entrepreneurship & Regional Development*, 16(3), 179-196.
19. Von Friedrichs, Y. & Rennemo, Ø. (2013). *Kvinner foretak og foretakende kvinner*, Trondheim: Akademika Forlag.

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ABSTRACT

Turbulent marketing environment, where the consumers' economic and social roles in general are transforming, has caused businesses to accept the fact that consumer choice and decision making comprise a single social process, which does not depend only on the impact of companies' marketing mix elements on the consumers, but that this complex process is most determined by individual or group-based interactions and relationships between the consumers themselves through word-of-mouth communication.

Consumer behaviour at the market is determined by many factors, and is therefore characterized as very complex and difficult to predict. Consumers' age is one amongst many important factors that marketing theory and practice research on a daily basis. This paper attempts to address the impact of consumers' age on creation and diffusion of word of mouth resulting in purchase decision, and tries to point out some directions of thinking and future research, based on the experience from the Republic of Serbia.

KEY WORDS: consumer, word of mouth, buying decision.

1. INTRODUCTION

One of the basic characteristics of the current business setting and the marketing environment is the fact that businesses are slowly losing control of the flows of marketing information on the market, and that it is increasingly taken over by the consumers themselves.

Most of the completed, but also current marketing research focuses in detail on interactions between businesses themselves, as well as interactions between businesses and consumers, to explain the market's structure and dynamism. On the other hand, negligible effort has been made towards studying interactions between consumers themselves and the consequences of these interactions on purchase decision making. The contemporary problems of business operations and reduction in the return on marketing investment have placed a considerable question mark before the claim that consumer decision is merely a choice of one of the large number of alternatives offered by businesses on the market. The current business reality and marketing environment potentiate interaction between consumers themselves as a fundamental mechanism increasingly creating the shape and structure of the market.

This new marketing era is based on incessant interactions and communications between consumers across the global market, who thus share and consume information on all relevant dimensions of their existence. On the one hand, these changes facilitate businesses' identification and targeting of potential consumers, but on the other, businesses lose control over the messages they have sent to the target market. The emergence of the internet has accelerated and multiplied the communication process even more, completely relativising time and place as significant factors of the communication process.

According to the research of Webtrends Consultancies for 2009, attention is drawn on the following trends in consumer behaviour:

- Reduction in consumer loyalty, who increasingly display price oriented rather than brand oriented behaviour. The brand is still important, but the consumers' standards and expectations are at a much higher level than earlier;
- Reduction in consumer trust, especially in mass media, regardless of the industry the business belongs to, where the only growth in trust is recorded in face-to-face and the internet, i.e. electronic word-of-mouth communication between consumers; as many as 80% consumers put interpersonal word-of-mouth communication at the first place when it comes to the degree of trust.
- Increase in independence of the consumers, who make their buying decision decreasingly under the influence of businesses, and increasingly independently, based on their own information, gathered mostly by word-of-mouth communication.

The report further states that 10% to 40% consumers customize businesses' products and services independently, actively initiating communication with them, and thus shape their demands from businesses so that the application of

4R (Reveal, Reward, Respect and Retain your consumers) principle is suggested, and word-of-mouth communication plays the most significant role in these activities.

As enterprises today find it increasingly complex to achieve business success, they must invest an increasing amount of effort in researching consumer behaviour, striving to study not only individual factors influencing this behaviour, which are extremely numerous, but also to establish whether there is a certain interdependence of action of these factors on consumer behaviour.

This paper aims to present the phenomenon of interpersonal word-of-mouth communication and implications that it has on consumer behaviour, and, using statistical analysis, offer the answer to the research question:

- Is there a statistically significant correlation between consumers' age and generating, disseminating and effects of word-of-mouth communication?

2. LITERATURE REVIEW

Consumer behaviour in specific marketing situations is determined by numerous factors of internal and external character. Both groups of factors require equal amounts of attention. Although internal factors are more difficult to understand, it is the external factors – demographic, geographic, social and economic – that very often make the decisive impact on consumer behaviour and buying decisions. Demographic factors take up a special place in marketing research as the number, mobility, gender structure, and especially age structure, determine the potential of the market and consumer behaviour. Age significantly determines the differences in the process of purchasing products and services. At every stage of their lives, consumers differ by manifested requirements and desires, by purchasing power, by preferences, tastes, use and post-purchase assessment of products and services, in terms of communicating their satisfaction or disappointment to other consumer.

The so-called cohort effect (Schiffman, Kanuk, 2004, p. 57; Maričić, 2011, p. 169) is a very important one, referring to the fact that there are differences in behaviour between age groups depending on the time and the setting they grew up in, and, as such, retain thus acquired habits and behaviours, for instance baby boomers who, at their mature age, listen to rock music and drink Pepsi.

Word-of-mouth communication (Grönroos, 2004, p. 269) is defined as “messages and information on a business, its credibility, trust in it, the business' manner of operation, offer and quality of its products and services, exchanged in individual communication”. Grönroos was one of the first marketing experts who analysed the phenomenon of this specific communication form by viewing through the prism of consumer perception and the prism of consumer-to-consumer relations on the market, thus attributing to it two significant dimensions of observation – psychological and social.

One of the leading marketing authorities, especially in the area of consumer behaviour, Michael Solomon (2011, p. 332) defines word-of-mouth communication as “communicating information on products and services from one individual to another”. He also points to the still present high degree of significance of formal information sources, which he primarily equates with corporate advertising, especially in the case of developing brand awareness among consumers, but remarks that word-of-mouth communication gains predominance in the later phases of evaluation and acceptance of the product on the market. If the consumers hear positive impressions on a product from their friends, acquaintances and relatives, this increases the chance that they will purchase and accept the offered product and service.

Hanna & Wozniak (2009, p. 457) define word-of-mouth communication as “personal communication between individuals, where one of them plays the role of message recipient, whereas the other acts as the source, i.e. sender of a message that is regarded as non-commercial and relates to products, services or brands”. Although it refers to businesses' products, services or brands, word-of-mouth communication is generated completely independently of the business; it is transmitted spontaneously and autonomously between consumers.

George Silverman defines word-of-mouth communication as “communication about a business' products and services occurring between individuals, assuming that they are independent of the businesses offering those products and services, and that this communication is conducted through media also independent of the business whose products are referred to” (2005, p. 25). Interpersonal word of mouth communication can flow through different types of media such as telephone, mail, the Internet etc.

Emanuel Rosen (2009) is another author researching the phenomenon of word-of-mouth communication, but in terms of its exploitation by businesses, criticising contemporary marketing executives for excessive investment of money and expectations into advertising and other traditional marketing instruments aimed at reaching the targeted individual consumer. The author considers word-of-mouth communication about a business and its products, services and brands

to be “aggregated and personal” (2009, p. 7).

Keller and Berry (2003) devote the focus of their research to word-of-mouth communication, especially studying consumers who initiate and generate it, to whom they refer as “influential”. These are consumers with “active minds, common sense, clearly defined priorities, self-confidence, firm beliefs and opinions, dedicated approach to life, who know more than other consumers, are the first to learn the news, and extend and share their experience and considerations with their environment” (p. 124).

Mowen defines word-of-mouth communication as messages exchanged face-to-face between partners in the exchange (1995, p. 551). Mowen was also among the first ones to study situations where the likelihood of occurrence of word-of-mouth communication is high, and in this sense he identifies three situations (1995, p. 552).

- when the products are ‘visible’ in the environment, i.e. have a certain symbolic and express the concept of the personal self;
- when the products are complex to use; and
- when the observed products are not easy to test before buying.

The contemporary consumers are very well informed and educated, not basing their buying decision on businesses’ aggressive marketing, but rather on independent information received from other consumers with whom they engage in interactive relations.

Based on the changes in consumer-to-consumer relations, Libai, Bolton, Bugel, de Ruyter, Gotz, Risselada and Stephen (2010.) redefine interpersonal communication into a broader context than mere verbal, face-to-face communication. According to these authors (2010, p. 269) interpersonal communication is “C2C communication in a relationship used for transfer of information from one consumer (or a group of consumers) to another consumer (or a group of consumers) in such a manner that it has the ability to affect and change their preferences, actual buying behaviour, and their future relationship with the same and other consumers”. The authors opine that interpersonal communication can also have a non-verbal form, when a consumer influences another consumer by his buying behaviour, through learning and observing. The effect is sometimes identical, and sometimes greater than verbal interpersonal communication. The authors see the consumer setting where they engage in C2C relationships as off line or traditional (face-to-face, in the shop, at work etc.) and direct, or online, through the internet (chat rooms, social networks, blogs etc.). The authors further especially emphasise the need to study specific consumers on the market who are the carriers and key generators of interpersonal communication. Individual consumers who have a greater influence on other consumers are referred in marketing literature as opinion leaders or influentials, and their identification and utilisation should be in any business’ focus.

Research into causes and results of interpersonal communication implies the analysis of the following factors (Libai, Bolton, Bugel, de Ruyter, Gotz, Risselada and Stephen, 2010, p. 273):

- characteristics of consumers – causes and results, and the intensity and modes of spreading interpersonal communication are highly dependent on the consumers’ psychological, demographic, sociological and other characteristics, by which all categories and segments thereof are differentiated;
- characteristics of products and services – if products are visible and outstanding, easy to test and try, symbolic or hedonistic, when the consumers have not necessary knowledge and experience of them, and when they are situationally convenient to the consumer, the likelihood of emergence of strong interpersonal communication is high;
- characteristics of media – the development of new technologies has changed the traditional interpersonal communication media, i.e. face to face and telephone. The media of today are mobile, where interpersonal communication is achieved by exchanging video, photo, voice or text (sms and mms) messages; it is also online, in the form of digital exchange of messages, and point-of-sale;
- characteristics of relations – imply temporal, spatial and social distance or vicinity of consumers in the relationship, determining the intensity and effects of interpersonal communication;
- characteristics of markets – depend on the activities of businesses, competitors, and consumers themselves, resulting in different levels and directions of interpersonal communication.

Taghizadeh, Taghipourian and Khazaei (2012) believe that interpersonal communication is the primary indicator of the business’ future success. Consumer satisfaction and their loyalty generate positive interpersonal communication attracting new consumers, with simultaneous growth in the purchases by existing consumers. By understanding interpersonal communication in the sense that it is carried out between consumers about all aspects and emotions related to products and services on the market, the authors identify the following characteristics of interpersonal communication (2012, p. 2570):

- Informality – this communication flows outside all formal media and types of B2C marketing communication, so that it can have different forms of occurrence and content;
- Non-commercial character and credibility – at its core, interpersonal communication is generated without any financial interest or motive, and therefore affects consumers so strongly;
- Persuasiveness – refers to the key characteristic of interpersonal communication, due to which it is the source of research of marketing science and practice;
- Relevance – as interpersonal communication is either sought or provided by consumers who are close to those who need it, interpersonal communication is shaped in a manner convenient to the consumer, and is especially significant as such, because it reduces the risk of buying and increases confidence in the appropriateness of the made buying decision;
- Ever-presence – interpersonal communication is not temporally limited, and is always present in all forms of relations between consumers, and other stakeholders on the market;

Consumer generated – interpersonal communication is always related to the consumers, i.e. their needs, desires, dilemmas, fears etc; it flows from one set of consumers to another, and is forwarded to a third set of consumers.

Contemporary consumers are more often more willing to adjust their behaviour based on advice or recommendation from another consumer, than passively respond to marketing stimuli sent by businesses. It is therefore very important for these businesses to start appreciating the reality of C2C relation both in offline and online setting, according to the principle that intensive word of mouth communication leads to more intensive creation of relations between consumers, which further leads to an even stronger intensity of interpersonal word of mouth communication. C2C relations directly determine the enterprise's business result and position it takes on the market. Albeit positive, interpersonal communication attracts new consumers and affects the growth in positive buying decision, but reverse regularity is also in effect – if it is negative, whereby this communication affects general behaviour of consumers and their value for the business.

3. RESEARCH METHODOLOGY

The survey conducted in order to confirm or reject the hypotheses set in the study is a segment of a complex project of research into the phenomenon of the impact of consumer-to-consumer word-of-mouth communication on purchase decisions. The study uses a research method in the form of structured personal communication, i.e. questionnaire, whose dissemination and response retrieval, due to geographic dispersion and size of the research area (Serbia, Croatia and Slovenia), was conducted predominantly through the Internet – 1214 respondents or 80.2%, and personally – 299 respondents or 19.8%. The survey aimed at accomplishing the set research goals and confirming or rejecting the defined hypotheses was conducted from May until September 2014 on a defined stratified sample of 1513 respondents. Stratification was performed by gender, geographic location the respondents' age and education levels. The data gathered by means of the questionnaire were processed by appropriate mathematical and statistical methods, with the application of statistical SPSS software, as follows:

- Parametric tests:
 - Normal distribution – testing the hypothetical proportion value of the basic set, based on the sample;
 - Analysis of variance, i.e. ANOVA dispersion analysis with 1, 2, and 3 samples:
 - t-test
 - Levene's test

The questionnaire consists of 30 items, included in the survey and grouped in order to confirm or reject the set hypotheses and accomplish the set research objectives, but, due to limitations imposed by the conference, this article only presents a number of items, i.e. statements aimed to confirm or reject the defined hypotheses. The items are arranged with a Likert scale of offered reply options.

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

H_1 More mature/experienced consumers are more prone to generate word of mouth communication.

H_1 More mature/experienced consumers believe more that word of mouth communication reduces shopping risks.

Due to limitations imposed by the conference, this paper only presents only some of the statements from the survey.

4. ANALYSIS AND FINDINGS

Statement 1. I communicate my experience of product and services, producers and retailers to others only when I am very satisfied or very dissatisfied with them.

Table 1. Structure of replies by age

Statement 1.		(1) up to 30 yrs	%	(2) 31-45 yrs	%	(3) 46-65 yrs	%
Valid	Strongly disagree	63	4.9	24	13.0	0	0
	Disagree	42	3.3	13	7.1	0	0
	Neither agree nor disagree	75	5.9	2	1.1	10	19.2
	Agree	497	38.9	71	38.6	18	34.6
	Strongly agree	600	47.0	74	40.2	24	46.2
	Total	1277	100.0	184	100.0	52	100.0

As the p value is lower than 0.05, it is concluded with the probability of 95% that there are statistically strong differences between respondent age groups regarding Statement 1.

If the p-value is less than 0.01, the differences are HIGHLY statistically significant. As the difference is statistically different, post-hoc test is performed.

Table 2. ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Statement 1	Between Groups	19.102	2	9.551	8.332	.000
	Within Groups	1730.828	1510	1.146		
	Total	1749.930	1512			

Table 3. Post-Hoc Tukey test

Dependent Variable	(I) Age2	(J) Age2	Mean Difference (I-J)	Std. Error	Sig.
Statement 1	1.00	2.00	.339*	.084	.000
		3.00	-.072	.151	.883
	2.00	1.00	-.339*	.084	.000
		3.00	-.411*	.168	.039
	3.00	1.00	.072	.151	.883
		2.00	.411*	.168	.039

The application of Post-Hoc Tukey test enables identifying the existence of two statistically significant differences in replies, between groups aged up to 30 years (1) and 31-45 years (2), and between groups aged 31-45 years (2) and 46-65 years (3). It is noted that the group aged 31-45 gives significantly low grades compared to other age groups when responding to Statement 1, which can point to the conclusion that more mature and young respondents are more prone to generate word of mouth communication as a consequence of outstanding satisfaction or dissatisfaction with product, services, producers and retailers, compared to middle-aged respondents.

Statement 2. **Despite negative comments by other consumers, I will very seldom still decide to buy a product/service.**

Table 4. Structure of responses by age

Statement 2.		(1) up to 30 yrs	%	(2) 31-45 yrs	%	(3) 46-65 yrs	%
Valid	Strongly disagree	101	7.9	10	5.4	0	0
	Disagree	172	13.5	19	10.3	0	0
	Neither agree nor disagree	151	11.8	7	3.8	5	9.6
	Agree	567	44.4	96	52.2	25	48.1
	Strongly agree	286	22.4	52	28.3	22	42.3
	Total	1277	100.0	184	100.0	52	100.0

As the p value is lower than 0.05, it is concluded with the probability of 95% that there are statistically strong differences between respondent age groups regarding Statement 2.

If the p-value is less than 0.01, the differences are HIGHLY statistically significant. As the difference is statistically different, post-hoc test is performed.

Table 5. ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Statement 2	Between Groups	36.368	2	18.184	13.250	.000
	Within Groups	2072.286	1510	1.372		
	Total	2108.654	1512			

Table 6. Post-Hoc Tukey test

Dependent Variable	(I) Age2	(J) Age2	Mean Difference (I-J)	Std. Error	Sig.
Statement 2	1.00	2.00	-.276*	.092	.008
		3.00	-.728*	.166	.000
	2.00	1.00	.276*	.092	.008
		3.00	-.452*	.184	.038
	3.00	1.00	.728*	.166	.000
		2.00	.452*	.184	.038

The application of Post-Hoc Tukey test enables identifying the existence of two statistically significant differences in replies, between groups aged up to 30 years (1) and 31-45 years (2), and between groups aged 31-45 years (2) and 46-65 years (3). It is noted that the group aged up to 30 gives significantly lower grades, i.e. expressed the highest agreement, compared to other age groups when responding to Statement 2, especially compared to the group aged 46-65, who gave the highest grades, i.e. expressed the highest agreement, with the statement that they will very seldom decide to buy if there is negative word of mouth communication. It can be concluded from the results of statistical processing that respondents of primarily mature age are the most prone to give up the purchase due to negative word-of-mouth communication of other consumers. The youngest respondents, aged up to 30 years, are the least prone to give up a purchase when there are negative comments of other consumers about products and services. Such a state can partly be explained by a certain degree of stubbornness of younger consumers and rational attitude of the more experienced.

Statement 3. **I tend to share my experiences about products and services more with consumers I know, such as friends and relatives, rather than those I do not know.**

Table 7. Structure of answers by age

Statement 3		(1) up to 30 yrs	%	(2) 31-45 yrs	%	(3) 46-65 yrs	%
Valid	Strongly disagree	33	2.6	18	9.8	3	5.8
	Disagree	50	3.9	12	6.5	2	3.8
	Neither agree nor disagree	58	4.5	/	0.0	/	0.0
	Agree	319	25.0	65	35.3	8	15.4
	Strongly agree	811	63.5	89	48.4	39	75.0
	Total	1271	99.5	184	100.0	52	100.0
	unanswered	6	.5	/	0.0	/	/
Total		1277	100.0	184	100.0	52	100.0

As the p value is lower than 0.05, it is concluded with the probability of 95% that there are statistically strong differences between respondent age groups regarding Statement 3.

If the p-value is less than 0.01, the differences are HIGHLY statistically significant. As the difference is statistically different, post-hoc test is performed.

Table 8. ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Statement 3	Between Groups	23.361	2	11.681	11.839	.000
	Within Groups	1483.866	1504	.987		
	Total	1507.228	1506			

Table 9. Post-Hoc Tukey test

Dependent Variable	(I) Age2	(J) Age2	Mean Difference (I-J)	Std. Error	Sig.
Statement 3	1.00	2.00	.376*	.078	.000
		3.00	-.064	.141	.892
	2.00	1.00	-.376*	.078	.000
		3.00	-.440*	.156	.013
	3.00	1.00	.064	.141	.892
		2.00	.440*	.156	.013

The application of Post-Hoc Tukey test enables identifying the existence of two statistically significant differences in replies, between groups aged up to 30 years (1) and 31-45 years (2), and statistically significant differences in answers between groups aged 31-45 years (2) and 46-65 years (3). It is noted that the group aged 31-45 years (2) gives significantly lower grades, compared to age groups up to 30 years (1) and 46-65 years (3) when responding to Statement 3, whether they generate their experiences interpersonally and share them more with consumers they know such as friends and relatives rather than consumers they do not know. This can be partly explained by a certain social position that middle-aged consumer segment has in a society where the width of their social interaction is far greater than that of younger and the oldest consumers, so that they often interact with individuals they do not even know, but may have interpersonal influence on them.

Statement 4. **Advice from other consumers reduces the risk of wrong buying decision and increase confidence in the correctness of one's own buying decision.**

Table 10. Structure of answers by age

Statement 4		(1) do 30.god	%	(2) 31-45.god	%	(3) 46-65.god	%
Valid	Strongly disagree	40	3.1	9	4.9	/	0.0
	Disagree	103	8.1	19	10.3	/	0.0
	Neither agree nor disagree	126	9.9	15	8.2	/	0.0
	Agree	678	53.1	94	51.1	35	67.3
	Strongly agree	315	24.7	47	25.5	17	32.7
	Total	1262	98.8	184	100.0	52	100.0
	unanswered	15	1.2	/	0.0	/	/
Total		1277	1277	100.0	184	100.0	52

As the p value is lower than 0.05, it is concluded with the probability of 95% that there are statistically strong differences between respondent age groups regarding Statement 4.

If the p-value is less than 0.01, the differences are HIGHLY statistically significant. As the difference is statistically different, post-hoc test is performed.

Table 11. ANOVA

Statement 4		Sum of Squares	df	Mean Square	F	Sig.
	Between Groups	10.722	2	5.361	5.634	.004
	Within Groups	1422.651	1495	.952		
	Total	1433.373	1497			

Table 12. Post-Hoc Tukey test

Dependent Variable	(I) Godine2	(J) Godine2	Mean Difference (I-J)	Std. Error	Sig.
Statement 4	1.00	2.00	.071	.077	.628
		3.00	-.435*	.138	.005
	2.00	1.00	-.071	.077	.628
		3.00	-.506*	.153	.003
	3.00	1.00	.435*	.138	.005
		2.00	.506*	.153	.003

The application of Post-Hoc Tukey test enables identifying the existence of two statistically significant differences in replies, between groups aged up to 30 years (1) and 31-45 years (2), and statistically significant differences in answers between groups aged 31-45 years (2) and 46-65 years (3). It is noted that the group aged 31-45 years (2) gives significantly lower grades, compared to the other two age groups, when responding to Statement 4, whether advice from other consumers reduces the risk of wrong buying decision and increase confidence in the correctness of one's own buying decision. This once again confirms the belief that the oldest consumers have the most manifest need for word-of-mouth communication, so they seek it, i.e., initiate its generation, as it also generates the feeling of confidence and reduces the risk of purchase.

5. CONCLUSIONS AND LIMITATIONS

The conducted research into the phenomenon of word-of-mouth communication on the observed sample has led to the following conclusions:

A large majority of consumers communicate their own experience of products, services, producers and retailers to others through word-of-mouth communication only when they feel markedly high levels of satisfaction, or when they feel great dissatisfaction with and disappointment in them. Marked satisfaction and dissatisfaction feature as the prime driver of word-of-mouth communication most often in the eldest and youngest consumer segments, and somewhat less in consumers of middle age from early thirties to late forties.

A large majority of consumers will very seldom decide to buy a product or service if there is negative word-of-mouth communication in all three studied countries, and this is especially characteristic of the oldest consumers, whereas in young consumers, positive buying decisions are possible despite negative interpersonal communication.

For a large majority of consumers, the quality of relationships between consumers themselves influences the initiation and intensity of word-of-mouth communication, as the large majority of consumers exchange advice and recommendations interpersonally, with consumers they know and are closely and strongly connected to. Such behaviour is especially characteristic of the oldest consumers, and the least for middle aged consumers, who are somewhere at the peak of their professional carrier, so that they know a large number of people, but not so deeply and complexly.

A large number of consumers believe that word-of-mouth communication reduces the risk of wrong buying decision and increases confidence in one's own choice, where the oldest consumers adhere to this belief the most, unlike the youngest consumers.

As regards the set research hypotheses, H_1 has been partly confirmed, in the sense that there are differences in consumer behaviour depending on their age when it comes to generating word-of-mouth communication, but an unequivocal assumption that a higher age and larger consumer experience also means the activity of generating and disseminating word-of-mouth communication cannot be accepted, as it varies among different age segments.

As for the research hypothesis H_2 , it has been fully proved in the sense that the oldest consumers are characterised by the strongest conviction that word-of-mouth communication reduces risk in shopping.

The basic shortcomings of the research could be reduced to the fact that making general conclusion based on a single study is not reliable, regardless of the sample size and instrument structure. An electronic questionnaire and software solutions may cause confusion in consumers, especially when filling in questions on ranks, and another influencing factor is that the largest number of respondents are fully literate, meaning that they are of younger age. Due to the size of the survey – thirty statements – only some of which are resented in the paper, there is a danger of respondent fatigue, where certain questions are answered by inertia, or the provided answers are neutral. The main shortcoming of the sample lies in the ratio between its size – 1513 – and the size of the basic set – almost 14 million inhabitants.

Consumer saturation with the enormous amount of marketing information on a daily basis has resulted in the lost of their confidence in the formal marketing sources of information, as these, besides being overly aggressive, contain solely positive aspects of the business' offer, which is never consistent with the truth. For these reasons, most consumers turn to informal sources of information and focus on other, similar consumers believed to communicate with utmost sincerity their experience with products and services subject to purchase. What additionally stimulates consumers to exchange their experiences with products and services is the ever-present purchase risk – financial, sociological and functional. This is why most consumers seek and initiate word-of-mouth communication where consumers' personal experiences are exchanged, so that they can reduce the risk of wrong purchase decision and increase confidence in one's own choice.

The contemporary consumer is a person initiating the setting, maintenance and advancement of his own social network, through various forms and intensities of relationship within which bilateral communication is realised, with implications on the enterprise's business success.

The current marketing reality necessarily establishes the assumption that consumer behaviour as a whole, especially its central starting point, is the buying decision, an essential social process, which is set not only by the consumer's personal characteristics, but increasingly by the number, quality, frequency and intensity of interactions and relationships between consumers with all market participants, but mostly with other consumers. Word-of-mouth communication among consumers is a form of manifestation of their interconnection, and, as such, directly shapes the behaviour of consumers, their attitudes, opinions, actions and decisions, and changes thereof.

LITERATURE/REFERENCES

1. Allsop D.T., Basset B.R., Hoskins J.A., (2007.) "WORD OF MOUTH RESEARCH: PRINCIPLES AND APPLICATIONS", Journal of Advertising Research December 2007, pp 398-411 .
2. Aslam S., Jadoon E., Zaman K., Gondal S., (2011.) "EFFECT OF WORD OF MOUTH ON CONSUMER BUYING BEHAVIOR", Mediterranean Journal of Social Sciences, Vol.2, No. 3., pp 497-507
3. Buttle F.A., (1998.) "WORD OF MOUTH: UNDERSTANDING AND MANAGING REFERRAL MARKETING", Journal of Strategic Marketing, Vol.6, pp 241-254
4. Gronroos Ch., (2004.) "SERVICE MANAGEMENT AND MARKETING", John Wiley & Sons Ltd.
5. Hanna N., Wozniak R., (2009.) "CONSUMER BEHAVIOR-an applied approach", Kendall Hunt Publishing.
6. Keller E., Berry J., (2003.) "THE INFLUENTIALS", The Free Press NY.
7. Libai B., Bolton R., Bügel M.S., de Ruyter K., Götz O., Risselada H., Stephen A.T., (2010.) „CUSTOMER-TO-CUSTOMER INTERACTIONS: BROADENING THE SCOPE OF WORD OF MOUTH RESEARCH", Journal of Service Research, Vol.13., No.3., ppg 26-282.
8. Maričić B., (2011.) "PONAŠANJE POTROŠAČA", The Publishing Centre of the Faculty of Economics in Belgrade.
9. Marić D., (2010.) „IDENTIFIKACIJA LIDERA MIŠLJENJA MEĐU POTROŠAČIMA", Analiz Ekonomskog fakulteta u Subotici, Vol.46., pp 123-134.
10. Meiners Norbert H., Schwarting Ulf, Seeberger Bernd, (2010.) "THE RENAISSANCE OF WORD OF MOUTH MARKETING: A NEW STANDARD IN 21ST CENTURY MARKETING MANAGEMENT", International Journal of Economics Science and Applied Research 3 (2), pp 79-97.
11. Mowen C. John, "CONSUMER BEHAVIOR", MacMillan Publishing Co., 1995.
12. Oetting M., Jacob F., (2010.) "EMPOWERED INVOLMENT AND WORD OF MOUTH: CONCEPTUAL MODEL AND FIRST EMPIRICAL EVIDENCE", Journal of Marketing Trends Vol. 2, pp 25-33.
13. Rosen E., (2009.) "THE ANATOMY OF THE BUZZ", A Currency Book Doubleday.
14. Schiffman G. L., Kanuk L. L., (2004.) "CONSUMER BEHAVIOR", Prentice-Hall.
15. Silverman G., (2005.) "THE SECRETS OF WORD OF MOUTH MARKETING", AMACom.
16. Solomon R. M., (2011.) "CONSUMER BEHAVIOR", Prentice Hall.
17. Taghizadeh H., Taghipourian M.J., Khazaei A., (2013.) „THE EFFECT OF CUSTOMER SATISFACTION ON WORD OF MOUTH COMMUNICATION", Research Journal of Applied Sciences, Engineering and Technology, Vol.5., No.8., pp 2569 - 2575
18. Trusov M., Bucklin R.E., Pauwels K., (2009.) "EFFECTS OF WORD OF MOUTH vs TRADITIONAL MARKETING: FINDINGS FROM AN INTERNET SOCIAL NETWORKING SITE", Journal of Marketing, Vol.73, pp 90-102.
19. Wangenheim v. F., Bayon T., (2007.) "THE CHAIN FROM CUSTOMER SATISFACTION VIA WORD OF MOUTH REFERRALS TO NEW CUSTOMER ACQUISITION", Journal of the Academy of Marketing Science Vol. 35, ppg 233-249.
20. Zamil A.M., (2011.) "THE IMPACT OF WORD OF MOUTH (WOM) ON THE PURCHASING DECISION OF THE JORDANIAN CONSUMER", Research Journal of International Studies Vol. 20., ppg 24-29..
21. <http://www.hbr.org/2007/10/how-valuable-is-word-of-mouth/ar/1>(V.Kumar, J. Andrew Peterson, R.P.Leone, 'How valuable is Word of mouth?', retrieved 10.07.2015. 10 a.m.)
22. http://www.bulwark.biz/paper/wp_Customer_in_Control.pdf (Webtrends 2009. "Business Brief: The Rise of Relationship Marketing", retrieved 15.07.2015. 11 a.m.)
23. <http://ssrn.com/abstract=2013141>, (Berger J., Iyengar R. (2011.), "How Interest Shapes Word of Mouth Over Different Channels", Working paper, retrieved 18.07.2015. 12 a.m.)

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SERBIAN CONSUMERS' ATTITUDES AND BEER CONSUMPTION

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ABSTRACT

Consumers' attitudes are regarded as one of variables explaining their dietary behaviour. In relation to this are often considered consumer ethnocentrism and cultural openness. In this paper, global, regional and national beer brands' consumption is considered in the context of named consumers' attitudes. Besides, chosen socio-demographic characteristics of consumers were taken in consideration. The research was conducted in two Serbian towns: Novi Sad and Subotica in December, 2014 (n=200). The paper also provides managerial implications based upon research's results.

KEY WORDS: Consumer attitudes, Consumer ethnocentrism, Cultural openness, Beer consumption, Republic of Serbia.

1. INTRODUCTION

Behavioural theories used in understanding and predicting dietary behaviour, such as, Theory of reasoned action (Ajzen & Fishbein, 1980) and Theory of planned behaviour (Ajzen, 1991), point out that attitudes to behaviour, subjective norms and perceived behavioural control determine the intention to behaviour. Hereby, attitudes to behaviour are emerging in the relation of beliefs and their evaluation, subjective norms are social pressure on individuals to behave or not to behave in a certain manner, while perceived behavioural control is perceived ability to perform a certain behaviour. Furthermore, intention to behaviour and perceived behavioural control determine consumer behaviour.

Consumer attitudes can be relevant regarding the choice of global, regional and national food brands (including beer brands). Within these attitudes, consumer ethnocentrism and cultural openness can be of special importance.

The scale for measuring consumer ethnocentrism was developed by Shimp and Sharma (1987) in the USA. According to these authors, ethnocentric consumers are not in favour of buying imported products since it harms the domestic economy, leads to job losses, and is unpatriotic, while for non-ethnocentric consumers assess products regardless of where they are produced. This scale was applied in a number of researches (e.g. Good & Huddleston, 1995; Balabanis *et al.*, 2001; Veljković, 2009; Dmitrovic *et al.*, 2009; Kreckova *et al.*, 2012; Grubor & Đokić, 2015).

The scale for measuring cultural openness (belonging to concepts of cosmopolitan identity which was given different names and measured with different scales: e.g. Balabanis *et al.*, 2001; Dmitrovic *et al.*, 2009; Kreckova *et al.*, 2012) was developed by Türken and Rudmin (2013), who consider it as one measure of global identity, whereas they measure global identity by non-nationalism as well.

Besides, in some food consumer research, there can be identified the importance socio-demographic variables: gender (O'Donovan & McCarthy, 2002; Koivisto Hursti & Magnusson, 2003; Lockie *et al.*, 2004; Arbindra *et al.*, 2005; Padel & Foster, 2005), age (Sandalidou *et al.*, 2002; Arbindra *et al.*, 2005; Zepeda & Li, 2007), income (Loureiro & Hine, 2002; Sandalidou *et al.*, 2002; Arbindra *et al.*, 2005; Gracia & de Magistris, 2007; Stolz *et al.*, 2011). Socio-demographic factors were also used in some research into consumer ethnocentrism or cultural openness (Good & Huddleston, 1995; Balabanis *et al.*, 2001; Veljković, 2009; Kreckova *et al.*, 2012; Grubor & Đokić, 2015).

In this paper will be presented the results of research of global, regional and national beer brands' consumption in the context of consumers' attitudes i.e. their ethnocentrism and cultural openness. In addition, chosen socio-demographic characteristics of consumers will be taken in consideration. Besides, managerial implications will be given.

2 SERBIAN CONSUMERS' ATTITUDES AND BEER CONSUMPTION

Having in mind previously listed theory and consultations with marketing experts, following hypotheses have been suggested:

H₁: Male and female statistically significantly differ regarding consumer ethnocentrism.

H₂: There is positive and statistically significant relation between consumer age and their ethnocentrism.

H₃: There is negative and statistically significant relation between consumer self-assessed household income and their ethnocentrism.

H₄: Male and female statistically significantly differ regarding cultural openness.

H₅: There is negative and statistically significant relation between consumer age and their cultural openness.

H₆: There is positive and statistically significant relation between consumer self-assessed household income and their cultural openness.

H₇: There is positive and statistically significant relation between domestic beer brand frequency of consumption and consumer ethnocentrism.

H₈: There is negative and statistically significant relation between regional beer brand frequency of consumption and consumer ethnocentrism.

H₉: There is negative and statistically significant relation between global beer brand frequency of consumption and consumer ethnocentrism.

H₁₀: There is no statistically significant relation between domestic beer brand frequency of consumption and cultural openness.

H₁₁: There is positive and statistically significant relation between regional beer brand frequency of consumption and cultural openness.

H₁₂: There is positive and statistically significant relation between global beer brand frequency of consumption and cultural openness.

2.1. Questionnaire

The questionnaire consisted of three parts. The first part was related to socio-demographic characteristics of respondents: gender, age and self-assessed household income (from 1 - the lowest, to 5 - the highest mark).

The second part of the questionnaire was designed to research respondents' attitudes toward consumer ethnocentrism and cultural openness. Chosen and adapted items from consumer ethnocentrism scale (Shimp & Sharma, 1987) and global identity scale (Türken & Rudmin, 2013) were used. Likert scale from 1 to 7 was implemented.

The third part of the questionnaire was related to self-reported frequency of beer consumption (domestic, regional and global beer brands: Jelen, Laško and Heineken). It was reported on 1 to 7 scale, meaning: never, once in several months, once in several weeks, several times a week, every day or several times a day.

It took from up to 15 minutes for the respondents to fill in the questionnaire.

2.2. Data analysis

Reliability of the used scales was tested by using Cronbach's alpha and validity by using exploratory factor analysis. Adequacy of performing exploratory factor analysis was tested by Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity. Within exploratory factor analysis Maximum likelihood factor analysis method with Varimax rotation method were used. Hereby, items of both scales were tested together.

The existence of statistically significant differences between male and female regarding consumer ethnocentrism and cultural openness (each scale was presented by its mean) was tested by using Mann-Whitney U test. The existence of statistically significant relations between consumer age and self-assessed household income and consumer ethnocentrism and cultural openness was tested by using Spearman correlation coefficients.

Finally, the existence of statistically significant relations between domestic, regional and global beer brands frequency of consumption and consumer ethnocentrism and cultural openness was tested by using Spearman correlation coefficients.

Data analysis was performed by using MS Office Excel and SPSS.

2.3. Subjects

The research was conducted in two Serbian towns: Novi Sad and Subotica in December, 2014 (n=200). Convenience sampling was used.

The sample consisted of 52.5% of male and 47.5% of female respondents. The average respondent was 36.08 years old (standard deviation 12.811). The average self- assessment of household income was 2.87 (standard deviation 0.852).

2.4. Reliability and validity of the scales

The value of Cronbach's alpha of 0,890 for five chosen items of the consumer ethnocentrism scale, and 0.698 for four chosen items of the cultural openness scale showed appropriate reliability of these scales.

Kaiser-Meyer-Olkin (KMO) test results (KMO test value of 0.797 and Bartlett's Test of Sphericity significant at $p < 0.000$) indicated that using factor analysis was appropriate.

Exploratory factor analysis identified two factors with Eigenvalues higher than 1, which explained 51.160% of the total variance.

In Table 1 is shown the rotated factor matrix of unified items of both scales.

Table 1. Validity of the scales

Unified items of both scales	Factor 1	Factor 2
Serbian people should always buy Serbian-made products instead of imports.	0.783	-0.127
We should purchase products manufactured in Serbia instead of letting other countries get rich off us.	0.869	-0.084
Serbs should not buy foreign products, because this hurts Serbian business and causes unemployment.	0.805	-0.059
It may cost me in the long-run but I prefer to support Serbian products.	0.835	0.040
We should buy from foreign countries only those products that we cannot obtain within our own country.	0.650	-0.067
I could live in other cultures than my own.	-0.240	0.632
I identify with a world community.	0.004	0.652
I enjoy learning about different cultures.	-0.047	0.581
I like listening to music from different cultures.	0.026	0.551

Source: Authors' research

High charges of the first 5 items belonging to the scale of consumer ethnocentrism in the first factor, and other four items belonging to the scale of cultural openness in the second factor, point to the validity of the used scales.

2.5. Socio-demographic characteristics of respondents and their attitudes

The results of Mann-Whitney U test regarding differences in respondents' ethnocentrism between male (Md=5.20. n=105) and female (Md=5.00. n=95) are: $Z = -1.125$, $p = 0.261 > 0.05$, what does not support hypothesis H_1 .

There is statistically significant, positive and weak correlation between respondents' age and their ethnocentrism ($\rho = 0.176$, $n = 200$. $p < 0.05$), what supports hypothesis H_2 .

There is no correlation between respondents' self-assessed household income and their ethnocentrism ($p=-0.095$, $n=200$. $p>0.05$), what does not support hypothesis H_3 .

The results of Mann-Whitney U test regarding differences in respondents' cultural openness between male ($Md=5.00$. $n=105$) and female ($Md=5.25$, $n=95$) are: $Z=-1.363$, $p=0.173>0.05$, what does not support H_4 .

There is no correlation between respondents' age and their cultural openness ($p=0.082$, $n=200$. $p>0.05$), what does not support hypothesis H_5 .

There is no correlation between respondents' self-assessed household income and their cultural openness ($p=0.059$, $n=200$. $p>0.05$), what does not support hypothesis H_6 .

2.5. Consumer attitudes and frequency of beer consumption

There is statistically significant, positive and weak correlation between respondents' self-reported frequency of domestic beer brand consumption and their ethnocentrism ($p=0.275$, $n=200$. $p<0.05$), what supports hypothesis H_7 .

There is no correlation between respondents' self-reported frequency of regional beer brand consumption and their ethnocentrism ($p=0.019$, $n=200$. $p>0.05$), what does not support hypothesis H_8 .

There is statistically significant, negative and moderate correlation between respondents' self-reported frequency of global beer brand consumption and their ethnocentrism ($p=0.363$, $n=200$. $p<0.05$), what supports hypothesis H_9 .

There is no correlation between respondents' self-reported frequency of domestic beer brand consumption and their cultural openness ($p=0.009$, $n=200$. $p>0.05$), what supports hypothesis H_{10} .

There is no correlation between respondents' self-reported frequency of regional beer brand consumption and their cultural openness ($p=-0.062$, $n=200$. $p>0.05$), what does not support hypothesis H_{11} .

There is statistically significant, positive and moderate correlation between respondents' self-reported frequency of global beer brand consumption and their cultural openness ($p=0.415$, $n=200$. $p<0.05$), what supports hypothesis H_1 .

2.6. Discussion and recommendations

In Table 2 are given data regarding supporting different hypothesis.

Table 2. Hypotheses testing results

Unified items of both scales	Consumer ethnocentrism	Cultural openness
Gender	no significant difference (male more ethnocentric)	no significant difference (female are more culturally opened)
Age	statistically significant, positive and weak correlation	no correlation
Self-assessed household income	no correlation	no correlation
Self-reported frequency of domestic beer brand consumption	statistically significant, positive and weak correlation	no correlation
Self-reported frequency of regional beer brand consumption	no correlation	no correlation
Self-reported frequency of global beer brand consumption	statistically significant, negative and moderate correlation	statistically significant, positive and moderate correlation

Source: Authors' research

The results of the research show that although male being more ethnocentric and women culturally opened, there are no statistically significant differences among them when it comes to both, consumer ethnocentrism and cultural openness. Out of all researched socio-demographic variables, there is only statistically significant, weak and positive correlation between age and consumer ethnocentrism.

When it comes to consumer attitudes, there are strongest (although moderate) relations between self-reported frequency of global beer brand consumption and both, consumer ethnocentrism and cultural openness (positive in the second and negative in the first case). Frequency of domestic beer brand consumption is correlated (statistically significantly, positively and weakly) only to consumer ethnocentrism, as expected. There is no correlation between frequency of domestic beer brand consumption and cultural openness or frequency of regional beer brand consumption and consumer ethnocentrism and cultural openness.

Having these results in mind, the producer of domestic brand should be more ethnocentric while the producer of global brand more culturally opened during creation, delivering and communication value to consumers on domestic market. On the other hand, the producer of regional brand should segment the market on other bases that would future research suggest as relevant for its brand.

3. CONCLUSION

In this paper were presented the results of research of global, regional and national beer brands' consumption in the context of consumers' attitudes i.e. their ethnocentrism and cultural openness, conducted in two Serbian towns: Novi Sad and Subotica in December, 2014 (n=200). Besides, in the research was considered possible relation between chosen socio-demographic characteristics of consumers and their ethnocentrism and cultural openness.

The results of the research showed that out of socio-demographic variables, only consumers' age was statistically significantly, weakly and positively correlated to their ethnocentrism. It was also shown that there were strongest relations between frequency of global beer brand consumption and consumer ethnocentrism (negative) and cultural openness (positive), while frequency of domestic beer brand consumption was correlated only to consumer ethnocentrism. Having that in mind, general managerial recommendations were given.

Future researches could focus on more brands, more products, inclusion of other variables of consumer choice, as well as on obtaining more representative sample.

LITERATURE (alphabetical order)

1. Ajzen, I. (1991.) The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), pp. 179-211.
2. Ajzen, I., Fishbein, M. (1980.) *Understanding attitudes and predicting social behavior*. Prentice-Hall, NJ.
3. Arbindra, P. R., Moon, W., Balasubramanian, S. (2005.) Agro-biotechnology and organic food purchase in the United Kingdom. *British Food Journal*, 107(2), pp. 84-97.
4. Balabanis, G., Diamantopoulos, A., Dentiste Mueller, R., Melewar, T. C. (2001.) The impact of nationalism, patriotism and internationalism on consumer ethnocentric tendencies. *Journal of International Business Studies*, 32(1), pp. 57-75.
5. Dmitrovic, T., Vida, I., Reardon, J. (2009.) Purchase behavior in favor of domestic products in the West Balkans. *International Business Review*, 18(5), pp. 523-535.
6. Good, L. K., Huddleston, P. (1995.) Ethnocentrism of Polish and Russian consumers: are feelings and intentions related? *International Marketing Review*, 12(5), pp. 35-48.
7. Gracia, A., de Magistris, T. (2007.) Organic food product purchase behaviour: A pilot study for urban consumers in the South of Italy. *Spanish Journal of Agricultural Research*, 5(4), pp. 439-451.
8. Grubor, A., Đokić, N. (2015.) Determinants of Choice of Global and National Food Products' Brands. *Strategic Management*, 20(2), pp. 58-67.
9. Koivisto, H., U.-K., Magnusson, M. K. (2003.) Consumer perceptions of genetically modified and organic foods: What kind of knowledge matters? *Appetite*, 41(2), pp. 207-209.
10. Kreckova, Z., Odehnalova, J., Reardon, J. (2012.) Consumer ethnocentricity within the environment of economic crisis. *Inzinerine Ekonomika-Engineering Economics*, 23(3), pp. 271-281.
11. Lockie, S., Lyons, K., Lawrence, G., Grice, J. (2004.) Choosing organics: A path analysis of factors underlying the selection of organic food among Australian consumers. *Appetite*, 43(2), pp. 135-146.
12. Loureiro, M., Hine, S. (2002.) Discovering niche markets: A comparison of consumer willingness to pay for a local (Colorado-grown), organic, and

GMO-free product. *Journal of Agricultural and Applied Economics*, 34(3), pp. 477-487.

13. O'Donovan, P., McCarthy, M. (2002.) Irish consumer preference for organic meat. *British Food Journal*, 104(3,4,5), pp.353-370.
14. Padel, S., Foster, C. (2005.) Exploring the gap between attitudes and behaviour: Understanding why consumers buy or do not buy organic food. *British Food Journal*, 107(8), pp. 606-625.
15. Sandalidou, E., Baourakis, G., Siskos, Y. (2002.) Customers' perspectives on the quality of organic olive oil in Greece: A satisfaction evaluation approach. *British Food Journal*, 104(3,4,5), pp. 391-406.
16. Shimp, T. A., Sharma, S. (1987.) Consumer ethnocentrism: Construction and validation of the CETSCALE. *Journal of Marketing Research*, 24(8), pp. 280-289.
17. Stolz, H., Stolze, M., Janssen, M., Hamm, U. (2011.) Preferences and determinants for organic, conventional and conventional-plus products – The case of occasional organic consumers. *Food Quality and Preference*, 22(8), pp. 772–779.
18. Türken, S., Rudmin, F. W. (2013.) On Psychological Effects of Globalization: Development of a Scale of Global Identity. *Psychology Society*, 5(2), pp. 63–89.
19. Veljković, S. (2009.) Uticaj etnocentrizma na potrošače u Srbiji. *Marketing*, 40(2), pp. 97-106.
20. Zepeda, L., Li, J. (2007.) Characteristics of organic food shoppers. *Journal of Agricultural and Applied Economics*, 39(1), pp. 17-28

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THE PROSECUTOR'S LEGAL STATUS IN COMPARATIVE LAW PERSPECTIVE

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ABSTRACT

The main rules concerning the legal status of the public prosecutor's office in Hungary. The tasks and the operations (devolution and substitution rights, command rights) of the German public prosecutor's office. The structure of the British Crown Prosecution Service and functions of the Crown prosecutors. The functions and structure of the French, Italian and Austrian public prosecutor's office.

KEYWORDS: public prosecutor's office, prosecutor, comparative law.

1. HUNGARY

The prosecutor has three main responsibilities during the procedure:

- a) to carry out investigation;
- b) to supervise the legality of investigation carried out by the investigating authority; and
- c) to represent the prosecution in court proceedings.

The prosecution service – parallel to the courts – has a four-tier organizational structure, being divided into local, county, territorial and national bodies. Accordingly, prosecutors carry out their activity at District and District-Level Prosecutor's Offices (District Prosecutor's Offices of Budapest, Investigating Prosecutor's Offices, Prosecutor's Office of Budapest for Public Interest Protection) Prosecutor's Offices, Chief Prosecution Offices (County Chief Prosecution Offices and the Municipal Central Investigating Chief Prosecution Office of Budapest), Appellate Chief Prosecution Offices (Budapest, Debrecen, Győr, Pécs and Szeged) and the Office of the Prosecutor General. Mention should also be made of the National Institute of Criminology, which is a special organization linked to the prosecution service. The competence and territorial jurisdiction of the individual prosecutor's offices follow the pattern of the corresponding courts; but if instructed by the Prosecutor General, the Appellate Chief Prosecutor or the Chief Prosecutor, the prosecutor may also proceed in matters that would not normally fall within his competence or jurisdiction. In the event of a conflict of competence or jurisdiction between prosecutor's offices, the acting prosecutor's office shall be designated by the superior prosecutor.

The National Institute of Criminology is in charge of the research of criminal activity and the development of the theory and practice of criminology, forensic science and criminal law sciences (Act on the Prosecution Service, § 10)

ad a) Pursuant to the Criminal Procedure Act, in criminal cases investigation shall be carried out by the prosecutor as a general rule. The prosecutor himself may carry out investigation any time and concerning any case even if the investigating authority is carrying out investigation independently, or the prosecutor may refer the investigation in his own competence even after it has already been started.

However, in some cases investigation may only be carried out by investigating prosecutors or military investigating prosecutors.

ad b) During the supervision of the investigation, the prosecutor shall act as "the master of the case". Rights of supervision exercised by the prosecutor over the investigation (§ 28) may be classified into three main categories:

- the right of access to information about the case,
- rights of instruction and
- the right to make decisions on the merits.

Within the frames of the right of access to information about the case, the prosecutor may examine the files of the case, and request that the files be forwarded to him, he may be present at the investigative actions and, to this purpose, the prosecutor must obligatorily be informed if investigation has been ordered.

The prosecutor's right to issue instructions includes instructions to complement the crime report, to conduct investigation, to carry out investigative actions and further investigation, as well as instructions to conclude the investigation within

the designated deadline, the right to set aside decisions taken during the investigation, the right to order the termination of the investigation, and if so required, his right to refer the investigation in his own competence.

Finally, among the rights to make decisions on the merits, mention should be made of the right to vary decisions, to adjudicate complaints, to reject crime reports and to terminate the investigation.

ad c) As opposed to his role during the investigation, during the court proceedings the prosecutor no longer acts in the capacity of an authority; at this stage, during the demonstration of evidence he “merely” has the same rights as the defence. Rights exercised by the prosecutor during the court proceedings may be classified as follows:

- rights of access to information about the case and
- rights relating to the advancement of the case.

Among rights of access to information about the case, one should mention the right to be present at the trial, the right to inspect documents, the right to request information and the right to ask questions directly.

Among rights relating to the advancement of the case, one should highlight the right to dispose of the charge, which includes the right to bring charges, to represent the prosecution, to drop charges and to modify the charges. It is here that one should mention the right to decide to refer a case for mediation, to defer charges and to partially set aside charges. Apart from this, the prosecutor may also file motions and objections, make an address (speech) to the court and file for legal remedy.

Among the obligations of the prosecutor it is important to mention his obligation to be present at the trial. As of 1 January 2011, the presence of the prosecutor is obligatory at the first instance trial in all cases (§ 241 (1)). Before the district court the prosecution may also be represented by a junior prosecutor. In specific cases the prosecution may also be represented by a trainee prosecutor unless:

- the criminal offence carries a penalty of five years’ or more imprisonment pursuant to the law,
- the accused is in detention, or
- the accused – regardless of his legal responsibility – is mentally disabled.

At the second instance trial that is open to the public, the presence of the prosecutor is not obligatory. However, the second instance court may in any case order the prosecutor to be present at the trial.

At the third instance open hearing the presence of the prosecutor is obligatory.

2. GERMANY

The public prosecution office (Staatsanwaltschaft) has three main responsibilities. It is “the mistress of the investigation procedure”, it represents the charges in the interim procedure and at the trial, and functions as a penal enforcement authority.

The public prosecution office is organized in parallel to the courts. Its organization and competence is based on §§ 141-142 of the GVG. The territorial jurisdiction of the public prosecution office shall be determined by the jurisdiction of the court at which the public prosecution office has been set up. (GVG 143. § 1.).

The operation of the public prosecution office is determined by its monocratic and hierarchic organization:

a) All public prosecutors represent the law: if the public prosecution office consists of several officials, the public prosecutor (Staatsanwalt) assigned to the highest-ranking official shall act as his deputy; he shall, when he acts in his stead, be authorised to perform all his official tasks without proof of a special commission. (GVG, § 144).

b) The right of devolution and of substitution: it also follows from the monocratic organization of the public prosecution office that no public prosecutor has definitive jurisdiction over a given criminal case; jurisdiction may be transferred rather arbitrarily within the public prosecution office.

On the basis of the right of devolution, the first officials of the public prosecution office at the Higher Regional Courts (Public Prosecutor General) and the Regional Courts (Chief Senior Public Prosecutor) shall be entitled to take over all the official tasks of the public prosecution office at all the courts in their district (GVG 145. § 1. 1.). The Minister of Justice has no right of devolution, not being an organization in the nature of a prosecution office.

On the basis of the right of substitution, the first officials of the public prosecution office at the Higher Regional Courts and the Regional Courts shall be entitled to commission an official other than the initially competent official to perform the official tasks of the public prosecution service at all courts in their district. (GVG 145. § 1. 2.). Moreover, they may also commission another public prosecution office to perform these tasks. (BGH NSTZ 1998, 309). The Minister of Justice also has this right of substitution.

c) Right of instruction: the officials of the public prosecution office must comply with the official instructions of their superiors. (GVG §146). The answer to the question as to which superior is entitled to issue instructions may be deduced from the guidance contained in § 147 of the GVG relating to the right of direction and supervision. Pursuant to this, the right of instruction lies with:

<ul style="list-style-type: none"> the Federal Minister of Justice in respect of the Federal Prosecutor General and the federal prosecutors, GVG § 147 para. 1 the Land Minister of Justice in respect of all the officials of the public prosecution office of the Land concerned, GVG § 147 para. 2 	so-called external right of instruction (GVG § 147 paras. 1 and 2)
<ul style="list-style-type: none"> the Federal Prosecutor General in respect of the federal prosecutors, on the analogy of GVG § 147 para. 3 The Public Prosecutor General of the Land in respect of other prosecutors operating at the Higher Regional Court (OLG) and subordinated prosecutors operating at the Regional and Local Courts (LG, AG), GVG §147 para. 3 The Chief Senior Public Prosecutor of the public prosecution office at the Regional Court in respect of all officials of the public prosecution office of the given court's district, GVG § 147 para. 3 	so-called internal right of instruction (GVG § 147 para. 3)

3. ENGLAND AND WALES

The Crown Prosecution Service (CPS) is headed by the Director of Public Prosecutions (DPP), who is appointed by and is under the "supervision" of the Attorney General. Pursuant to the law, the DPP must have at least ten years' experience – but according to the law, he/she does not enjoy the security of a permanent official position and, in practice, he/she is appointed based on a contract for a fixed term.

Crown prosecutors, who work as the DPP's subordinates, do not have any special status – similarly to the situation in many other countries. Based on the law, they must be qualified barristers or solicitors (lawyers), but as a result of their appointment they become public servants and they do not enjoy the security (guarantee) of a permanent official position. Nevertheless, the courts strengthened their status, by indicating that where the government intends to dismiss a Crown prosecutor as a punishment for an act executed by him during the correct performance of his duty, the dismissal shall be examined by the court.

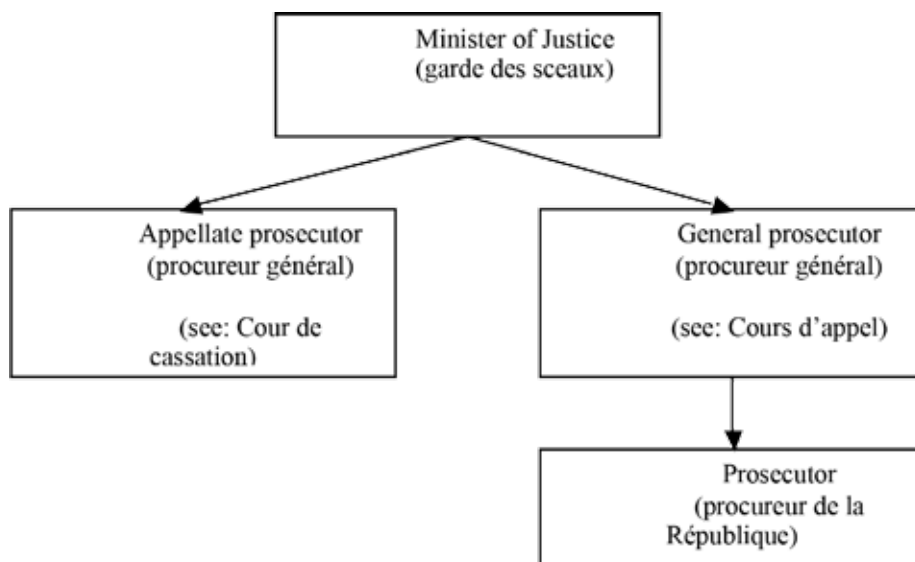
Compared to their counterparts in other countries, Crown prosecutors play a less significant role in the criminal justice system. They have no powers of supervision over police activity, and it is the police (and not the Crown prosecutor) that may decide whether to bring charges or not. Before 1985 most charges were brought by the police, whose official role extended to both investigation and the bringing of charges. The Prosecution of Offences Act of 1985 conferred on the police the powers to decide whether to initiate prosecution. But if the police have started the process of prosecution; following this, they have to hand over the files to the CPS, which is entitled to terminate the case.

Apart from this, for a long time, the right of audience of Crown prosecutors was restricted to the Magistrates' courts; therefore, in the case of proceedings taking place before the Crown Court, they were obliged to engage a member of the independent Bar. In 2000 Crown prosecutors gained rights of audience to attend hearings before the Crown Court as well.

Although legally, the CPS takes over the prosecution of all charges initiated by the police, there are a number of other public service government agencies that may bring charges themselves and are also entitled to carry out investigation (namely, HM Customs and Excise, Inland Revenue, the Department of Social Security, and the Serious Fraud Office).

4. FRANCE

In France the prosecutor represents public prosecution and gives effect to the law (Constitution, Article 31 (1)). He represents public interest in the criminal procedure, the prosecutor is one and indivisible. He is not accountable to the parties for his decisions; neither do parties have the right to remove the prosecutor actually acting in their case. The office has a hierarchical structure, and all prosecutors are obliged to comply with the instructions of their immediate superiors. Prosecutors may be removed and they are subordinated to the Minister of Justice (ordonnance of 22 December 1958). The following chart illustrates the hierarchy of prosecutors in France:



The criminal court cannot deliver a judgment in a criminal case if the prosecutor's representative is not present. Which prosecutor acts in a case varies according to the court:

- Before the tribunal de police, in the case of a level 5 contravention, the prosecution is represented by the competent procureur de la République (PR) of the tribunal de grande instance or one of his deputies (substitut); while in the case of a level 1-4 contravention the prosecution is represented by a police officer.
- Before the court acting in a délit case (tribunal correctionnel), the prosecution is represented by a deputy of the PR (substituts).
- Before the court of appeal the prosecution consists of the Procureur général (PG), his/her deputies and assistants (substitut).
- Before the cour d'assises no special representation of the prosecution is required, it is within the discretion of the courts in whose area the hearing is being held (cours d'appel or tribunaux de grande instance).
- Before the Cour de cassation, the prosecution comprises a PG, a premier avocat général (PAG) and 19 avocats généraux (AG).

5. ITALY

In Italy the prosecutor enjoys quasi judicial independence. The functions of the prosecutor are regulated by the Act on the Judicial Organization (ordinamento giudiziario, OG) and the Code of Criminal Procedure. Based on these rules, Italian legal theory points out four functions of the prosecutor:

- the prosecutor shall safeguard compliance with the laws, ensure the fast and smooth operation of the administration of justice, provides legal protection for the State, legal persons and those who lack legal capacity (OG, Article 73);
- the prosecutor shall take charge of the prosecution of crime, carry out investigation in order to decide whether the case should be brought before the court or terminated (OG, Article 73);

- the prosecutor shall represent public prosecution before the court in cases where the results of the investigation constitute sufficient justification for bringing the case before the court (CPP Article 50, para. 1);
- the prosecutor shall ensure that judgments and all other court decisions taken in the cases specified by law are enforced (OG Article 73).

In Italy there are prosecutor's offices operating at all first instance courts (panel court or sole judge), and all appellate courts and the Corte di cassazione. Although prosecutors are independent in their institutional position, decreto legislativo No 106 of 2006 has introduced the earlier unknown principle of hierarchy. In accordance with this, the public prosecution of charges – in conformity with the German system – is in the hands of the first official of the prosecutor's office, who may appoint a deputy in his absence or where he is prevented from attendance. Moreover, he may transfer competence over various types of criminal procedures to one or more prosecutors belonging to one specific area. It is also this first official of the prosecutor's office that may define the general criteria concerning when his subordinate prosecutors may resort to the activity of the polizia giudiziaria.

The hierarchical structure of the Italian prosecution service is also manifested in the fact that where the prosecutor wishes to initiate certain coercive measures in the procedure – for example, pre-trial detention – it is necessary to obtain the written permission of the first official of the prosecutor's office.

Article 358 of the Italian Code of Criminal Procedure imposes on the prosecutor the obligation to conduct an impartial process. Pursuant to Article 52 of the CPP, where it is justified by important reasons, the prosecutor is "entitled" not to act in a case, and if he fails to meet this obligation, he may be disciplined by the Consiglio superiore della magistratura for misconduct.

In the interests of the fight against organized crime, special law enforcement agencies have been set up in Italy: the procura distrettuale antimafia at the regional level and the procura nazionale antimafia at the national level. This does not mean the setting up of a new prosecution service, but rather the assignment of competences. Prosecutor's offices operating at appellate courts may proceed in cases of crimes related to the mafia and terrorism. Therefore investigation against the mafia is conducted by the 26 prosecutor's offices attached to appellate courts, and not by the more than 160 prosecutor's offices attached to first instance courts (pubblico ministero).

6. AUSTRIA

The Austrian prosecution system (in line with the court system) comprises three levels:

- public prosecutor's offices attached to the LG (Staatsanwaltschaft),
- senior public prosecutor's offices attached to the OLG (Oberstaatsanwaltschaft) and
- the Procurator General's Office attached to the OGH (Generalprokuratur).

A special prosecutor's office is the Central Public Prosecution Service for Combating Economic Crime and Corruption having its seat in Vienna (Zentrale Staatsanwaltschaft zur Verfolgung von Wirtschaftssachen und Korruption, Economic Crime and Corruption Prosecution Service, WKStA). The staff of prosecutor's offices is made up of prosecutors and employees of the prosecutor's office.

The above organization of the prosecution service also means a relation of subordination (the Economic Crime and Corruption Prosecution Service is subordinated to the Senior Prosecutor's Office of Vienna). The Procurator General is subordinated to the Minister of Justice, who exercises rights of instruction and supervision in respect of all public prosecutors.

Public prosecutors may proceed in any case with the proviso that in matters falling within the competence of BG (district courts) it is usually district lawyers who proceed. As for jurisdiction (similarly to the jurisdiction of the courts), it is primarily based on the place where the crime was committed. If the place of perpetration is unknown or located abroad, then jurisdiction may also be based on the place of occurrence of the result, the domicile or residence of the accused etc. The Economic Crime and Corruption Prosecution Service proceeds in criminal offences specified in StPO § 20a (1) over the whole territory of the country.

Motions submitted during the investigation are forwarded by the public prosecutor's office to the sole judge of the LG (regional court), but the indictment is delivered to the court that will act in the case. In justified cases, the public prosecutor's office is entitled to merge cases or split them into several cases.

In every case the investigation is directed by the prosecutor. If the police start the investigation because they notice a crime or a crime is reported to them, the case will come before the prosecutor anyway, since the police forward their reports to the prosecutor, they file their motions (e.g. motion to take evidence or to take coercive measures) and complaints with the prosecutor. It is only in case of investigative acts falling within the competence of the judge that the prosecutor does not have a right of supervision (e.g. ordering arrest, judicial hearings etc.). The prosecution delivers most of its instructions to the police orally (which is recorded), but all those provisions against which it is possible to apply for remedy must be reduced to writing (except where there is an insurmountable obstacle). Some provisions must be made in a written form (e.g. employing covert detectives, StPO 131. §).

In the case of unlawful police conduct, the accused may file a complaint with the prosecutor. He may also submit motions to take evidence to the prosecutor, who shall either grant them, or if not, the prosecutor shall give his reasons for the rejection (StPO § 55 (4)). The expert is designated by the prosecutor (and not by the police), and the defence may file an objection against the appointment.

In principle, the overwhelming majority of investigative acts are carried out by the police, but any of them may be attended or performed by the prosecutor himself. This latter may be justified where an accused or a witness is being interviewed.

It is always the prosecutor that decides about the termination of the investigation, he will discontinue it, or refer the case for diversion, or prosecute.

7. CONCLUSION

The prosecution service's structure is parallel to the courts in most countries. The structure is independent of the state organization. E.g. in Hungary the prosecution service has a four-tier organizational structure, being divided into local, county, territorial and national bodies although the state organization is not federal. Germany has got a federal state organization and parallel this the prosecution service has a four-tier organizational structure as well. Meanwhile in Austria the prosecution system (in line with the court system) comprises only three levels.

There are also in some countries special prosecution's offices. Some are totally different from the normal prosecution services (e.g. the National Institute of Criminology in Hungary or the public service government agencies in England: the Inland Revenue, the Department of Social Security, the Serious Fraud Office etc.). But there are also special bodies within the prosecutor's organization (e.g. the investigating prosecutors or military investigating prosecutors in Hungary; the procura distrettuale antimafia at the regional level and the procura nazionale antimafia at the national level in Italy or the Central Public Prosecution Service for Combating Economic Crime and Corruption in Austria).

Interesting question is the relationship between the Prosecutor's Office and the Ministry of Justice. In Hungary, in England and Wales and in Italy the Prosecutor's Office is independent of the Ministry of Justice. In Germany the Minister of Justice has no right of devolution, not being an organization in the nature of a prosecution office but has the right of substitution. In France the prosecutors are subordinated to the Minister of Justice, and the situation is same in Austria where the Procurator General is subordinated to the Minister of Justice, who exercises rights of instruction and supervision in respect of all public prosecutors.

The main responsibilities of the prosecutors are the following:

- to carry out investigation;
- to supervise the legality of investigation carried out by the investigating authority;
- to represent the prosecution in court proceedings;
- the functions as a penal enforcement authority.

In Hungary the prosecutor has the first three, in Germany the last three main responsibilities. Compared to their counterparts in other countries, in England and Wales the crown prosecutors play a less significant role in the criminal justice system, they only represent the prosecution in court proceedings. By contrast in Italy the prosecutors have all of the four functions. In comparative law perspective the Austrian public prosecutor's office has the most functions.

LITERATURE

1. ARLOTH, Frank: Strafprozessrecht. München, 1995.
2. BEULKE, Werner: Strafprozessrecht. Heidelberg-München-Landsberg-Frechen-Hamburg, 2010.
3. BOHNERT, Joachim: Die Abschlusßentscheidung des Staatsanwalts. Berlin, 1992.
4. BRODAG, Wolf-Dietrich: Strafverfahrensrecht für Schulung und Praxis. Stuttgart-München-Hannover-Berlin-Weimar-Dresden, 2008.
5. DELMAS-MARTY, Mireille – SPENCER, J. R. (ed.): European criminal procedures. Cambridge, 2004.
6. ESER, Albin: Einführung in das Strafprozeßrecht. München, 1983.
7. FEZER, Gerhard: Strafprozeßrecht. München, 1995.
8. GEERDS, Friedrich: Übungen im Strafprozeßrecht. Berlin, 1989.
9. GÖSSEL, Karl-Heinz: Strafverfahrensrecht. Stuttgart, 1977.
10. GUINCHARD, S. – BUISSON, J.: Procédure pénale. Párizs, 2000.
11. HALLER, Klaus – CONZEN, Klaus: Das Strafverfahren. Heidelberg-Neckar, 2011.
12. HATCHARD, John – VOGLER, R. – HUBER, B.: Comparative criminal procedure. London, 1996.
13. HAUTZINGER Zoltán, HERKE Csongor, MÉSZÁROS Bence, NAGY Mariann: Einführung in das ungarische Strafverfahrensrecht. Schenk Verlag, Passau, 2008. 176 p.
14. HAUTZINGER Zoltán, HERKE Csongor: The Hungarian Criminal Procedure Law. Pécs, 2006. 102 p.
15. HELLMANN, Uwe: Strafprozessrecht. Berlin-Heidelberg, 2006.
16. HENKEL, Heinrich: Strafverfahrensrecht. Stuttgart, 1968.
17. HERKE Csongor, FENYVESI Csaba, TREMMEL Flórián A büntető eljárásjog elmélete. Dialóg Campus Kiadó, Budapest-Pécs, 2012. 382 p.
18. HERKE Csongor: A francia és az olasz büntetőeljárás alapintézményei. PTE ÁJK Pécs, 2013. 116 p.
19. HERKE Csongor: A német és az angol büntetőeljárás alapintézményei. PTE ÁJK Pécs, 2011. 126 p.
20. HERKE Csongor: Az ügyészi fellebbezések statisztikai elemzése a súlyosítási tilalom tükrében. Ügyészek Lapja, 2010/5. 5-12. o.
21. JEANDIDIER, Wilfrid – BELOT, Jacques : Procédure pénale. Párizs, 1986.
22. JOACHIMSKI, Jupp – HAUMER, Christine: Strafverfahrensrecht. Stuttgart-München-Hannover-Berlin-Weimar-Dresden, 2010.
23. KILL, Franz: Die Stellung der Staatsanwaltschaft im französischen und deutschen Strafverfahren. Bonn, 1960.
24. KINDHÄUSER, Urs: Strafprozessrecht. Baden-Baden, 2010.
25. KLEINKNECHT, Theodor – MEYER, Karlheinz: Strafprozessordnung. München, 1999.
26. KLESCZEWSKI, Diethelm: Sttrafprozessrecht. Köln-Berlin-München, 2007.
27. KRAMER, Bernhard: Grundbegriffe des Strafverfahrensrechts. Stuttgart, 2009.
28. KREY, Volker: Deutsches Strafverfahrensrecht I-II. Stuttgart, 2006-2007.
29. KÜHNE, Hans-Heiner: Strafprozessrecht. Heidelberg-München-Landsberg-Frechen-Hamburg, 2010.
30. LESCH, Heiko Hartmut: Strafprozeßrecht. Neuwied-Kriftel, 2001.
31. LÉVAI Ilona: Büntetőeljárás és ügyészség – a „francia modell” magyar aspektusból. Krim. tanulm. 1994. 43-105. o.
32. MAIWALD, Manfred: Einführung in das italienische Strafrecht und Strafprozeßrecht. Frankfurt am Main – Berlin – Bern – Wien, 2009.
33. MEURER, Dieter: Strafprozeßrecht. Marburg-Lahn, 1991.
34. MEYER-GROSSNER, Lutz – CIERNIAK, Jürgen – SCHWARZ, Otto: Strafprozessordnung. München, 2011.
35. PADFIELD, N.: Text and materials on the criminal justice process. London, 2000.
36. PFEFFERKORN, Fabian: Einführung in das französische Strafverfahren. Hamburg, 2006.
37. PFEIFFER, Gerd: Strafprozeßordnung. München, 2005.
38. PISANI, Mario (szerk.): Il codice di procedura penale. Bologna, 1999.
39. PRADEL, J.: Procédure pénale. Párizs, 2000.
40. PRADEL, Jean (szerk.): Code de procédure pénale. Párizs, 1990.
41. PUTZKE, Holm – SCHEINFELD, Jörg: Strafprozessrecht. München, 2011.
42. RANFT, Otfried: Strafprozeßrecht. Stuttgart-München-Hannover-Berlin-Weimar-Dresden, 2005.
43. RICCIO, Giuseppe – Spangher, Giorgio: La Procedura Penale. Napoli, 2002.
44. ROXIN, Claus – SCHÜNEMANN, Bernd: Strafverfahrensrecht. München, 2009.

45. RÜPING, Hinrich: Das Strafverfahren. München, 1997.
46. SALAS, Denis: Du procès pénal. Párizs, 1992.
47. SANDERS, A. – YOUNG, R.: Criminal justice. London, 2000.
48. SCHÄFER, Gerhard: Die Praxis des Strafverfahrens. Stuttgart-Berlin-Köln, 2007.
49. SCHLÜCHTER, Ellen: Das Strafverfahren. Köln-Berlin-Bonn-München, 1983.
50. SCHLÜCHTER, Ellen: Strafprozeßrecht. Thüngersheim-Frankfurt am Main, 1999.
51. SCHROEDER, Friedrich-Christian: Strafprozessrecht. München, 2011.
52. SEILER, Stefan: Strafprozessrecht. Wien, 2010.
53. SOYER, J.-Cl.: Droit pénal et procédure pénale. Párizs, 2000.
54. SPENCER, J. R.: La procedure pénale anglaise (Que sais-je?) Paris, 1998.
55. SPENCER, J. R.: The case for a code of criminal procedure. London, 2000.
56. STEFANI, F. – LEVASSEUR, G. – BOULOC, B.: Procédure pénale. Párizs, 2001.
57. SZILOVICS Csaba: Csalás és jogkövetés az adójogban. Gondolat Könyvkiadó, 2003. Budapest. 194 p.
58. TOFAHRN, Sabine: Strafprozessrecht. Heidelberg-München-Landsberg-Frechen-Hamburg, 2009.
59. VAN DEN WYNGAERT, C.: Criminal procedure systems in the European Community. London, 1993.
60. WASIK, M.: Criminal justice, text and materials. London, 1999.
61. WEILAND, Bernd: Einführung in die Praxis des Strafverfahrens. München, 1996.

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QUALITY OF EDUCATION AND EDUCATIONAL COMPETITIVENESS

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ABSTRACT

Although the term competitiveness is based on economic foundations such as management, marketing etc., it is necessary to acknowledge the fact that every progress and every development policy is also being firmly connected to the quality development process, especially quality of education. Not only of its institutional level which can often be just formal, but real educational qualities which are reflected throughout the entire educational system whose creative potentials are being seen in light of main educational factors (teachers and students), technological infrastructure, and potentials of the social capacity and their level of interest. Competitiveness can only be built upon adequate and non-formal educational values able to be proved in practice, as well as on criteria, and then only can it be respected, valorized and compared on both domestic and international level. Here lies the recognizability of the true competitiveness whose quality should be the only one demonstrating the preset goals and results.

KEY WORDS: education, competitiveness, criteria, management, quality, value system.

1. INTRODUCTION

This paper will discuss the issues and problems arising from non-compliance of the organizational and educational area, especially the higher education with economic units – either private or social character. In order to achieve the quality and consistency of education and business policy, a question is raised regarding the continuity of monitoring, improvement and the interactive effects of both segments of the social progress. In any case, it entails the internationalization of content, contacts, system connectivity and promotion of competitiveness and development of competence values. Generally speaking, it would achieve satisfactory quality of education with a goal and assumptions of further development since the quality of education affects competency achievements as well as the level of the qualification structure. This strengthens educational, working economic competitiveness that requires the application of lifelong education in the role of economic development.

2. LIFELONG EDUCATION IN THE ROLE OF KNOWLEDGE DEVELOPMENT AND SOCIAL HIGHER EDUCATION STRUCTURES

The development of knowledge and social structures based on lifelong education represents a particular model of overcoming the traditional universities as closed, yet heterogeneous entities, which due to the traditional “skills” and experiences should be homogeneous. Homogeneous – despite the diversity of content, programs, quality of teachers, organizational components, etc. It seems that the university grossness in the wake of the world scene globalization does no good to its elements. There is no single financial criteria, personnel, programming,...and all of this is reflected on the students who are the key factor, with passive, various events, influences and manipulation.

How can social growth and development, strengthening of university, commercial and industrial structures be expected in such circumstances? The triangle between the industry/economy, society as a social/sociological category and “unique” university – based on scientific knowledge and general cultural knowledge and professionally specific - cannot encourage competitive competence because it does not have unified and comprehensive development strategy. This results in inadequate economic “growth” without systematic arrangement and focus, causing a questionable competition (in qualitative terms), and even the lack of competitiveness. Because the dispersion exists in all aspects of the aforementioned triangle.

The assumption of lifelong education is certainly the achievement of higher education levels in existing universities. Therefore, some authors (Etzkowitz, 2001) speak of the traditional, elite university that is transformed into an entrepreneurial and it increases and connects basic and applied research, i.e., in (bio) technology and engineering/technical and technological fields. The economic quality of education and staff supply on the labor market certainly came into focus here. The above-mentioned author speaks of the first academic revolution in the late 19th and early 20th centuries, which is connected to the traditional educational function of the university with research – which resulted in a system of doctoral studies, especially in the American educational context. The modalities of new education and scientific structure have over time become world famous, recognized and enforceable, even in the western European higher education institutions.

What followed was the second academic revolution at the beginning of the 30s of the last century with the emergence of more open systems of knowledge production that became reality due to the appearance of insecurity within the society, i.e., the causes and consequences of the First and Second World Wars. By entering into the period called the "knowledge society", the science and university lost orientation, rhythm and inspiration in such undefined system of knowledge. Instead of strengthening its position in a society where knowledge is the impetus of economic growth and competitiveness, they lose preferred traditional position. A practical indicator of the other academic revolution is the emergence of MIT (Massachusetts Institute of Technology) that presented itself as an entrepreneurial university in the market offering. If there are signs of business competitiveness based on market programs as well as association of educational institutions and trade organizations in our country nowadays, the students are educated at a higher level (still not at a high). All of this is taking place for the purpose of contractual relations of the two segments of society and are carried out through private relationships, agreements and contracts. This model of entrepreneurial university is implemented through commercialization and is not what we are striving for. At the same time, as the time and circumstances show, the shapes and the results of the traditional university are surpassed. A third way is sought.

In this regard, the innovation capital based on the concept of lifelong learning is emphasized that cannot succeed without the intellectual values of individuals, i.e., without human resource development. Where is this noticed? In light of the existence of large university non-functional institutions, that are non-operational and ineffective at the same time. The presence of a large number of students and too large study groups cannot achieve a quality level of education. Because of this, at the end of their study many achieve – depending on their own preferences, an educational level achieved just enough to "cover" the years of study. Moreover, we are talking about a knowledge society that objectively creates (non) knowledge. How else to explain the situation in which more and more higher education institutions exist, more training programs, more students and less knowledge, even the elementary one. Not to mention the technical and professional one. The demand for graduates after graduation due to the lack of competitiveness of the program and even higher lack of educational competitiveness is debatable, so many passively join the society of ignorance.

The knowledge and education strategy are based on the practical doctrine that exceptional individuals select personnel that are more suitable for certain activities because they are not afraid of quality. The principle of excellence is present here. While those others who are afraid – do not dare to enter into new because they do not know, that is why they are insecure, inverted, afraid of possible discredit....this is why there are no changes, certainly not for the better.

In order for a society to become a society of knowledge based on lifelong learning, it needs to possess the culture of knowledge (need for learning, civilized behavior, level of communication, interactive and interdisciplinary need for cooperation) and the economy of knowledge related to the creation and formation of new knowledge, profiling and targeting individuals to action, while achieving competitiveness on the broader labor market. Therefore, it shows that social development and knowledge are linked because reproduction, multiplication of information, knowledge and expertise accelerate the growth and development of society as a whole. This is a general point that should be elaborated extensively by the creators of the structure and the education strategy on the global political level as well, thus on the level of education policy. The science and scientific facts that make the knowledge in this way become an initiator and driving force of the general development that promotes basic and common quality of education, work and life overall.

3. COMPETITIVE AND COMPETENCE VALUES ASSUMPTIONS

In order to achieve competence values it would be necessary to indicate what do we mean by that. Personal adjustments, as well as humanistic and moral values certainly differ from entrepreneurship. The degree of competitiveness and the level of achievements are mutually conditioned. Professional and expert development of education, and with that the experts as well, is manifested through development strategies. One of them involves the formation of centers of excellence, in higher education institutions in particular. The purpose of their work – in terms of organization – can we seen through the promotion of educational excellence, the management of quality changes in education system, development of new curricula that is applicable to students for later work in business, competitiveness on the knowledge and skills market, achieving the efficiency of intellectual, work and communication potential. Thus, to achieve high-quality professionalization through lifelong learning and shape socially responsible professionals.

Educational activities are intended for all employees win the nomenclature of knowledge (consultants, mentors, headmasters, students, teachers in private and public sectors, in agencies, ministries, universities, management related to economic development, etc.). It is realistic to achieve a number of competences necessary for the development of all activities with higher criteria and better system of educational values. The core competencies imply an appropriate level of communication, mathematical literacy, digital/computer competence, social, business and cultural competence in terms of knowledge, skills, abilities, practical applicability. Assumptions and properties of learning outcomes and qualifications would be based on these achievements – which would mean a more visible competitiveness on the labor market, but would also emphasize the individual and institution dimension of quality at the same time.

Thus, the strategic commitment of higher education institutions is to be an autonomous academic community of teachers (researchers), students – jointly involved in the international academic community.

Furthermore, it is up to them to:

- be the leaders of the development of the lifelong learning system, including previous study cycles and programs that are offered after the completion of formal education;
- strengthen the scientific and professional education programs relevant to the economic and social development, which would also be attractive and competitive on the European labor market;
- be the fundamental bearers of sustainable research development in doctoral studies, which are also internationally important;
- be recognized center of scientific work that would bring together teams of local and international experts regarding important projects in a wider social and geographical context.

The main tasks that are set in front of higher education institutions and their subjects are:

- education of experts that would use their professional, educational and social work to contribute to the quality of education and life in general – by increasing motivation and thus the development of interaction with economic factors and the community as a whole;
- special preparation of future university teachers and researches – in pedagogical, psychological and didactical sense; in order to develop a system of higher education, competencies (pedagogical and professional) and to encourage and achieve competitiveness in science;
- connecting people, knowledge and information – establishing communication – within the academic community as well as in terms of broader social unit.

The relationship between higher education and the labor market is crucial in all of these elements, as well as an international cooperation with the scientific research and quality communication process. Because these relations are unsatisfactory in the practice, it would be appropriate and promising to include own potential and capacities in the reality that is reflected in the demonstration of incompetence, appropriation of incorrectly interpreted terms and knowledge that sound good on the market but are inadequate and obviously contrived.

Whether we are talking about teaching or educational institutions, the goals arising from unsatisfactory practices are related to the achievement of educational excellence through design of demanding processes – based on motivational and meaningful incentives:

- strategies and planning of the pedagogical theory and practice;
- encouragement of educational excellence – selected topics and specific work forms;
- managing changes in the development of the higher education system;
- identification of existing teaching and other competencies, as well as further development of professional values;
- development of new educational programs applicable in higher education and business organizations;
- joint activities and development of educational and business structures;
- achievement of competitiveness on the knowledge and skills market;
- ensuring the implementation of lifelong learning and quality professionalization;
- achievement of intellectual potential efficiency – pedagogical, psychological, etc.;
- recognition of the importance of teaching profession and its system of values;
- achievement/accomplishment of socially responsible pedagogy.

How can this be accomplished? With educational activities that would be intended for the following organizations, structures and individuals:

- assistants and professors of teaching and non-teaching faculties;
- headmasters of all levels of state educational institutions: elementary schools, high schools, secondary vocational schools (educational training);
- teachers of particular subjects (English, geography, Croatian, mathematics, etc.) in elementary and secondary schools – public and private (additional pedagogical education);
- headmasters of private elementary and secondary schools (educational training);
- employees and directors at kindergartens – public and private (additional pedagogical education);
- employees of different categories that are in important/supervisory educational institutions (agency for all levels of education, Ministry of Science and related ministries according to issues, university structures in creative jobs and positions) – (educational training);

- advisors, mentors, professional associates (educational training);
- employees of private schools (educational training);
- employees in business institutions – public and private, engaged in management and education who do not have appropriate qualifications (educational training).

Based on the number of potentially – educational population that results from this conception, the expected results would include:

- better understanding and development of the work of all skilled and unskilled people;
- achievement of greater dignity and recognition of the profession of teaching and pedagogical science;
- development of awareness that pedagogy is everywhere around us and in us, and that it should be used in all aspects of life;
- adoption of higher criteria and higher quality of value system (in work/family/community/education/university teaching);
- recognition of the need for the realization of lifelong learning and its development.

4. SHOULD ONLY EDUCATION COMPETITIVENESS BE SUPPORTED? WHAT ABOUT EDUCATIONAL-VALUE PROFILING?

Speaking in educational terms, people need to work on themselves to be shaped in a higher quality way, become aware of their shortcomings, and if they are not able to act on their “transformation” – engaging the help of experts, educators, psychologists and others would be of great help. The development of the evolutionary process in insights will affect the revolution of action for new approaches and new results. Stronger personalization of personality will thus affect the initiative, innovation and creativity. When forming personality one should pay attention to avoid unidirectional intellectuals (so called blinkered specialists), because their inability to adjust to the width of new concepts affects the destruction of their own national culture. At the same time, the assimilation to Europe is questionable as such do not know what to do with themselves, servility is created towards others and the adaptation becomes an aggravating circumstance. This is how identity is lost, crisis of identity occurs (personal, professional, social), and the issue of development of culture and civilization (not globalization) becomes questionable. Therefore, active participation in shaping the intellectual, moral, labor, physical, aesthetic aspects of personality contributes to the development of a comprehensive and multi-functional personality.

Because of these values, it is important to form centers of excellence, strive for polycentricism of educational institutions and through such form of action integrate a lifelong, continuing education and the return or recurrent education. Their involvement in the institutions is the assumption for further non-institutional conduct of such activities on a personal level. The fact is that the societies are dynamic and variable, with studies aimed at the formation and transfer of knowledge, and the students find them static, inflexible and unimaginative. With content presented in this manner, one cannot expect any progress or encouragement of the development of a dynamic society that is based on systematic activities.

Personal development can be viewed through the personal values of the area of life (intellectual and emotional segment), family values, professional results (expert, scientific, economic and material progress), and social qualities and status. Their specificity and motivational resources are factors of initiative, incentive for the development of each of these areas.

It is interesting that the development tasks in question are treated with the same heaviness in the European documents as the directions of development, and they relate to areas in which the said values are highlighted and become apparent. There are resource management and reforms, research on all levels of education, especially in higher education, qualifications and competencies and connection of higher education with the labor world and market conditions.

5. THE SPECIFICS OF THE CROATIAN EDUCATIONAL AREA IN RELATION TO THE EUROPEAN UNION

The specifics are particularly related to the changes in the higher education system as well as the education of assistants – young people who will succeed their professors. They are expected to be inventive, imaginative, original and effective in the implementation of new knowledge through the messages arising from certain EU documents. It is evident that social sciences and humanities are losing their space in financing and therefore in the positioning of their value, role and importance. Linguistic, historical, psychological, sociological, philosophical, educational and other social and

humanistic values are bypassed in many integration processes. At the same time, technical science, information science, medicine and other exact sciences are undoubtedly a priority and designation of something that is essential for further development of all societies, including the Croatian society during the integration in the European area. We forget that it is the humanities and social sciences that make up the template for the entire education because they imply psychological development, breadth of education, social integration in all aspects of education and language training. The language training is part of the natural matrix of culture and identity and the study of all foreign languages. It is also the question of preserving the traditions and integrity of the civilization as a whole.

The European documents that establish our thoughts and dilemmas are the Green Paper, which emerged in 2011 as a major challenge, followed by *Europe 2020*, *Horizon 2020*, *Teaching 2020*. *Europe 2020* is the strategic document that presents the strategy objectives of higher education and is based on integrated, innovative and secure societies. One of the challenges is called *Europe in a Changing World: Culture, Identity and Secure*. Its basis is on whether there should be interdisciplinary, multidisciplinary and internationality (between countries and institutions), that would serve in quality estimate within given parameters. How? This is a question of implementation in search of defects, lack of information, inadequate functioning of the agencies and institutions of the system, etc.

Plenty of similar documents and associations exist, and all of them suggest disillusion in terms of individual scientific and educational commitments and activities. Issues arise here regarding scientific research, as treated by the Science Europe (European Science Foundation), which provides 95% of research funds. How can social-humanity sciences participate here, as well as pedagogy and educational science? The answer is in the relevant active area, information infrastructure, carefully formed groups (the professional orientations), adequate schedule, properly prepared work forms – all for the purpose of professional development and creation of competitive base in all sectors as the stimulus for further lifelong learning. One such program is the *Professional Development and Teacher Education for the Learning and Skills Sector, Continuing Professional Development Programme* (Walter&Briggs, 2012), performed by the Institute of Education University of London.

The *Train to be a Teacher* program is of special importance, which is in line with the training of assistant potential. The goal is to teach them how to become good teachers regardless of whether it is to be an engineer, attorney, economist, agronomist, professor or any other profession. It develops and promotes educational competitiveness through quality in education.

Therefore, it is possible to expect that the implemented interactive processes of lifelong learning and higher education will create experts of an adaptive character for different systems, processes and implementation; active and professional, personal and developmental (Marinković, 2007a, 2007b). This will include the importance of competence and simultaneous competitiveness, which will ensure the stabilization of the social and educational system through the financing of domestic and international funds. This will ensure adequate organization and functionality, as well as the operation of the entire system. All these elements are the assumption of the realization of the market and economic stabilization.

In order to contribute to the achievement of the best possible quality of education and market goals, it is necessary to conduct a study to analyze the need for personnel. Thus, for example, the reality of enrollment quotas in colleges/courses is questionable due to:

- impossibility of adequate control of the quality of education (internal and external);
- relationship with ENQA (external evaluator of knowledge);
- adequate level of education and adoption to the market and economy, with realistic snapshot of the situation in the field;
- increase in the share of the funding from extra-budgetary funds in the EU
- (which is approximately 60 – 70 %, and in Croatia below 50%).

The practice has shown that the labor market is not the same as the diploma market – and this discrepancy is very apparent. Due to the possible application of the aforementioned documents, it can be expected to have a completed realization of a quality strategy, structure and the system of education that will be mutually conditional and upgradable, and it will comprise an increased investment in education and scientific research policy.

With mentioning of the standards of international institutions that have carried out the acquisition of pedagogical competencies for decades, and whose license must be renewed every three to five years, our practice has shown the need for a similar commitment – which for years was carried out by the Institute of Education University of London as one of the most prominent institutions of this kind in Europe.

6. CONCLUSION

Due to the fact that older, more experienced people who are in certain business positions have a professional task to elect younger, more modern and perhaps more capable people as their successors, thus making them more competitive – a question is raised whether the relationship between knowledge and business strategy and progress indeed has a significant connection, and thus the value as well? The results depend on the context in which the situation takes place. The most capable ones are not afraid of the competition. Indeed, they aspire to it in order to screen themselves and their own capacities. This is the question of security. Some dare to question the circumstances while others do not dare to learn anything new. They are aware that they do not know – so they are insecure. They withdraw into themselves because they are afraid (question of courage). Then we ask ourselves – why there is no change for the better? The social system is limited. The education system is limited. The economic system and market circumstances as well,...everything else stems from that. In addition, in closed, static, unimaginative circumstances there is not much room for competition and competitiveness.

LITERATURE

1. Afrić, V. I dr. (2011.), Društvene pretpostavke društva znanja, Filozofski fakultet Sveučilišta u Zagrebu, Institut društvenih znanosti Ivo Pilar, Učiteljski fakultet Sveučilišta u Zagrebu, Zagreb, 2010.
2. Choen, L. Manion, L. & Morisson, K (2000.), Research Methods in Education, 5th Edition, London, Routledge Falmer
3. Etzkowitz, H. (2001.), The Second Academic Revolution and the Rise of Entrepreneurial Science, IEEE Technology and Society Magazine, Summer 2001, pp 18 – 29.
4. Europe 2020 (2010), Communication from the Commission, Brussels, European Commission
5. Green Paper (2011.), Directive for Modernization of Professional Qualifications, Brussels, European Commission
6. Horizon 2020, The New EU Framework Program for Research and Innovation 2014 – 2020, Brussels, European Commission
7. Liesmann, K.P. (2009.), Teorija neobrazovanosti, zablude društva znanja, Jesenski i Turk, Zagreb
8. Marinković, R. (2007a), Croatian Educational Space and European Influences, In: R. Marinković (ed.): New Perspectives in Quality Development of Higher Education, Zagreb, A.Z.P. Grafis d.o.o.
9. Marinković, R. (2007b), (ed.), Quality Management and Communication in Higher Education, Zagreb, A.Z.P. Grafis d.o.o.
10. The Netherlands Ministry (2011.), Teaching 2020, a strong profession. Retrieved on 2nd September 2013. [https://www.educ.cam.ac.uk/centres/IfI/about/events/pastIfIseminars/PDFs/Teaching 2020 The Netherlands Ministry.Pdf](https://www.educ.cam.ac.uk/centres/IfI/about/events/pastIfIseminars/PDFs/Teaching%202020%20The%20Netherlands%20Ministry.Pdf)
11. Walter, C. & Briggs, J. (2012.), What Professional Development Makes the Most Difference to Teachers? Oxford, Oxford University Press

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TOURIST DESTINATION IMAGE IN THE NEW TECHNOLOGICAL ENVIRONMENTS: DIALOGISM UNDER THE PUBLIC RELATIONS GAZE

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ABSTRACT

The dependence and influence of technology on social and organizational life and the development of new media have led to a research paradigm shift and a new orientation of the practices of organizations to a cocriational model which focus on ways of communicating and producing meanings. This is where the dialogic rhetoric, and in particular dialogue, which requires a joint production of content and meanings by organizations and the public, have a central role (Kent, 2001; 2011) in shaping the ways publics interpret and imagine. On the other hand, the new social and communication paradigms has also had an impact on tourism research implying the need to examine the role of new technologies in imaginary formation process.

This paper analyzes the role of websites in the formation of a tourist destination image (Portugal) in order to understand how far dialogic principles on websites have been adopted by tourist official and unofficial organizations and what are the denotative and connotative elements of published and shared photographs on these websites. The research corpus consists of the websites of these entities and the photographs published by the entities and shared by tourists. The methodology is based on a content analysis of data collected on the websites and photographs. The study results confirm that the official tourism entities adopt the dialogic principles to a greater degree than non-officials ones. Also there is a higher adoption of the principles that relate to the technical dimension than to the dialogical dimension and a relation between the adoption of dialogical connection and the increased openness by the entity to the possibility of photo sharing by tourists. The analysis of the denotative and connotative elements of the photographs disseminated by the entities and shared by tourists, are reflecting a similarity in the representations.

KEYWORDS: New media, public relations, dialogue and destination image.

1. INTRODUCTION

This article examines the role of media in the tourist destination image projection. This is an interdisciplinary study that links research in various areas of knowledge - communication, public relations, information technology and communication and sociology of tourism. Thus, image projection of destinations, based on the role of the new media, is understood, from the perspective of public relations, from the theoretical basis of the cocriational paradigm, which includes the dialogical perspectives and the dialogic rhetoric. It is in this technological environment that cocreation happens, it is where the production of messages, especially visual, and the dialogue take place, conditioning the symbolic and mediated interactions between organizations, destinations and stakeholders. This study proposes an online image formation scheme, with the aim of its empirical application. To better understand the role of websites and dialogism on the formation of holistic image of destinations, are particularly important to realize the degree of adoption of dialogic principles on websites by destinations organizations and to examine the dialogic production of meaning and image. In following point the methodology and main results are presented.

2. MEDIA, DIALOGUE AND DESTINATION IMAGE FORMATION

The literature review are focused on communication theory of the medium, on the main paradigms of public relations, dialogism and dialogic rhetoric, in technological environments, on the interpretative lines of tourist movement and on the new cultural paradigm, the "postmodern" paradigm, and destination image.

Understanding medium theory and technological and social mediation, as well as the characteristics of the new media, led to realize that new media affects the access to information (Kerckhove, 1999; McLuhan, 1964a, 1964b; Holmes, 2005; Meyrowitz, 1985) and changes the forms of integration, interaction (Meyrowitz, 1985, Holmes, 2005) and dialogue, because it allows new forms of interactivity, participation and dialogue between organizations and publics (Kent, 2001, 2011; Kent and Taylor, 1998). These are new forms of action and interaction mediated in new places, which condi-

tion the production of meanings and the shared sense (Thompson, 1998). The media, the websites, organize our senses, our vision, our gaze, “alter the sensory perception of the rhythms and patterns” (McLuhan, 1962, p.31).

From the perspective of public relations, dialogue and dialogic rhetoric emerging on the websites, are core elements for the joint production of meaning and imagery, because of the discourse, the possibility of dissemination of texts and photographs and because of the ease of sharing messages. So, it is important to develop a dialogic communication based on the adoption of dialogic principles: usefulness of information, ease of interface, dialogic link, return visits and visitors conservation (Kent, 2001, 2011). The dialogic capacity entails not only the power to project an image, across organizational messages represented by photographs disseminated on websites, but also involves the openness to the image perceived by the receiver, translated by the photographs, that tourists share on these places (Jenkins, 1999).

The understanding of theoretical perspectives associated with the sociology of tourism, that allowed to realize the tourist movement and the new cultural “post-modern” paradigm, led to know that the development of technological means, the Internet, emerged as a strong booster and conditioner of the current trends of tourism and “post-tourism”. These trends are characterized by the hegemony of the visual dimension, the theming of the places, and more specifically the mobility not only physical, but also virtual and imaginative (Urry, 2002; Urry & Larsen, 2011). The literature review related to the imaginative mobility, photography and destination image, highlights the evidence that photography, particularly experiential photography, allows imaginative mobility, because it represents real elements, perceptions of the real, communicates messages, assigns senses and evokes feelings and emotions. These main theoretical frameworks allow the understanding of the formation of image as a result of a joint production of organizations and publics and was the basis for the development of the research model and the definition of the methodology of empirical research.

2.1. Methodology:

The theoretical framework presented above were the basis for the design of the following research model.

The model identifies the variables to study and aims to understand the relationship between them. Empirical research was intended to answer to five specific questions and four hypotheses:

Question 1: To what extent destination entities adopt the dialogic principles?

H1. There are differences in the degree of adoption of dialogic principles on websites between official and unofficial entities.

Question 2: How dialogic principles are used on the websites of the entities?

H2. There is variation in its adoption.

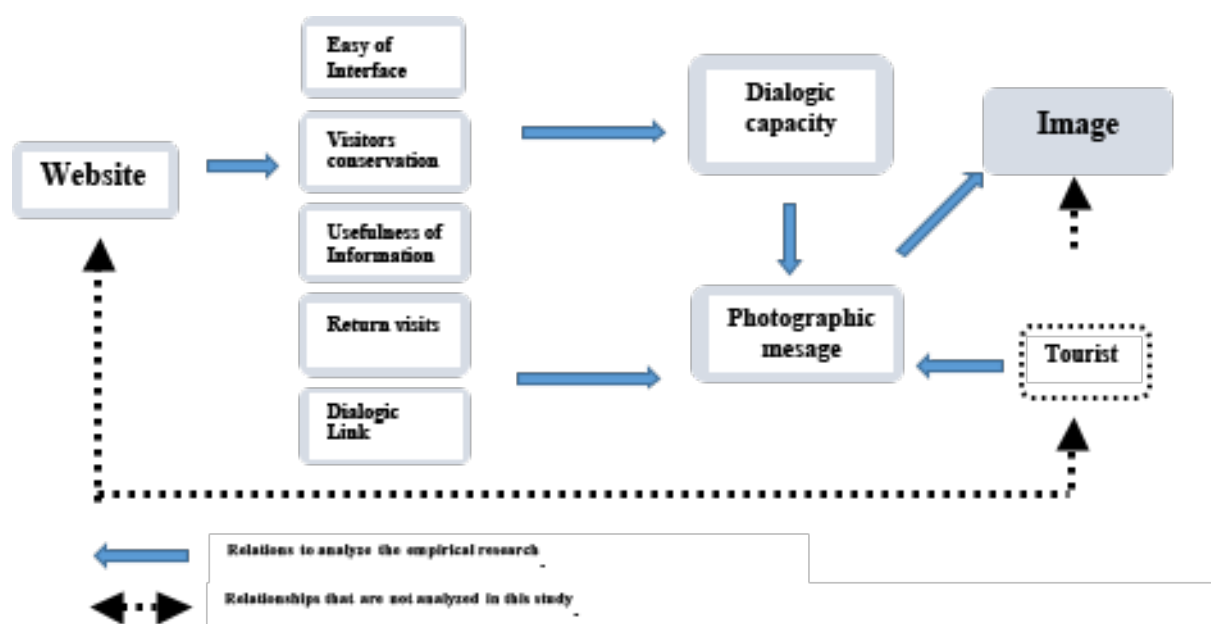
Question 3: What is the relationship between the adoption of dialogic principles and the possibility of sharing photographic tourist messages on the websites of the entities?

H3. Greater adoption of dialogic principles increases the opening of the entity to the possibility of photo sharing.

Question 4: What themes and motifs are represented on the one hand, on the photographs produced by the entities on their websites and on the other, by the tourists who put them on the same support?

H4: There are coincidence of themes and motifs depicted in the photographs.

Question 5: What imaginative connotations can be found in the images dialogically built?

Figure 1 - Scheme of the paper of (medium) website in the destination image formation

Source: Authors

The empirical research is divided in two parts. The first part concerns to the understanding of the dialogical capacity of the entities and the second one analyzes the joint and dialogic production of meanings and image by analyzing the photos disseminated by entities and those that are shared by tourists on the websites of these entities.

The units of analysis were, in the first part the websites of the entities, 28 official websites and 25 unofficial websites, and in the second part, the analysis focused on 460 photographs: 352 published by the entities and 108 shared by tourists. To the qualitative analysis, it was analysed 23 photographs. These units are the components that define the sample and measuring variables (Neuendorf, 2002). Samples were selected from a stratified mode, because the sample selection was based on this criteria: websites of the entities and photos with interest to the study (Krippendorff, 2004; Neuendorf, 2002).

The empirical study involved the collection of data through a content analysis of websites of the destination tourism entities of Portugal and of photographs published by the entities and shared by tourists in these same places. About the codification format, it was decided by two encoding formats: for the analysis of dialogism on websites the encoding had to be based on an existing scheme: the five dialogical principles proposed by Kent and Taylor (1998): useful information, dialogical link, ease of interface, visitors conservation, return visits, also treated by Kent, Taylor and White (2001) and Kent and Taylor (2004), McAllister-Spooner and Kent (2009), McAllister-Spooner (2010), with the contributions of the new rhetoric of Kent (2001; 2011) and indicators of the work of Li and Wang (2010). In the analysis of photographs, it was created a coding scheme which was based on the identification of objects and motifs represented in the photographs using the visual method of Hunter (2012). After data collection, it was proceeded to a quantitative analysis, with a statistical treatment through descriptive analysis procedures, including the frequency distribution, measures of central tendency, association measures, non-parametric testing. Finally, the qualitative content analysis was done with a semiotic basis for interpretation the connotations of the photographs, using work contributions of typology of representations from Hunter (2008), typology of experiences of Cohen (1979) and typology of tourist gaze from Urry (1995). Quantitative analysis has resorted to the Excel software and SPSS and qualitative analysis had the support of the Nvivo program.

2.2. Results

Answering the first question and the analysis of the differences between the official entities (OE) and non-official entities (NOE) relating to the degree of adoption of dialogic principles, the results indicate that there are differences in the degree of adoption of dialogic principles and that official entities adopt more the dialogic principles than non-official ones. The official entities adopt more the principle of easy interface (0.865) and useful information principle (0.743), than non-officials (easy interface: 0.676 and 0.621 useful information). The dialogic link (OE: 0,310; NOE: 0,222) and the return visit (OE: 0,564; NOE: 0,316) are the least practiced. The data also show that there is little significant difference with regard to visitors conservation on the page, with an average of 0.653 adoption of the websites of the unofficial entities and an average of 0.619 in the official ones. These results confirm the first hypothesis.

Table 1. Adoption of dialogic principles entities

Dialogic principles	Entities				
	Non official		Official		
	Mean	Standard Deviation	Mean	Standard Deviation	p (Mann-Whitney)
Usefulness Information	,621	,130	,743	,157	0.008
Dialogic link	,222	,130	,310	,147	0.044
Easy of interface	,676	,154	,865	,119	<0.0005
Visitors conservation	,653	,152	,619	,149	0.412
Return visits	,316	,170	,564	,128	<0.0005

Entities adopt more dialogical principles related to easy of interface (OE: 0.865; NOE: 0.676), usefulness information (OE: 0.743; NOE: 0.621) and the visitors conservation (OE: 0.619; NOE: 0.653). The degree of adoption of the dialogic link (OE: 0.310; NOE: 0.222) and return visits (OE: 0.564; NOE: 0.316) are lower, and the less adopted by entities. We realize that there is a greater adoption of dialogic principles related to the technical dimension than with the dialogical dimension. The data confirmed the second hypothesis related with the existence of variation in the adoption of dialogical principles.

After this, it was important to understand if entities are open to the possibility of sharing photos by publics and notice if there is a relationship between their dialogical ability and the openness to sharing (third question). The results reveal that there are significant differences between the two groups only concerning to the dialogic link principle by taking this higher values in the group of websites with photo sharing. The third hypothesis search is thus confirmed.

Table 2. Relationship between dialogic principles and sharing photos

	item 28 - sharing (photos)				
	Websites without sharing		Websites with sharing		
	Mean	Standard Deviation	Mean	Standard Deviation	p (Mann-Whitney)
Usefulness Information	,671	,160	,748	,131	0.134
Dialogic link	,233	,122	,425	,134	<0.0005
Easy of interface	,770	,169	,800	,155	0.674
Visitors conservation	,651	,145	,567	,161	0.108
Return visits	,447	,189	,450	,222	0.982

Answering to the fourth question, it should be noted that in general, the predominant motifs of the photographs are the places, the sea, the flora, the Portuguese coast and the historic buildings. The results show that: 27.75% of the photographs on the website of the official entity represent the sea, 26.50% represent the flora and 23.12% have the localities, towns or villages. With regard to the analysis of 179 photographs of the website of the unofficial entities, the data reflect that 56.98% have localities, 36.31% represent the sea and 21.79% have historical buildings. 44.57% of 92 photos shared by tourists on the website of the official entity have the sea, 39.13% have localities and 34.78% represent

the flora of the destination. 62.5% of the 16 photos shared by tourists on the website of unofficial entity represent localities and 37.5% historical buildings. These data point to a predominance of themes and motifs associated with the sea, the flora and localities, cities or towns in the photographs published on the website of the official entity and a similarity of themes and motifs depicted in the photographs shared by tourists. On the website of unofficial entities, the three motifs most identified in the photographs: the locations, the sea and the historic buildings, coincide in some way with the representations of photographs of shared tourists, also related to the locations and buildings historical.

Table 3. Frequency of motifs

Motifs (objects)	Entities	
	n	%
Location (city, town, street, small square)	188	40,87
Sea (water cave, the deep sea, beach, rock pools)	155	33,70
Flora (plants, tree, forest, garden)	120	26,09
Costa (Inlet cliff fajã)	94	20,43
Historic building (palace, theater, castle, University, Spa, Fort, Bridge, Monastery, Convent, ruins)	90	19,57
Water resource (river bank, estuary, lake, pond, waterfall)	77	16,74
Vessels (boat, sail, ship, marina)	63	13,70
Construction (bridge, mill, lighthouse, aqueduct)	46	10,00
Natural High (Montes, hill, volcano)	32	6,96
Religious site (Church, Fatima shrine, synagogue, worship)	32	6,96

The results allow to realize that the predominant context in the photographs published by the official entities on your website and in the photos shared by tourists is the maritime scenario, followed by the cultural scenario. On the website of the non-official organization, we realize that the sea landscape is mostly represented in the photographs, followed by the urban scenario and cultural scenario. Regarding the photos shared by tourists at this website, the predominant context is the urban setting, followed by the sea scenery and cultural.

Table 4. Frequency of contexts in websites of official / unofficial entities

Contexts	Entities		Official Entities		Non-Official Entities		Tourists		Non-official Tourists	
	n	%	n	%	n	%	n	%	n	%
Sea scene	166	36,09	55	31,79	65	36,31	43	46,74	4	25
Scene of nature	70	15,22	40	23,12	15	8,38	14	15,22	1	6,25
Urban setting	92	20,00	22	12,72	61	34,08	4	4,35	5	31,25
Cultural scene	99	21,52	43	24,86	31	17,32	21	22,83	4	25
Rural setting	25	5,43	7	4,05	9	5,03	7	7,61	2	12,5

The association analysis of motifs and contexts show that the associations of cultural landscape and sea, maritime scenery and historic building and urban landscape and sea are reasonable. The association of urban scenery and location, maritime scenery and flora and cultural scenery and historical building are also reasonable associations, albeit with higher coefficients than those referred to in the previous associations. The association of maritime scenery and sea and the association of maritime scenery and coastline are reasonably strong. These results show that there is a similarity in motives and contexts represented by the photographs of the entities and the photographs of tourists, either on the website of the official entity, whether on the website of non-official entity. The fourth hypothesis formulated is confirmed.

To answer to fifth question, we interpret the connotations of photographic representations. The interpretation of denotative and connotative meanings allowed to understand that the photographs of entities represent the symbols and icons that they want to project. The photos of the tourists represent the tourist gaze, what he liked or what he experienced at the destination, the perceived image, and are therefore referred to as experiential photographs. The data confirmed two major types of representations: the natural and seascapes and the cities and heritage.

The results of qualitative analysis showed that the entities photographs represent more objects than those of tourists, covering an extended overview of the destination, with a greater distance around the scenario.

Photo 1Source: www.visitportugal.com**Photo 2**Source: www.portugal.live.com

The photos of the tourists are more linked to the objects and what they actually appreciate and like to see in the destination, representing in a closer angle these same objects.

Photo 3Source: www.visitportugal.com**Photo 4**Source: www.portugal.live.com

On the photographs of entities, the representation of maritime scenery, the sea, appears associated with other motives and objects, flora, vegetation, plants, cultivated fields, with little transformation of natural, meaning the authentic nature. This represents modes of experience looking for a natural environment, quiet to rest, but also to bring them a new meaning, as the experiential tourism experience defined by Cohen (1979). We also have pictures that represent recreated places, with evident tendency for the promotion of a new way to receive, which makes the place a "spectacle place". In the representations of cities and heritage it is also evident authenticity, being represented places of importance and historical and cultural interest, the history of the destination (MacCannell (1973), "places of memory", as stated by Holmes (2001, p. 23). In the photographs of entity, we have as destination icons historical buildings, cities, the wall of the castle, the cannon, the ship, the caravel, the bridge, the palace restored in contrast to the urban landscapes of the city, the square and the streets, the ferries, the marina and small boats.

Photos of tourists are taken in a closer angle. In photographs shared on the official website, tourists associate the sea to the city, representing more urban places, where it is clear the intervention of man. In the photographs of tourists shared on the websites of the non-official entities are also evident some icons, such as historic buildings, historic squares, typical vessels associated with port wine, which are unique, famous objects, but at the same time we see represented specific and particular objects of destination, as the monument or the historic bridge. They also represented common objects, such as city water sources, cars, visitors and local people.

The tourist has the same type of representation of that entity, but his photos are closer and represent every detail, the different signs that he had appreciated when visited the destination. The data also indicate that tourists appreciate the functional characteristics associated with the possibility of living and stay at the destination, like security and easy access. It is also valued the way of recreational experience, where livid experience can be, as we have seen in the literature review, an escape that allows you to recover from the daily grind.

3. CONCLUSION

The websites of entities, through dialogic capacity, driven by the dialogue, the exchange and sharing between organizations and the public, can design a holistic image of destination, because they call for joint production of representations of destination. The medium determines the perceived image of tourist, by the symbolic expressions of entities, the visual narratives that inform and seduce, but on the other hand, experiential photography brings an additional symbolic information and supplement the meanings represented in the photographs of entities, strengthening its message. The dialogical capacity of entities on websites allows disseminate textual and visual information about destination, about the common attributes associated with destination icons that entities wanted to project, but also enables the sharing of psychological attributes associated with feelings and tourist emotions regarding lived experience at the destination, evident in his gaze represented by the shared photos. Michaelidou et al (2013, p.792) argue that tourists “reinforce the visual representations”, “co-criate the destination image” for reinforce the image projected by entities, “help to outline the holistic image of the destination”. Thus, the dialogism of medium, from the possibility of designing the projected image and the perceived image, leads to the cocreation of a holistic image of the destination, fostering a better understanding between organizations and publics and consequently the formation of the strongest images.

This study brings a contribution to the communication and public relations theory and has implications for the communication practices of organizations of tourist destinations.

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LITERATURE

1. Cohen, E. (1979a). A phenomenology of tourist experiences. *Sociology*, 13(2), 179.
2. Cohen, E. (1979b). Rethinking the sociology of tourism. *Annals of tourism research*, 6(1), 18-35.
3. Holmes, D. (2001). *Virtual Globalization: Virtual Spaces/Tourist Spaces*. Routledge.
4. Holmes. (2005). *Communication theory: media, technology and society*. Sage Publications Ltd.
5. Jenkins, O. H. (1999). Understanding and measuring tourist destination images. *International Journal of Tourism Research*, 1, 1–15.
6. Kent, M. L. (2001). Managerial rhetoric as the metaphor for the World Wide Web. *Critical Studies in Media Communication*, 18(3), 359–375.
7. Kent, M. L. (2011). Public Relations Rhetoric: Criticism, Dialogue, and the Long Now. *Management Communication Quarterly*, 25(3), 550–559.
8. Kent, M. L., & Taylor, M. (1998). Building dialogic relationships through the World Wide Web. *Public relations review*, 24(3), 321–334.
9. Kerckhove, D. (1999). *La piel de la cultura: investigando la nueva realidad electrónica*. Barcelona: Gedisa.
10. Krippendorff, K. (2004). *Content analysis: An introduction to its methodology*. Sage.
11. Li, X., & Wang, Y. (2010). Evaluating the effectiveness of destination marketing organisations' websites: evidence from China. *International Journal of Tourism Research*, 12(5), 536–549.
12. MacCannell, D. (1973). Staged authenticity: Arrangements of social space in tourist settings. *American Journal of Sociology*, 79 (3), 589-603.
13. McAllister-Spooner, S. M. (2010). Whose site is it anyway? Expectations of college Web sites. *Public Relations Journal*, 4(2).
14. McAllister-Spooner, S. M., & Kent, M. L. (2009). Dialogic public relations and resource dependency: New Jersey community colleges as models for web site effectiveness. *Atlantic Journal of Communication*, 17(4), 220–239.
15. McLuhan, M. (1962). *The gutenberg galaxy*. Toronto: University of Toronto Press.
16. McLuhan, M. (1964a). *Os meios de comunicação como extensão do homem*. São Paulo: Cultrix.
17. McLuhan, M. (1964b). The medium is the message. In Wardrip-Fruin, N. & Montfort, N. (2003). *The New Media Reader* (pp. 203 – 209). Cambridge, Massachussets: MIT Press.
18. Meyrowitz, J. (1985). *No sense of place: The impact of electronic media on social behavior*. New York: Oxford University Press.
19. Michaelidou, N., Siamagka, N.-T., Moraes, C., & Micevski, M. (2013). Do marketers use visual representations of destinations that tourists value? Comparing visitors' image of a destination with marketer-controlled images online. *Journal of Travel Research*, 52(6), 789–804.
20. Neuendorf, K. A. (2002). *The content analysis guidebook*. Sage. Consultado na web em: <http://www.google.com/books?hl=pt-PT&lr=&id=huPVtmu4sigC&oi=fnd&pg=PR13&dq=the+content+analysis+guidebook&ots=8HhWPMnGWC&sig=0ncIEWaG7H6YCyUSl5qkRhyzBzc>
21. Taylor, M., & Kent, M. L. (2004). Congressional web sites and their potential for public dialogue. *Atlantic Journal of Communication*, 12(2), 59–76.

22. Taylor, M., Kent, M. L., & White, W. J. (2001). How activist organizations are using the Internet to build relationships. *Public Relations Review*, 27(3), 263–284.
23. Thompson, J. B. (1998). *Los media y la modernidad: Una teoría social de los medios de comunicación*. Ediciones Paidós Ibérica, S.A.
24. Urry, J. (2002). *Tourist gaze* (2^ª ed.). London: Sage Publications.
25. Urry, J., & Larsen, J. (2011). *The tourist gaze 3.0*. Sage Publications Limited.

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THE IMPACT OF MONETARY AND FISCAL POLICY ON CONSUMPTION (NACE G 47.11), CONSUMER (CPI) AND PRODUCER (PPI) PRICES IN CROATIA

DARKO KARIĆ

ABSTRACT

During the time of recession monetary and fiscal policies were both restrictive. When the recession took place in Croatia, the monetary response was based on raising interest rates, decrease in investment, decrease in government spending and in other aggregate variables. The goal of this paper is to present the main movements of monetary and fiscal policy in times of recession, as well to describe its implications on consumer spending. Changes in consumer spending were observed through movements in total retail turnover NACE G47.11., as well as in changes in consumer price index and producer price index. The indirect impact is highly visible, where the fall in consumption caused the fall in prices on both sides, the producer side and the consumer side. All this plunged the Croatian economy into deflation zone.

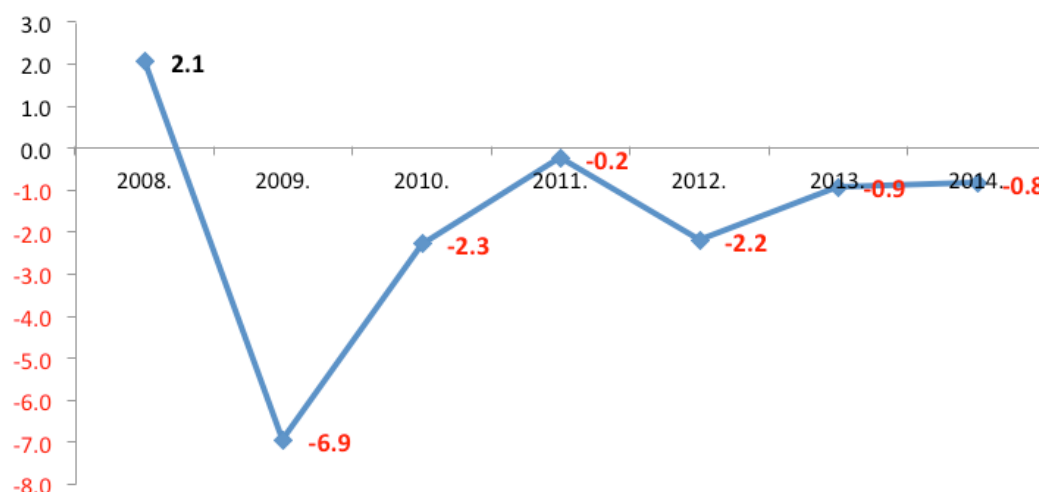
KEYWORDS: Personal consumption, consumer price index (CPI), producer price index (PPI), monetary policy, fiscal policy, deflation.

1. INTRODUCTION

Croatian economy suffered badly due to the exogenous shock in 2008 caused by mortgage crisis in USA which had a transmission effect on European countries. Croatia was faced with long-term decline of economic activities and with decrease of GDP. From 2008 till now, real GDP decreased more than 11% which had for consequences growth of unemployment, decrease of industrial production, decline in personal consumption and decrease in investments. The main component of GDP, the personal consumption has share of around 60% of total GDP. Due to that fact change in personal consumption has significant impact on movements of GDP and on level of macroeconomic stability as well. If we closely observe period after 2008, when crisis took place and entered into all spheres of economic activities, one can conclude that proposed macroeconomic measures didn't generate success.

During the time of recession monetary and fiscal policies were both restrictive. When the recession took place in Croatia, the monetary response was based on raising interest rates, decrease in investment and decline in government spending and in other aggregate variables as well. The goal of this paper is to present the main movements of monetary and fiscal policy in times of recession, and also to describe its implications on consumer spending. Changes in consumer spending were observed through movements in total retail turnover NACE G47.11., as well as in changes in consumer price index and producer price index. The indirect impact is highly visible, where the fall in consumption caused the fall in prices on both side, the producer side and the consumer side. All this plunged the Croatian economy into deflation zone.

Chart 1: Movements of GDP 2008-2014



Source: www.imf.org (accessed 16.06.2015.)

If we take, as an example, a reaction of bank system when crisis took place, it is very clear that the total system failed. As consequences, an imbalance and divergence of some of the main indicators are present even today. Other European countries had a different reaction to crisis from ours. They were pumping money into economy to reduce the impact of the crisis as much as possible. Therefore, ECB has recently introduced a negative interest rate on deposits as a way of protection from possible deflation. Moreover, ECB induced money-printing programme to stimulate economic growth and to ward off deflation.

2. MONETARY POLICY IN TIMES OF RECESSION IN CROATIA

Banking system responded on crisis by increasing interest rate. However, that move provoked a recession in whole economic system and afterwards it led to depression. Increase of interest rate had an impact on personal consumption that represents one of the main components of GDP. Decrease of personal consumption led to a decline of expectations which additionally negatively influenced on already distorted macroeconomic trends.

Monetary policy used in that situation should have been expansionary and not contractionary. Expansionary monetary policy in this context means decreasing interest rates which leads to suppression of negative expectations and amortization of decline of consumption. Instead of positive effects, taken measures had contractive character. In that newly arisen situation, fiscal policy was searching solutions by imposing a tax pressures. Increasing tax rates to compensate decline in revenue from taxes created deeper crisis. Increase of the interest rates has generated slowdown of economic activities followed by decline of the main macroeconomic components and resulting with the depression. Unemployment rate increased from 8,5% in 2008 to 17,25% in 2014 (ILO). Construction sector had decline over 40% and retail trade decreased more than 20%. In the same period banking sector recorded higher profits than it did at the time before crisis (before 2009). As an example, Croatian National Bank in 2008 had € 9,1 billion of foreign exchange reserves, while in 2014 amount of foreign exchange reserves exceeds 12,5 billion. This represents more than 40% increase and it shows huge power of influence of monetary policy. Exchange rate had depreciated from 7,22 HRK/€ in 2008 to 7,63 HRK/€ in 2014, while export didn't follow that trend. Therefore, export declined which consequently caused problems in elasticity of demand for our goods abroad. In countries as Croatia, where the loans are mostly granted in foreign currencies (more than 70%), depreciation had a notably influence on decline of consumption. Additional measures such as increasing an interest rate, together with depreciation are leading to double negative effect on consumption. The consequences of such reactions are still present.

Table 1. Example of stimulation of loans with currency clause (ex. Loans from 15 000 EUR for average monthly net salary of 5.000 HRK¹)

Average monthly net salary in HRK	5.000	5.000
Amount of loan in EUR	15.000	15.000
Interest rate	7%	10%
Amount of annuities in EUR	226,4	249,02
Annuity at the exchange rate from 2008 in HRK	1.635	1.798
Annuity at the exchange rate from 2014 in HRK	1.727	1.900
Interest rate difference (without depreciation)	163	10%
Interest rate difference + depreciation	265	249,02

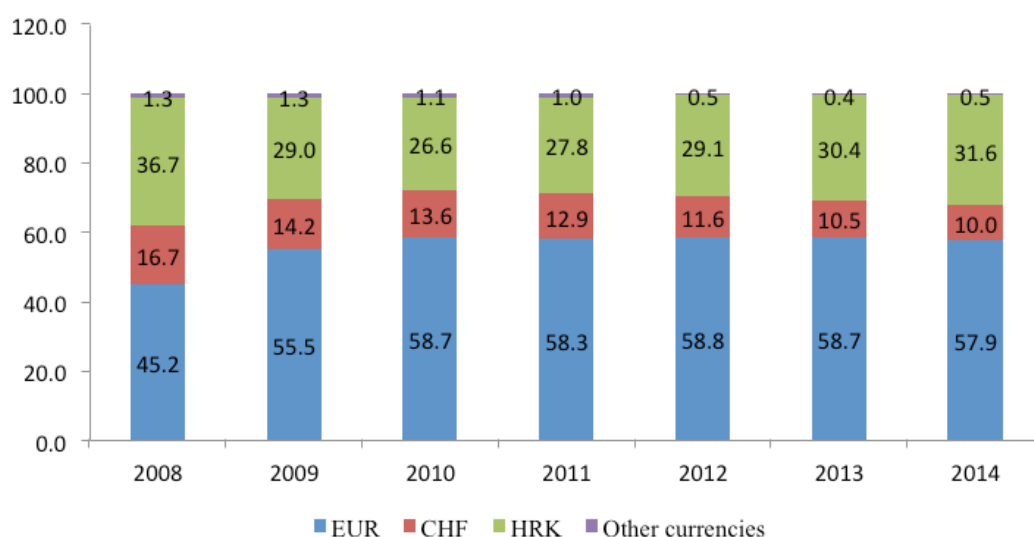
Notice: author's calculation is optional

In the stimulation is visible that by increasing interest rate in times of recession, amount of annuities is increasing as well (for 163 HRK), while amount of disposable spending has decreased. Increase of interest rate followed by depreciation caused an increase of monthly amount of annuities for 265 HRK. Consumption declined, simultaneously (*ceteris paribus*). If we take next step in the stimulation, let's assume a following situation: 70% of loans linked to the foreign currency clause (2014) aimed for a physical entity, with an average salary of 5000 HRK and the average credit load stated

¹ If we assume that the rest of the salary is aimed consumption, $MPS=0$

in above table. Conclusion from mentioned scenarios is that increase of interest rate from 7% to 10% and depreciation of HRK (5,6%) on yearly level generates decline in personal consumption for almost 3,0 billion HRK². If we look at the ratio of obtained amount of consumption and amount of total household consumption (around 195 billion HRK), it is visible that the contribution of personal consumption in whole household consumption is 1,5%. That represents 0,9% of GDP at yearly level. Based on previous statements, conclusion is that monetary system is responsible for decline of personal consumption, followed by contraction of GDP. Monetary impact has produced culminating effects. According to estimates, increase of interest rate among commercial banks, without depreciation generated more than 11 billion HRK of additional consumption.

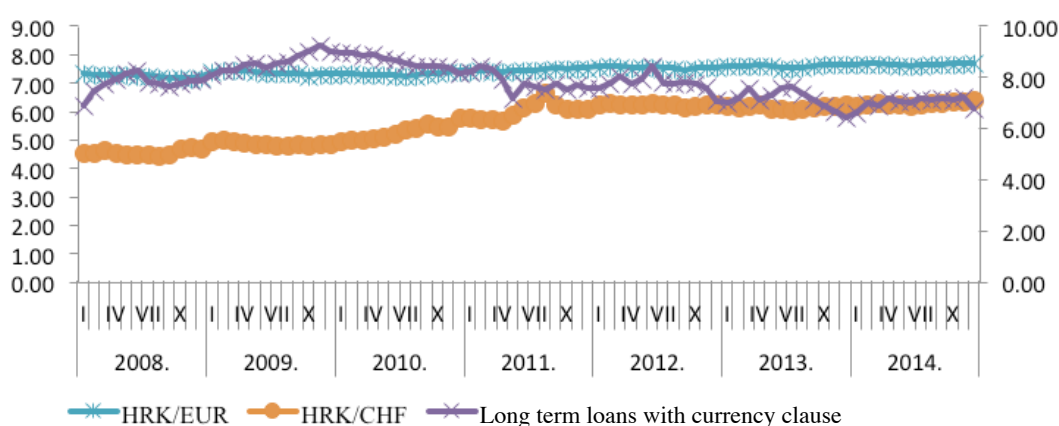
Chart 2: Currency structure of placements %, 2008 – 2014



Source: www.hnb.hr (accessed 20.08.2015.)

In the exposure of currency structure it is visible that the percentage of loans linked with foreign currency clause increased from 2008 to 2014. Thus, the currency risk is higher for debtors with foreign currency loans.

Chart 3: Movements of the long term interest rate on loans (with currency clause HRK, EUR, CHF)



Source: www.hnb.hr (accessed 20.08.2015.)

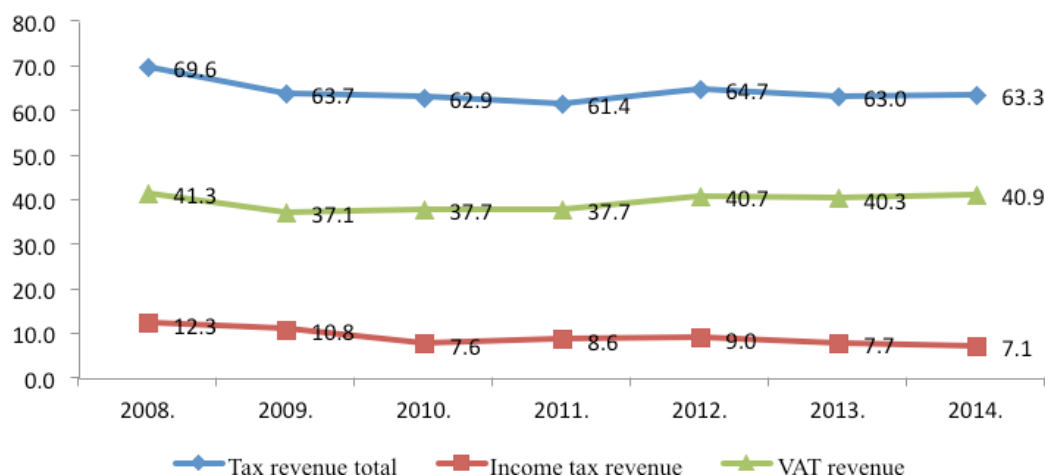
Chart 3 shows a huge increase of movements of long-term interest rate loans with currency clause after 2008. Interest rate went from 6,87% in January 2008 to 9,24% in November 2009. That represents an increase of 237bps or 2,4%. Increase of interest rate was followed with the growth of exchange rate. Therefore, during the period from the beginning of 2008 till the end of 2014, Swiss Franc appreciated against HRK for 41%, while Euro appreciated against HRK for 5%.

² It is taken into consideration 1.180.000 employees, or 944.000 debtors with a currency clause.

3. FISCAL POLICY IN TIMES OF RECESSION

Fiscal policy was imposing solidarity tax as a reaction on the weaker filling of state coffers. After a while, one of the measures was increasing the VAT rate from 22% to 23%, and afterwards to 25%. Finally, increasing VAT decreased household consumption and caused a slowdown of economic activities. Reaction of monetary system was very weak and without strong fundamentals, so it caused anomalies and imbalances in fiscal system as well. The outcome was seen as an additional burden on the consumption, one of the main aggregate components. In other words, it led to introduction of various direct and indirect taxes.

Chart 4: Movements of Tax Revenue in billions HRK; 2008 – 2014

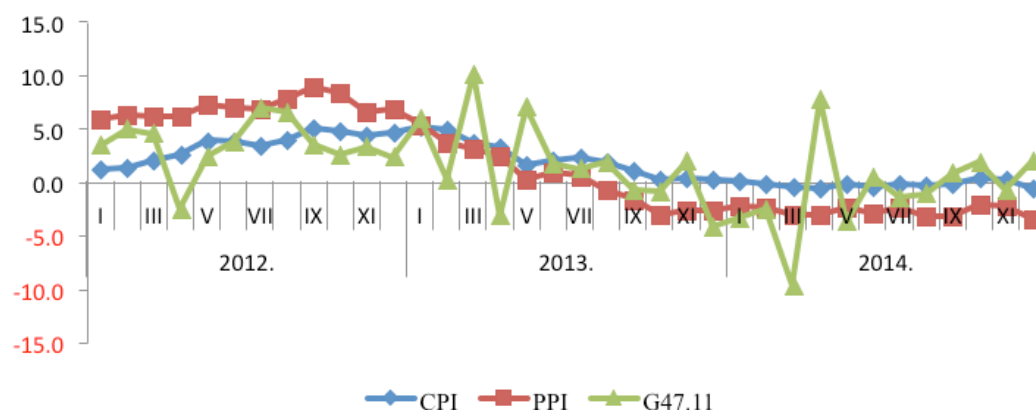


Source: www.mfin.hr (accessed 07.07.2015)

The chart above shows decrease in tax revenue for 6 billion HRK in 2014, in comparison with 2008. Revenue from VAT is slightly lower in 2014 than in 2008. Nevertheless, revenue from corporate tax records decrease of 5,2 billion HRK in the same period. In conclusion, decrease of personal consumption led to decrease of corporate revenue. Decrease of corporate revenue along with same or increased costs, caused decline in profit. To summarize, it all generated decrease of revenue from corporate taxes on aggregate level. Revenue from indirect taxes weren't enough to compensate decline of revenue from personal consumption. In 2009 revenue from VAT fell for 10,2% in comparison with 2008. Monetary sector caused fiscal imbalances. In addition to that, gross investments in fixed capital dropped from 97,7 billion HRK in 2008 to 61,1 billion HRK in 2014. In other words, it represents decrease of more than 35 billion HRK, or 38%. Reason for that drop is mostly because of the increase of interest rate, what resulted with demotivation and discouragement of companies for any investment activities. Discouragement was mostly generated from uncertain return on investments and too high interest rates.

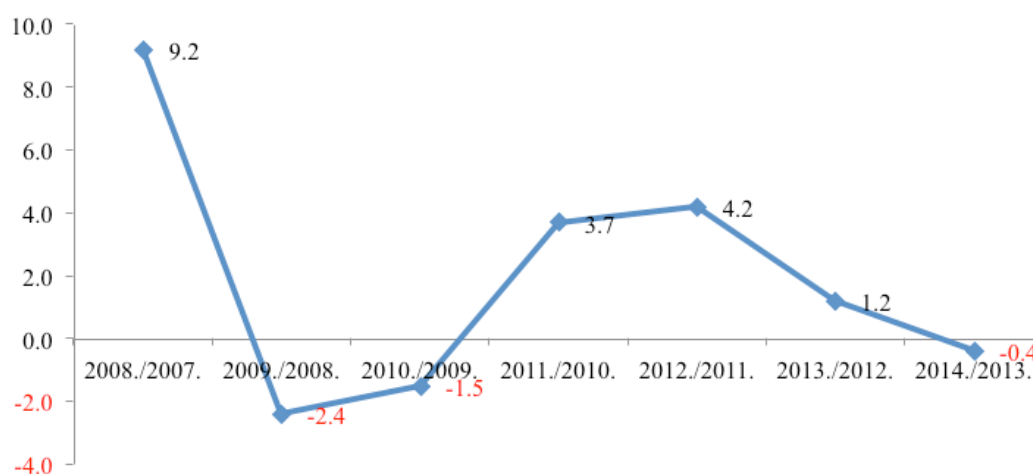
4. INFLATION AND PERSONAL CONSUMPTION

Inflation has always been a highly debated phenomenon in economics. In many economic textbooks it's common to see that the inflation around 3% is "healthy" inflation for economy overall. However, during the recession, statement above didn't seem to work outside the textbooks. After the contraction of GDP of 6,9% in 2009, CPI was seen slowing to 2,4% (in 2008 was 6,1%). In 2014 average inflation, meaning deflation, was -0,2%. If we add to deflation on consumer side (CPI) as well the deflation on producer side (PPI), it is very obvious to conclude that Croatian economy has suffered great crisis. One more time it can be stated that monetary policy caused deflationary pressures as well. Decline in personal consumption causes decline in demand. Furthermore, decline of demand impacts on decrease of production what is further causing increase of unemployment. Increase of unemployment leads to decrease of consumption which drives Croatian economy into spiral and result of all is slowdown of economic activities. The biggest issue is that economy is facing deflation on producer's side (PPI) of -2,7% in 2014 in comparison with 2013, what is an extremely high indicator. And then, economy is faced with double inflation model caused by decline in personal consumption in the first place. Companies driven by maintenance of existing level of margins are putting more pressure on manufacturers. Manufacturers are forced to sell goods for lower costs and lower margins so that the final consumers wouldn't felt burden on their personal income.

Chart 5: Movements of CPI and PPI and movement of retail trade NKD 47.11³ (n/(n-12)) 2012 – 2014

Source: www.dzs.hr (accessed 29.06.2015)

Chart 5 shows high correlation between CPI and PPI. The correlation coefficient is around 0,8, what indicates a strong link between movements of both inflations. It is important to emphasize that until December 2012, inflation on producer side was above one on consumer side. After that period we are witnessing a change of mentioned trend. In other words, a producer price index is significantly below the curve of the consumer price index. The gap between the curves was present till end of 2014. PPI went to deflation zone after VIII/2013, while curve of the consumer price index went to deflation area in II/2014. Gap between mentioned deflations is constantly above 2% in favor of CPI against PPI. This statement had been supported by intelligence that producers have gave up a bigger slice of margins than traders did. Nevertheless, total impact on economy is negative on either deflation. From macroeconomic perspective, deflation is much worse indicator than inflation (no higher than 10%). Deflation gives diagnosis that the economy is facing crisis. There is no pressure on demand side and without stable consumption/demand level there is no growth. Retail trade⁴ movements were used as indicator for personal consumption. In 2014 retail had drop of -0,4% comparing with 2013.

Chart 6: Inflation trends (CPI and PPI); turnover of retail trade measured by nominal classification according to NKD 47 2008-2014

Source: www.dzs.hr (accessed 26.08.2015.)

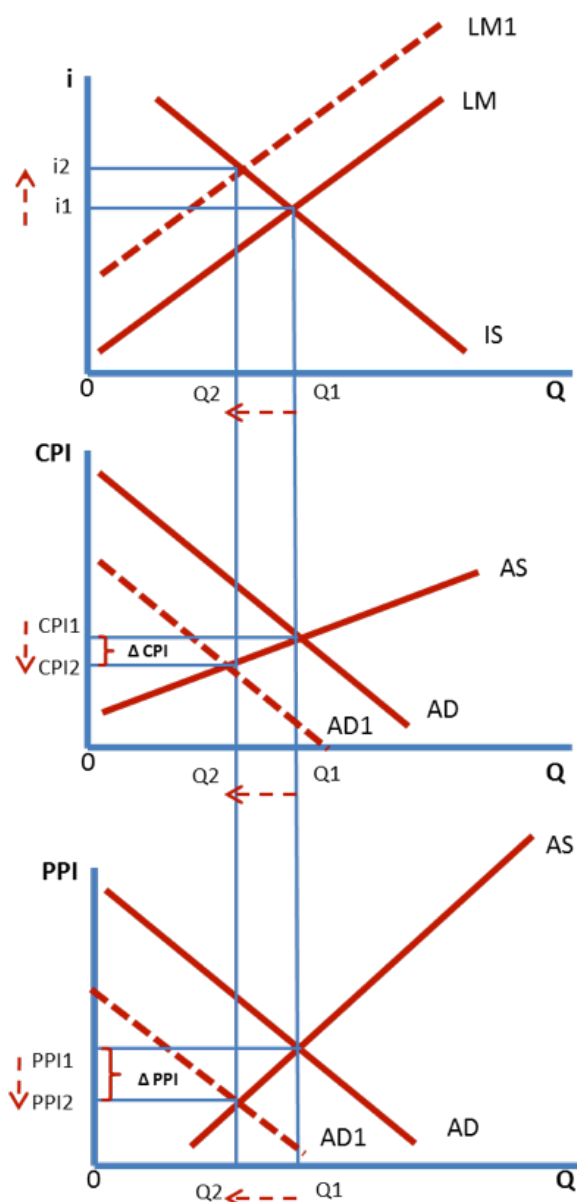
³ According to the NKD G47.11.; represents retail trade excluding trade of motor vehicles and motorcycles - Non-specialized stores mostly selling groceries.

⁴ According to NKD G47; represents retail trade excluding trade of motor vehicles and motorcycles.

5. IMPACT OF IS-LM MODEL ON AS-AD MODEL IN MEDIUM AND LONG RUN

The crisis, which culminated in the USA in 2008 and transmission of same in Croatia in 2009, caused significant weakening of aggregate demand. Monetary contraction, together with weakening of aggregate demand had its impact on decline of consumptions and on prices as well.

Chart 7: Impact of monetary contraction on price changes of CPI and PPI



Source: www.dzs.hr (accessed 29.06.2015)

i = nominal interest rate

Q = changes in output

CPI = Consumer Price Index

PPI = Producer Price Index

Chart 7 shows movements of effects of monetary contraction in short run. Monetary contraction had long term impact on aggregate supply and demand. The first chart shows classic IS LM model. It indicates that monetary contraction led to increase of interest rate and to decline of economic activities. In the long run showed is the effect on the side of aggregate supply and demand. Model displays two possible outcomes in AS AD model. First proposed model explains outcome based on change on side of CPI. Whereby, AS curve shows more elasticity from the AS curve in the second

proposed outcome. In second model, inflation is on PPI side, where AS curve indicates less elasticity. All this is visible in chart 3, where consumer inflation measured with CPI, is constantly above producer inflation. Reaction of monetary policy in short run has an impact on movement of prices in medium and long run. Curve elasticity of AS is a little bit different in these two models (CPI and PPI), where the AS curve in CPI model is more elastic than in PPI model. Changes in demand or in other words, a decline in purchasing power in terms of C (sector of population) caused decline in aggregate demand (AD). Moreover, the effect of changing in AD caused the change in retail price. Nevertheless, the change in retail price (e.g. CPI) is smaller than the change in producer price PPI (differences in elasticity, graph above). In that case, producers got the short end of the stick, as the retailers conveyed the piece of margin on producers.

6. CONCLUSION

Exogenous shock produced significant changes within a Croatian economy although effect should have been more mitigated. In the very begging of the crisis, monetary policy responded by increasing the rate of interest rate. Purpose for that was to insurance from non-payment risk, to keep the level of solvency and gain on existing loans. Monetary policy actions reflected on the total economic sector, causing economic contraction. Monetary policy was focused on stability of banking system, and not directed to stability of the whole economic system. After all, banks managed to keep their profits at the same level as before the crisis, or even above that. On the other hand, the real sector was lacking of cheaper sources of financing what caused decline of key macroeconomic indicators. Subsequently, the GDP decreased. Economic slowdown occurred because of the contraction in demand. In addition, bank loans with currency clause additionally influenced decrease in demand. Therefore, it caused multiple effects such as: high interest rates, currency clause, and negative expectations. All these mentioned factors, pushed the Croatian economy into deflation. To make it even more challenging, deflation affected also producer prices. That leads to battle of traders and producers, who is going to lower the price more. In that battle producers are getting the short end, as because of the inflationary gap higher than 2% traders are in the better position. Slow recovery of consumption in the last year wasn't enough to raise prices on inflation level. In other words economy still struggles with deflation. In the time of crisis CB focused its activities on achieving their main goals, keeping liquidity level and maintaining the price stability. Excessive focus on maintaining the price stability didn't have any influence on deflation in short run. Nevertheless, the post-reaction of measures that CB was using during the crisis, together with fiscal contraction caused deflation and economic slow-down. Therefor in Croatia GDP reached the same level as it was in 2004. but with negative expectations. In 2004 Croatian economy was expansionary. Fiscal policy, together with monetary policy stimulated the crisis, as those two policies often act in correlation. Trying to find solutions on fiscal side by changing tax policies additionally influenced on decline of economic activities. Decrease of consumption had an effect on decline of demand, thereafter on decrease in prices. Price drop happened both on producer and consumption side and it is directly linked to decline of margins for both. Monetary and fiscal contraction and depreciation of Croatian currency were measures responsible for slowing down the economic activity in Croatia. However, those measures should have been avoided.

The expansionary character of recently introduced measures of ECB is positively affecting Croatian economy. More favorable financing sources and recovery of neighborhood countries are some important facts for Croatian economy as well.

LITERATURE

1. Arestis, P. and Sawyer, M., Can Monetary Policy Affect The Real Economy?, Working Paper No. 355
2. Bernanke, B.S. and A. S. Blinder. 1988. "Credit, Money and Aggregate Demand." *American Economic Review* 78: 2: 435-439.
3. Blanchard, O. (2012.) *Macroeconomics*, sixth edition, Pearson
4. Friedman, M. 1959. "The Demand for Money: Some Theoretical and Empirical Results." *Journal of Political Economy* 67: 327-351.
5. Grazia Attinasi M. and Klemm, A., The growth impact of discretionary fiscal policy measures, ECB working paper series no 1697 / july 2014
6. Krugman, P. and Gaulti B. Eggertsson, 2011. "Debt, Deleveraging and the Liquidity Trap," 2011 Meeting Papers 1166, Society for Economic Dynamics.
7. Macroeconomic effects of unconventional monetary policy in the euro area, ECB working paper series no 1397 / november 2011
8. Piketty, T. and Saez, E., Top Incomes and the Great Recession: Recent Evolutions and Policy Implications, *IMF Economic Review* 61, 456-478 (August 2013) | doi:10.1057/imfer.2013.14

INTERNET PAGES:

www.dzs.hr

www.hnb.hr

www.mfin.hr

<http://ec.europa.eu/eurostat/web/main/home>

www.imf.org

www.oecd.org

www.worldbank.org

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TERORRISM AS A THREAT TO A DEVELOPING GLOBAL SOCIETY

ROMANA NOVOSEL PRAKLJAČIĆ
ZVONKO NOVOSEL – DOLNJAK

ABSTRACT

In this day and age, there is not a single country that is immune to terrorism. It has now become a global problem, since terrorism as a form of appearance never stays isolated in an area, but spreads quickly onto other regions.

Terrorist attack have been noted since the beginnings of human civilisation. Assassinations which appeared in 11th century Persia have caused fear and panic throughout the Islamic Empire. In the years of the 18th century French Revolution, terrorist tactics have been applied to eradicate most of the french aristocracy. In the American Revolutionary War, terrorism was used against the British and their symphatizers in the colonialists' ranks. It is also important to mention terrorist activities which took place in Russia at the end of 19th and and beginning of 20th century. Ever since the end of World War II, terrorism has become an important factor of revolution in many newly founded states as an alternative to fighting democracy.

Today we come across quite often with terms such as terrorism, terrorists and terrorist attacks. But we have not had as many a chance to come across the term women terrorists, which does not mean we should not pay any attention to it. Women most often become terrorists because they have no other choice and have been made to do it.

KEY WORDS: women terrorists, terrorism, terrorist attacks.

INTRODUCTION

Women and terrorism - sound like a contradiction. However, there are not many basis to connect women with peace and harmony either. Although there is not a great number of women amongst terrorists, it is not a new phenomena. Amongst the RAF (Red Army Faction) leaders we have come across some number of women - Palestinian women who went in suicide mission, Chechen widows in Beslan and Moscow have been a part of hostage captures. Women bombers have become a new tactical weapon in Iraq. It is impossible to inspect every woman in the Islamic world, and no mass control is present. Very wide dresses and burqas are very suitable for concealing any kind of explosives. With a veil on their face, it is very hard to determine whether a woman is nervous, whether she is sweating with fear, or if her face and eyes could indicate something. Even the Israelis concur that that kind of terrorism is the hardest, most complicated and most delicate.

EMERGENCE OF TERRORISM

Terrorism as a sort of collective and political criminality is a new and unknown social phenomenon. Some believe it was created along with states, others associate it with the Middle East and the emergence of religious political sects. However, it is stated in most literatures that it originates in the French Revolution, to be more specific, the Jacobin dictatorship. Terrorism as a violence one uses as an opposition to the state was noted even in the Middle Ages. This kind of violence was typical in the times of absolute monarchy, the last phase of feudalism.

TERRORISM THROUGHOUT HISTORY

Understanding terrorism is not possible without insight into its historical perspective. Analyzing historical evolution we come to a conclusion that terrorism is a constant subject and a permanent force in modern world's politics. Ever since its beginnings, terrorism has been the very core of modern political culture, within reach of social and political agents.¹ Terrorism is as old as politics itself and the two are inseparable. The first known terrorist were the Assyrians, which have painted their enemies' walls with poison; another were the rulers of the Roman Empire; from the Middle Ages we are also aware of Robespierre's "reign of terror", from which terrorism got its name. Terrorism as an act of aggression had been used by a number of historical rulers to come into power, or to keep it. Terrorism began its spread in the 19th century, when it was wildly used by anarchists in Eastern Europe, Russia and America, who through assassinations tried to remove leaders from their respective country's leading positions.

The more recent history shows us examples of terrorist acts to which Israel, Kenya and Algeria owe their independence, since political movements in those countries applied terrorism against their colonial authorities. Palestinians, with the

¹ M. Bilandžić (2014.). Sjeme zla; Uvod u studije terorizma; Despot infinitus, Zagreb

help of some terrorist organizations, have revolted against the British government just before the beginning of World War II. There were no rebellions in the time of war, but in 1944 three simultaneous bombing attacks have occurred, and in 1946. the hotel King David in Jerusalem was bombed (in that hotel was situated the central office of Great Britain, and ninety people lost their lives - the most devastating loss than in any bombing attack throughout history on the Arabian soil).

Those terrorist acts have reached their goal. The fight for independence was followed by the whole world, which caused regret, and with it the support of powerful allies, and it resulted in the end of British reign over Palestine in 1948., and the State of Israel was established. Many of future terrorists have been encouraged by those acts, lessons they would learn and inherit. Contemporary Israel, which was founded on the acts of terrorism, has not stopped using it even from the state positions, which leads to conclusion that Israel is one of the leading countries of the so-called state terrorism.

Since the year 1960. to today, we have been witnesses to many terrorist acts, some of which are as following:

- **Guatemala, 1968.** - US Ambassador assassinated
- **Germany, 1972.** - eleven Israeli sportsmen killed at the Munich Olympics
- **Netherlands, 1975.** - train hijacking and kidnapping of eleven Oil ministers in Vienna
- **Lebanon, 1983.** - unknown persons carried out a suicide attack on US Marine barracks in Beirut while driving trucks filled with explosives
- **Scotland, 1988.** - a Pan Am airplane blown up above Lockerbie
- **New York City, 2001.** - hijacking of four passenger planes, two of which were crashed into the twin towers of the World Trade Center²
- **Madrid, 2004.** - a series of coordinated bomb blasts on the public rail transport system; one hundred ninety two people were dead and two thousand fifty were found injured. This attack is regarded the biggest and most severe terrorist attack in the history of continental Europe.³
- **Beslan, 2004.** - "*The Beslan school siege*", also known as the Beslan school hostage crisis or Beslan Massacre; one of the most severe terrorist attacks that happened in Russia. Chechen terrorist occupied School Number One in the town of Beslan, North Ossetia, and in the course of three days killed three hundred forty four people, of which one hundred eighty six children. It ended when Russian security forces stormed the building.⁴

There are many more examples of terrorist acts, and from them we can see that the ways of terrorist interventions are not unique. They range from suicide terrorists, most frequently bombers, to assassins, kidnappers, etc.

Terrorist actions can be divided into three categories:⁵

1. Plane hijacking, assassinations and bomb planting;
2. Terror carried out by the leaders on the members of their organizations in order to achieve greater obedience and loyalty.;
3. Actions related to financing terrorist acts such as: bank robberies, extortion and illegal arms sales, and more recent - human trafficking.

The aforementioned example of Israel, a country which gained its independence on the acts of terrorism, cannot be utterly taken for state terrorism which is carried out by other countries' governments because Israel was potential country terrorism was carried out for, and not the one that was actually carrying it out. State terrorism is not a rare occurrence and it involves all illegal actions taken against their own and others enemies. For example, the Nazis' sacrifice of Jews, Gypsies, Communists, homosexuals, political rivals and "state" enemies in Germany, as well as the Serbian involvement in politics and incitement of unrest in Bosnia on the eve of World War II.⁶ These are two clear examples from the past that show state's support of terrorism or its direct application. State terrorism can be divided into internal and external. State finds support and legitimacy in the Constitution and laws that come from it, never minding the displeasure of the people who are deeply dissatisfied with the country's internal problems. In these cases, terrorism is

² Tema: Terorizam; *Drvo znanja*, 48. (2001.), str. 38.

³ http://hr.wikipedia.org/wiki/Napadi_u_Madridu_11._0%C5%BEujka_2004. (4.5.2015.)

⁴ http://hr.wikipedia.org/wiki/Tala%C4%8Dka_kriza_u_Beslanu (4.5.2015.)

⁵ Tema: Terorizam; *Drvo znanja*, 48. (2001.), str. 38

⁶ Tema: Terorizam; Denis Rižvić, *Novi Horizonti*, str 32

the tool of the few, who deem that a wider interest is in jeopardy, and in their own fear try to paralyze their enemies. In this state of mind, no difference is made between the true offenders and the innocent. There are many examples of internal terrorism.⁷ It is a well-known fact that Death Squads (most frequently police officers in civilian clothes) have, in the name of the state - especially in the name of the right winged dictatorships, affrighted political adversaries, journalists and others; also that under the communist regime many crimes against national cultures and mass murders against women, children and people on general have been performed (in Cambodia more than a fifth of population lost their lives under communism). In newer times, the USA performed many terrorist acts "against terrorism" itself, under the guise of legitimate military interventions, in order to achieve their goals. Former President Bush had authorized CIA agents to kill terrorist anywhere in the world as *enemy fighters and legitimate targets*, which means that the CIA may kill anyone even under suspicion of terrorism.⁸

In Yemen, 5 suspects accused of terrorism were assassinated, one of which was an American. If it was any other country other than America that did something like that, retaliation would ensue. The US started a global war against terrorism, but there is, in fact, no war. American anti-terrorist war has become *the terrorist war*. The Americans themselves, in their behavior, are the sole cause of spreading tools of mass destruction, as well as terrorism itself as an answer to their actions and violence.

CHARACTERISTICS OF TERRORISM

Terrorism, although isolated for some of its characteristics from other crimes and offenses, has common traits as follows: it is the deed of men, a social peril is present, illegality and definiteness of a criminal offense as stated in the Law.

As well as taking into regard the action of the criminal offense of performing the act of terrorism, the central place in defining and delimitating in the term terrorism against other criminal offenses and crimes is the object of protection. The object of protection is, as defined, man and citizens, fundamental rights and freedom, independence and safety of a land, as well as the constitutional system. A special place in defining terrorism is taken up by the perpetrator. A terrorist or a freedom fighter, when a crime or criminal offense is committed, are found to be in the same position, as action, intention, object and subject of a criminal offense is present. Motive can only be regarded as extenuating or mitigating circumstance in determining the sentence.

ELEMENTS OF TERRORISM

Four crucial elements of terrorism are important to stress:⁹

- The goals are, as a rule, always of a political nature
- The use of force and threats of force
- The victims are innocent citizens
- Lack of direct link between the perpetrator and victim

Two more elements should be mentioned; it is traditionally believed that terrorists want to gain as much attention possible in performing their actions, and also ideology, whether it is variants of political extremism or religious fanaticism.

An especially dangerous situation is when terrorism is used as a means of fight of religious and fanatic groups. That would mean that religion is as a motive for accomplishing certain political goals. And although almost every country in the world, in its own constitution, defines terrorism as a criminal act, the lack of a unique definition on an international level provides an unnecessary gap.

SUICIDE TERRORISM

The readiness of an individual to sacrifice its life attempting destruction in the name of political goals is called suicide terrorism.¹⁰ Their main mission is self-immolation while performing and completing their task. Unconditional commitment to the task at hand, their leaders and authorities, religious or ideologist fanaticism, as well as a high level of organization, the use of modern technology and psychological methods in situations of military, political and financial inferiority are the backdrop of suicide terrorists.

⁷ Tema: Terorizam; Denis Rižvić, *Novi Horizonti*, (2004.)

⁸ Tema: Terorizam; Borna Keserović, *Večernji list*, (2002.)

⁹ <http://bs.scribd.com/doc/56834841/TERORIZAM#scribd> (7.5.2015.)

¹⁰ http://hr.wikipedia.org/wiki/Samoubila%C4%8Dki_terorizam (7.5.2015.)

Suicide terrorism as a form of action exists since the ancient times. It was practiced by Julius Caesar's political opponents. Suicide terrorism was used by Jewish Zealots, Sicarii, dagger-men; in a particular way a Christian movement of martyrdom during the Islamic Emirate in Cordoba. Yet, the escalation of suicide terrorism in the early 21st century drew scientists' attention to these phenomena.¹¹

During the year 2003., over fifty different suicide attacks were carried out around the world, in which more than six hundred fifty people were killed. The most frequent method was loading vehicles with explosives, or explosives attached on people. Which ensures high efficiency in reaching their goal? The very act of destruction is not final, because strong psychological effect remains. Through media, mere reports on the acts generate their goal and send a very strong psychological message.

SUICIDE BOMBERS

Suicide bombers are the most popular weapon nowadays.¹² They owe their success to the element of surprise, as well as to availability to their target - every one of us. Female suicide bombers are relatively new phenomena. First such case was recorded in 1985. when a sixteen year old Khydali Sada ran into a convoy of the Israeli army with a truck and killed two soldiers. Since then, women more often drive vehicles with explosives, wear explosive backpacks or attach the explosives to themselves. Most of such cases occurred in Palestine in recent years. The first female suicide bomber, under the organization *Tamil Tigers*, killed the Prime Minister of India in 1991.¹³ First pregnant female suicide bomber was a terrorist who killed in 1996. six Turkish soldiers in Kurdistan. It was revealed that many of the Chechen women were pregnant at the time of the attacks. This is a very disturbing piece of information, and it is not very hard to conclude that not everything is right with these individuals. Some of them, as it turned out, carried children conceived out of wedlock, which was unacceptable in their society. Such women sought a way out in death, and such acts would depict them as martyrs all the while restoring their families' reputation, which was smeared by their unacceptable pregnancies. In 2002., the first female martyr in Israel attached to herself eleven kilos of explosives, in which were nails mixed in. She killed herself and another man, wounding over a hundred people. The most prominent terrorist organization the Al Qaeda never had a woman in its suicide bombers' ranks.

BLACK WIDOWS

There is much talk about terrorism, but not about the women who are members or leaders of such organizations. Women make a third of all international terrorists. The most frequent motives for them to join terrorist groups are not that different from men's. Hopelessness, fighting for a higher cause and poverty are most often the reasons why they join terrorist groups.

Black Widows, also known as shahidka, are Chechen female suicide bombers.¹⁴ They became known in 2002. during the Moscow theater hostage siege. Russian female journalist Julia Jusik called them "Brides of Allah". They are most often the wives of killed Chechen fighters, but not all of them are widows. They are girl ranging from fifteen to nineteen years old who come from different surroundings. Some are educated and have a career, others unemployed and poor, but they bear a common hate for the Russians because of the Chechen War. They reside in camps, where they are trained by a team of psychologists, explosives experts, terrorist and religious preachers.

In cultures where women are oppressed and considered inferior, terrorism is the only perspective. A very high motive is also the loss of spouses, sons or brothers. The reasons why women participate in suicide bombings vary a lot and it is very hard to generalize, more so since it is still a relatively new phenomena.¹⁵ Although data is limited, female suicide bombers share one common trait with their male counterparts - they are all young people, with an average age of twenty. Most analysts links the Russian Black Widows with Palestinian female bombers, since both of them fight for the acknowledgement of their national identity, and their actions are deeply permeated with religious tones.

One of the biggest advances with female terrorists is that they are seemingly more trustworthy, therefore Asian female terrorist dress Western so they would never be suspected. While dressed traditionally, they do not attract much attention and can easily access crowded places and carry out their suicide attacks. Their children are taken care for by the terrorist organizations and taught to be proud of their mothers, who gave their lives for a *higher cause*.

¹¹ M. Bilandžić (2014.) Sjeme zla; uvod u studije terorizma; Despot infinitus, Zagreb

¹² <http://www.os-popovaca.skole.hr/web/8bd/terorizam/documents/42.html> (7.5.2015.)

¹³ M. Bilandžić (2014.) Sjeme zla; uvod u studije terorizma; Despot infinitus, Zagreb

¹⁴ J. Juzik (2007.) Alahove nevjestice; Fraktura d.o.o., Zaprešić

¹⁵ <http://www.dalje.com/pr.php?id=36403> (7.5.2015.)

CONCLUSION

Terrorism is one of the biggest problems of today's modern society. It may be better said that terrorism is an obstacle in developing modern world into a global society. It has become a term, phenomenon that came into the everyday life of modern man. Parallel with the growth and development of mankind in the technical, cultural and material aspect, terrorism also develops, only at a faster pace. Although terrorism is deeply rooted in the past, it is a product of a modern world. Its cause and motives are diverse. Media is often used as a tool to measure efficiency of a deed done. The goal of media extravaganza is to put pressure on governments, to persuade the world and the public of the rightness of their activities, thus avoiding interpreting them as criminal acts. Reasons for women to take part in suicide bombings vary and are hard to generalize, all the more since it is a fairly new phenomenon. Beyond doubt, suicide terrorism will continue to be a crude reality of modern world, as long as leaders and ideologists stop the fighting and accept democratic ways of solving conflicts and contradictions.

LITERATURE

1. J. Juzik (2007.) Alahove nevjeste; Fraktura d.o.o., Zaprešić
2. http://hr.wikipedia.org/wiki/Napadi_u_Madridu_11._o%C5%BEujka_2004. (4.5.2015.)
3. http://hr.wikipedia.org/wiki/Tala%C4%8Dka_kriza_u_Beslanu (4.5.2015.)
4. <http://bs.scribd.com/doc/56834841/TERORIZAM#scribd> (7.5.2015.)
5. http://hr.wikipedia.org/wiki/Samoubila%C4%8Dki_terorizam (7.5.2015.)
6. <http://www.os-popovaca.skole.hr/web/8bd/terorizam/documents/42.html> (7.5.2015.)
7. <http://www.dalje.com/pr.php?id=36403> (7.5.2015.)
8. M. Bilandžić (2014.) Sjeme zla; uvod u studije terorizma; Despot infinitus, Zagreb
9. Tema: Terorizam; *Drvo znanja*, 48. (2001.), str. 38
10. Tema: Terorizam; Denis Rižvić, *Novi Horizonti*, str 32
11. Tema: Terorizam; Borna Keserović, *Večernji list*, (2002.)

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GAME PATTERN IN THE MANAGEMENT OF RELATIONSHIPS BETWEEN BANKS AND BORROWERS OF MORTGAGE LOANS

JORDANKA JOVKOVA

ABSTRACT

The paper firstly indicate problems that arise using traditional approaches to accessing the creditworthiness of borrowers of mortgage loans and also the advantages and disadvantages of the external rating approach (standardized approach) and internal credit ratings. It is done a comparison between the Bulgarian practice, the American approach to credit points (Credit score) and German system "Schufa". Attention is drawn to the changes in the point and the rating systems and the factors that determine these changes. The focus, however, is directed to the fact that mortgage lending is a bilateral process and borrowers should also have tools for deciding on the choice of lender and mortgage product. For this purpose the paper propose a mathematical model in the formulation of which was used game theory.

KEYWORDS: game patterns, management, relationships, banks, loans.

1. INTRODUCTION

Mortgage loan activity is of particular significance to the development of residential property market and the implementation of good housing policy. The mortgage loan system cannot develop without any active government support in two directions at least, and namely:

- support to the national mortgage system through the central bank monetary policy in order to influence the banks' cash resources. The Bulgarian economy operates under the conditions of a currency board and the classic monetary management instruments are very limited. Therefore they cannot be used for influencing the mortgage loan system.
- support to the national mortgage system through special instruments and methods, such as setting up special mortgage institutions; using the potential of mortgage securities; connecting mortgage loan activity with the insurance and mortgage system, etc.
- creating mortgage loan conditions satisfying both parties in the process.

When solving this problem, play models may also be used as a consulting option.

2. MORTGAGE LOAN CONDITIONS IN BULGARIA: A BRIEF ANALYSIS

The Bulgarian bank system is dominated by universal banks. They do all types of operations, including granting mortgage loans.

There are 24 banks in Bulgaria. As of 2014 the total deposits in them amount to 218 billion BGN, and the loans granted (all types) – to 213 billion BGN. Just over 11 billion BGN of them are mortgage loans. Residential property buyers try to avoid mortgage loans and use other types of loans which the banks grant significantly at present. The mortgage loans concerned are only residential, i.e. borrowed by individuals (households). As per experts' information corporate clients use approximately the same amount of mortgage loans which means that the total mortgage loans amount to about 22-25 billion BGN, i.e. between 27 and 30% of the gross domestic product of the country (82 billion BGN at current prices).

Representation details of several big Bulgarian banks (DSK, UBB, Raiffeisen, UniCredit, etc.) have been used for the purposes of the present report. The following parameters have been analysed, and namely: maximum amount of mortgage loans granted by the banks; loan repayment deadline; interest rate and its relation to the loan period; loan security, single charge for loan utilization; annual loan management fee, early loan repayment charge.

The analysis shows that some mortgage loan granting conditions of various banks are significantly similar, and others vary considerably. Moreover, the requirements for participation in the financing with own funds are different, the creditworthiness evaluation methods are different, etc.

Therefore, it is usually difficult for loan applicants to choose a credit institution on their own. A possible consulting approach in this case is the use of a play model.

3. METHODOICAL AND METHODOLOGICAL ASPECTS OF THE PLAY MODEL FOR CHOOSING A FINANCING INSTITUTION (BANK).

The model may be represented in the table below followed by several analytical formulas (Table 1).

Table 1

Model for choosing a mortgage loan quote

A mortgage product condition	A mortgage product offered						
	B ₁	B ₂	B ₃	...	B _j	...	B _m
Loan price (GRP) - A ₁	a ₁₁	a ₁₂	a ₁₃	...	a _{1j}	...	a _{1m}
Interest rates (interest rate agreed) - A ₂	a ₂₁	a ₂₂	a ₂₃	...	a _{2j}	...	a _{2m}
Max. amount - A ₃	a ₃₁	a ₃₂	a ₃₃	...	a _{3j}	...	a _{3m}
Max. period - A ₄	a ₄₁	a ₄₂	a ₄₃	...	a _{4j}	...	a _{4m}
Max. age at repayment - A ₅	a ₅₁	a ₅₂	a ₅₃	...	a _{5j}	...	a _{5m}
Max. financing - A ₆	a ₆₁	a ₆₂	a ₆₃	...	a _{6j}	...	a _{6m}
Type of real estate for mortgage - A ₇	a ₇₁	a ₇₂	a ₇₃	...	a _{7j}	...	a _{7m}
Creditworthiness - A ₈	a ₈₁	a ₈₂	a ₈₃	...	a _{8j}	...	a _{8m}
Charge for reviewing documents - A ₉	a ₉₁	a ₉₂	a ₉₃	...	a _{9j}	...	a _{9m}
Life Insurance - A ₁₀	a _{10.1}	a _{10.2}	a _{10.3}	...	a _{10,j}	...	a _{10.m}
Property Insurance - A ₁₁	a _{11.1}	a _{11.2}	a _{11.3}	...	a _{11,j}	...	a _{11.m}
Annual loan management charge - A ₁₂	a _{12.1}	a _{12.2}	a _{12.3}	...	a _{12,j}	...	a _{12.m}
Early repayment charge - A ₁₃	a _{13.1}	a _{13.2}	a _{13.3}	...	a _{13,j}	...	a _{13.m}
Renegotiation charge - A ₁₄	a _{14.1}	a _{14.2}	a _{14.3}	...	a _{14,j}	...	a _{14.m}
Penalty interest for delay - A ₁₅	a _{15.1}	a _{15.2}	a _{15.3}	...	a _{15,j}	...	a _{15.m}
Other charges - A ₁₆	a _{16.1}	a _{16.2}	a _{16.3}	...	a _{16,j}	...	a _{16.m}
Grace period - A ₁₇	a _{17.1}	a _{17.2}	a _{17.3}	...	a _{17,j}	...	a _{17.m}
...
A _i	a _{i.1}	a _{i.2}	a _{i.3}	...	a _{i,j}	...	a _{i.m}
...
Others - A	a _{n.1}	a _{n.2}	a _{n.3}	...	a _{n,j}	...	a _{n.m}

In Table 1:

j is the index of the mortgage product offered (loan respectively);

$j = 1, 2, 3 \dots n$;

i is the index of the mortgage loan condition;

$i = 1, 2, 3 \dots n$;

a_{ij} – the rating (in grades from 1 to 10) of the i condition offered by j mortgage product (creditor).

For each offer (each mortgage product, creditor respectively) the total of grades is calculated.

$$S_j = \sum_{i=1}^n a_{ij} \quad \text{for each "j".}$$

The possible maximum total of grades is marked by S_{max} . For each product (creditor) a coefficient of achieving the maximum grade (K_j) is calculated.

$$K_j = \frac{\sum_{i=1}^n a_{ij}}{S_{max}} = \frac{S_j}{S_{max}} \quad \text{for each "j"}$$

$$K_j \leq 1.$$

The offer with the maximum value of the coefficient of achieving the maximum grade ($\max K_j$) is chosen.

The described method of choosing a mortgage loan gives an idea of the advantage of an offer to another one based on the state at the particular moment – the loan condition at the time of offering (the agreement signing and loan granting, respectively). Most offers though rely on variable interest rates being the main part of the annual cost percentage (the loan price). Mortgage loans as already stated, are long-term and it is very much likely for the conditions to change (at least of the loan interest rate or generally of the loan price) with time. On top of that, the said change depends on the change in the basic factors influencing the mortgage loan price (the loan interest rate). Although the interest rate forecasting is quite problematic, yet the borrower is recommended to choose from the offers available considering the prospects of various possible states of the economy. In this case the credit applicant (consultant respectively) may apply a play model of the “playing with nature” type, and choose the best possible strategy (mortgage loan respectively). It can be assumed that each offer addressed to the credit applicant and accepted by him for review and rating, represents a possible strategy (A_i), and “the nature” is presented by any likely states of the economy (the state of affairs, the market) – B_j .

If we mark the i possible strategy (the i mortgage loan offer) with A_i , and the j likely state of the economy with B_j , when playing with nature $i = 1, 2, 3 \dots n$ and $j = 1, 2, 3 \dots m$, l_{ij} is to mark the result that the credit applicant would get if he chose the i offer and if the j likely state of the economy occurred in the future. The result may be measured (calculated respectively) depending on a selected parameter, such as loan price, annual loan cost percentage; interest throughout the credit period, etc.

The play model is represented in Table 2.

Table 2

Credit offers (strategies)	Probable states of the economy					
	B_1	B_2	...	B_j	...	B_m
A_1	l_{11}	l_{12}	...	l_{1j}	...	l_{1m}
A_2	l_{21}	l_{22}	...	l_{2j}	...	l_{2m}
...
A_i	l_{i1}	l_{i2}	...	l_{ij}	...	l_{im}
...
A_n	l_{n1}	l_{n2}	...	l_{nj}	...	l_{nm}

Various criteria (in this case, criteria in a passive environment are reviewed, i.e. when the possibilities for likely states of the economy B_j are unknown) may be used at choosing an offer (strategy), and namely:

1. The Wald criterion. It is used for choosing a maximum strategy. i.e.

$$A^* = \max_i \min_j l_{ij}$$

It consists of choosing worst result for each strategy¹, and then choosing the best result of the worst ones. It is called the strategy of reasonable pessimism or conservative moderation, and guarantees the credit applicant that whichever state of the economy occurred, he would not pay (lose) a sum higher than the one determined by the choice of strategy A^* (interest – l).

2. Optimistic criterion. Its significance is in the determination of the best result for each possible strategy and the choice of the best result of the best ones. It is referred to as the summarized maximum criterion:

$$A^* = \max_i \max_j l_{ij}$$

3. The Laplace criterion. Since it is unknown how likely it is for any possible states of nature to occur, we assume that they are equally likely. Thus, for each strategy an arithmetic mean result (\bar{l}_i) is calculated.

$$\bar{l}_i = \frac{1}{m} \sum_{j=1}^m l_{ij} \quad \text{for each "i"}$$

The strategy determination happens when the maximum result is chosen out of the average ones:

$$A^* = \max_i \bar{l}_i$$

4. The Hurvid criterion. With this criterion the decision-maker (the credit applicant in our case) uses a coefficient (which some authors call "the pessimism coefficient", and others – "the optimism coefficient"). The coefficient values may vary from 0 to 1 ($0 \leq \lambda \leq 1$), and they express the decision-maker's opinion (or the opinion of his expert consultants) on which state of the economy is most likely to occur.

For each strategy (alternative) the best result is multiplied by λ , and the worst – by $(1 - \lambda)$, and then the multiplied results should be added. The strategy with the highest result is selected:²

$$A^* = \max_i [\lambda \min_j l_{ij} + (1 - \lambda) \max_j l_{ij}]$$

5. The Savage criterion. With this criterion the output matrix is transformed into a matrix of risks. The risk for each strategy at each possible economy state (r_{ij}) is calculated for the purpose,

- $r_{ij} = \max_i l_{ij} - l_{ij}$
- The maximum risk is determined for each strategy: $\max_j r_{ij}$
- $A^* = \min_i \max_j r_{ij}$

Here the strategy selection is determined by the minimum risk of the maximum ones.

In the cases when the mortgage product choice-maker has any information (forecast) of the possibilities of occurrence of one or another state of the economy, the play model changes as output information and criteria.

The possibilities of occurrence of the states of the economy are marked by P_j with

¹ When applying these criteria the (+) or (-) sign in front of the result should be taken into account. Since it represents (as in this case) cost, the sign should be (-).

² With $\lambda=0$, extreme optimism exists
With $\lambda=1$, extreme pessimism exists

$j = 1, 2, 3 \dots m$ and $\sum_{j=1}^m P_j = 1$ (100%). When such information is available the following criteria may be applied, and namely:

1. The most likely state criterion. The most likely state is chosen, where P_j has the maximum value, and only the strategies in this state are studied; the one ensuring the best result is selected:

$$P_j^* = \max_j p_j$$

$$A^* = \max_i l_{ij}$$

for the B^* state whose probability to occur is the maximum – p_j^* .

2. The Base criterion. It lies in the fact that an average-weighted (with the probabilities) result is calculated for each strategy, and the maximum result of the average-weighted ones determines the optimum strategy (the best offer):

$$\bar{A}_i = \sum_{j=1}^m a_{ij} P_j$$

$$A^* = \max_i \bar{A}_i$$

3. The average risk criterion. It is analogous to the Base criterion but the output matrix is transformed into a matrix of the risks, and the information on it is processed.

4. The role of interest rate when choosing a mortgage product. The choice of a mortgage product the credit applicant makes is based on the assessment of the conditions of the offers given. One of the most important parameters of an offer is the interest rate. In many cases creditors determine it not quite justified, with no compliance with the objective components forming it. No doubt, the loan interest rate level including that of mortgages (and any other interest rates as well) is in a two-way dependence with a number of macroeconomic indicators (gross domestic product growth, inflation rate, unemployment, income, etc.). At the same time, though, in a structural aspect it comprises specific components, the knowledge of the values and the correlations among which are significant for its reasoned formation.

These components are:

- Costs for bank financing;
- Administration costs related to loan granting;
- Profit;
- Price of risk.

Of the above four factors only the last one causes some suspicion due to its determination method, and namely as a residual value between the loan price and the rest of the components. It is true that the determination of this price in a different way requires information that is unavailable, but that does not reduce the vulnerability of the approach used. Without going into details, the summarized results of this interesting study are presented below:

- The loan interest rates in Bulgaria are one of the highest ones compared with the ones in the countries of Central and Eastern Europe;
- The reasons for the high interest rates are:

*a higher price of the Bulgarian bank financing; a large share of the external financing; monetary policy conducted (under the conditions of a currency board the central bank cannot refinance the banks, i.e. they are deprived of any opportunity for cheap financing, at the same time the policy of compulsory

minimum reserves affects the financing costs towards increase); lack of financing (relatively cheap) by the European Central Bank; high costs for deposit guarantee; insufficient development of the financial and capital market; small scales of the Bulgarian economy; insufficient competition in the bank sector, etc.;

- * higher administration costs due to lack of opportunities for economies of scale, since both the whole economy and the bank system and individual banks are small-scaled; underdevelopment of price competition, etc.;
- * profit: original data shows that Bulgaria is at the top place for profit per 100 BGN assets (1.75% average value for the period).
- * a higher price of risk.

The conditionality of mortgage loan interest rates on the above mentioned factors is indisputable. Nevertheless, in the market economy conditions, each creditor (bank) faces the necessity of interest rate operational management, meaning to take decisions what percent (how many basic points) to adjust them by. We can say that every creditor should apply a system of monitoring and interest rate adjustment. Such a system could be based on a mathematical model:

Let us mark the resource of the i creditor (bank) at the moment "t" with R_t^i , and the mortgage loans granted by the same creditor (bank) as of the same moment by OK_t^i . Let's assume that the system of monitoring and mortgage loan interest rate adjustment stipulates regular (monthly or quarterly) comparison of these indicators. Then the following differences need to be determined for 3 consecutive inspections, and namely:

$$R_{t-1}^i - OK_{t-1}^i; R_t^i - OK_t^i; R_{t+1}^i - OK_{t+1}^i$$

An adjustment coefficient K_t^i is calculated for each separate moment:

$$K_t^i = \frac{R_t^i}{OK_t^i} \begin{matrix} > \\ < \end{matrix} 1$$

Practically the coefficient generally expresses the R_t^i supply excess over the OK_t^i demand (where $K_t^i > 1$); the excess of the demand over the supply ($K_t^i < 1$) or the equality between them ($K_t^i = 1$).

Actually the system needs to be directed towards that equality regularly through interest rate adjustment:

$$p_t^i = \frac{p_{t-1}^i}{K_t^i}$$

Where:

p_t^i is the mortgage loan interest rate at the moment "t".

For example, if at a certain moment a creditor has resources that could release as a mortgage loan in the sum of 378 billion BGN, and loans of 280 billion BGN at an interest rate of 11 % are withdrawn, an action for encouraging the demand is the interest rate reduction. The following is calculated for the purposes:

$$K_t^i = \frac{378}{280} = 1,35 \quad \text{and}$$

$$p_t^i = \frac{11}{1,35} = 8,15 \%$$

The next inspection shows that the applications for new loans amount to 195 million BGN (at 8.15 % interest rate), and the resource available that could be attracted is equal to 182.5 million BGN. In this situation:

$$K_{t+1}^i = \frac{182,5}{195} = 0,9359 \quad \text{and}$$

$$p_t^i = \frac{8,15}{0,9359} = 8,71 \%$$

Actually this interest rate increase is expected to drop the demand to 182.5 million BGN.

Of course, one should not think that this is the exact interest rate to set out, but as in any other cases, the models (modelling) in fact propose a “consulting” option facilitating the final decision making. Similarly, the method of regression and correlation analysis could be used for studying any factors affecting the mortgage loan interest rates.

5. CONCLUSION

As a component of the interest rate aggregate of each economy, these interest rates (on mortgage loans) are in a direct and reverse relation with the other ones. Their level at any time and the resolutions for their change require comprehensive studies of these relations and the influence of factors outside them. It should be noted though that it is almost impossible all factors, dependencies and correlations to be included in a single model. The designing of various models enables the elaboration of versions, which enhances the probability of taking appropriate management solutions.

LITERATURE:

1. Aleksandrov, K., Real investment management, C., Trakia-M, 2002
2. Markov, M., The mortgage, Stopanstvo Publishing House, 2008
3. Pavlov, K., Comparison of the loan price in national currency in Bulgaria and the remaining countries of Central and East Europe, Sofia, 2010
4. BNB statistics
5. Friedman, G., Investments in real estates, Sofia, 2009
6. Feinen, K., Finanzierung durch Immobilien – Leasing, Handbuch Immobilien Banking, Koeln, 2002
7. Knoboch, Bernd, Structures Finance in der Immobilieninvestitionen, Chemnitz, GUC – Verlag, 2001
8. Hellerfoorth, M., Immobilieninvestitionen und – finanzierung kompakt, Muenchen, Oldenburg – Verlag, 2008
9. Jowsey, E., Real Estate Economics, Palgrave, 2011

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POTENTIAL OF EQUESTRIAN TOURISM IN PORTUGAL

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ABSTRACT

Portugal offers a vast number of factors that boost the development of the national equestrian tourism. Equestrian tourism represents an important opportunity for the qualification and differentiation of the national tourism, as well as stimulating rural economies, helping to combat seasonality and asymmetries.

The aim of this study is to understand how critical success factors such as the *Lusitano* horse, the national equestrian culture, the landscape diversity, among others, are important for the equestrian tourist. Also, to understand how they can contribute to the differentiation of the national equestrian tourism for international destinations that are already deployed in the market.

For the purpose of this study is crucial to understand the perspective of those involved in the various equestrian tourism activities. In this sense, a group of companies were selected and exploratory interviews were conducted that contributed to a number of important outputs in the construction of the questionnaire, only applied to equestrian tourists.

A total of 110 individuals participated in the research, with different profiles, motivations and types of involvement. From the analysis, it is concluded that the critical success factors are significant in motivating equestrian tourists, namely the quality of equestrian infrastructures, the *Lusitano* horse, the hospitality, among others. It is also possible to analyze that the equestrian tourist demonstrates a strong commitment: they are knowledgeable, since they read a lot about riding, belong to equestrian clubs and often face the possibility of having an occupation linked to the equestrian sector.

Finally, the results highlight the agreement between participants and a significant number of statements made in the questionnaire related to motivation and involvement. Therefore, it is possible to conclude that equestrian tourists look for relaxing moments and opportunities to expand their equestrian knowledge in these type of activities.

KEY WORDS: Equestrian Tourism; Tourism product; Consumer behavior; Motivation; Involvement; *Lusitano* horse.

1. INTRODUCTION

Equestrian tourism is the tourist activity that uses the horse or other equine as the main factor of tourist attraction. Subdivided into tourism by horse and tourism of the horse, each subgroup has different public products (TURIHAB, 2012; Oliveira, 2010; Patrão, 2008; Figueira, 2007). Portugal has the potential to produce about 300 million Euros (Neoturis, 2008), contributing to the development of rural economies and domestic tourism. It is important for the qualification of the tourism offer because it contributes to diversify tourist activities, to reduce seasonality and serve to boost regional economic activity (Portugal, 2014). However, this type of tourism has not been worthy of study and analysis (Guðrum & Ingibjörg, 2008), despite the historical importance that the horse had and has in travel (Ollenburg, 2005).

Considering the long history linked to horse and the diversity of unique elements that exist in Portugal that differentiate it, there still is much to do for the country to assert itself as a European or worldwide equestrian tourism destination.

Therefore the objectives of this work are:

- i. To perceive the national equestrian tourism potential and contribute to its development;
- ii. To identify needs and gains of the country as an equestrian tourism market;
- iii. To generate outputs that build a competitive offer;
- iv. To know the motivations of equestrian tourist;
- v. To understand the involvement of the equestrian tourist by the choosing of an equestrian tourism destination
- vi. To contribute to the creation of a differentiated product according to the consumer's profile;

Accordingly, this study begins with a brief literature review about equestrian tourism and the variables of the consumer's behavior – motivation and involvement, followed by the research methodology. In the fourth part, the results are discussed and finally, some contributions and recommendations for future research are suggested.

2. LITERATURE REVIEW

Portugal has a strong potential for the development of equestrian tourism. In horse or by horse we can enjoy a less commercial and mass-country, most typical, more human, which allows experiencing unique environments, with rich landscape and culture (ANTE, 2003).

Equestrian tourism is the tourist activity that uses horses or mules for transportation and/or as main factor of interest or motivation (ABNT, 2007), intended to offer a rich and authentic experience in the natural environment (Líbano, 2008). It is an element of active tourism, practiced by people looking for contact with different elements such as: nature, culture, traditional features of the rural areas, popular culture, crafts and cuisine (Györffy, 2001).

The equestrian tourism includes two distinct concepts inside the global offer, such as tourism by horse or tourism of the horse, each one with distinct public and products.

Regarding tourism by horse we use the horse as resource (Figueira, 2007), tourists are moved using the horse as the primary means of locomotion and/or as tourism activity (APPCE, n.a.). People are motivated by the opportunity to participate in sport competitions or leisure activities, in horseback ridings, in trainings and/or in stages.

In regard to the tourism of the horse, the main reason for the trip is the horse, even without practicing equitation people travel to participate in activities related to the equestrian world, such as shows, to visit fairs, museums, academies and stud farms. The reason for traveling is the admiration for the equestrian world and not the desire to ride a horse (Neoturís, 2008).

It attracts very significant flows of tourists, with an upward trend, with different ages, profiles and motivations. The equestrian tourist tends to spend more time in the destination than the majority of sports tourism consumers (Brown, 2003). Riding is one of the four favorite activities of rural tourists (Neoturís, 2008).

Due to the intensification of equestrian events promotion, there has been an increasing number of people participating in equestrian events, either actively or passively (Neoturís, 2008).

According to the Portuguese Equestrian Federation, the equestrian tourism emerged in France in 1985 with the ambition to contribute to the development of horse education practitioners providing greater autonomy and promoting horseback travel more safely (Neoturís, 2008). In Hungary the development of this type of tourism was motivated by the enthusiasm of horses, traditions, equestrian culture and programs related to horses (Konyves & Suta, 2009).

Due to these characteristics horse tourism can be articulated with other tourism products, creating a composite and distinctive offering that provides enriching and different experiences. Equestrian tourism, as in any type of tourism, offers a wide range of products or activities available at different prices to different publics, with the most contrasting levels of experience or knowledge (Ollemburg, 2005).

This type of tourism has considerable impact on the development of rural tourism, adventure tourism, nature and sports tourism (Auchter, 2008), interacts with many other sectors, such as cultural or health tourism (Neoturís, 2008), with golf (Líbano, 2009) and food and wine (Boavida, 2012).

Surrounding environment and the local culture are essential to create a tourist destination image associated with horse tourism (Neoturís, 2008).

The products offered by equestrian tourism range from simple horse riding or carriage, to itineraries of several days or weeks in places more or less sinuous, to periods spent in farms where tourists pay to live the experience of the fields labors and the day-to-day of a stud, is also available the assistance in equestrian events, participation in competitions, fairs or in stages.

To better understand equestrian tourism its characteristics, the profile and motivation of its consumers, and the available supply, this study has emerged and its methodology is presented below.

3. METHODOLOGY

To understand equestrian tourism, its characteristics, the profile and the motivation of its customers, as well as the available supply, we used the following methodology:

- 1) Review of existing and relevant literature to the subject at global and national level, through the use of scientific articles databases.

- 2) Analysis of case studies presented as “good practice examples” in the technical workshop “Equestrian Tourism in Portugal - development opportunities,” sponsored by *Turismo de Portugal*, and tourism industry companies with equestrian tourism activities.
- 3) Participation in various events related to equestrian tourism: launch of the “Intervention Plan for Equestrian Tourism in *Alentejo* and *Ribatejo*”; presentation of the project “Route Horse and *Ribatejo*: An Integration Project”; which took place on the 24th of May of 2014 in Golegã.

From the document analysis, exploratory interviews were conducted with companies that aim for equestrian tourism. The analysis selected a group of six entities with tourist and/or equestrian activities to try to understand the industry reality and to prepare the questionnaire that was applied to equestrian tourists. Only four entities accepted to cooperate with the investigation.

The questionnaire was developed based on the interviews and on scales previously testes and applied by other authors, to understand what motivates the equestrian tourists and their involvement in the choice of a particular destination over others. This consisted of five parts:

- I. Presentation of the research and the objectives;
- II. Questions 1 to 7 – evaluate the equestrian experience of the participants;
- III. Questions 8 and 9 – evaluate, through 7 point Likert scale (1= not important and 7= very important), the equestrian tourism experience in Portugal, identify the critical factors of success with influence in the decision of equestrian tourism in Portugal and to understand which national places/ events are more visited by the equestrian tourists.
- IV. Question 10 and 11 – analysis of consumer behavior variables – motivation and involvement;
- V. Questions 12-20 – socio-demographic analysis of the respondents;

The questionnaire was applied to equestrian tourists through an online survey, between 15th of July and 30th of September of 2014. This data collection method allows us to obtain a large sample and with reduced costs (Wright, 2005). We chose to use online communities since it is one of the methods that provides easy access to a group of individuals with common interests (Paris & Teye, 2010; Wright, 2005). Data analysis was performed using SPSS 21 software.

4. RESEARCH AND RESULTS

After the analysis of sociodemographic characteristics it can be concluded that 74% of 110 participants in the study are female, 38% were aged 36-45 years, 55% were single/divorced/widowed and 72% have higher education. Regarding the occupation, 19% are students and 16% are individual entrepreneurs.

Nearly 80% practice equestrian sports, 55% practice dressage, 32% riding only for laser, 34% jumping and 15,5% do working equitation.

Approximately half of the respondents practice equestrian tourism once a year and 42% do it with friends. The countries where they have practiced equestrian tourism were: Portugal (99), Spain (16), United Kingdom (13), France (8), and Germany (7), among other.

Forty-eight percent of respondents acquire the equestrian tourism travel directly by the operator. The most used complementary services are restaurants and hotels and the most popular activities were horseback riding and watch equestrian shows. Almost 70% practiced more than one activity during their last equestrian tourism experience.

Table 1 shows that 42.4% of the respondents consider “quality of equestrian infrastructures” very important for equestrian tourism practice in Portugal, followed by “*Lusitano* horse” (40.4%), hospitality (37.4%), national equestrian tradition (37.4%), qualification of human resources (33.3%), renowned riders and riding teachers (34.3%) and security (31.3%).

Local/national events most visited by participants were: “Golegã Horse Fair” (59); “Hippodrome Campo Grande” (45); “Portuguese School of Equestrian Art - Queluz Palace” (39); “International *Lusitano* Horse Festival” (37); “Alter Stud Farm” (33); “Ponte de Lima Horse Fair” (27).

The most relevant individual motivations to practice equestrian tourism in Portugal were: “increasing the equestrian knowledge” (61,6%); “looking the *Lusitano* horse” (49.5%); “have fun with friends” (47.5%); “using my skills to the equestrian sport” (41.4%); “know the culture/Portuguese equestrian tradition” (39.4%).

Concerning the variable involvement the following items were those that gathered greater agreement: “I read a lot about riding in specialty magazines and books” (46.4%); “I belong to a horse riding/riding center” (42.7%); “the ideal job for me is tied to horses” (40.9%).

Table 1. Main factors that influence the decision to practice equestrian tourism in Portugal

(from 1= not important to 7= very important)

Main factors	1	2	3	4	5	6	7	Mean
	%							
Proximity to my home area	23.2	11.1	12.1	11.1	10.1	11.1	21.2	3.92
Lusitano horse	12.1	5.1	1.0	13.1	18.2	10.1	40.4	5.12
Other indigenous breeds (garrano; sorraia; pony of Terceira Island)	34.3	10.1	9.1	11.1	19.2	9.1	7.1	3.26
National equestrian tradition	4.0	5.1	4.0	10.1	16.2	23.2	37.4	5.48
History of Country	6.1	9.1	6.1	27.3	21.2	16.2	14.1	4.54
Ethnography	15.2	11.1	16.2	25.3	15.2	11.1	6.1	3.72
Gastronomy	11.1	8.1	11.1	21.2	20.2	17.2	11.1	4.27
Landscapes	6.1	0.0	3.0	18.2	24.2	25.3	23.2	5.23
Weather	6.1	2.0	6.1	19.2	23.2	19.2	24.2	5.06
Security	8.1	4.0	4.0	13.1	18.2	21.2	31.3	5.18
Quality of the equestrian infrastructure	2.0	2.0	2.0	10.1	20.2	21.2	42.4	5.78
Quality of the tourism infrastructure	4.0	2.0	3.0	16.2	31.3	17.2	26.3	5.25
Hospitality	2.0	2.0	4.0	5.1	17.2	32.3	37.4	5.80
Qualification of human resources	4.0	5.1	6.1	11.1	12.1	28.3	33.3	5.40
Accessibility	3.0	6.1	0.0	17.2	27.3	30.3	16.2	5.15
Renowned riders and riding teachers	6.1	5.1	9.1	15.2	13.1	17.2	34.3	5.13
Offer of equestrian events	5.1	5.1	5.1	16.2	21.2	22.2	25.3	5.11

5. CONCLUSION

This study concludes that 80.9% of the respondents usually ride horses and they are mostly dressage practitioners or they just ride for fun without any equestrian discipline in particular. Participants in the study practiced equestrian tourism once a year, for one or two days, preferably with friends. They purchase their trip through the internet. Catering and accommodation services are the most popular. The equestrian tourist practices a variety of activities: horseback riding, equestrian shows, visits to stud farms, riding lessons, among others.

The most popular countries destinations for equestrian tourism are: Portugal, Spain, United Kingdom and France.

The equestrian tourist appreciates elements, identified in the literature review, such as the differentiating factors: the *Lusitano* horse, the national equestrian tradition, the security that features in the country, the quality of equipment and infrastructures, the typical and renowned hospitality of the Portuguese people, the qualification of human resources, nationally and internationally recognized riders, offering sporting events, are considered some of the most important elements.

The best known places and events are: the secular and traditional fair Golegã; the Hippodrome *Campo Grande*; the Portuguese School of Equestrian Art; the *Alter* Stud Farm and the International Festival of Pure Bred *Lusitano* Horse.

The main reasons to practice equestrian tourism are related to the need to learn and know more about riding and the equestrian world, with the possibility to admire the *Lusitano* horse and the national equestrian culture. Also they value having fun and relaxing with friends.

The equestrian tourist has a strong involvement, is informed, reads and investigates about riding and horse riding. Almost half of the participants claimed to be part of a riding center or equestrian club. Also, they do not consider that horses can consume too much of one's time and that it deprives them from other activities. Thus we conclude that they have a great involvement.

This research highlights to the relevance of enjoying unique elements such as the *Lusitano* horse and culture, Portuguese equestrian tradition and art of hospitality featuring the Portuguese people to differentiate the equestrian tourism, offering a product that is neither better nor worse than available in countries already established, it's just different and unique, it is Portuguese.

People who choose Portugal, want to appreciate the opportunity to know all the process of creating the *Lusitano* horse, since the conception to the development. They value the experience of riding *Lusitano* horses.

The equestrian tourist likes to practice various activities. This validates the opinions given in the exploratory interviews that defend the need of products and services inserted into the network. This communion will serve to increase the duration of the stay and to increase the revenue generated. It is very important to meet the public, their motivations, their profile, their expectations and needs.

Finally, we believe that equestrian tourism in Portugal is likely to have a significant growth. Examples of this are the maximization on behalf of the policy makers, through investment on the visibility of the *Lusitano* horse and the consideration of this type of tourism in the National Strategic Plan for Tourism, presented by the Portuguese government.

We hope that academic research can contribute to the achievement of the national equestrian tourism progress goals.

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LITERATURE

1. ABNT, A. B. (2007). Projecto 54:003.10-003/1 - Turismo equestre — Parte 1: Requisitos para produto. Brasil: Associação Brasileira de Normas Técnicas.
2. ANTE, A. N. (2003). *Guia de Percursos Equestres - Portugal*. Golegã, Santarém, Portugal: Tejo - Estudos e Projectos, Lda.
3. APPCE - Associação Portuguesa de Profissionais de Comercio Externo. (n.a.). Obtido em 2014, de <http://appce.net>: <http://appce.net/turismo-equestre.html>
4. Auchter, K. A. (2008). An analysis of Kentucky trail riders: Determining rider behaviors and valuing site amenities that contribute to repeat visits (Master's thesis, University of Kentucky). Kentucky.
5. Boavida, A. (2012). A Experiência Turística Partilhada – Contributos para a Hospitalidade e Retenção do Destino Turístico – O Caso da Feira do Cavalo da Golegã.
6. Brown, D. O. (2003). Perception differences among visitor groups: The case of horse-attraction versus other-attraction tourist markets in Lexington, Kentucky. *Journal of Vacation Marketing*, 9 (3), 174-187.
7. Figueira, L. M. (2007). Desenvolvimento do turismo equestre: mitos e realidades. Estudo de caso na região de influência do Município de Golegã. *I Congresso Internacional de Turismo Leiria e Oeste*. Peniche.
8. Guðrum, H., & Ingibjörg, S. (2008). Horse-Based Tourism: Community, Quality and Disinterest in Economic Value. *Scandinavian Journal of Hospitality and Tourism*, 8:2, 105-121.
9. Györfy-Villám, A. (2001). The reference book of equestrian tourism. Mezögazda Kiadó. Budapest.
10. Könyves, E., & Suta, E. (2009). The Importance of Equestrian Tourism Enterprises in Tourism Destination Management in Hungary. *Agroinform Publishing House, Budapest*, 3/4, 25-28.
11. Líbano, R. V. (2009). Turismo Equestre: Um Novo Segmento de Turismo para a Região. Brasil.
12. Neoturis. (2008). Portugal, um novo destino de Turismo Equestre. *Congresso Internacional de Turismo Equestre, Alter do Chão, 16 de Maio de 2008. Portugal*.
13. Oliveira, C. (2010). O Turismo de Tradição. Estudo do caso do Turismo Equestre. Portugal.
14. Ollenburg, C. (2005). Worldwide Structure of the Equestrian Tourism Sector. *Journal of Ecotourism*, 4:1, 47-55.
15. Paris, C. M., & Teye, V. (2010). Backpacker Motivations: A Travel Career Approach. *Journal of Hospitality Marketing & Management*, 19(3), 244-259.

16. Patrão, L. (2008). A Tradição Equestre como elemento de valorização da oferta turística. *Congresso Internacional de Turismo Equestre, Alter do Chão, 17 de Maio de 2008. Portugal. Alter do Chão.*
17. Portugal, J. (2013). Workshop Técnico: Turismo Equestre em Portugal - Oportunidades de desenvolvimento - Organizar e promover a oferta nacional. Palácio Nacional de Queluz.
18. TURIHAB, A. T. (2012). Itinerários de Turismo Equestre - Metodologia de implementação – O caso Minho Lima.
19. Wright, K. (2005). Researching Internet-Based Populations: Advantages and Disadvantages of Online Survey Research, Online Questionnaire Authoring Software Packages, and Web Survey Services. *Journal of Computer-Mediated Communication, 10: 00*, 1083-6101.2005.tb00259.x.

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DETERMINATION OF PRIORITY SERVICE SECTORS IN REPUBLIC OF CROATIA

ZRINKA LACKOVIĆ VINCEK

STJEPAN DVORSKI

VLADIMIR KOVŠČA

ABSTRACT

The purpose of the paper is to present and to explain the method and importance of measuring and determination of the comparative advantages of the national economies. The goal of the paper is to determine the priority service sectors of Republic of Croatia in which the strategy of smart specialization should be implemented, targeted on establishing the strong points and potentials on which the state should focus to create national comparative advantages. The indicator of the revealed comparative advantage (RCA indicator) shows that Republic of Croatia realizes positive values of RCA in all service sectors, and the strongest comparative advantages are in the sector of tourism and services related to travelling, which shows, along with the sector of transportation services, the largest percentage in service export. From the above mentioned it is clear that there is a significant correlation between the sectors with the revealed comparative advantages and its percentage in the structure of the export. Aggregated GL index shows that Republic of Croatia realizes the highest level of specialization in the intra-industrial exchange (exchange of the same services) in ICT sector, which is followed by the transportation services, other business services, and the recreational, cultural and sport services. Other service sectors have the features of the inter-industrial specialization. There is a correlation between the level of specialization and export importance of a particular service sector, since the sector of tourism and travel-related services realizes the largest percentage in the export of all services of Republic of Croatia. After the sector of tourism and travel-related services, the construction services are second on the list of value of indicators of the export competitiveness, followed by the ICT services and the services of transport. From the above mentioned, it can be concluded that the priority service sectors, to which Republic of Croatia should focus because of creation of the national comparative advantage, are the sector of tourism, travel-related sector, transportation sector and sector of ICT services.

KEY WORDS: comparative advantages, export competitiveness, service sectors, Republic of Croatia.

1. INTRODUCTION

The term "service" relates to the wide spectre of the intangible and heterogenous products and activities. One of the most significant achievements of the Uruguay round of the trade negotiations within the General Agreement on Tariffs and Trade, which was taking place from 1986 to 1993, was the organization of the international trade of the services in common multilateral rules. By organization of the World Trade Organization on January 1st 1995, the General Agreement on Trade in Services – GATS, for the first time the service trade was subjected to the discipline of the international law. The methods of providing of the services are defined by the General Agreement on Trade in Services, by emphasizing the four basic models of the service providing, and these are: (Mlikotin-Tomić, 1999):

1. providing the services across the border,
2. service consummation in the foreign countries,
3. provider provides services directly on the territory of the other member country,
4. the services are provided with the help of temporary employed person.

The service sector is of the exceptional importance for growth and reduction of the poverty in the developing countries. This influence is manifested directly, since the services are a substantial, if not the largest percentage of these economies, but also indirectly, because the services like the finances, communications, transport, education and health, have impact on other sectors of economy and the productivity of the workers. In many countries, some of the fastest growing sectors of service are telecommunication, financial and transport services.

The Croatian economy is service oriented, and according to the data of the World Bank (2013), the largest percentage of the bruto national product of Republic of Croatia (68,97 % of BNP in year 2013) is related to services. The balance of the trade service exchange of Republic of Croatia is positive (total volume of the exported services is larger than the total vol-

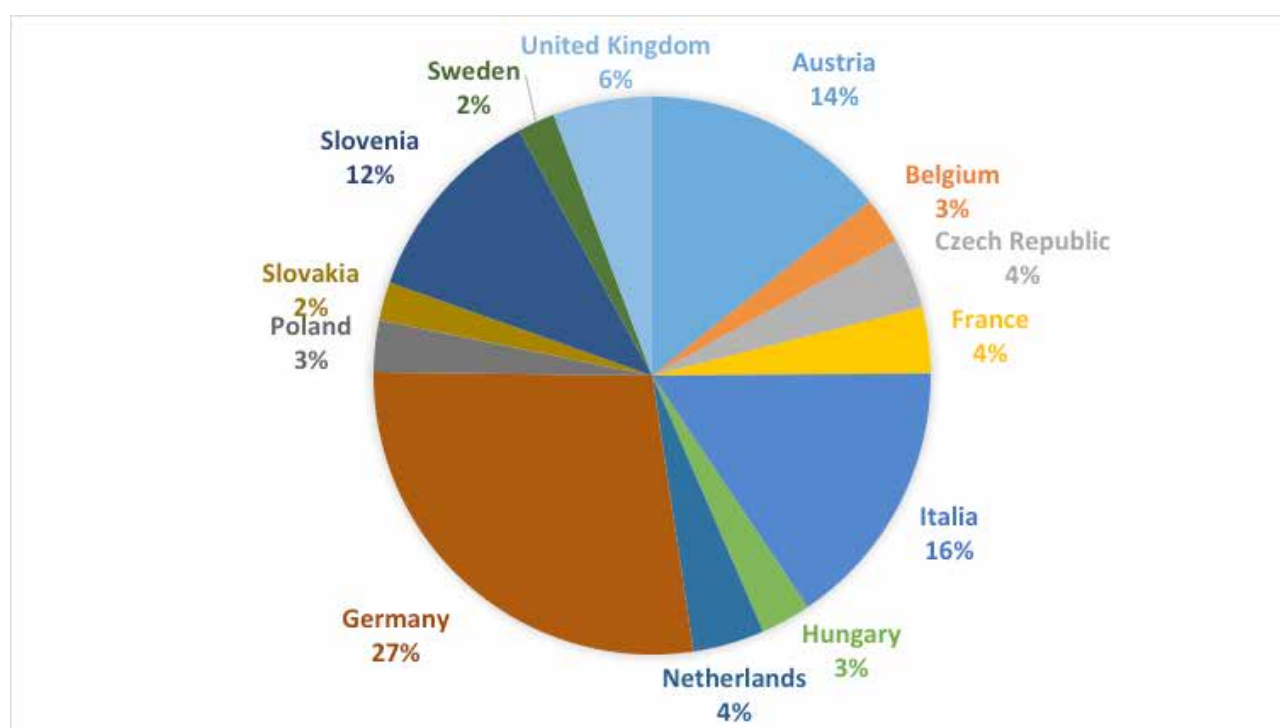
ume of the imported services), while, on the other side, the balance of the trade goods is deficitary. The second indicator which points to the importance of services in Croatian economy is the level of the Croatian export related to the services (9.3 million of Euros in 2012). In 2013, the service export participated with 51.35% in the total export of Republic of Croatia. Nevertheless, the service export is not treated as the incentive of growth and development. Republic of Croatia exports more than 2/3 of the services into other member countries of EU. Because of that, the bilateral service trade of Republic of Croatia with other countries of EU will be the subject of the analysis of this paper.

The article is divided into five individual chapters. After the introduction, there is the review of the most important partner countries to the Republic of Croatia in the service export, and the analysis of the revealed comparative advantages of the service sectors of the Republic of Croatia. The third chapter analyses the level of specialization of the service sectors of Republic of Croatia by the implementation of the aggregated GL index, while the fourth chapter analyzes the export competitiveness of the service sector of Republic of Croatia. The last chapter provides the basic conclusions of the paper.

2. REVEALED COMPARATIVE ADVANTAGES OF THE SERVICE SECTORS OF REPUBLIC OF CROATIA

Republic of Croatia is significantly related in trade with other member countries of the European Union, and according to the data of the International Trade Centre in 2012, as much as 77,71 % of the service export from Republic of Croatia was related to the member countries of this regional integration. From Graph 1, it is visible that the service export in the period between 2004 and 2012 was the highest to Germany (27% of the total service export), then Italy (16%), Austria (14%) and Slovenia (12%).

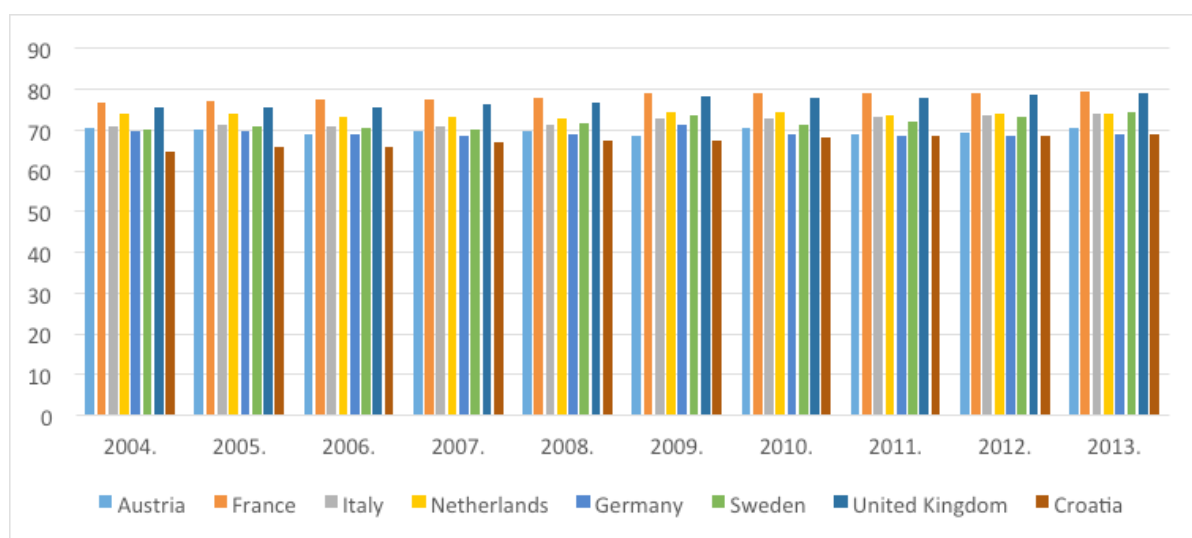
Graph 1. Most important partner countries in service export of the Republic of Croatia in period from 2004 to 2012, in %



Source: author's calculations based on International Trade Centre [online]. Available at: http://www.trademap.org/Country_SelServiceCountry_TS.aspx [11 January 2015]

In the period from 1990 to 2013, Republic of Croatia has shown the continuous trend of the increase of the share of services in BNP, with the exception of the war period from 1991 to 1994, when there was a slight decrease of this share (graph 2). In 2013, Republic of Croatia has realized the similar share of the services in BNP (68,97 %) as Germany (69,02 %) and Austria (70,50 %). In relation to other reviewed member countries of EU, France has the largest percentage of services in BNP throughout the whole reviewed period (in average, 78.29%), followed by United Kingdom (77,16 %), Netherlands (73,84 %), Italy (72,23 %) and Sweden (71,85 %).

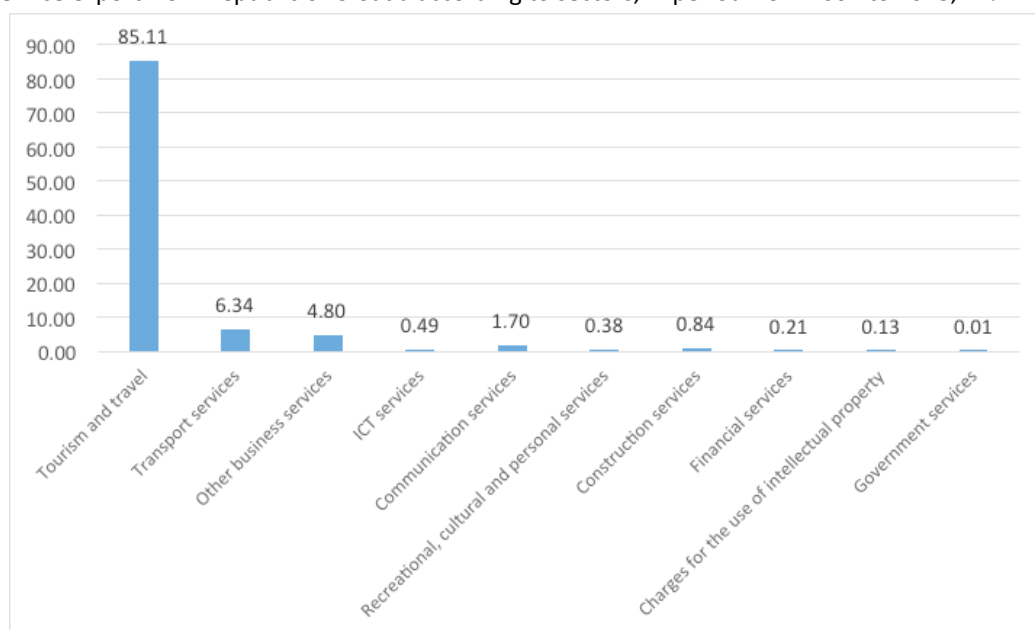
Graph 2. Share of the services in the bruto national product in the most important partner countries in the service export of Republic of Croatia, in period from 2004 to 2013, in %



Source: author's calculations based on Eurostat [online]. Available at: http://ec.europa.eu/eurostat/statistics-explained/index.php/The_EU_in_the_world_-_international_trade [05 December 2014]

Viewed according to the sectors in period between 2004 and 2013, in service export of Republic of Croatia, the most substantial share is tourism sector and travel-related services (84,90 % of the total services export), and the rest is related to the transport services (6,33 %), other business services (4,78 %), communication services (1,69 %), construction services (0,84 %) etc.

Graph 3. Service export from Republic of Croatia according to sectors, in period from 2004 to 2013, in %



Source: author's calculations based on International Trade Centre [online]. Available at: http://www.trademap.org/Country_SelServiceCountry_TS.aspx [11 January 2015]

This section of the paper asks whether the increased openness and volume of the service exchange causes the expected positive change of the exchange structure. Positive change of the structure of international exchange means the change of the comparative advantages toward the services of greater additional value, as well as the higher level of specialization (Buturac, 2008). The following part analyzes the question of the change of the comparative advantages, while the problem of specialization is analyzed in the next chapter.

The usage of the indicators of the revealed comparative advantage – RCA, defined by B. Balassa in 1965, will determine the comparative advantages of the service sectors. Many researches were conducted with the purpose of development of the methodology of the calculation and implementation of RCA indicators (Aquino, 1981; Balassa, 1965; Lafay, 1992; Laursen, 1998). The concept of RCA indicators is organized in such way that the country realizes the comparative

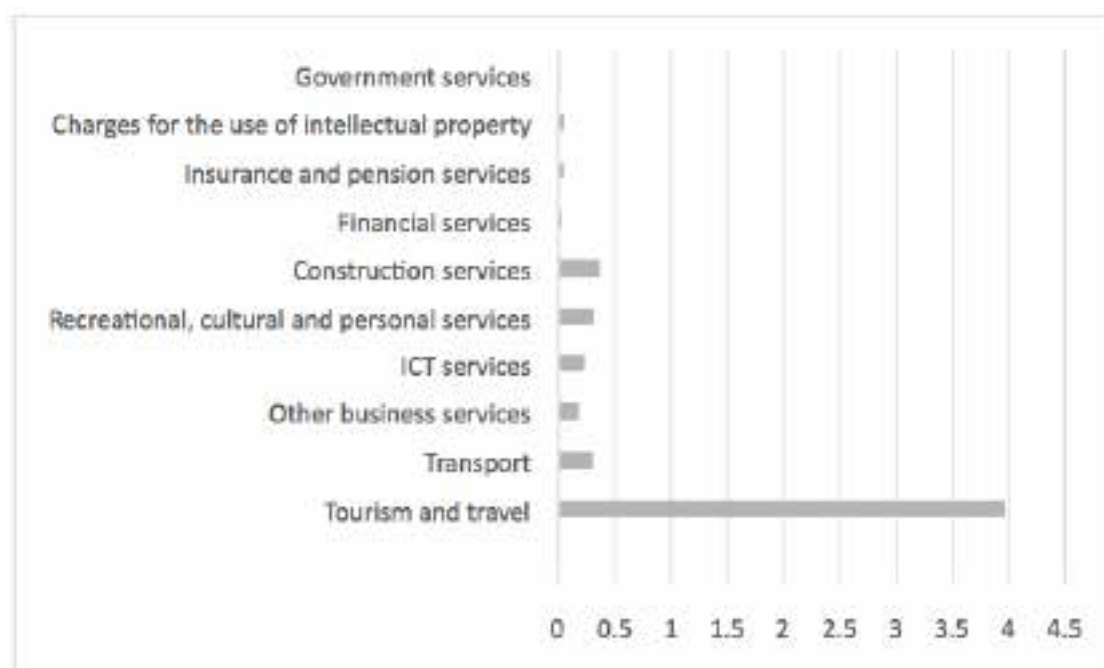
advantages in those products and services in which the value of the export is larger than the value of the import. The indicator of the revealed comparative advantage of an individual service sector in the total export is calculated in following manner:

$$RCA = \frac{\frac{X_{ij}}{X_{is}}}{\frac{X_{nj}}{X_{ns}}}$$

in which X is the value of the export services, i is the country which exports (Republic of Croatia), j represents the individual service sector, n represents other member countries of European Union (EU-27), and s represents all service sectors together. The above mentioned indicator is also called “original index of the revealed comparative advantages” since all variables in the formula are related to the export (Brkić and Balić, 2014). Positive value of RCA indicators for particular sector of the services shows that the country has revealed comparative advantages in the exchange of that service. Conversely, the negative indicator shows that the country does not have comparative advantages.

The indicator of revealed comparative advantage shows that Republic of Croatia realizes positive values of RCA indicators in all service sectors, and the most significant comparative advantages are those in the sector of tourism and travel-related services, which has, together with the sector of transport services, the largest share in the service export. From the above mentioned, it is obvious that there is a significant correlation between the sectors with revealed comparative advantages and their share in the export structure.

Graph 4. RCA indicator of the service sectors of Republic of Croatia in period from 2004 to 2013



Source: author's calculations.

3. SPECIALIZATION OF THE SERVICE SECTORS OF REPUBLIC OF CROATIA

By implementation of the aggregated GL index, developed and implemented by Grubel and Lyod in 1975, we will analyze the level of specialization in intra-industrial exchange, and establish the correlation between the level of specialization and the export significance of a particular service sector. Intra-industry exchange relates to the simultaneous export and import of the same services. With the openness of the economy, the specialization could be an important indicator of the level of economic integrations (Buturac, 2008).

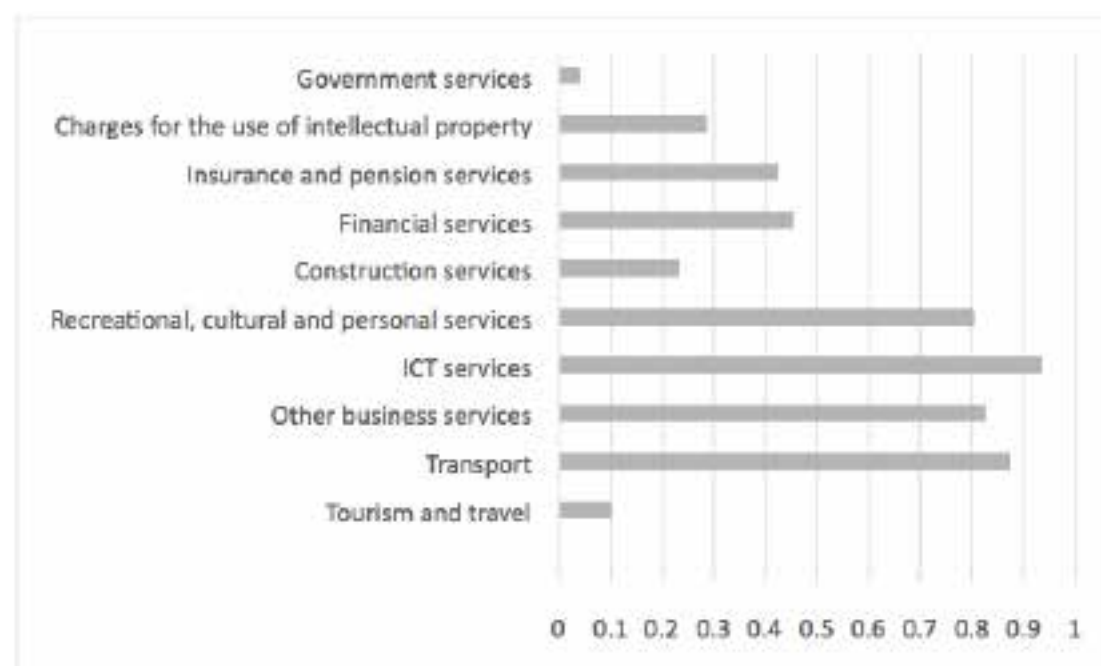
Aggregated GL index is calculated according to the following formula:

$$GL = 1 - \frac{|x - m|}{x + m}$$

in which x is the value of the export of services of a particular sector, and m the value of the import of the services of a particular sector. The value of the index can be found within the scope from 0 to 1; the larger value of the index points to the higher level of specialization in intra-industrial exchange.

The empirical calculations of the index of specialization of the service sectors of Republic of Croatia are shown in the Graph 5. The value of the aggregated GL index points to the fact that Republic of Croatia realized the highest level of specialization in intra-industry exchange (exchange of same services) in ICT sector; it is followed by the transportation services, other business services, and recreational, cultural and sport services. Other service sectors have features of inter-industrial specialization. We can conclude with the fact that the service sectors which have extremely emphasized specialization in intra-industrial exchange do not have the significant share in the structure of the service export in Republic of Croatia. In other words, there is no correlation between the level of specialization and the export significance of a particular service sector.

Graph 5. GL index of the service sectors of Republic of Croatia in period from 2004 to 2013



Source: author's calculations.

4. EXPORT COMPETITIVENESS OF THE SERVICE SECTORS OF REPUBLIC OF CROATIA

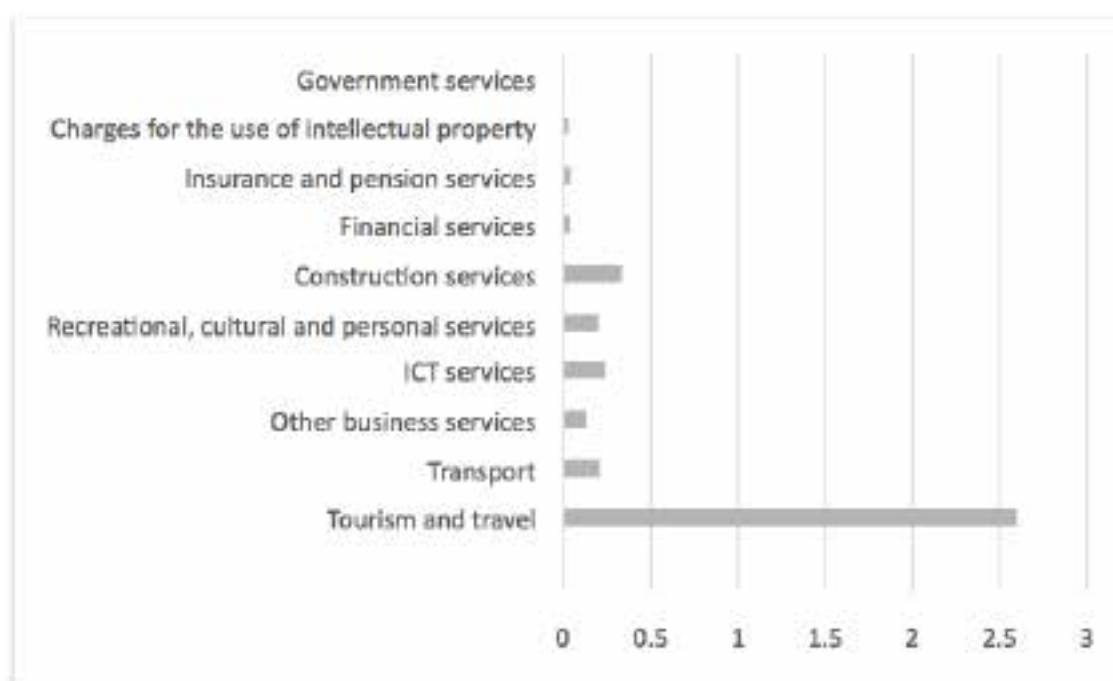
The competitiveness has become a natural law of the modern economics (Kitson, Martin and Tyler, 2004). Export competitiveness is often mentioned as the necessary item in the solution of the economical problems (Stojanov, Bezić, Galović, 2011). The original competitiveness will be analyzed through the implementation of the indicators of the original competitiveness, which represents the ratio of the share of export of the particular service sector i into the observed country c and the total import of that service sector by the observed country c , according to the formula:

$$Ic_i(a, c) = \frac{EX_i(a, c)}{\sum_{i=1}^n IM_i(c)} * 100$$

in which $EX_i(a, c)$ is the export of the service sector i of country a (Republic of Croatia) into the country c (other European Union countries), and $\sum_{i=1}^n IM_i(c)$ represents the total import of the services of the sector i from the country c . The indicator of the export competitiveness will provide the insight into the trends of the change of the export competitiveness. If the indicator of the export competitiveness is more than 1, the increasing export competitiveness is present. Contrary to that, realized value of the indicator less than 1 implies the negative trend of the export competitiveness.

From this calculation of the indicators of export competitiveness, it can be concluded that the sector of tourism and services related to travel has shown growing export competitiveness, since it is the only of the rest of analyzed service sectors which has realized the value of the indicator of export competitiveness higher than 1. After the tourism sector and travel-related services, the construction services are on second place by the value of indicator of the export competitiveness, followed by the ICT services, and transport services, but all the above mentioned service sectors realize the value of the indicator of export competitiveness lower than 1, which points to the negative trend of the export competitiveness.

Graph 6. Indicator of the export competitiveness of the service sectors of Republic of Croatia in the period from 2004 to 2013



Source: author's calculations.

5. CONCLUSION

For small economies like Croatian, the export competitiveness is of extreme importance for the sustainable growth and vitality of the economic activity. The export enables the domestic production to achieve the effects of the economy of volume. Orientation toward technology, innovations, development and research has a visible effect on the increase of the level of competitiveness. The economy of Republic of Croatia is service oriented – most of the bruto national product consists of the services, and more than half of Croatian export is service related. Nevertheless, the export of the services is not treated as the incentive for growth and development. The most important export-import partners of Republic of Croatia in the service export are other member countries of European Union, especially Germany, Italy, Austria and Slovenia.

Analysis of the revealed comparative advantages, specialization and export competitiveness has shown that the most prominent comparative advantages are realized by the sector of tourism and travel-related services, the highest level of specialization in intra-industrial exchange has the ICT sector, and the growing export competitiveness the tourism sector and travel-related sector. From all the above mentioned, we can conclude that the strategy of smart specialization should be implemented in the tourism sector, travel-related services, ICT sector and transportation service sector, and that the state should focus on the above mentioned service sectors to create national comparative advantages.

LITERATURE

1. Aquino, A. (1981) Change over time in the pattern of comparative advantage in manufactured goods: An empirical analysis for the period 1972-1974, *European Economic Review*, 15 (1), 41-62.
2. Balassa, B. (1965) Trade Liberalization and Revealed Comparative Advantage, *The Manchester School of Economic and Social Studies*, 33 (2), 99-123.
3. Brkić, S., Balić, S. (2014) Comparative advantages of Bosnia and Herzegovina in trade with its main partners from the European Union, *Sarajevo Business and Economics Review (SBER)*, 33, 31-52.
4. Buturac, G. (2008) Comparative advantages and export competitiveness of the Croatian manufacturing industry, *Ekonomika istraživanja*, 21 (2), 47-59.
5. Eurostat (2015) The EU in the World [online]. Available at: http://ec.europa.eu/eurostat/statistics-explained/index.php/The_EU_in_the_world_-_international_trade [05 December 2014]
6. International Trade Centre (2015) List of services exported by Croatia [online]. Available at: http://www.trademap.org/Service_SelCountry_TS.aspx?nvpm=1|191|||S00|1|3|1|2|2|1|1|1 [11 January 2015]
7. List of supplying markets for a service exported by Croatia [online]. Available at: http://www.trademap.org/Country_SelServiceCountry_TS.aspx [11 January 2015]
8. Kitson, M., Martin, R. i Tyler, P. (2004) Regional Competitiveness: An Elusive yet Key Concept?, *Regional Studies*, 38 (9), 991-999.
9. Lafay, G. (1992) The measurement of revealed comparative advantages in M. G. Dagenais and P. A. Muet eds., *International Trade Modeling*. London: Chapman & Hill, 209-234.
10. Laursen, K. (1998) Revealed Comparative Advantage and the Alternatives as Measures of International Specialisation, *DRUID Working Papers*, 98-30, Copenhagen Business School.
11. Mlikotin-Tomić, D. (1999) *Pravo međunarodne trgovine*. Zagreb: Školska knjiga.
12. Stojanov, D., Bezoć, H. i Galović, T. (2011) Export competitiveness of Primorje-Gorski kotar County, *Ekonomski vjesnik: časopis Ekonomskog fakulteta u Osijeku*, 1, 33-46.

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PERCEPTION AND INTENTION FOR BUYING PRIVATE LABEL IN PARTICULAR PRODUCT CATEGORIES AMONG MACEDONIAN CONSUMERS

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ABSTRACT

Private labels are usually perceived as cheap substitutes compared to national brands. Though, in recent years private labels are becoming widely prevalent and successful in more product categories. An empirical research was conducted in order to investigate consumers' perceptions on private labels and their intentions to purchase private labels in various product categories. Additional to descriptive statistics, Kruskal Wallis test was applied for analyzing the differences in consumers' perceptions and intentions on private labels, regarding their demographic characteristics, i.e. gender, education and income level.

The perceptions and the shopping attitudes of the consumer in the Republic of Macedonia about private labels versus national brands have insignificant influence on buying decision making. Therefore, the paper provides relevant information for marketing professionals, retailers and scholars regarding the factors influencing perceptions and buying intentions of the private labels in different product categories.

KEY WORDS: private label, perception, product category.

INTRODUCTION

Perceptions about private-label brands are favorable around the world, and intention for buying private labels is more common in commodity driven, high-purchase categories and those where consumers perceive little differentiation. Private label products are generally brands owned by retailers, wholesalers, or distributores and are sold exclusively and privately in their own stores (Bushman, 1993; Sethuraman and Cole 1999). Perceptions about private labels are overwhelmingly adorable, almost three-quarters of global respondents (71%) say private-label quality has improved over time. Private label is most developed in Europe, particularly in the Western markets. Private labels contribute up to 45% of the brand share in the developed countries. Switzerland has the highest private-label share (in the region and around the world) at 45%, followed closely by the U.K. and Spain at 41% each. Private label is less developed in eastern and central Europe, where share varies greatly from a high of 24% in Poland to a low of 5% in Ukraine (Nielsen, 2014). Private labels have higher unit market share than the top national brands in more than one third of the categories (Quelch and Harding, 1996).

Though it has no official data for the private label share in the Republic of Macedonia, the concept of private labels is accepted and has become an important part of the retail chains strategy.

Share of private label brands have been growing rapidly in recent years due to their advantages. Price is important to most of the consumers and is the primary driver of consumers' purchase intentions for private label. Many authors pointed out that the quality is more important in determining private label success than lower price (Hoch and Banerji, 1993; Sethuraman, 1992). The inappropriate private label management that focuses excessively on price, compromising product quality, will have a negative impact on a large number of product categories (Horvat, 2013). Among retail chains, one obvious reason for their popularity and growth is their potential to increase store loyalty, chain profitability, control over shelf space, improving bargaining power over manufacturers and getting better margins for manufacturers' brands (Richardson et al., 1996; Jorge, 2004; Chakravarthi and Ronald, 1998).

Besides main advantages of private labels, consumers always have a perceptual bias towards private labels for most of the product categories and give manufacturers' brands better quality assessment without considering the real difference (Paul et al., 1994). At the same time, retailers continuously seek to improve negative customer perceptions of quality as major roadblock to increased volume. Efforts to improve quality perceptions of private labels might be accomplished by upgrading the tangible quality of the product, improving the packaging, innovation, and educating consumers about the how quality is built into the product (Garretson et al., 2002).

LITERATURE REVIEW

The perception of private label as offerings not capable of delivering any other benefits than price has been changed. Private labels are evolving from being mere substitutes to major threats for manufacturers' brands (Burt and Davis, 1999). Recently, private labels are becoming widely prevalent and successful in apparels, staple food, bakery, biscuits, chocolates and beverages categories and also into some unconventional categories like home appliances too.

The influence of demographic variables on perception and intention of buying private labels was the main focus of this study.

Most studies examining the impact of demographical variables on private label buying were conducted in the 1960s and 1970s. Despite a considerable number of researches for private label issues, findings regarding demographic characteristics are inconclusive. On one side, in one of the earliest published studies it was found that buyers of private label are older, better educated with lower incomes compared to buyers of manufacturer brand (Frank and Boyd, 1965). On the other hand, Coe (1971) and Murphy (1978) found that private label buyers belong to higher income classes.

The studies that examine the demographic influences on perception and buying intention in various categories of private label are limited. The main issue important to both retailers and marketers is whether the effect of demographic groups influences attitudes towards private labels. A long period of time there are no studies exploring the impact of demographic variables on private brand proneness. Richardson et al. (1996) tested the effect of four variables: income, education, age of the primary grocery shopper of the household and family size. They contend that the demographic status of respondents affects the propensity to purchase private labels. However, Baltas and Doyle (1998) conclude that many of the demographic findings into private label purchasing are mixed, unclear or outdated.

Several studies examine the effect of educational achievement on private label purchasing. Highly educated consumers have more opportunity to earn a greater income and are less dependent on the brand name as an extrinsic cue (Murphy & Lacznia, 1979). Some researchers also show that private label buyers with lower formal education are more likely to purchase national brands (Richardson et al., 1996). Other researchers argue that well educated consumers are more confident in their evaluative ability of products and that education is positively related to private label performance. Glynn and Chen (2009) proves that the relationship between education and private label purchase is significantly negative. Consumers who have tertiary-level education are more likely to choose higher priced national brands than people without such qualifications. This study suggests that people with higher educational qualifications are less prone to buy private label products. In contrast, Lybeck et al. (2006) find that better educated consumers have intention to buy private labels. Richardson et al. (1996) suggests that larger households, who have fewer financial resources than smaller households, are more likely to purchase private labels products.

Hoch (1996) suggests that household income has a negative relationship with private label purchase. The households with higher income have fewer financial constraints and show less price concern and less favorable attitude to private label, which reduces private label purchase incidence (Ailawadi et al., 2001; Burton et al., 1998). Glynn and Chen (2009) indicated that households with higher incomes are less likely to buy private label products. They stated that gender, on the other hand, has no statistically significant differences concerning private label usage. Other demographic variables, such as, income, household size, marital status and profession, were not significantly related to how inclined the respondents were to buying private label. However Lybeck et al. (2006) find that middle-aged consumers are more likely to buy store brands. Contrary, Burton et al. (1998) confirm that the differences in gender and age are non-significant and have no influence on perceptions. Analyses of variance results indicate significant differences between levels of education and family income and private label attitude. The directional patterns of relationships for these demographic variables have been reflected in the percentages of private label purchases (e.g., higher education and lower incomes associated with higher purchase percentages. Other authors stated that younger consumers and females are willing to pay larger price premiums than older consumers (Sethuraman and Cole, 1997). Beneke, (2010) found that greater degree of brand loyalty was observed in females and less affluent consumers.

Most of the researches investigating differences in private label product categories were focused on factors relevant for manufacturer and retailer (Hoch and Banerji, 1993; Sethuraman, 1992). Batra and Sinha (2000) investigate consumer level perceptions of intercategory differences. They pointed out the necessity to include more consumer-level variables such as demographic determinants in their future research. Other studies confirm no direct effect of demographic variables on the purchase of private versus manufacturers' brand (Liu and Wang, 2008). Beneke (2010) stated that demographic variables are largely ineffective in determining an individual's propensity to buy private label brands.

Contrary, previous studies confirmed that consumers' propensity to purchase private labels depends on certain demographic factors, such as household income, age and education.

As some of the research on demographic private label effects is contradictory, we next examine the influence of household income, education, and gender on perception and intention of buying private labels. On the basis of the forgoing arguments we propose the following hypotheses:

H1: There are gender differences concerning respondents' private label perceptions.

H2: There are differences among respondents' perceptions on private labels, regarding their level of education.

H3: There are differences among respondents' perceptions on private labels, regarding their income level.

Additionally, we examine whether the different demographic determinants impact purchasing preferences for private label brands across thirteen different product categories. Besides the fact that most of the categories were food related (flour, chocolate, pasta, snack items, jam and honey, frozen foods, dairy products, beverages), other categories were also included such as personal care products, house-hold cleaning products, pet supplies, and organic products.

Hence, we hypothesize that:

H4: There are gender differences concerning respondents' intentions on private labels.

H5: There are differences among respondents' intentions on private labels, regarding their level of education.

H6: There are differences among respondents' intentions on private labels, regarding their income level.

METHODOLOGY

The empirical data of this study was collected by using a structured questionnaire, consisted of three sections: demographic questions (gender, education, income etc.); statements assessing respondents' perceptions regarding different private label attributes and statements measuring respondents' intentions on buying private labels in different product categories. Respondents were asked to express their level of agreement related to the provided statements on a five-point Likert scale (1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree and 5= strongly agree). The statements assessing respondents' perceptions and intentions related to private labels were adapted from the previously referenced literature (Senthilvelkumar and Jawahar, 2013). The "perception" section comprised 7 attributes of private labels (quality, value, pack size, variety, attractiveness, consumer needs fulfillment and additional benefits); while "intention" section included 13 product categories (mainly food products categories).

A non-probability sampling method was used, conventionally distributing the questionnaire to 512 respondents and 464 responses were received. After conducting the data screening procedure, 383 valid responses were remained (74,8% response rate). The sample characteristics are presented in table 1.

Table 1: Sample structure

Gender (%)	
Female	63.2
Male	36.8
Education (%)	
No education	0.3
Elementary education	4.4
High school	42.3
University degree	44.4
Master/PhD	8.6
Income (%)	
< 10.000 denars	6.8
10.001-20.000 denars	19.8
20.001-30.000 denars	26.9
30.001- 40.000 denars	16.4
40.001- 50.000 denars	17.2
> 50.001 denars	12.8

Source: Authors' calculations

Most of the respondents are female (63.2%), while regarding the level of education, most of them are with university degree (44.4%) or high school (42.3%). Concerning the income level, more than quarter of the respondents (26.9%) belongs to the category 20.001-30.000 denars, i.e. at the level of the average wage in Macedonia.

The obtained data were further analyzed in SPSS v20. Besides the descriptive statistics, Kruskal Wallis test was used in order to explore differences in perceptions and intentions related to private labels, regarding gender, education and income level. Kruskal Wallis test was applied since the data distribution was not proved to be normal.

Results and Discussions

The descriptive statistics of perception and intention statements are presented in table 2.

Table 2: Descriptive statistics

	Mean	Std. Deviation
Private labels offer better product quality than national brands	2.7232	.98239
Private labels offer greater value for money than national brands	3.3368	1.08482
Private labels have more convenient pack sizes than national brands	3.4738	1.07126
Private labels offer better product variety than national brands	2.4595	1.16350
The packaging of private labels are more attractive than that of national brands	2.4230	1.14347
Private labels take more care than national brands in meeting consumer needs squarely	3.1358	1.00384
Private labels offer more additional benefits for the consumers like discount, extra quantity and free gifts than national brands	3.7827	1.08069
I prefer to buy private labels over national brands in the category of staple food products like food grains, flour and pulses.	3.2388	1.14163
I prefer to buy private labels over national brands in the category of biscuits and chocolates.	2.8845	1.19969
I prefer to buy private labels over national brands in the category of snack/savory items.	3.0052	1.16528
I prefer to buy private labels over national brands in the preparatory food categories like noodles, pasta, porridge and vermicelli.	3.0919	1.18298
I prefer to buy private labels over national brands in the category of sauce/ketchup, jam and honey.	3.0814	1.18152
I prefer private labels over national brands in the category of personal care products like soap, toothpaste and skin cream.	2.3789	1.24285
I prefer private labels over national brands in the category of personal care products like detergent soap/powder and floor cleaning.	2.9003	1.15190
I prefer private labels over national brands in the category of pet supplies	2.5914	1.21079
I prefer private labels over national brands in the category of organic products	2.6746	1.15045
I prefer private labels over national brands in the category of frozen foods	2.8549	1.15815
I prefer private labels over national brands in the category of canned food	2.9710	1.11113
I prefer private labels over national brands in the category of dairy foods	2.8351	1.26388
I prefer private labels over national brands in the category of Beverages	2.7063	1.19726

Source: Authors' calculations

Regarding the average scores of perceptions on different private label attributes, it could be notified that the highest level of agreement (3.78) is expressed concerning the additional benefits (discounts, extra quantity, presents etc.) that private labels provide comparing to national brands. The lowest average values are observed regarding attractiveness (2.42) and variety (2.45) of private labels comparing to national brands. Generally, the respondents are neutral, i.e. they express neither agreement nor disagreement about the statements related to their perceptions on private label attributes (3.05 in average).

The average respondents' intention to buy private labels (2.86) is even lower than their perceptions' average. Regarding different product categories, respondents express the highest level of intention to buy private labels in basic food product category (flour, grains etc.) (3.24). Respondents' intentions are lowest for buying private labels in the personal care product category (soaps, toothpaste, skin cream etc.) (2.38); where the perceived risk is higher.

In order to test the proposed hypotheses regarding the differences among perceptions and intentions of respondents with different demographic characteristics (gender, education and income), Kruskal Wallis test was applied. The results are presented and discussed below.

Since it is observed that $p=0.192$, i.e. $p>0.05$, the H1 (There are gender differences concerning respondents' private label perceptions) is rejected. Therefore, it could be assumed that there are no differences in perceptions on private labels between males and females. In order to conduct more in-depth analyses regarding different private label attributes, the Kruskal Wallis test was performed for testing differences between males' and females' perceptions on separate private label attributes (Table 3).

Table 3: Gender differences in perceptions on private label attributes

	Private labels offer better product quality than national brands	Private labels offer greater value for money than national brands	Private labels have more convenient pack sizes than national brands	Private labels offer better product variety than national brands	The packaging of private labels are more attractive than that of national brands	Private labels take more care than national brands in meeting consumer needs squarely	Private labels offer more additional benefits for the consumers like discount, extra quantity and free gifts than national brands
Chi-Square	.009	5.702	.021	.855	1.639	.143	.001
Df	1	1	1	1	1	1	1
Asymp. Sig.	.926	.017	.885	.355	.200	.705	.969

Source: Authors' calculations

The level of significance is observed to be $p<0.05$ on differences between males' and females' perceptions related to value private labels provide comparing to the national brands. Namely, males perceive higher level of value of private labels (3.48) compared to females (3.25). Regarding other private label attributes, there are no significant differences between males' and females' perceptions.

H4 (There are gender differences concerning respondents' intentions on private labels)) is not confirmed ($p=0.497$), i.e. there are no differences between males' and females' intentions to buy private labels. Further, Kruskal Wallis test was performed for testing differences between males' and females' intentions on private labels in different product categories (Table 4).

Table 4: Gender differences in intentions on private labels in different product categories

	Staple food products like food grains, flour and pulses.	Biscuits and chocolates.	Snack/savory items.	Noodles, pasta, porridge and vermicelli.	Sauce/ketchup, jam and honey.	Soap, tooth-paste and skin cream.	Detergent soap/powder and floor cleaning.	Pet supplies	Organic products	Frozen foods	Canned food	Dairy foods	Beverages
Chi-Square	1.690	1.335	.860	.398	.005	.035	.055	.623	.215	3.263	11.545	.109	.809
Df	1	1	1	1	1	1	1	1	1	1	1	1	1
Asymp. Sig.	.194	.248	.354	.528	.942	.851	.815	.430	.643	.071	.001	.742	.369

Source: Authors' calculations

The differences between males' and females' intentions on buying private labels are observed to be significant ($p < 0.05$) only in the canned food product category. Namely, males express higher level of intentions for buying canned food (3.24) with a private label than females do (2.82). In other product categories, there are no significant differences in males' and females' intentions on buying private labels.

The obtained results ($p = 0.279$) indicate that H2 that there are differences among respondents' perceptions on private labels, regarding their level of education should be rejected. Therefore, no differences were found in perceptions on private label among the respondents with different education level. In order to conduct more in-depth analyses regarding different private label attributes, the Kruskal Wallis test was performed for testing differences in perceptions on separate private label attributes among respondents with different education levels (Table 5).

Table 5: Respondents' differences in perceptions on private label attributes, regarding education level

	Private labels offer better product quality than national brands	Private labels offer greater value for money than national brands	Private labels have more convenient pack sizes than national brands	Private labels offer better product variety than national brands	The packaging of private labels are more attractive than that of national brands	Private labels take more care than national brands in meeting consumer needs squarely	Private labels offer more additional benefits for the consumers like discount, extra quantity and free gifts than national brands
Chi-Square	4.563	2.095	2.661	2.399	6.693	7.375	6.028
Df	4	4	4	4	4	4	4
Asymp. Sig.	.335	.718	.616	.663	.153	.117	.197

Source: Authors' calculations

No differences were found in perceptions of private labels among respondents with different education level, neither on the attribute level.

H5 (There are differences among respondents' intentions on private labels, regarding their level of education) is rejected ($p = 0.917$) and it could be concluded that intentions on buying private labels are not significantly different among respondents with different education level. Further, the differences in respondents' intentions were explored on product category level.

Table 6: Respondents' differences in intentions on private label in different product categories, regarding education level

	Food grains, flour and pulses.	Biscuits and chocolates.	Snack/savory items.	Noodles, pasta, porridge and vermicelli.	Sauce/ketchup, jam and honey.	Soap, toothpaste and skin cream.	Detergent soap/powder and floor cleaning.	Supplies	Organic products	Frozen foods	Canned food	Dairy foods	Beverages
Chi-Square	3.320	3.528	8.236	6.349	3.408	1.471	4.895	8.205	2.271	5.965	.103	1.096	3.617
df	4	4	4	4	4	4	4	4	4	4	4	4	4
Asymp. Sig.	.506	.474	.083	.175	.492	.832	.298	.084	.686	.202	.999	.895	.460

Source: Authors' calculations

No differences were confirmed in respondents' intentions on buying private labels (regarding their level of education) neither on the product category level (Table 6).

As regarding the other demographic characteristics, the income level of respondents was not confirmed to influence their perceptions on private labels ($p=0.182$), i.e. H3 is rejected. On attribute level, significant differences were found in perceptions of the package attractiveness and product quality of private labels among respondents belonging to different income groups (Table 7). Namely, as income level increases, respondents' perceptions on private labels package attractiveness compared to national brands significantly decreases. Additionally, respondents in the lowest income group express the most preferable perceptions regarding product quality of private labels relative to national brands' quality.

Table 7: Respondents' differences in intentions on private label attributes, regarding income level

	Private labels offer better product quality than national brands	Private labels offer greater value for money than national brands	Private labels have more convenient pack sizes than national brands	Private labels offer better product variety than national brands	The packaging of private labels are more attractive than that of national brands	Private labels take more care than national brands in meeting consumer needs squarely	Private labels offer more additional benefits for the consumers like discount, extra quantity and free gifts than national brands
Chi-Square	11.069	10.100	1.253	8.545	19.559	6.870	5.706
Df	5	5	5	5	5	5	5
Asymp. Sig.	.050	.072	.940	.129	.002	.230	.336

Source: Authors' calculations

H6 that there are differences among respondents' intentions on private labels, regarding their income level is not confirmed, i.e. respondents' income level does not influence their intentions on buying private labels. In the same line are the results observed in the additional analysis on product category level. That is, respondents' intentions on private labels in different product categories do not differ significantly, regarding their income level (Table 8).

Table 8: Respondents' differences in intentions on private label in different product categories, regarding income level

	Food grains, flour and pulses.	Bis-cuits and chocolates.	Snack/savory items.	Noodles, pasta, porridge and vermicelli.	Sauce/ketchup, jam and honey.	Soap, tooth-paste and skin cream.	Detergent soap/powder and floor cleaning.	Pet supplies	Organic products	Frozen foods	Canned food	Dairy foods	Beverages
Chi-Square	5.999	5.497	3.421	1.208	5.923	8.585	3.290	4.714	2.994	3.843	3.311	1.482	10.214
Df	5	5	5	5	5	5	5	5	5	5	5	5	5
Asymp. Sig.	.306	.358	.635	.944	.314	.127	.655	.452	.701	.572	.652	.915	.069

Source: Authors' calculations

CONCLUSION

Despite tremendous interest in the current role of private label by retailers, distributors, and national brand manufacturers, there has been little scholarly research that has examined the demographic variables. The study examines the consumers' perceptions and intentions to purchase private labels for various product categories. Kruskal Wallis test was performed to check whether there were significant differences with respect to demographic variables on perception and buying criteria. This research confirms that income, education and gender are not of high importance in identifying perception on private label attributes and intentions on buying private labels in different product categories. The survey confirmed that there are no differences in perceptions on private labels between males and females. Some clear differences were found between males' and females' perceptions related to value private labels provide comparing to the national brands. Namely, males perceive higher level of value of private labels compared to females. The differences between males' and females' intentions on buying private labels are observed to be significant only in onw product category, the canned food. No differences were found in perceptions of private labels among respondents with different education level on the attribute level neither on the intention on buying private labels on the product category level.

As regarding the other demographic characteristics, the income level of respondents was not confirmed to influence their perceptions on private labels. On attribute level, significant differences were found in perceptions of the package attractiveness and product quality of private labels among respondents belonging to different income groups. Consequently, as income level increases, respondents' perceptions on private labels package attractiveness compared to national brands significantly decreases. Also, respondents in the lowest income group highly evaluate product quality of private labels relative to national brands' quality. Respondents' intentions on private labels in different product categories do not differ significantly, regarding their income level.

Generally, education, income and gender do not influence private brand proneness, subsequently there are no differences in private label attitudes across demographic variables. The findings in this study would have academic and managerial relevance. The survey examining the relationship between the demographic determinants and perception and intention of buying private labels will be useful for retailers in making appropriate targeting and positioning decisions. In the end, it is important to point at the limitations of this study that may affect the generalizability of the findings. Because of the localised nature of this study, further research is needed using a larger, cross - cultural and more heterogeneous sample.

LITERATURE

1. Ailawadi, K. L., Neslin, S. A., Gedenk, K. (2001.) Pursuing the value-conscious consumer: Store brands versus national brand promotions. *Journal of Marketing*, 65(1), 71-89.
2. Baltas, G., Doyle, P. (1998.) An empirical analysis of private brand demand recognising heterogeneous preferences and choice dynamics. *Journal of the Operational Research Society*, 49(8), 790-798.
3. Batra, R., Sinha, I. (2000.) Consumer-level factors moderating the success of private label brands. *Journal of retailing*, Vol.76, No.2, pp.175-191
4. Beneke, J. (2010.) Consumer perceptions of private label brands within the retail grocery sector of South Africa. *African Journal of Business Management*, 4(2), 203-220.
5. Burt, S., Davis, S. (1999.) Follow my leader? Lookalike retailer brands in non-manufacturer-dominated product markets in the UK. *The International*

Review of Retail, Distribution and Consumer Research, 9(2), 163-185.

6. Burton, S., Lichtenstein, D. R., Netemeyer, R. G., Garretson, J. A. (1998.) A scale for measuring attitude toward private label products and an examination of its psychological and behavioral correlates. *Journal of the Academy of Marketing Science*, 26(4), 293-306.
7. Bushman, B. J. (1993.) What's in a name? The moderating role of public self-consciousness on the relation between brand label and brand preference. *Journal of Applied Psychology*, 78(5), 857-861.
8. Chakravarthi, N., Wilcox, R. T. (1998.) Private Labels and the Channel Relationship: A Cross-Category Analysis. *Journal of Business*, Vol. 71, No. 4, pp. 573-600.
9. Coe, B. D. (1971.) Private Versus National Preference Among Lower and Middle-Income Consumers. *Journal of Retailing*, 4., 61-72.
10. Frank, R.E., Boyd, H.W. (1965.) Are Private-Brand Prone Grocery Customers Really Different?. *Journal of Marketing Research*, 2(4): 27-35.
11. Garretson, J. A., Fisher, D., Burton, S. (2002.) Antecedents of private label attitude and national brand promotion attitude: similarities and differences. *Journal of Retailing*, 78(2), 91-99.
12. Glynn, M. S., Chen, S. (2009.) Consumer-factors moderating private label brand success: further empirical results. *International Journal of Retail & Distribution Management*, 37(11), 896-914.
13. Hoch, S. J. (1996.) How should national brands think about private labels. *Sloan Management*.
14. Hoch, S. J., Banerji, S. (1993.). When do private labels succeed. *Sloan Management Review*, 34.
15. Horvat, S. (2013.). Application of product life cycle concept to private label management. *Tržište*, Vol. 25/1, 63-75.
16. Liu, T. C., Wang, C. Y. (2008.) Factors affecting attitudes toward private labels and promoted brands. *Journal of Marketing Management*, 24(3-4), 283-298.
17. Lybeck, A., Holmlund-Rytkönen, M., Sääksjärvi, M. (2006.) Store brands vs. manufacturer brands: consumer perceptions and buying of chocolate bars in Finland. *Int. Rev. of Retail, Distribution and Consumer Research*, 16(4), 471-492.
18. Murphy, P. E., Lacznia, G. R. (1979.) Generic Supermarket Items: A Product and Consumer Analysis. *Journal of Retailing*, 55(2), 3-14.
19. Murphy, P. E. (1978.) The Effect of Social Class on Brand and Price Consciousness for Supermarket Products. *Journal of Retailing*, 54, pp. 33-42.
20. Quelch, J. Harding, D. (1996.) Brands versus Private Labels: Fighting to Win, *Harvard Business Review*, 74 (1): 99-111.
21. Richardson, P. S., Jain, A. K., Dick, A (1996.) Household store brand proneness: A framework. *Journal of Retailing*, Vol. 72, No. 3, pp. 159-185.
22. Senthilvelkumar, K. R., Jawahar, P. D. (2013.) Building private labels into strong brands. *IUP Journal of Brand Management*, 10(2), 42.
23. Sethuraman, R. (1992.) Understanding cross-category differences in private label shares of grocery products. *Marketing Science Institute, Report No. 92-128*,
24. Sethuraman, R., Cole, C. (1997.) Why do consumers pay more for national brand than for store brand, *Marketing science institute cambridge massachusetts*, Report No. 97-126.
25. Sethuraman, R., Catherine, C., (1999.) Factors Influencing the Price Premiums that Consumers Pay for National Brands over Store Brands. *The Journal of Product and Brand Management*, Vol. 8, No. 4, pp. 340-50.
26. The state of private label around the world (2014.) Nielsen

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'GIVE ME MY MONEY BACK' OR WHY THE CONSUMER RIGHTS DIRECTIVE CAN HARDLY DO WHAT IT IS SUPPOSED TO DO

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ABSTRACT

Analyses of the EU Consumer Rights Directive have often been implicit normative from the viewpoint of the consumer. Such approaches neglect the effective functioning of the regime installed by the Directive, its regulatory quality. This paper presents a framework to investigate regulatory quality combining theoretical insights from both economics, law and political science with a range of interviews with regulatory actors. From this follows three indicators of quality: legal coherence, the interpretative field, and applicability. Elaborating and applying this theoretical machinery to analyse the Consumer Rights Directive leads to the conclusion that especially the new rules on the right to withdrawal have some challenges on several of the indicators of regulatory quality. These challenges might even be so grave so as to undermine businesses' incentives to engage in cross-border trading and international e-commerce—despite the Directive's intention to foster exactly such trading.

KEY WORDS: Regulation, regulatory quality, European Union, consumer rights, better regulation.

1. INTRODUCTION

Despite its origin in a shift away from economic liberalism and towards Keynesianism (Tonner, 2014, pp. 694–695), consumer protection is relevant not only to consumers but also to businesses: the rights and obligations of consumers are also rights and obligations of businesses thus governing many business provisions and altering many economic incentives. Not discussing the level of protection installed, any effective and clear consumer protection regime lowers the risk of chafe and cheating: the level playing field and legal security installed by a well-functioning consumer protection regime *per se* should therefore be in the interest of many if not all law-abiding businesses. This is probably the reason why consumer protection is mentioned in the European Union (EU) treaties (European Union, 2010, articles 4(2) EU, 12 TFEU, 114 TFEU, 169 TFEU): it is understood as being in the interest of businesses and consumers alike and as being of a high relevance to the very functioning of the single market. However, this crucial point is seldom acknowledged in the academic literature in which consumer rights are often discussed from the implicitly normative viewpoint of consumers (*e.g.* Chiriță, 2012; Kunnecke, 2014; Weatherill, 2012) instead of addressing the effective functioning of policies as is done here. As a consequence hereof the present paper asks the question of how the European Consumer Rights Directive, directive 2011/83, looks in the light of regulatory quality: is it arguable that the Directive will allow for non-problematic and uniform use all over the EU?

This question entails two tasks. The first is to clarify and construct the concept of regulatory quality. This shall enable us to bridge the gap between law and mainly political science and to some extent economics as well when studying regulation¹ in the EU – *in casu* directive 2011/83. Being its main theoretical addition to the literature, this paper thus develops and demonstrates a pragmatically oriented heuristic framework for investigating and discussing regulatory quality. This is done, as the concept unfortunately is atomised and used differently among the academic traditions. Translating this confusing plethora of ideas from mainly law and political science into one practical framework thus indicates a cross-disciplinary and non-dogmatic point of departure. This approach is also supported by experience: studying and discussing law and its functioning from a purely theoretical stance ignores the actual functioning of that legal arrangement. Certain theoretical problems might be irrelevant to the people using the law, whereas other factors – ignored by academia – might be crucial to practitioners' daily life, and these other factors might not necessarily be of a legal nature. The second task of this piece is to use the concept of regulatory quality to analyse a field where this – as mentioned – is of great importance, namely consumer rights in the EU. The main conclusion of this analysis is that this directive aims at fostering and supporting inter-European trade but in doing so installs a set of rules that might draw traders' incentives in another direction.

To sum up, this article investigates the potential for effective functioning of the new consumer rights regime in the EU. The paper thus distances itself from discussions of processes such as, for instance, whether or not original legal

¹ Please note that 'regulation' here is not meant to describe a certain legal act such as an EU regulation. 'Regulation' is meant to describe sustained and focused control exercised by public authorities with the activities of the private sector (Pedersen & Pasquali, 2008, p. 15). This definition is inspired by Selznick as described by Majone (1990, pp. 1–2) and Hansen and Pedersen (2006, p. 6). Focus here is on the articulating and implementing of rules governing economic activities.

or political intentions were dashed (Kunnecke, 2014; Weatherill, 2012) or processes and documents leading to the Directive (see *e.g.* Twigg-Flesner, 2007 and the ones mentioned by Ganuza & Gomez, 2012, n. 6). The end product, the Directive itself, has caught less interest and least of all from a viewpoint of regulatory quality despite the obvious relevance of such a debate.

2. HOW TO UNDERSTAND REGULATORY QUALITY

Regulatory quality has been at centre stage in many academic and political debates (Baldwin, 2010; Weatherill, 2007). Taken the latter first, political discussions on 'better regulation' or 'smart regulation' have been around for years and not alone in Europe. Principles of better regulation have been articulated, schemes of evidence gathering, impact assessments and the like have been installed (Radaelli, 2007a; Radaelli & de Francesco, 2010a; Radaelli & Meuwese, 2009; Saltelli et al., 2011; Torriti, 2007), and today 'better regulation' is even an independent portfolio at vice-presidential level in the European Commission. All of this is focused on heightening the regulatory quality (Radaelli, 2004; Radaelli & de Francesco, 2007) not least as '[c]haos at the EU level multiplies at the level of member states' (Grzegorzczuk, 2011, p. 63).

Scholarly, the focus has been somewhat broader and departing from very different academic traditions. In the world of economics, growth and development studies, a range of econometric studies have shown how quality of regulation is positively correlated to growth (*e.g.* Haidar, 2012; Jalilian, Kirkpatrick, & Parker, 2007). This, obviously, is not the same as stating a 1:1 causal relationship (Loayza, Oviedo, & Servén, 2004; Rodrik, 2005; Stern & Cubbin, 2005), but the literature investigating regulatory quality and macroeconomic performance is widespread, and the conclusions seem to be rather aligned. However, some challenges to these claims exist. First, the many studies of quality of regulation and growth do not necessarily operate with a consistent understanding of regulatory quality. Second, it is not always clear whether the studies investigate the relationship between regulatory quality and growth or the relationship between implementation / institutions (formal and informal) and growth. These two situations (studying quality as such *vis-à-vis* studying institutions or implementation) might be related but they are not necessarily the same. Moreover, this brings us back to the first point on conceptual ambiguity. Third, these accounts of the importance of regulatory quality often uses the World Bank indicators hereof (*e.g.* Boța-Avram, 2014; Djankov *et al.*, 2006). This is not the place to discuss these indicators, but one thing be important to mention: these indicators are relevant at the macro-level but they do not allow for determination of the quality of a specific legal act as such or for micro-level comparison between legal acts. Therefore, they are of less relevance to practitioners than they are to scholars.

The political science literature on these matters does not suffer from the same challenges as the economic approach. Much of the academic energy in this field has been put into investigations of definitions of quality and quality regimes as such, *cf.* the literature mentioned in the beginning of this section. This has led to interesting insights and intriguing studies. Unfortunately the main conclusion has been that 'quality' as such cannot be assessed, as it as a concept is dependent on the legal, institutional and administrative context (Radaelli, 2004, 2005; Radaelli & de Francesco, 2007, 2010b; Stern & Holder, 1999; Wiener, 2006). The consequence is a focus on meta-regulation or its synonyms and under-theorising of the concept *per se*. The claim of this literature is fair but unfortunately it denies us the opportunity of constructing a concept of quality trying to handle some of these differences in, say, institutions or resources. Thus, it denies the opportunity of comparisons of quality. From a more practical point of view, this scholarly insight therefore might be exactly that: scholarly. The meta-approach also handicaps the discussion of regulatory quality in the European Union in which regulation has to function across very different settings. If quality exist in 28 different versions and we in acceptance hereof do not allow ourselves to pinpoint the concept more precisely, how then to discuss the measures taken to enhance quality such as, for instance, impact assessments or consultations at the European level?

In hands-on legal literature the situation is different. This literature often operates with at least an implicit understanding of regulatory quality despite the fact that guidelines on how to draft legislation tend to be rather broad in their approach. Often is simply stated that, for instance, 'clarity', is needed in order to allow for legal intentions to be fulfilled (*e.g.* Bormann, Bülow, & Østrup, 2002; Müller & Uhlmann, 2013; Painter, 2009). Two major advantages of this legal view on regulatory quality exist, however. First is a clear cut object of analysis, namely the legal text or rule itself. This narrow focus opens up for distinction between what quality is a result of, what quality is, and what the effects of quality are. Second is the enabling of assessments of quality independent of political evaluation of a given regulatory act's aims (Flidner, 2001). The separating of regulatory quality from, say, political quality also renders the concept more relevant to both scholars and practitioners. As with the two other traditions, this very narrow legal – one might even say legal dogmatic (Wegener, 2000, pp. 51–60) – approach has its shortcomings: it is overly focused on textual qualities alone. These are relevant aspects of regulatory quality – if a law, decree or judgement is obscure, it can have a hard time leading to desired outcomes everywhere it is applied (Bălan, 2011); especially in the European Union, where it must be applied from Poland to Portugal and from Sweden to Spain – but this line of thought neglects that any given legislation reflects a reality in which it is supposed to function. If the legal reality and the empirical reality are not aligned – if a regulation is

overly complex or too simple – the legal act of whatever form will probably also encounter problems allowing for desired outcomes to materialise. In other words: the legal perspective has to be supplemented with a perspective drawing on insights from *inter alia* political science and empirical knowledge on the business climate in which the given regulation is supposed to work. This is a nuance very much inspired by the contextual argument presented above.

The advantages and drawbacks of these three academic traditions can be used to inform a new understanding of regulatory quality. These theoretical points of departure were supplemented with 11 inspirational in-depth interviews with regulatory actors and experts as to secure the empirical resonance of the analytical framework. From economics and political science comes the ambitions and arguments for comparisons. From economics one can also emphasise the focus on outcomes: socio-economic effects are – in the end – what it is all about. The question here is the route to these outcomes. From law we can use the focus on the text or the rule itself. Clearly, this implies a certain legal theorem: a legal-dogmatic (Wegener, 2000) or law-as-rules-approach (different approaches to law are well-described in Van Hoecke & Warrington, 1998) inspired by, *inter alia*, legal positivism (Kelsen, 1928). This approach gives us a well-defined object of analysis (the legal act installing the specific rules be it a law, a decree or a court ruling), which by definition – especially in a EU setting – has some sort of relevance everywhere. The logic goes that a legal act of a high regulatory quality *ceteris paribus* will have a higher potential to meet its objectives. From political science the argument of context dominates the contribution. This contribution has relevance when it comes to causality: because context for instance in the form of implementation is bound to have an important say when it comes to the translation of a legal output into a socio-economic outcome, an argument of direct causality from regulatory quality to socio-economic effect is dead wrong (Radaelli, 2007b, p. 199–200). The point made here is one of probability and potential and not direct causality; a lot of things can lead a legal act of a high regulatory quality not to meet its objectives (De Mesquita & Stephenson, 2007; Majone, 1996; Pressman & Wildavsky, 1973). In other words: regulatory quality can be understood as a characteristic of a specific legal act enhancing this legal act's ability to meet its objectives – its potential to be applied 'correctly and effectively' (Kaeding, 2008, p. 585).

All of this leads to three indicators of quality: A legal-logical (coherence) and a legal-linguistic (interpretation) take on the matters and an investigation of whether or not a given piece of regulation is compatible with the reality applies to (regulatory fields or applicability). The over-all framing drawn from economics, the two first categories drawn from law, and the third category and the understanding of causality drawn from political science. Defining these categories was, as mentioned, a result of a both deductive and inductive / empirical exercise, and it all sums up to an empirically and practically relevant understanding of regulatory quality.

3. HOW TO EXAMINE REGULATORY QUALITY?

Before the foreseen categories of regulatory quality are defined in detail a few general remarks regarding their use are necessary. First of all, it is clear that the approach outlined here has been developed specifically to investigate EU law as the need for a toolbox to handle comparison and context is all the more relevant here; yet *prima facie* there is nothing in the framework as such which denies it relevance in other settings too. Such a wider application, however, is not the topic of this contribution. Second, it must be stressed that the three categories are heuristic tools. The delineation between them might not be so clear in an actual analysis as they seem when presented theoretically. Third, regulatory quality is negatively defined aimed at stressing and elaborating problems. In other words: we have regulatory quality to the degree we do not encounter challenges; and this framework defines how to find such challenges. Quality, therefore, is a qualitative concept, not a thing to be measured precisely. It follows from this that the deeming of when challenges to quality have become too severe is an scientifically impossible and thus political task. Analyses of quality, however, can be seen as a useful tool to inform that essentially political decision. Adding to these remarks, it is due to mention that because of fair constraints in length of this paper the categories and their implied methods shall only briefly be described below.

3.1 Coherence

The first category of regulatory quality is coherence. This category is the simplest of the three, as it simply asks the question of whether the regulatory act studied is coherent with other sources of regulation. Coherence is commonly used in the legal literature (see, for instance Weatherill, 2012), but is seldom stringent and narrowly defined (see, for instance, Lodder, 2014 or Chiriță, 2012, who both investigate the Consumer Rights Directive and coherence but never use that specific word). Trying to systematise the endeavour, this author understands coherence in two ways: internally and externally. Internally, the question is about the legal act itself. If quality is understood as a characteristic of the given legal act enhancing that same legal act's probability to meet its objectives, we can hardly speak of quality in a situation when two articles within the same act conflict with one another. Externally, the situation is the same except the focus

is one the relationship between 'our' legal act and other relevant sources of regulation such as, for example, other laws or court rulings (from the world of social regulation in the EU, Hailbronner, 2005, gives a good example of problems of external coherence).

How then to investigate coherence? Three ways forward can be relevant: legal reading and analysis, second-hand literature, and interviews. Investigating internal congruence, it is obvious that a thorough legal reading and analysis of the legal act in mind is necessary. Depending on the complexity of the legal act, second-hand literature analysing the given legal act can be a relevant source of validation. So can be interviews with legal experts. When it comes to external congruence, a thorough reading of the legal act under scrutiny obviously is not enough. Therefore, second-hand literature might be of even greater importance than was the case when talking about internal congruence. 'Triangulation' in the form of a thorough literature review of the literature on the legal act in mind therefore becomes all the more important. And yet again can interviews with legal experts be relevant not least as a source of validation.

3.2 The interpretative field

The second category is the interpretative field. This category draws on legal theory and practice as it focuses on the legal-linguistic qualities of the legal act. Crudely, one might ask if the text is comprehensible or not. The obvious background to this category is a legal-dogmatic approach (Wegener, 2000, pp. 51-60) and inspiration from 'normativist legal science' (Vaquero, 2013, pp. 61-64). The interpretative field can, ideally, fall in two orders: first and second. These are separated by their degree of dependence on legal method and legal knowledge. The first order interpretative field is the simplest of the two: is the text readable and clear and does it have a clear logic easy to follow (Bormann *et al.*, 2002; Justitsministeriet, 2005; Müller and Uhlmann, 2013; Painter, 2009)? The second order interpretative field has to do with legal concepts in the text in two ways. First, it is relevant to ill-defined concepts and hardly judicable principles; how to understand, for instance, the concept of 'non-discrimination' in EU law? And second, it is relevant to concepts that continuously are developed; how today, for instance, to understand the concept of a 'migrant worker' in EU law? Unsurprisingly, these two points are hardly separable. Such instances of an ill-defined state of law point to implementation problems (Kaeding, 2007, 2008) and risks of conflicts. In other words: vague language lowers the regulatory quality as it lowers the probability of the given legal text to meet its objectives. This, of course, is not the same as saying that vague language cannot be appreciated or even desired. In a complex polity, such as the EU, vague language can be a shortcut to political compromise. And flexibility can thus be intended. Such high political quality, however, does not necessarily imply high regulatory quality.

As both coherence and the interpretative field are categories deduced from law, investigating the interpretative field employs many of the same methods as investigating the coherence of the legal act. It is, however, a more complex task. Therefore the dependence on second-hand literature and interviews as sources of validation have even more weight here. In addition, one could study the number and nature of conflicts following the given legal act. If a specific provision nurses chafe, this could be a sign of this provision being unclear and contestable – *i.e.* of it having a too wide interpretative field. It could, however, also be a sign of a provision in which many interests have been vested. An analysis of the degree of litigation thus must be backed by other sources such as the three emphasised earlier: legal analysis of the act itself, second-hand literature and interviews.

3.3 The regulatory fields or applicability

The third category is the regulatory fields or applicability. This category differs from the two former as its main inspiration is a nuancing of the context point made by political scientists; and whereas the two former categories were theory-driven, the construction of this category was mainly – but not solely – a result of the empirical work, mainly the mentioned 11 interviews informing the theory-building of this paper. The idea is that any given legal act reflects a certain reality. If the legal act is to be able to meet its objectives, this 'legal reality' or 'envisaged regulatory field' must be congruent with the 'empirical reality' or 'empirical regulatory field'; otherwise the legal act cannot be effectively applied. In other words: if a given legal act includes too many assumptions or factors, it might end up being too complex to be meaningfully applied to the reality to which it must be applied. And the other way around: if a legal act includes too few assumptions or factors, it might end up being too simple to be meaningfully applied to the reality to which it must be applied. In both cases, the legal act is too insensitive of the context in which it must work.

Studying the regulatory fields is very complex, and especially the differentiating between normative evaluations and assessments of the regulatory field may be hard. This is very much the case when it comes to the dubbing of a legal act as too complex. If this is the case, the given regulatory act 'includes too much' – but how to determine that independently of the view of the regulation's aim and objective? Determining if an act is too simple is easier, but still difficult as it

implies expert knowledge of the business climate and specific sector the regulation applies to. Access to such expert knowledge is hard to gain and can probably only be obtained indirectly through, for instance, interviews. And this indirect access to the necessary knowledge is coupled with the problems of distinguishing between normative evaluation and quality assessment too: when are the interviewees saying something relevant about quality, and when are they merely representing a political point of view? To overcome this, interviews have to be in-depth and not just surveys of some sort; the survey approach bears in its simplicity the risk of confusing perceptions of quality with political evaluations (Klun & Slabe-Erker, 2009).

To sum up: Regulatory quality can be understood as a cross-disciplinary concept which is sought to be articulated with inspiration from and relevance to scholars and practitioners alike. In this regard, regulatory quality is a characteristic of a legal text related to that text's potential to meet its objectives. The concept draws its framing from economics: outcome or effects is what it is all about. It draws its object of analysis from law: focusing on the legal act gives us a broadly relevant and well-defined object of analysis. It draws its methodology from political science: there is not a direct causality from legal output to outcome, but it's a question of relevance, probability and potential. And it draws its methods from law and political science alike, focusing on legal analysis supplemented by interviews and analysis of the number and nature of litigations.

4. DIGGING DEEPER: THE REGULATORY QUALITY OF THE CONSUMER RIGHTS DIRECTIVE

The framework outlined above is put to investigate the Consumer Rights Directive. The theoretical framework is both deductive and inductive in its origin as the theoretical exercises were inspired and tested through 11 interviews with practitioners. As described in the previous section, the application of the framework also implies the use of interviews to validate and supplement the textual and contextual analysis. The eight in-depth case-specific interviews to that end were conducted in the period from April through July 2015. Amongst the interviewees were both representatives from businesses, consumers (both at a national and European level) and authorities (at the European level).

4.1 Coherence

The first category to investigate is the internal and external coherence of the Directive. This category is essential due to its obvious relevance: if the Directive hails rules pointing in opposite directions, how then can one expect it to reach its objective in any reasonable manner? This might be exactly the case as some of the rules in Directive 2011/83 seem to counter each other – or at least to work in opposite directions. Table 1 sums up the rules in question here.

Table 1. Potential incoherences in the Directive

Article	Rule potentially incongruent with	Article	Rule
6(1)(a)	The trader shall provide information about 'the main characteristics of the goods or services, to the extent appropriate to the medium and to the goods or services'.	8(4)	Minimum information requirements for whenever a 'contract is concluded through a means of distance communication which allows limited space or time to display the information'.
13(1)	Reimbursement 'without undue delay and in any event not later than 14 days from the day on which he is informed of the consumer's decision to withdraw from the contract.'	13(3)	Reimbursement can be withheld 'until he [the trader] has received the goods back, or until the consumer has supplied evidence of having sent back the goods, whichever is the earliest.'
13(1) and 13(3)	See row above	14(2)	The consumer is liable to 'diminished value of the goods resulting from the handling of the goods other than what is necessary to establish the nature, characteristics and functioning of the goods.'
4	Member states may not introduce 'more or less stringent provisions to ensure a different level of consumer protection, unless otherwise provided for in this Directive.'	169(4) TFEU	Rules established 'shall not prevent any Member State from maintaining or introducing more stringent protective measures.'

The first example in the table describes the potential incoherence two articles: art. 6(1)(a) allowing for reduction of the information requirements regarding the characteristics of the goods or services in order for the information to fit to the medium through which they are given; and art. 8(4) on the minimum requirements of information when adapting the information to the medium. The first rule opens up for further reduction of information obligations than allowed by the second rule; this incoherence has been pointed to by others as well (Lodder, 2014, p. 16): what if the minimum information requirements in 8(4) are beyond what is 'appropriate to the medium'? Which rule shall apply then? This, of course, is also a question of the interpretative field: how to define what is 'appropriate to the medium'?

The second and third example in the table show potential problems regarding reimbursement rules. The trader is obliged to reimburse within 14 days, but what if the consumer have not supplied the evidence mentioned in 13(3)? This problem is solved by obliging the consumer to supply this evidence within 14 days from the communication of the decision to withdraw in article 14(1). However, the problem is left unsolved: if the consumer supplies the evidence on the 14th day – as late as possible – it might not be technically possible for the trader to meet his or her obligation. A dilatory consumer thus might incriminate a trader; this is as much a problem of coherence as it is of applicability (the third category). Continuing this line of thought brings forward further issues. Following article 14(2), the consumer is liable to any diminished value of the goods following from handling the goods beyond 'what is necessary to establish the nature, characteristics and functioning of the goods'. According to recital 47 in the preamble of the Directive, this means handling the goods as in a shop. This liability rule might be incoherent with the obligations of the trader to reimburse before the deadline mentioned in article 13: on the one hand, the trader must reimburse no later than 14 days from gaining knowledge of the decision of withdrawal from the side of the consumer; the trader can only withhold the reimbursement to the point where he or she gains knowledge of the goods being sent back. On the other hand, the consumer is liable to diminished value, the size of which can only be established by inspection when the goods are physically in the hand of the trader; and this may be at a point in time much later than the deadline for reimbursement – especially if the goods have to travel a long distance as is often the case when conducting international e-commerce. These two rules seem to be in conflict with one another. This may be of minor interest for politicians and consumers but it is of major interest to businesses due to questions of, say, financial liquidity. The rules might reflect a considering the interest of consumers above that of traders. This would explain why the problem was heralded by the business interests amongst the interviewees. However, interesting – and strengthening the argument – was that the reimbursement rules were accepted as an issue when interviewing the Commission. It is, of course, in essence a discussion of a legitimate political weighing; I shall not furnish that discussion further here. From a perspective of regulatory quality, however, one must point to this incoherence as a potential source of chafe and as being in conflict with the objective of the Directive to lever a better functioning single market. The incentives for businesses to go into international e-commerce – where the physical distances from the trader to the consumer would make the potential incoherence between the reimbursement deadline rule and the consumer liability rule very relevant – are not strengthened; rather the opposite. This only underpins the point made in the introduction that consumer protection rules are greatly relevant to businesses and the functioning of markets too.

Investigating the external coherence of Directive 2011/83 is a very hard task as it is a rather new directive. Its interplay with other sources of regulation including case law has yet to be established but the Directive itself handle much of such potential problems by applying a very narrow scope. It is clear from its article 3 that *lex specialis* (as found in other provisions) trumps *lex generalis* (as found in the Directive). By installing the Directive as a legal residual, external incoherence is sought put aside. This, of course, has some political-legal implications (Weatherill, 2012), which, however, are not the subject-matter here. It can be argued, though, that the Directive is at odds with the very Treaty itself (Chiriță, 2012, p. 7); cf. the row at the bottom of table 1. This critique rests on an assumption that the Directive ought to be warranted by article 169 TFEU on consumer protection; the Directive itself, however, points to art. 114 TFEU on the functioning of the internal market as its legal source. This, of course, salvages the Directive of that specific problem of external congruence as it stand. The directive simply repels a potential conflict between article 4 of the Directive and article 169 in the Treaty on the Functioning of the European Union by pointing to another source. Whether a critique concerning the Directive's relation to the Treaty is relevant or legitimate is another question. Others point to the relationship between the Consumer Rights Directive and Directive 2005/29 on unfair commercial practices as a source of external incoherence (Hall, Howells, & Watson, 2012).

To sum up, there seems to be some problems of both internal and external coherence. However, most of them are minor problems. The biggest issue is the apparent conflict between articles 13 and 14 on reimbursement and the right to withdrawal. This problem of internal coherence is a thing worth dwelling by as it – as stated above – might not just be a source of litigation but also might negatively alter the economic incentives of traders to go into cross-border activities. This point is one of regulatory quality: the problem as presented here opens up for differences in use across the EU and thus works against the aim of the Directive. Whether the solution be one of higher or lower levels of protection, weighing the consumer or the trader the highest, is not important from this perspective. But whatever solution, the functioning of the legal regime, the regulatory quality, has to secured and this entails solving this potential conflict in the rules of the Directive.

4.2 Interpretative field

Prior to embarking on the journey to explore the interpretative field of Directive 2011/83 it is important to keep in mind what the directive is not: it is not an all-encompassing directive on consumer rights as such (Weatherill, 2012). Instead it was an attempt to install a general consumer protection regime but ended up as mainly a way of regulating off-premises sales of different nuances including e-commerce and doorstep sales; this point was brought forward in several of the interviews. The name, though, was kept unchanged. This point is crucial when it comes to studying the interpretative field of the objective of the Directive. Studying the objective is, *cf.* the foregoing section, ineluctable as the objective is the yardstick against which to evaluate the regulatory means installed by the directive: can the Directive effectively function? That objective itself can be put under scrutiny as has been done by, for example, Chiriță (2012, p. 6), who argue that the vast number of recitals in the Directive points to a blurred objective. Other parts of the literature are more direct. Hall *et al.*, for instance, wish to investigate the Directive's 'legal clarity' 'in the light of the objective of a high level of consumer protection' (2012, p. 155). They support this by pointing to recital 7 of the directive. A relevant question, though, is if they put too much focus on the last sentence of that recital in which a high level of consumer protection is mentioned *en passant* – a sentence that even starts with a '[f]urthermore'. This hardly reflects the main objective of the Directive. In addition, one may argue that legal clarity be of relevance disregarding the interests the Directive is serving. Lodder's argument that the directive 'aims at consumer protection formally as a mean to an end', *i.e.* to 'stimulate the cross-border provision of services' (Lodder, 2014, p. 3), seems more well-founded in the text itself and its legal prehistory (Tonner, 2014). This is supported by the fact that the Directive points to art. 114 TFEU and not 169 TFEU as its legal base. Such an interpretation of the role of the Directive was supported by those of the interviewees who commented on it – including the consumer representatives who could be expected to have a different view. This conclusion ends the discussion on the relationship to the Treaty shortly touched upon in the subsection on coherence above.

Against this backdrop, the paper continues to discuss the interpretative field of the Directive, beginning with the first order interpretative field: simple understanding of what has been written. This is especially relevant to laymen trying to get sort of a grasp of what is going on in the Directive. Here, questions of logic, structure and *lix* comes into mind. The structure has gained some attention with critique of the number of rules being 'hidden away' in very few distinct articles (Hall *et al.*, 2012, pp. 142–143). This makes it harder to access what is actually being regulated. A similar point was put forward in certain of the interviews: the key to understand some of the exemptions to the right withdrawal – as listed in article 16 of the Directive – is hidden in the recitals at the beginning of the Directive. These recitals, however, will often not be read by practitioners and it is also not certain that the national implementation will include them and thus be more precise than the Directive. Lodder also points to some linguistic inconsistencies (2014, p. 6) but besides these critiques few scholars have commented the language of the Directive as such. This, obviously, is a good sign and was generally echoed in the interviews conducted by this author.

Going further in the interpretative direction, a dissection of central concepts in the Directive must be done. As pointed out by several of the interviewees and being a central premise of the heuristic tool utilised here, uniform interpretation is important if the Directive is to function and if it is to be able to meet its aims of levering a more well-functioning single market in Europe. Using legal concepts with broad meanings bears the risk of jeopardising this endeavour as different interpretations can lead to different implementations despite the Directive's efforts to harmonise this legal area across the EU. One example hereof is to be found in the Directive's article 8 and its rules on information requirements on the consumer's obligation to pay. Hall *et al.* (2012, pp. 152–153) have asked questions on the nature of this obligation and stressed that it be 'imperative' to clarify. Their argument goes that the article does not state whether the consumer – when for instance pushing a website-button labelled 'order with obligation to pay' – is giving an offer to the trader (who can then back down) or if an actual contract has thus been concluded. The nature of this relationship is, according to Hall *et al.*, relevant when deciding how to handle breaches afterwards. This point seem very relevant, but it was not mentioned in any of the interviews with practitioners conducted by this author. The actual salience of this problem therefore might be less than envisaged by Hall and companions.

A less subtle and more salient problem is that of defining what customisation means. According to article 16(c), goods 'made to the consumer's specifications or clearly personalised' are exempted from the right to withdrawal. The article as it stands gives an impression of a very broad scope. After all, it distinguishes between 'made to the consumer's specifications' and 'clearly personalised' respectively. A lot of goods would fall in the first category but not in the last: 'made to specifications' could imply a much broader range than 'clearly personalised'. The result would be a much wider exemption from the right to withdrawal than perhaps anticipated. Asking some of the interviewees a question of how to handle for example a customised laptop revealed very different understandings of this article. To some, this would be a product, which was not covered by the exemption in article 16(c); it was simply not personalised 'enough'. To others the exemption was relevant, exactly because such a laptop was made to the customer's specifications as clearly stated in the Directive. Both sides agreed, however, that the intention of the Directive probably was to exclude from the right to withdrawal goods that the trader can hardly sell afterwards; but they disagreed whether this intention was met in

the actual text. If this was the intention of the Directive, it should have stated so; the disagreement described could easily bear into litigation furthering complexity. To put it differently: the rule as it stands opens up for very different interpretations and is thus a potential source of legal conflict and also gives way to very different uses across the EU. And this becomes all the more relevant if a consumer buys the aforementioned laptop via a website in another Member State in which this specific rule is understood differently than in the consumer's own country. In the perspective of this paper, it does not matter which of the two interpretations would win the discussion – which political decision would be made. The point made here is simply that the vagueness of the provision in itself is hardly fostering a well-functioning consumer rights regime and that knowledge of this vagueness would lower the incentives of traders to go into cross-border trading; the ambiguity of the scope of the right to withdrawal thus might work against the very goal of the Directive to foster inter-European trade.

Besides these points, the interviews revealed few interpretative problems as such. In academia, however, people have pointed to several interpretative challenges or lacking definitions in the Directive. Hall *et al.*, for instance, stress this by pointing to the lack of consequence following from the impression of 'the European legislator [going] to much greater lengths to define the content of the rules, trying to leave no stone unturned,' (2012, p. 147) but still not defining a range of very central legal concepts, 'despite their relevance for full harmonisation, for example "identity of the trader" and the loose example of "such as the trading name" (Article 6(1)(b))' (2012, p. 147). Another interpretative issue comes forward when returning to the issue of the consumer's liability to any diminished value when returning goods. A hands-on point put forward by both consumer and trader representatives among the interviewees was a question of how to define and calculate that diminished value? Before or after adding VAT?

All in all, the Directive has some severe ambiguities due to its non-definition of central concepts; the ambiguities causing problems, however, are not the ones stressed by academia. The coupling made here of legal analysis with interviews – a method often used in political science – reveals that practitioners seem to have their focus on other aspects than scholars. From a practical point of view, it is clear that especially the range of the concept of customisation or specialisation needs to be clarified – and it needs to be clarified at a European level if the Directive is to be applied in a uniform way. Again, and just as with the potential coherence problems between articles 13 and 14, this ambiguity might make businesses less inclined to make themselves available for European trade. The ambiguities of the Directive undermines the objective of that same Directive.

4.3 Regulatory fields or applicability

Despite the use of interviews for validation and triangulation, the two former subsections analysed the Directive from a quite legal perspective. In order to fully grasp the regulatory quality of the Directive – its ability to do what it is supposed to – additions inspired by other academic disciplines have to be made: does the Directive conform with the broader economic and social milieu in which it is supposed to function – is it applicable? This subsection thus exceeds the boundaries of and supplements the legal analysis of both the coherence and interpretative field presented above.

An issue in absolute need of discussion when it comes to applicability is – yet again – the aforementioned rules on withdrawal, reimbursement and consumer liability. Going beyond the described example of the articles 13 and 14 contradicting each other, we find a situation in which the consumer has returned the good and the trader is investigating that good in order to determine the consumer liability. When investigating applicability of this aspect of the Directive, three problems can be stressed: does the Directive reflect all the forms the situation of reimbursement can take? How to determine the value of the consumer's liability? And how to handle conflict over decision on the size of that consumer liability? These concerns might seem biased in the favour of business interests but nonetheless were such considerations of the effective functioning and conflict solving potential of the reimbursement and consumer liability rules presented by both business and consumer representatives and others among the interviewees. This again stresses the point of departure for this very study: that regulatory quality is relevant across political interests.

The first question is one of time and psychology: how long will a consumer accept waiting for a settlement? It seems obvious that a consumer's patience depends on the situation: waiting for a settlement after by post having returned a good to a central warehouse is different from waiting for a settlement after having returned that good to a physical shop. The reimbursement rules does not seem to recognise the great difference between the two situations described just before. In some ways it only reflects the former situation: returning a good by post to a central warehouse. In that situation, the trader has the time and opportunity – if we ignore the coherence issues brought forward earlier – to inspect the good properly before settling on consumer liability. This is the case for e-commerce but e-shops are not the only ones to which these rules apply. Settling on consumer liability on the spot in any normal shop is hard, if not impossible – or would at least require very intense training of every single shop clerk hired by the specific trader. That situation, however, is not reflected in the Directive. The situation in which a consumer returns a good – perhaps even a

good purchased via the international website of the given shop and thus not a good the specific clerk necessarily has any clear knowledge of – to a shop is and will always be a source of conflict between consumers and traders. No doubt about it. From the perspective of regulatory quality, the aim must thus be to lower the probability for conflict in this already tense situation; otherwise one cannot claim to have met the legal and political intention through the instalment of a regulatory regime. As for now, however, the rules only reflect one of the many forms that situation of returning goods can take; this is hardly a way of lowering the conflict potential. Inspired by Hall *et al.* (2012) and several of the interviews conducted, this point is essentially a call for an appreciation of behavioural economics and consumer psychology.

The second and related question might be one of wider relevance: how do you decide the value of a consumer liability? How much money can the trader subtract from the original sum? This, one would presume, is the core conflict in situations when consumers and traders disagree and thus a topic of major relevance to clarify if the Directive is to support Europeanisation of trade. However, this question is to be handled at the national level, according to several of the interviews. That solution is surprisingly unsynchronised with the ambitions of harmonisation found in the Directive.

The complexity and perhaps near-impossibility of articulating rules to describe how traders should calculate the consumer liability could be a legitimate excuse for not articulating rules. However, the Directive also fails to describe how to handle any conflict following consumer and trader disagreement on the size of the consumer liability. Again, this is shoved to the national level. Designing such formal rules of procedure are much less complex than designing material rules on calculation of consumer liability. By avoiding to clarify even how to handle conflict, the Directive undermines the lust to go abroad for both traders and consumers. For legal scholars and major companies, the legal arrangements of different European directives and regulations and national law might be manageable. However, finding the rules applicable might be a major challenge for a small entrepreneur wanting to sell to consumers just across the border or for a consumer, who for once found a good offer on an European website rather than a national ditto. This lack of rules to handle conflict will put especially smaller business under enormous stress when going abroad thus harming the incentive to do so. Falling back to national conflict solving mechanisms might be doable but the Directive itself fails even to decide on that; this decision has been taken afterwards and in later legal documents. Handling this important problem in such an ad hoc-way is hardly helpful for lowering complexity experienced by traders and consumers and it is strikingly inconsistent with the level of harmonisation and detail in the rest of the Directive (for instance when it comes to information requirements).

A final relevant issue is that of technology and development. The question is simply if the real world of trading already has outrun the Directive before it is effectively applied? This point is a sort of generalisation of some of the arguments presented earlier, for instance that of presenting information appropriate to the medium: if new media are developed, what then is appropriate? Before a decision can be taken on this – whether politically or via the courts – the medium in question might be obsolete and replaced. The possibility and probability for this problem to manifest itself stresses a need for both clarity and flexibility in the Directive. And a directive aiming at a high level and very detailed harmonisation might not be suitable for such a task.

5. CONCLUSION: CAN THE CONSUMER RIGHTS DIRECTIVE DO WHAT IT IS SUPPOSED TO DO?

The considerations on coherence, interpretation and applicability above have shown that the Directive has some challenges when it comes to meeting its objectives of a better functioning single market in the EU. The aim here was not to give a complete and comprehensive analysis of every relevant issue imaginable but merely to offer and use a framework that can do two very important things: First, it is a framework that allows for a more thorough and empirically relevant understanding of regulatory quality. That concept has been torn between different academic traditions none of which has had much relevance to practitioners. The point of departure here, however, has been exactly that of the practitioner. Second, and following the first, the framework attempts at bridging different academic traditions. Many practitioners – traders, consumers, organised interests, authorities and others – tend not to judge the world by its division in academia but by its practical relevance. Starting there, the goal here has been to show how legal analysis is relevant to political scientists, and that methods and concepts from political science can be relevant to law and how economic thinking of effects can earn to frame and guide these two traditions.

To put it short, the framework has departed from a focus on the text of the Directive as this object of analysis is universally relevant. This is recognised in law but seldom relevant to political scientists. These can on their side add very important theoretical aspects to the analysis: application is context specific – and even more so in the EU due to the great differences between Member States – and causality between the text and application is not straightforward. Starting in the tradition of law, it becomes clear that coherence and interpretation are relevant categories. And adding the point on context from political science leads to the question of the broader economic and social milieu, the regulatory fields or applicability. This leads to an empirically relevant recipe to test a (European) legal text for potential problems of effective and efficient functioning. Utilising this framework has revealed several problems with the Consumer Rights Directive as it stands but

especially two needs to be reiterated here. The analysis of coherence revealed that the articles 13 and 14 governing the right to withdrawal, consumer liability and reimbursement have potential problems. This might be a theoretical stance but these same articles show themselves relevant when investigating problems of the regulatory fields: they simply do not take the world as experienced by traders and consumers into account as they are built on a simplified notion of the trader-consumer relationship. And the analysis of the interpretative field concluded that the rules of customisation and exemptions to the right to withdrawal are too vague and too broad to be uniformly understood. These are all problems of regulatory quality: they disallow the Directive to meet its objective of a more effective functioning single market in the EU.

Of course, this analysis and subsequent conclusion has its shortcomings. Regulatory quality is a concept coined in negative terms – it can only elaborate on challenges. Problems of regulatory quality might be enormous but yet insurmountable as no better regulatory solution exists. Also, the concept excludes other relevant yardsticks such as, for instance, political desirability. To sum up: it might not be possible to think of a better regulatory regime despite obvious problems of regulatory quality of the *status quo*; and it might not be desirable to think of a better functioning regulatory regime due to, for instance, certain political interests being balanced in the present regime.

These drawbacks of the framework, however, does not influence the conclusion on the specific analysis of the Consumer Rights Directive. The problems stressed in this paper seem not all to be beyond repair nor does the Directive seem to be designed so as to represent any Nash-like equilibrium of interest. What, then, to think of the future? If the Consumer Rights Directive cannot do what it is supposed to do, can a replacement? Can we actually solve the problems mentioned here and harmonise in such an effective way that businesses feel more inclined to ‘go international’? And can we do so in the form of a *directive*? Tonner and Fangerow (2012) argue that the step-by-step approach taken in this field is not just necessary but it is also a good thing given the state of affairs right now – and they are right but perhaps in another sense than they think. Given this, we stand with a sort of a paradox: the only way to build an effective single market is a discretionary approach; but in this discretionary approach lures the dangers of compromising the regulatory quality thus jeopardising the very objective of that discretionary approach. Thus, this analysis of the regulatory quality of the Consumer Rights Directive reveals a political-legal crossway: Either we opt for actual and effective harmonisation – or we opt for competition including legal and regulatory competition meaning regulating at a much less detailed level than now. The Directive fails to do the first and refuses to allow for the last.

LITERATURE

1. Bălan, E. (2011). The Quality of Regulation. *Acta Universitatis Danubius Juridica*, 7(3), 67–71.
2. Baldwin, R. (2010). Better Regulation: The Search and the Struggle. In R. Baldwin, M. Cave, & M. Lodge (eds.): *The Oxford Handbook of Regulation*. Oxford: Oxford University Press, pp. 259-278.
3. Bormann, A. L., Bülow, J.-C., & Østrup, C. (2002). *Loven. Om udarbejdelse af lovforslag* [The Law. On the Writing of Law Proposals]. Copenhagen: Jurist- og Økonomiforbundets Forlag.
4. Boța-Avram, C. (2014). Good Governance and Doing Business: Evidence From A Cross-Country Survey. *Transylvanian Review of Administrative Sciences*, 41, 27–45.
5. Chiriță, A.D. (2012). The Impact of Directive 2011/83/EU on Consumer Rights. *Ius Commune Law Series*, 1998993.
6. De Mesquita, E.B., & Stephenson, M.C. (2007). Regulatory Quality Under Imperfect Oversight. *American Political Science Review*, 101(3), 605–620.
7. Djankov, S., McLiesh, C., & Ramalho, R.M. (2006). Regulation and growth. *Economics Letters*, 92(3), 395–401.
8. European Union. (2010). *Consolidated versions of the Treaty on the European Union and the Treaty on the Functioning of the European Union*. Luxembourg: Publications Office of the European Union.
9. Fliedner, O. (2001). *Gute Gesetzgebung. Welche Möglichkeiten gibt es, bessere Gesetze zu machen?* Friedrich-Ebert-Stiftung. Available at <http://library.fes.de/pdf-files/stabsabteilung/01147.pdf> (accessed 19 December 2014).
10. Ganuza, J.J., & Gomez, F. (2012). Optional Law for Firms and Consumers: An Economic Analysis of Opting Into the Common European Sales Law. *CEMFI Working Paper*, (1207). Available at <http://www.cemfi.edu.es/ftp/wp/1207.pdf> (accessed 23 March 2015).
11. Grzegorzczak, F. (2011). The Consequences of Imperfect Legislative Policy Using the Example of Selected EU Directives. *Argumenta Oeconomica Cracoviensia*, 7, 57–68.
12. Haidar, J. I. (2012). The impact of business regulatory reforms on economic growth. *Journal of the Japanese and International Economies*, 26(3), 285–307.
13. Hall, E., Howells, G., & Watson, J. (2012). The Consumer Rights Directive – An Assessment of its Contribution to the Development of European Consumer Contract Law. *European Review of Contract Law*, 8(2), 139–166.
14. Hansen, H. F., & Pedersen, L. H. (2006). The Dynamics of Regulatory Reform. In T. Christensen & P. Lægreid (eds): *Autonomy and Regulation: Coping With Agencies in the Modern State*. Cheltenham: Edward Elgar Publishing, pp. 328-355.

15. Jalilian, H., Kirkpatrick, C., & Parker, D. (2007). The Impact of Regulation on Economic Growth in Developing Countries: A Cross-Country Analysis. *World Development*, 35(1), 87–103.
16. Kaeding, M. (2007). *Better regulation in the European Union: lost in translation or full steam ahead? : the transposition of EU transport directives across member states*. Leiden: Leiden University Press.
17. Kaeding, M. (2008). In search of better quality of EU regulations for prompt transposition: The Brussels perspective. *European Law Journal*, 14(5), 583–603.
18. Kelsen, H. (1928). *Die philosophischen Grundlage der Naturrechtslehre und des Rechtspositivismus*. Berlin: Pan-Verlag Rolf Heise.
19. Klun, M., & Slabe-Erker, R. (2009). Business views of the quality of tax, environment and employment regulation and institutions: the Slovenian case. *International Review of Administrative Sciences*, 75(3), 529–548.
20. Kunnecke, A. (2014). New Standards in Eu Consumer Rights Protection? The New Directive 2011/83/EU. *European Scientific Journal, Special Edition, February 1*, 426–437.
21. Loayza, N.V., Oviedo, A.M., & Servén, L. (2004). Regulation and Macroeconomic Performance. *World Bank Policy Research Working Paper*, 3469.
22. Lodder, A. R. (2014). Information Requirements Overload? Assessing Disclosure Duties Under the E-Commerce Directive, Services Directive and Consumer Directive. In A. Savin & J. Trzaskowski (eds): *Research Handbook on EU Internet Law*. Cheltenham: Elgar, pp. 358–382.
23. Majone, G. (1990). *Deregulation Or Re-regulation?: Regulatory Reform in Europe and the United States*. London: Pinter.
24. Majone, G. (1996). *Regulating Europe*. New York: Routledge.
25. Müller, G., & Uhlmann, F. (2013). *Elemente einer Rechtssetzungslehre*. Zürich: Schulthess.
26. Painter, J. M. (2009). *Legal Writer: 40 Rules for the Art of Legal Writing* (4th edition). Cincinnati, OH: Jarndyce & Jarndyce.
27. Pedersen, M.J., & Pasquali, S. (2008). *Regelforenkling og administrative lettelse: med panden mod muren?* Videnskabsbutikkens rapportserie, No. 245. Copenhagen: University of Copenhagen.
28. Pressman, J.L. & Wildavsky, A.B. (1973). *Implementation: How Great Expectations in Washington are Dashed in Oakland: Or, why It's Amazing that Federal Programs Work at All*. Berkeley: University of California Press.
29. Radaelli, C.M. (2004). Getting to Grips with Quality in the Diffusion of Regulatory Impact Assessment in Europe. *Public Money and Management*, 24(5), 271–276.
30. Radaelli, C.M. (2005). Diffusion without convergence: how political context shapes the adoption of regulatory impact assessment. *Journal of European Public Policy*, 12(5), 924–943.
31. Radaelli, C.M. (2007a). Towards better research on better regulation. In *Advanced Colloquium on Better Regulation*, Centre for Regulatory Governance, University of Exeter. Available at <https://centres.exeter.ac.uk/ceg/research/riacp/documents/Towardsbetterresearchonbetterregulation.pdf> (accessed 17 September 2014).
32. Radaelli, C. M. (2007b). Whither better regulation for the Lisbon agenda? *Journal of European Public Policy*, 14(2), 190–207.
33. Radaelli, C.M., & de Francesco, F. (2007). *Regulatory Quality in Europe: Concepts, Measures and Policy Processes*. Manchester: Manchester University Press.
34. Radaelli, C.M., & de Francesco, F. (2010a). Regulatory Impact Assessment. In R. Baldwin, M. Cave, & M. Lodge (eds.): *The Oxford Handbook of Regulation*. Oxford: Oxford University Press, pp. 259–278.
35. Radaelli, C.M., & de Francesco, F. (2010b). *Regulatory Quality Indicators. Investment Climate Advisory Services of the World Bank Group*. Washington: The World Bank Group.
36. Radaelli, C.M., & Meuwese, A. C. M. (2009). Better Regulation in Europe: Between Public Management and Regulatory Reform. *Public Administration*, 87(3), 639–654.
37. Rodrik, D. (2005). Growth Strategies. In P. Aghion & S. Durlauf (eds.): *Handbook of Economic Growth*, vol. 1A. Amsterdam: Elsevier, pp. 967–1014.
38. Saltelli, A., D'Hombres, B., Jesinghaus, J., Manca, A., Mascherini, M., Nardo, M., & Saisana, M. (2011). Indicators for European Union Policies. Business as Usual? *Social Indicators Research*, 102(2), 197–207.
39. Stern, J., & Cubbin, J. (2005). Regulatory Effectiveness: The Impact of Regulation and Regulatory Governance Arrangements on Electricity Industry Outcomes. *World Bank Policy Research Working Paper*, 3536.
40. Stern, J., & Holder, S. (1999). Regulatory governance: criteria for assessing the performance of regulatory systems: an application to infrastructure industries in the developing countries of Asia. *Utilities Policy*, 8(1), 33–50.
41. Tonner, K. (2014). From the Kennedy Message to Full Harmonising Consumer Law Directives: A Retrospect. In K. Purnhagen & P. Rott (eds): *Varieties of European Economic Law and Regulation. Liber Amoricum for Hans Micklitz*. Cham: Springer, pp. 693–708.
42. Torriti, J. (2007). Impact Assessment in the EU: A Tool for Better Regulation, Less Regulation or Less Bad Regulation? *Journal of Risk Research*, 10(2), 239–276.
43. Twigg-Flesner, C. (2007). No sense of purpose or direction? The modernisation of European Consumer Law. *European Review of Contract Law*, 3(2), 198–213.
44. Van Hoecke, M., & Warrington, M. (1998). Legal cultures, legal paradigms and legal doctrine: towards a new model for comparative law. *International and Comparative Law Quarterly*, 47(3), 495–536.
45. Vaquero, Á.N. (2013). Five Models of Legal Science. *Revus*, 19, 53–81.
46. Weatherill, S. (2007). *Better Regulation*. Oxford: Hart Publishing.

47. Weatherill, S. (2012). The Consumer Rights Directive: How and why a quest for “coherence” has (largely) failed. *Common Market Law Review*, 49(4), 1279–1317.
48. Wegener, M. (2000). *Juridisk metode* [Legal Method] (3rd edition). Copenhagen: Jurist- og Økonomforbundets Forlag.
49. Wiener, J. B. (2006). Better Regulation in Europe. *Duke Law School Faculty Scholarship Series*, 65. Available at http://www.ecipe.org/media/publication_pdfs/Better_Regulation_in_Europe.pdf (accessed 17 September 2014).

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DARK TOURISM: CONCEPTS, TYPOLOGIES AND SITES

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ABSTRACT

Dark Tourism, understood as the type of tourism that involves a visit to real or recreated places associated with death, suffering, misfortune, or the seemingly macabre (Stone, 2006), is not a new concept, even from a touristic point of view (Farmaki, 2013). In fact, places of war, disasters, death and atrocities always fascinated humans and are subject to visits (Cohen, 2011; Logan & Reeves, 2009; Stone & Sharpley, 2008). People have long been drawn, purposefully or otherwise, towards sites, attractions or events linked in one way or another with death, suffering, violence or disaster (Stone 2005).

The concept of dark tourism has been designed and studied for the last years and many are the destinations around the world where it has been implemented, playing an important role in both a country's economy and its image. However, there is a gap in literature about this specific type of tourism. The main goal of this paper is to present a literature review about this new tourism product where the thrill seeking is the main motivation. Specifically it is our objective to bring Dark Tourism definitions, history and evolution, also its typologies and the most important dark tourist sites all over the world.

KEY WORDS: Dark Tourism, Dark Motivations, New Tourism Products.

1. INTRODUCTION

Tourism is a complex phenomenon involving a wide range of people, increasingly seeking for new and unique experiences in order to satisfy the most diverse motives, reason why the world tourism landscape has been changing in the last decades (Seabra, Abrantes & Kastenholz, 2014).

Tourists' motivations, as the destinations they seek, are no longer related with the traditional sun, beach and beautiful sceneries. The concept of 'pleasant diversion in pleasant places' is changing and broadening into new market demanding, more complex and even unusual (Wight, 2006).

This is the case of dark tourism, considered as the phenomenon which encompasses the presentation and consumption (by visitors) of real and commodified death and disaster sites (Lennon & Foley, 2009). In a more specific way, dark tourism is considered as the "visitation to places where tragedies or historically noteworthy death has occurred and that continue to impact our lives" (Tarlow, 2005, p 48). Nonetheless, it has also been referred as the act of travel to sites associated with death, suffering and the seemingly macabre (Stone, 2006).

This is a topic recently addressed but death is indeed one of the oldest reasons for travelling (Lennon & Foley, 1996; Stone & Sharpley, 2009). Attraction and curiosity for death are not new concepts; there has always been a fascination for the human nature darkest side (Stone, 2005). The demand for places and experiences related to death reassemble to the Middle Age and the Romantic period, very often with religious or pilgrimage purposes (Seaton, 1996). Early examples of Dark Tourism were the pilgrimages to holy sites, the patronage of Roman gladiatorial games, the public executions of the medieval period, the guided morgue tours of the Victorian period, the ancient city of Pompeii "the greatest thanatopic travel destination of the Romantic period", among others (Seaton, 2002).

Dark Tourism covers all the sites that celebrate the death, fear, fame or infamy (Dann, 1998). Since the mid-20th century, the demand and supply for this specific type of tourism has increased significantly in both size and scope (Sharpley & Stone, 2009). Dark Tourism was pointed as a contemporary "leisure activity" that has been explored and offered by the popular press. Media giving easy access, particularly through films, photographs and news of accidents and tragedies, allows the global community to experience a remote event as if it had occurred locally (Seaton & Lennon, 2004).

Despite the major importance of this market niche and the significant amount of research both "by the academic and the media community" (Stone, 2010), there is little consensus among researchers on the definition, designation and typology of this controversial tourism product.

Therefore, the main goal of this paper is to present some Dark Tourism definitions, typologies and sites based in the main studies done so far on the product.

2. LITERATURE REVIEW

Dark Tourism as a tourism product started to gain researchers' attention since the early 90s, but there is no consensus not only on the conceptualization but also on the designation. In fact, other designations were used to describe the same phenomenon, namely: "Black Spot" as "commercial developments of grave and sites in which celebrities or large number of people have met with sudden and violent deaths" (Rojek, 1993, p. 136); "Thanatourism" - is the "travel to a location wholly, or partially, motivated by the desire for actual or symbolic encounters with death, particularly, but not exclusively, violent death, which may, to a varying degree be activated by the person-specific features of those whose deaths are its focal objects" (Seaton, 1996, p.240); "Atrocity Tourism" like the type of tourism that leads the individual to visit holocaust sites (Beech, 2000), "Morbidity Tourism" considered as the travel to attractions that focus on accidents and sudden violent death (Blom, 2000).

2.1 Dark tourism – typologies

the attention given to events of death, suffering, and atrocity and the subsequent development of dark tourism sites is attributed to an inherent human curiosity towards mortality and the darker aspects of humanity (Malcolm & Foley, 2000; Seaton, 1996; Stone & Sharpley, 2006).

Once recognized as a phenomenon, several countries have tried to integrate dark tourism as a product into their tourism industry (Keyes, 2012). Many destinations around the world implemented structures to support this new offer, playing dark tourism an important role in both a country's economy and its image (Sharpley & Stone, 2009).

Thereby, for the individual who wishes to journey and gaze upon real or recreated death, a plethora of sites, attractions and exhibitions are now emerging across the world to cater to the 'darker side of travel' (Sharpley & Stone, 2009).

The consensus between the literature researchers is that dark tourism has a typology depending on the visitors' motivations and sites, namely War/Battlefield Tourism, Disaster Tourism, Prison Tourism, Cemetery Tourism, Ghost Tourism, and Holocaust Tourism.

War/Battlefield Tourism can be described as the recreational travel to war zones for sightseeing or historical studying purposes, tourists deliberately visit nations that have been involved in a war, looking for evidence of the conflict. The artifacts of war such as battlefields, cemeteries, monuments, museums and living history demonstrations have historically served as resource bases for the development of a wide variety of war tourism attractions and related infrastructures (Smith, 1996, 1998). War tourism isn't something new, since the Waterloo and Gettysburg battles, the armies that gathered there attracted the curiosity of innumerable individuals to the local, the phenomenon is not new what is new is its marketing (Stone, 2005). Generally speaking, war tourism appears associated with battle and suffering scenes, but not only, it also emerged linked with places that have an important role in the nations' history, to military museums, fortifications, castles, among others (Blackford, 2005). In fact, there are a number of reasons why tourists visit these conflicts sites, including commemoration, entertainment, education and pilgrimage (Dunkley, Morgan & Westwood, 2011; Lloyd, 1998). Battlefields are especially significant as memorial landscapes because they challenge us to recall basic realities of historical experiences, especially those of death, suffering and sacrifice (Gough, 2008).

Disaster Tourism is the practice of traveling to areas that have recently experienced natural or man-made disasters. Information about disasters and their effects draws human attention and also play an important informative and educational role. Individuals who participate in this type of tours are typically curious to see the results of the disaster and often travel as part of an organized group (Różycki, 2006). One of the oldest disaster tourism sites are Pompeii and Herculaneum, where tourists can learn about the history and aspects of the Vesuvius' volcanic activity and experience the unique attraction of seeing casts of human remains preserved in volcanic ash (Rucińska & Lechowicz, 2014). Other natural disasters sites became well-known worldwide, specifically, the Hurricane Katrina considered one of the five deadliest hurricanes, in the history of the United States; the 1960 Chile Earthquake the most powerful earthquake ever recorded struck near Valdivia, where 6,000 people were killed; the great flood in 1931 in central China was the deadliest natural disaster ever recorded, among others. Concerning the disasters made by man, it's imperative to speak about the Chernobyl disaster that happened in Ukraine in 1986. This disaster was the worst nuclear power plant accident in history in terms of cost and casualties. The magnitude of the incident was reflected in the number of the resulting deaths, as well as in the consequential costs and long-term effects left by the radiations, such as cancer and other deformities.

Prison Tourism is the visit to prisons that have a dark history attached and it combines education and entertainment. With this type of tourism, former sites of punishment and incarceration have become popular tourist experiences as deactivated prisons are converted into museums or heritage sites (Strange & Kempa, 2003). In the last decades, several old prisons were rehabilitated and converted into tourism destinations. The most famous prisons in the world are Alcatraz

and Robben Island. Old prisons such as Alcatraz and Robben island are “stony silent witnesses to the acts that former regimes were prepared to do to people who violated laws or who seemed threatening or suspicious” (Strange & Kempa, 2003, p. 390). Visits to prisons combine education and entertainment. These prison sites are becoming tourist attractions that register a growing number of visitors. Deactivated prisons all over the world have found a second life by operating as tourist attractions, museums and even hostels, offering everything from spooky evening tours by candlelight to the chance to stay overnight in a cell. The visitors to these sites are curious people, history buffs and more and more, ghost hunters (Lemer, 2010).

Cemetery Tourism is the movement of people to visit cemeteries to see statuary and funeral ornaments in tombs of notable and famous people and other anonymous (Abranja, 2012). If it is true that most people associate cemeteries with sadness and morbidity, it is also true that there is a growing number of people for whom they are a source of fascination or interest (Queiroz, 2009). Cemetery tourists can be interested in the historical aspects of cemeteries or the historical relevance of its inhabitants. One of the most famous cemeteries in the world is the Parisian Père Lachaise cemetery, in which was buried renowned personalities such as: Jim Morrison, Edith Piaf, Oscar Wilde, Marcel Proust, Eugène Delacroix, Molière, among others. Equally famous is the “Cimitero Acattolico” in Rome, known as the poets’ and artists’ cemetery. There are also cemeteries in Europe that deserve to be mentioned, namely, the Prazeres cemetery in Portugal, the cemetery of San Amaro, in Spain, the Old St. Matthew’s cemetery, in Germany, and many others. The existence of numerous cemeteries with personalities that have marked the world history in various fields (literature, philosophy, music, etc.) led to the creation of the ASCE - Association of Significant Cemeteries in Europe. The main goal of ASCE is to promote the European cemeteries as a fundamental part of the cultural heritage of humanity, as well as, to raise awareness among European citizens of the importance of the relevant cemeteries (Abranja, 2012).

Ghost Tourism concerns the commercial exploitation of ghosts, though, this concept is not necessarily new. It was common in the past crowds joining together, to allegedly proceed to ghost hunting’s with the local commercials gaining rewards with it (Davies, 2007). Even the upper classes were fascinated with this phenomenon, for instance in Scotland, considered as a repository of ghosts and supernatural in the 18th and 19th century (Inglis & Holmes, 2003). Recently, there was a change in the way locals and communities deal with the alleged apparitions. Ghost tourism came to contradict the historical vision in which communities wanted to get rid of their own spirits, instead, they are now very popular and sought. Ghost tourism divides itself assuming a lighter and darker facet (Stone, 2006) depending on the purpose it is intended for. The ghost tourism, whose infrastructures were developed for entertainment purposes, tends to be in the lightest part of the dark tourism spectrum, an example of that is the Dracula Park. However, this does not exclude moments of dark reflexing and belief as well as genuine attempts to provide historically accurate representations of paranormal activity, which are normally associated with the darker part of the dark tourism spectrum (Gentry, 2007). Ghost tourism often involves the movement through public spaces, reason why, the excursions to observe paranormal activity are becoming increasingly frequent. The ghost tourism promotion has been based on three essential forms: haunted hotels that use that specific particularity to attract the public; the enterprises that focus exclusively on paranormal events; and the paranormal tours to find ghosts (Gentry, 2007). Some of the most remarkable ghost tourism sites are: the Waverly Hills sanatorium, in Kentucky, the Tower of London, the Ancient Ram Inn, in Gloucestershire, the Island of the Dolls in Mexico, and so on.

Sites of genocide and crimes against humanity or Holocaust Tourism: consists in the visit to places where cruel historical events have occurred, especially areas connected with exterminations. Holocaust tourism appeals to young travelers, born long after the events that such sites represent, as a way to present the perpetrated errors committed in the past. Auschwitz remains the most important site of Holocaust, remembrance and collective mourning in the world (Thomas, 2009). Holocaust cultural representations have grown drastically in the last decades due, in part, to movies such as the “Der Untergang” - The Downfall - (2004), “Schindler’s List” (1993), the “Killing Fields” (1984), “The Diary of Anne Frank” (1959) and many others, that retract the most dark period of our history and “have placed the holocaust in the popular consciences” (Schwarz, 1998).

2.2. Dark Tourism Supply – Shades and Intensity

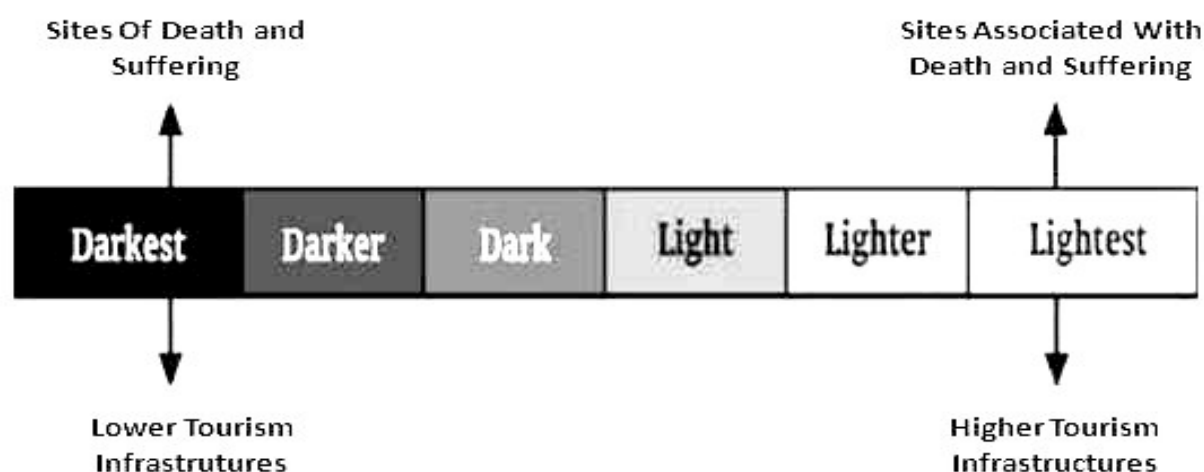
The universal term dark when applied to tourism is too broad and does not readily expose the multilayers of dark tourism supply. Dark tourism presence is diverse and widespread. It is due to this diversity of sites that the authors feel a need to distinguish shades of darkness between types of sites, based on characteristics, perceptions and the product traits (Stone, 2006). The dark tourism supply is much differentiated, in some destinations death really occurred; others were built purposefully to recreate those events.

Some researchers consider that dark tourism sites can be measured accordingly to their degree of darkness, in a continuum from the darkest to the lightest (Stone, 2006). In accordance with this idea, Seaton (2006) defined seven types of Dark Tourism suppliers:

- **Dark Fun Factories:** visitor sites, attractions and tours that have an entertainment focus and commercial ethic. They represent fictional death and macabre events, as that, they need a high degree of tourism infrastructures. At this degree, attractions such as the London Dungeon or the Dracula Park should be pointed out, as being the lightest dark tourism places in the world.
- **Dark Exhibitions:** offer products that circle around death and suffering with an often commemorative, educational and reflective message. These exhibitions are drawn to reflect education and potential learning activities. The museums that display death with educational and reminiscent purposes are the best examples of dark exhibitions.
- **Dark Dungeons:** places/attractions related to justice and criminal matters, namely former prisons. Dark Dungeons offer products that combine entertainment and education as a main merchandise focus. The Alcatraz Federal prison, the Robben Island prison, the Missouri State penitentiary among others, are good examples of dark dungeons.
- **Dark Resting Places:** focuses upon the cemetery or grave markers as potential products for Dark Tourism (Seaton, 2002). More and more tourists include the cemeteries in their tours. Those of large dimension are true open-air museums that include several architectural works and sculptures of refined taste. The most visited cemeteries nowadays are the Cimetiere du Pere Lachaise, the Arlington National cemetery, La Recoleta cemetery and many others.
- **Dark Shrines:** sites based on the act of remembrance and respect for the recently deceased. Dark Shrines are non- purposeful for tourism and do not possess much tourism infrastructures due to their temporal nature. The most evident example of a Dark Shrine are the Solomon Isles where the battle of Guadalcanal occurred.
- **Dark Conflict Sites:** sites associated with war and battlefields. These sites have an educational and commemorative focus, as well as an historic one. The Solomon Isles, where the battle of Guadalcanal occurred, are one of the well-known dark conflict sites.
- **Dark Camps of Genocide:** are those sites that mark a concentration of death and atrocity. Currently, the tourist attractions associated with genocides and wars constitute one of the largest categories of visiting spots around the world. Auschwitz- Birkenau, Cambodja, and Rwanda, can be highlighted as being , some of the few sites, where past genocides and mass atrocities happened.

The dark sites and attractions can switch between the darkest black and the lightest black, being the darkest black the places where death really occurred and because of that use less tourism infrastructures to attract the visitors, and the lightest black that concerns the places/attractions where death is recreated and need to use higher tourism infrastructures to attract tourists (Seaton, 2005).

According to this “Darkest-Lightest” framework of supply (Stone, 2006), the continuum represents different levels of contact with the Dark provided by Dark Tourism sites.

Figure 1. Darkest – Lightest Framework of Supply

Stone, 2006

On the left side of the image we can see the Darkest Tourism that concerns the sites where death and suffering have actually occurred, like Auschwitz the world's most dark destination, symbolizing the genocide of thousands of Jews. At this level the main goal is to educate tourists about the place/event.

On the right side of the color scale we are able to see the lightest tourism, which is performed at sites merely associated with death, and therefore, need to possess excellent touristic infrastructures created with the intention of being attractions and entertain the tourists, one example is the Dracula Park.

2.3. Dark Tourism Sites and Attractions Worldwide

A bit scattered all over the world, Dark Tourism plays an important role in both the economy and image of some destinations.

Destinations considered as dark tourism sites, are museums, cemeteries, slums, concentration camps, war scenarios, attempts or others places of tragedy (Fonseca & Silva, 2014). Having that in mind, it's now time to exhibit some of the most visited Dark Tourism sites in the world:

Table 1: Dark Tourism Sites Worldwide

Site or Attraction	Location	Definition
Concentration and Extermination Camp in Auschwitz	Auschwitz (Poland)	Between June 1941 and January 1945, one million men, women and children perished in the 3 Auschwitz concentration camps. The whole complex of the death camp was a deadly prison to some 150,000 inmates that were being either murdered outright or starved and worked to death. Lately, the concentration camps were transformed into a memorial museum that every year counts with the visit of 1,400,000 persons.
Ground Zero - The National September 11 Memorial	New York (USA)	A tribute of remembrance and honor to the nearly 3,000 people killed in the terror attacks of September 11, 2001 at the World Trade Center site. According to the 9/11 site, this memorial receives each year approximately 1.000.000 visitors.
Hiroshima Peace Memorial Park	Hiroshima (Japan)	Tells the history of Hiroshima and the advent of the nuclear bomb, on the 6 th of August of 1945. The personal details displayed in the museum are quite upsetting, and are there to remind the visitors that we shouldn't take peace for granted. Since its opening the museum have been visited by 53 million people.
The Dracula's Castle - Bran Castle -	Wallachia (Transylvania)	It's the most visited tourist site in Romania. Located in Transylvania, has 500,000 visitors annually and gets a profit of 1 million euros each year.

Alcatraz Federal Penitentiary	San Francisco Bay (USA)	Was a high-security prison, located on the island of Alcatraz. This prison was designed to hold the incarcerated prisoners who continually caused problems in other federal prisons. One of the most famous prisons in the world, Alcatraz housed some of the most vicious criminals of America. Currently the prison is a museum and one of the main tourist attractions of San Francisco, attracting 1.5 million visitors annually.
Pompeii	Naples (Italy)	Was an ancient Roman city near Naples, Italy, destroyed during the eruption of Mount Vesuvius in 79 AD. The eruption destroyed the entire city, killing all its inhabitants and burying it under tons of ashes. Nowadays, the city acquired the status of World Heritage Site, by Unesco and is one of the most popular tourist attractions in Italy, with approximately 2.5 million visitors per year.
Leap Castle	Coolderry County Offaly (Ireland)	In Ireland was considered the most haunted place in the world. According to a popular legend the castle is haunted by a supernatural entity called the Elemental that died there of leprosy, and whose spirit remained over the years. The castle has been used as background for some of the well-known American TV series. Massively known for its television exposure this castle annually attracts 800,000 visitors.
Père - Lachaise	Paris (France)	Is the largest cemetery in Paris, and with its 3.5 million visitors per year, it is also the most visited cemetery in the world. In this cemetery are buried distinguish personalities of the music scene (Jim Morrison, Édith Piaf, Frédéric Chopin), poetry writers (Honoré de Balzac, Oscar Wilde, Marcel Proust), sculpture and painting artists (Eugène Delacroix, Max Ernst) and a lot of others famous residents that contributed to enrich the Parisians culture.
Squatter Camp Soweto	Soweto (South Africa)	Impregnated with the history of the struggle against apartheid and abuzz with the energy of the city of gold, Soweto is the most visited attraction of South Africa.
Tuol Sleng Museum	Phnom Penh (Cambodia)	Where the Cambodian tragic past is portrayed (former extermination camp where thousands of Cambodians were killed).
Dharavi Slum	Mumbai (India)	In Mumbai / India , this slum gained great projection after the release of the film Slumdog Millionaire, and is one of the most visited slums worldwide.
Latvian Prison Hotel and Museum	Liepāja (Latvia)	Karosta Prison was a working prison for most of the 20th century, but it now serves as a museum, attraction, and hotel. The prison offers tours, accommodation, and special activities (recreating the reality of the structure's history).
Alma Bridge	Paris (France)	Princess Diana's tunnel of death. In 31 August 1997 Princess Diana died at this tunnel, victim of a car crash. Only 10 years after the incident became this tunnel open to the general public. Since then, receives millions of visitors annually.
Arlington National Cemetery	Virginia (USA)	Is a United States military cemetery in Arlington County, Virginia, in whose 624 acres have been buried the dead of the nation's conflicts beginning with the American Civil War, as well as reinterred dead from earlier wars. Visitors per Year: Approximately 4 million.
Paris Catacombs	Paris (France)	Are underground ossuaries in Paris, France. The ossuaries hold the remains of about six million people and fill a renovated section of caverns and tunnels that are the remains of historical stone mines, giving it its reputation as "The World's Largest Grave". The catacombs receive approximately 300,000 visitors per year.
Titanic Belfast	Belfast (Northern Ireland)	It's a visitor attraction and a monument to Belfast's maritime heritage. It's a must see place on a trip to Belfast and became the most popular tourist attraction in Northern Ireland.
Sedlec Ossuary	Sedlec (Czech Republic)	Is a small Roman Catholic chapel, located beneath the Cemetery Church of All Saints in Sedlec. The ossuary is estimated to contain the skeletons of between 40,000 and 70,000 people, whose bones have in many cases been artistically arranged to form decorations and furnishings for the chapel. The ossuary is among the most visited tourist attractions of the Czech Republic, attracting over 200,000 visitors yearly.

Oklahoma City National Memorial & Museum	Oklahoma (USA)	Is a memorial in the United States that honors the victims, survivors, rescuers, and all who were affected by the Oklahoma City bombing on April 19, 1995. The memorial has an average of 350,000 visitors a year.
Museum of Genocide Victims	Vilnius (Lithuania)	The museum is situated in the former KGB building (in Vilnius), where the crimes of the Soviet regime were planned and executed for fifty years. This museum receives the visit of millions of people each year.
Hoa Lo Prison	Hanoi (Vietnam)	Was a prison used by the French colonists in Vietnam for political prisoners, and later by North Vietnam for prisoners of war during the Vietnam War when it was sarcastically known to American prisoners of war as the "Hanoi Hilton". The prison was demolished during the 1990s, though the gatehouse remains as a museum. It welcomes about 35,000 to 40,000 thousand people to visit it every year.
Chapel of Bones	Évora (Portugal)	Is one of the best known monuments in Évora, Portugal. It is a small interior chapel located next to the entrance of the Church of St. Francis. The Chapel gets its name because the interior walls are covered and decorated with human skulls and bones. Is one of the most visited attractions in Évora.
Island of the Dolls	Mexico City (Mexico)	Localized in Mexico this island is dedicated to the lost soul of a poor girl who met her fate too soon in strange circumstances. This island is home to hundreds of terrifying dolls. Their severed limbs, decapitated heads, and blank eyes adorn trees. It's one of the creepiest and visited sites in the world.
The Suicide Forest	Mount Fuji (Japan)	Is a 35-square-kilometre forest that lies at the northwest base of Mount Fuji in Japan. The forest contains a number of rocky, icy caverns, a few of which are popular tourist destinations. Aokigahara forest is dense, shutting out all but the natural sounds of the forest itself. The forest has a historic association with demons in Japanese mythology and is a popular place for suicides.
The London Dungeon	London (UK)	Is a London tourist attraction which recreates various gory and macabre historical events in a gallows humor style aimed at younger audiences. It uses a mixture of live actors, special effects and rides. This attraction receives approximately 750,000 visitors a year.

Source: Fonseca, A. 2014

3. CONCLUSION

The attitude of the contemporary society towards death became paradoxical. Individuals try to forget that is real, but it is impossible to disregard it, especially on a society guided by the actions of the media, that daily recount and promote issues related to death. Becker (1973) argues that "the idea of death, the fear of it, haunts the human animal like nothing else; it is the mainspring of human activity - activity designed largely to avoid the fatality of death, to overcome it by denying in some way that it is the final destiny for man", thereby, Dark Tourism in its various forms came to demystify the fearful idea that individuals have about death. "Dark Tourism allows individuals to confront and contemplate their own mortality by gazing upon macabre illusions and images" (Seaton, 1996, p. 240).

This alternative form of tourism is strongly related with the culture and heritage of destinations, bringing to life their history and of the tragedies once occurred. Also plays an important role in bringing to the present, past events, sharing information and causing emotions, expanding the discussion of the darker side of history and humanity. Within dark tourism, death becomes real (again) for the individual (Sharpley & Stone, 2008).

The content presented here was achieved based on a literature review in tourism and specifically in Dark Tourism, through the analysis of studies, research papers and other publications on line.

Dark Tourism cannot be perceived as an expression of tourist demand only, but rather needs to be considered in conjunction with tourism supply, so future studies should focus on Dark Tourism consumption as well as the empirical examination of the motives inherent when choosing a dark destination (Farmaki, 2013).

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LITERATURE

1. Abranja, A. (2012). Conhecimento e práticas do turismo cemiterial: Um mercado emergente no sector. *Turismo & Desenvolvimento*, 3, 1286.
2. Becker, E. (1973). *The denial of death*. New York : Free Press.
3. Beech, J. (2000). The enigma of holocaust sites as tourist attractions - The case of Buchenwald. *Managing Leisure*, 5 (1), 29-41.
4. Blackford, M. (2005). Tourism, the environment and the military: The case of Guam. *Business and Economic History Online*, 3, 1-6.
5. Blom, T. (2000). Morbid tourism - A postmortem market niche with an example from Althorp. *Norwegian Journal of Geography*, 54, 29-36.
6. Cohen, E. (2011). Educational dark tourism at an in populo site: The holocaust museum in Jerusalem. *Annals of Tourism Research*, 38 (1), 139-209.
7. Dann, G. (1998). *The dark side of tourism*. University of Luton, Tourism & Leisure . Provence: Centre International de Recherches et D'études Touristiques.
8. Davies, O. (2007). *The haunted: A social history of ghosts*. London: Palgrave Macmillan.
9. Dunkley, R., Morgan, N., & Westwood, S. (2011). Visiting the trenches: Exploring meanings and motivations in battlefield tourism. *Tourism Management*, 32 (4), 860-868.
10. Farmaki, A. (2013). Dark tourism revisited: A supply/demand conceptualisation. *International Journal of Culture, Tourism and Hospitality Research*, 7 (3), 281-292.
11. Fonseca, A., & Silva, C. (2014). Motivações de procura do dark tourism como uma forma alternativa de turismo. *Turismo & Desenvolvimento*, 173 - 175.
12. Gentry, G. (2007). Walking with the dead: The place of ghost walk tourism in Savannah, Georgia. *Southeastern Geographer*, 47 (2), 222-238.
13. Gough, P. (2008). Commemoration of war. In B. Graham, & P. Howard (Eds.), *The Ashgate Research Companion to Heritage and Identity* (pp. 215-230). Burlington: Ashgate.
14. Inglis, D., & Holmes, M. (2003). Highland and other haunts: Ghosts in Scottish tourism. *Annals of Tourism Research*, 30 (1), 50-63.
15. Keyes, M. (2012). *War tourism: Shaping memory and perception in Post-War Vietnam*. Summer Research . Washington, USA: University of Puget Sound.
16. Lemer, A. (2010). *Prison Tours: a taste of life behind bars*. Retrieved 05 30, 2015, from Lonely Planet: <http://www.lonelyplanet.com/travel-tips-and-articles/72864>
17. Lennon, J. a. (2000). *Dark Tourism: The Attraction of Death and Disaster*. London: Continuum.
18. Lennon, J., & Foley, M. (2009). *Dark tourism- The attraction of death and disaster*. London: Cassel.
19. Lloyd, D. W. (1998). *Pilgrimage and the commemoration of the great war Britain, Australia and Canada, 1919-1939 (Legacy of the Great War)*. Bloomsbury: Kindle Edition.
20. Logan, W. &. (2009). Remembering places of pain and shame. In R. Logan, & K. Reeves (Eds.), *Places of pain and shame: Dealing with "difficult heritage"* (pp. 1-14). London: Routledge.
21. Queiroz, J. (2009). *Os cemitérios do Porto e a arte funerária oitocentista em Portugal: Consolidação da vivência romântica na perpetuação da memória*. Tese Doutoramento não publicada.
22. Rojek, C. (1993). *Ways of escape: Modern transformations in leisure and travel*. Basingstoke, Australia: Macmillan.
23. Rucinska, D., & Lechowicz, M. (2014). Natural hazard and disaster tourism. *Miscellanea Geographica - Regional Studies on Development*, 17-25.
24. Schwarz, N. (1998). Warmer and more social: recent developments in cognitive social psychology. *Annual Review Sociology*, 24, 239-264.
25. Seabra, C., Abrantes, J., & Kastenholz, E. (2014). The influence of terrorism risk perception on purchase involvement and safety concern international travellers. *Journal of Marketing Management*, 30 (9-10), 874-903.
26. Seaton, A. a. (2004). *New Horizons in Tourism – Strange Experiences and Stranger Practices*. CABI Publishing, 63 - 82.
27. Seaton, A. (1996). Guided by the dark: From thanatopsis to thanatourism. *Journal of Heritage Studies*, 2 (4), 234-244.
28. Seaton, A. V. (2002). Thanatourism's final frontiers? Visits to cemeteries, churchyards and secular pilgrimage. *Tourism Recreation*, 27 (2), 73–82.
29. Sharpley, R., & Stone, P. (2009). *The darker side of travel: The theory and practice of dark tourism*. Bristol: Channel View Publications.
30. Smith, V. (1996). War and its Tourist Attractions. In A. Pizam, & Y. Mansfeld (Eds.), *Tourism, Crime and Security Issues*. (pp. 247-264). Chichester: Wiley.
31. Smith, V. (1998). War and tourism: An american ethnography. *Annals of Tourism Research*, 25 (1), 202-227.
32. Stone, P. (2006). A dark tourism spectrum: Towards a typology of death and macabre related tourist sites, attractions and exhibitions. *Interdisciplinary International Journal*, 52 (2), 145-160.

33. Stone, P. (2005). Institute for Dark Tourism. Retrieved Março 17, 2013, from Global Scholarship Hub: <http://lgn1331135353.site-fusion.co.uk/about-us>
34. Stone, P., & Sharpley, R. (2008). Consuming dark tourism: A thanatological perspective. *Annals of Tourism Research*, 35 (2), 574-595.
35. Strange, C., & Kempa, M. (2003). Shades of dark tourism: Alcatraz and Robben Island. *Annals of Tourism Research*, 30 (2), 386-405.
36. Tarlow, P. (2005). Dark tourism: The appealing “dark” side of tourism and more. In M. Novelli (Ed.), *Niche Tourism: Contemporary Issues, Trends and Cases* (pp. 47 -58). Oxford: Elsevier.
37. Thomas, P. (2009). Engaging Auschwitz: an analysis of young travellers’ experiences of holocaust tourism. *Journal of Tourism Consumption and Practice*, 1-52.
38. Wight, C. (2006). Philosophical and methodological praxes in dark tourism: Controversy contention and the evolving paradigm. *Journal of Vacation Marketing*, 12 (2), 119-129.

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CONSCIENTIOUSNESS AND INTRINSIC MOTIVATION AS PREDICTORS OF PERCEIVED LEARNING AND ACADEMIC ACHIEVEMENT

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ABSTRACT

This paper aims to relate conscientiousness, intrinsic motivation and perceived learning, and its direct and indirect relationships with academic achievement. An empirical study was undertaken, involving a representative sample of 1986 Portuguese high school students. A structural model reveals that conscientiousness directly and positively influences intrinsic motivation, perceived learning and academic achievement. In turn, intrinsic motivation directly and positively influences perceived learning and academic achievement. Corroborating previous studies, these findings suggest that personal factors are essential to improve student's learning outcomes, namely academic achievement. Recommendations for teachers and school managers are addressed.

KEY WORDS: Academic achievement, Perceived learning, Conscientiousness, Intrinsic motivation.

1. INTRODUCTION

Understanding the factors that influence academic achievement is a major concern of educational psychologists, because it has important implications for education improvement. The use of multiple outcomes variables is recommended in order to ensure that several goals and dimensions of learning are represented (Marks, 2000).

In this study we'll consider two learning outcomes: perceived learning, which can be defined as students' positive thoughts and feelings towards learning in class, and academic achievement, described as the grades obtained by the students.

There are several factors that may explain the learning outcomes, namely personality and motivation. A review of recent empirical studies on the relationship between Big Five personality dimensions (Costa & McCrae, 1992a) and academic achievement found some consistent results. A meta-analysis showed that conscientiousness is strongly and consistently associated with academic achievement (O'Connor & Paunonen, 2007). Notably, the literature indicates that the narrow personality traits or facets of this factor "are generally stronger predictors of academic performance than are the Big Five personality factors themselves" (p. 970). Also the positive correlation between conscientiousness and academic performance is commonly interpreted in terms of motivation (p. 987).

Motivation is a broad construct that can be addressed by different theories. Based on self-determination theory (Deci & Ryan, 1985), several studies highlight the importance of intrinsic motivation in the quality of learning. These authors consider that human behavior intrinsically motivated may be defined as the behavior the individual will choose in order to feel competent and self-determined in his relationship with the environment. This leads the subject to seek and select situations that allow him to use abilities, even if it requires a bigger effort.

Within this scope, conscientiousness and intrinsic motivation are considered crucial to understand the quality and success of student learning. Thus, this study aims to relate conscientiousness, intrinsic motivation and perceived learning, and its direct and indirect relationships with academic achievement.

2. LITERATURE REVIEW

2.1. Conscientiousness

Conscientiousness is one of the Big Five Personality factors (Costa & McCrae, 1992a), a dominant conceptualization of personality structure in the current literature. It is the most important of the Big Five predictors associated to the learning performance (Raad & Schouwenburg, 1996; Richardson & Abraham, 2009), and also the "best predictor across a broad spectrum of academic achievement measures and explains five times as much in GPA [grade point average] as does intelligence" (Kappe & Van der Flier, 2012, p. 605).

This factor assesses the degree of organization, persistence and motivation for a behavior oriented towards a goal. It contrasts persons who are reliable with those who are careless (Costa & McCrae, 1992b).

It is an aspect of “what once called *character*; high C scorers are scrupulous, punctual, and reliable. Low scorers are not necessarily lacking in moral principles, but they are less exacting in applying them, just they are more lackadaisical in working toward their goals” (Costa & McCrae, 1992a, p. 16).

Conscientiousness facets are: competence (C1); order (C2); dutifulness (C3); achievement striving (C4), self-discipline (C5) e deliberation (C6). The facets achievement-striving, self-discipline and dutifulness have been “the strongest and most consistent predictors of academic performance” (O’Connor & Paunonen, 2007, p. 979). The first involves being ambitious, diligent and persistent; the second, involves being motivated to finish tasks and focused; and the third, comprises a concern on fulfilling moral obligations.

This construct is an important predictor of academic achievement as a substantial body of research points out (O’Connor & Paunonen, 2007). Conscientious students are deemed to be more organized, careful, self-disciplined and achievement oriented (McCrae & Costa, 1987).

The relation between conscientiousness and academic performance has often been interpreted in terms of motivation: conscientious students are thought to be more motivated to perform well academically than less conscientiousness students (Chamorro-Premuzik & Furnham, 2005). So it is likely that they have a sense of direction and work hard to achieve their goals. Thus we proposed that:

H1: A higher degree of conscientiousness leads to a higher intrinsic motivation.

H2: A higher degree of conscientiousness leads to a higher perceived learning.

H3: A higher degree of conscientiousness leads to a higher academic achievement.

2.2. Intrinsic motivation

Motivation is “a hypothetical construct used to describe the internal forces and/or external that lead to the initiation, direction, intensity and persistence of behavior” (Vallerand & Blanchard, 1998, p. 15). We can say that motivation is the force that drives us to carry out activities. We are motivated when we are able to sustain the efforts needed to accomplish the goals we set to ourselves and that we feel appealed to pursue (Ferreira et al., 2011).

Self-determination theory considers humans to be actively seeking optimal challenges and new experiences to master and integrate (Deci & Ryan, 1985; Deci & Ryan, 1991). Educational research has long recognized two basic types of motivational orientations, intrinsic and extrinsic, which have potentially different consequences on learning (Standage et al., 2005).

Intrinsic motivation refers to the engagement in activities for their own sake, namely for the feeling of pleasure, interest, and satisfaction that derive directly from participation (Deci & Ryan, 1985). When intrinsically motivated, individuals are fully self-regulated, engage in activities out of interest, experience a sense of volition, and function without the aid of external rewards and/or constraints (Deci & Ryan, 1985).

On the other hand, extrinsic motivation refers to a variety of behaviors that are undertaken for reasons other than the activity itself, such as external rewards, benefits, punishments, or obligations (Deci & Ryan, 1985).

The empirical studies stress the importance of intrinsic motivation in learning quality. Intrinsically motivated students are thought to seek out challenges, to extend and exercise their capabilities, and to explore and learn, compared with extrinsically motivated students who seek rewards such as grades, ego enhancement and social recognition (Ryan & Deci, 2000).

Students’ motivated behaviors regarding choice of tasks as well as their effort and persistence in academic tasks have been directly related to their level of intrinsic motivation (Ferrer-Caja & Weiss, 2000, 2002). Besides, there is a strong relationship between intrinsic motivation and the use of self-regulated strategies related to learning performance. Classroom environments that enhance perceived autonomy by providing students choices and opportunities for self-direction have been associated with increased intrinsic motivation, while extrinsic rewards were found to undermine intrinsic motivation (Young, 2005).

When students are intrinsically motivated they are likely to be more hard-working and committed in learning activities which is essential for raising learning outcomes. So we formulated the following hypotheses:

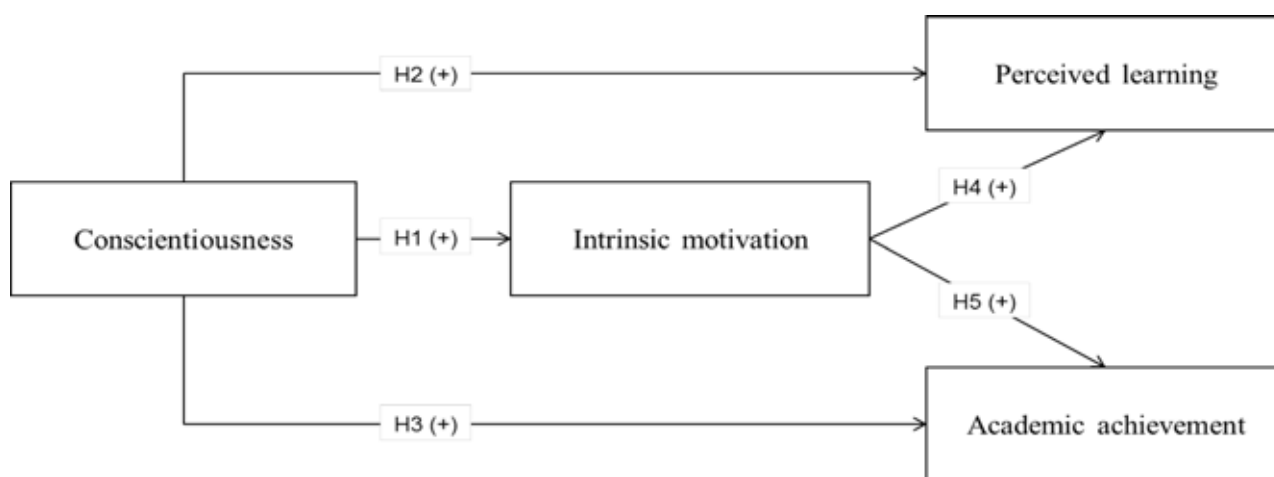
H4: A higher level of intrinsic motivation leads to a higher level of perceived learning.

H5: A higher level of intrinsic motivation leads to a higher level of academic achievement.

3. MODEL DEVELOPMENT

Based on previous research, our conceptual model presents the major determinants of learning outcomes (perceived learning and academic achievement) (Figure 1.). To sum up the model briefly, the conscientiousness directly and positively influences intrinsic motivation, perceived learning and academic achievement. In turn, intrinsic motivation directly and positively influences perceived learning and academic achievement (Figure 1).

Figure 1: Conceptual framework



4. METHOD

4.1. Sample and data collection

Data was gathered from a representative sample of 1986 high school students from eighteen schools from the center region of Portugal. Of the total number of respondents, 38.5% were male, and 61.5% were female, aged between 14 and 22 years (the average age of males was 16.69 years, SD=1.13, and that of females was 16.62 years, SD=1.14), and attending different levels of secondary education (10.^o, 11.^o and 12.^o school year); 21.2% of the students had failed at least once, 36% studied less than an hour per day, whereas 45% studied one to two hours, and 8% studied between three to five hours.

Regarding the *type of study support*, that is not provided by the teachers, we found that, at school, 33.8% of respondents never received any support, 30.1% are supported occasionally and 4.2% say they are always supported; as for support outside of school, 36.8% said they were never supported, 26.9% receive occasional support and 4.6% admit they are always supported. Answering the same question, but regarding the family support, 34.5% of students are never supported, 29.2% are supported from time to time, and 4.0% are always supported, whereas outside of the family, the responses indicate that 46.5% of students never received support, 23.8% respond they are supported from time to time and only 2.0% said that are always supported.

4.2. Survey instrument

The study included measures used in previous research. A pretest was taken by a small sample of high school students to verify the factors reliability through Cronbach's alpha. The pretest results helped to refine the questionnaire.

The constructs addressed are measured through existing scales, which have been shown to exhibit sound psychometric properties. The items were designed to be answered using a 5-point Likert-type scale, with 1 indicating strongly agree and 5 strongly disagree.

Conscientiousness is composed by two items (“I try to perform all the tasks assigned to me conscientiously”, and “I have a clear set of goals and work toward them in an orderly fashion”) from one of the subscales of the NEO-Five Factor Inventory (NEO-FFI) (Costa & McCrae, 1992a).

Intrinsic motivation was operationalized using four item adapted from Young (2005) (“Having satisfaction of improving my personal knowledge and skills”; “Having a sense of personal accomplishment”; “Completing exciting and challenging class activities”; “Enjoying learning about an interesting subject”).

Perceived learning is one of the factors that results from the five-factor “*Student Evaluation Model*” developed by Marks (2000), and is measured by two items (“I am learning a lot in this course”; “As a result of taking this course, I have more positive feelings toward this field of study”).

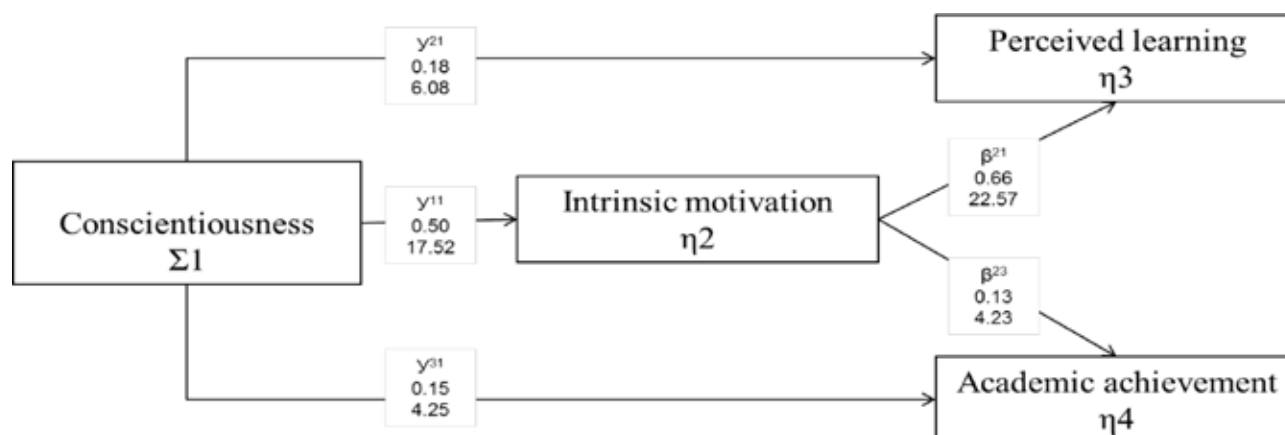
Academic achievement is the score resulting from the classification of the 1st and 2nd period of the last discipline attended, and the average level from all disciplines frequented (for a list of constructs, items, reliabilities and their sources, see Appendix A).

5. RESULTS AND DISCUSSION

A confirmatory factor analysis assessed the validity of the measures, using full-information maximum likelihood estimation procedures in LISREL 8.54 software (Jöreskog & Sörbom, 1996). Although the chi-square for this model is significant ($\chi^2=204.30$, $df=38$, $p<0.00$), the fit indexes reveal a good model. The other generic adequacy measures are $NFI=0.99$, $PNFI=0.68$, $CFI=0.99$, $IFI=0.99$ and $RMSEA=0.047$. The large and significant standardized loadings of each item on its intended construct provide evidence of convergent validity (average loading is 0.79). All possible pairs of constructs passed discriminant validity test (Fornell & Larcker, 1981) (see Appendix A).

The final structural model has a chi-square of 205.81 ($df=39$, $p<0.00$), and the fit indexes suggest a good fit on the model to the data ($NFI=0.99$, $PNFI=0.70$, $CFI=0.99$, $IFI=0.99$, and $RMSEA=0.046$). The estimation results for the structural paths are in Figure 2. The results confirm all 5 hypotheses.

Figure 2: Conceptual framework



The findings revealed that conscientiousness has a positive impact on intrinsic motivation, and also on learning outcomes (perceived learning and academic achievement). These results are in line with previous empirical research that emphasizes the importance of personality factors on academic achievement (Gilles & Bailleux, 2001; Nofle & Robins, 2007; Poropat, 2009).

Conscientiousness is the most important factor of the Big Five predictors. Students who scores high on this factor have a high aspiration levels and work hard to achieve their goals; they are very diligent and purposeful and have a sense of direction. Thus they are more likely to be intrinsically motivated and to perform better on academic tasks.

Similarly, intrinsic motivation positively affects perceived learning. Students with higher levels of intrinsic motivation are more likely to self-evaluate themselves as learning a lot in the course and they have more positive feelings toward

the field of study after taking a course, two indicators that overall characterize perceived learning. Also it influences positively the grades obtained on the course, and so, students' academic achievement.

Thus, it is important to build an active learning environment, contrary to the traditional classroom (Cardoso et al., 2011) in order to increase high school students' motivation (Garcia & Pontrich, 1996; Stipek et al., 1998) and to enhance intellectual development (McKeachie, 1990).

6. CONCLUSION

Conscientiousness and intrinsic motivation showed to be relevant predictors of learning performance in high school students. Corroborating previous studies, these findings suggest that personal factors are important to improve students' learning outcomes, namely perceived learning and academic achievement.

The findings provide useful information for teachers and school managers. First, it is relevant to take into account students' personal dispositions for a better identification of students who may not perform well (less organized, little self-disciplined, careless...) and implement strategies to enhance particular students' performance.

Second, it is important to develop institutional and pedagogical strategies that might increase the students' academic motivation, and their engagement in learning activities that should be stimulating and challenging.

In particular, teachers should design learning environments where students actively participate in the knowledge construction, providing opportunities for choice and self-direction. Thus, students may extend and exercise their capabilities, develop their autonomy and competence, and so improve their academic achievement.

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LITERATURE

1. Bagozzi, R. P. (1980). *Causal models in marketing*. New York: Wiley.
2. Cardoso, A. P., Ferreira, M., Abrantes, J. L., Seabra, & C., Costa, C. (2011). Personal and pedagogical interaction factors as determinants of academic achievement. *Procedia – Social and Behavioral Sciences*, 29, 1596-1605.
3. Chamorro-Premuzic, T., & Furnham, A. (2005). *Personality and intellectual competence*. Mahwah, NJ: Lawrence Erlbaum.
4. Costa, P. T., & McCrae, R. R. (1992a). Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI): Professional manual. Odessa: Psychological Assessment Resources Inc.
5. Costa, P. T., & McCrae, R. R. (1992b). Four ways five factors are basic. *Personality and Individual Differences*, 13 (6), 653-665.
6. Cronbach, L. (1951). Coefficient Alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
7. Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum.
8. Deci, E. L., & Ryan, R. M. (1991). A motivational approach to self: Integration in personality. In R. A. Dienstbier (Ed.), *Nebraska symposium on motivation: Perspectives on motivation* (Vol. 38, pp. 237-288). Lincoln, NE: University of Nebraska.
9. Ferreira, M., Cardoso, A. P., & Abrantes, J. L. (2011). Motivation and relationship of the student with the school as factor involved in the perceived learning. *Procedia – Social and Behavioral Sciences*, 29, 1707-1714.
10. Ferrer-Caja, E., & Weiss, M. R. (2000). Predictors of intrinsic motivation among adolescent students in physical education. *Research Quarterly for Exercise and Sport*, 71, 267-279.
11. Ferrer-Caja, E., & Weiss, M. R. (2002). Cross-validation of a model of intrinsic motivation with students enrolled in high school elective courses. *Journal of Experimental Education*, 71 (1), 41-66.
12. Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18 (1), 39-50.
13. Garcia, T., & Pontrich, P. R. (1996). The effects of autonomy on motivation and performance in the college classroom. *Contemporary Educational Psychology*, 21 (4), 477-486.
14. Gilles, P. Y., & Bailleux, C. (2001). Personality traits and abilities as predictors of academic achievement. *European Journal of Psychology of Education*, 16, 3-15.

15. Jöreskog, K., & Sörbom, D. (1996). *LISREL 8. User's Reference Guide*. Chicago: Scientific Software International.
16. Kappe, R., & Van der Flier, H. (2012). Predicting academic success in higher education: What's more important than being smart? *European Journal of Psychology of Education*, 27, 605-619.
17. Marks, R. B. (2000). Determinants of student evaluation of global measures of instructor and course value. *Journal of Marketing Education*, 22 (2), 108-119.
18. McCrae, R. R., & Costa, P. T. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52, 81-90.
19. McKeachie, W. J. (1990). Research on college teaching: The historical background. *Journal of Educational Psychology*, 82, 189-200.
20. Nofle, E., & Robins, R. (2007). Personality predictors of academic outcomes: Big Five correlates of GPA and SAT scores. *Journal of Personality and Social Psychology*, 93, 116-130.
21. O'Connor, M. C., & Paunonen, S. V. (2007). Big Five personality predictors of post-secondary academic performance. *Personality and Individual Differences*, 43, 971-990.
22. Poropat, A. E. (2009). A meta-analysis of the Five-Factor model of personality and academic performance. *Psychological Bulletin*, 2, 322-338.
23. Raad, B., & Schouwenburg, H. (1996). Personality in learning and education: A review. *European Journal of Personality*, 10, 303-336.
24. Richardson, M., & Abraham, C. (2009). Conscientiousness and achievement motivation predict performance. *European Journal of Personality*, 23, 589-605.
25. Ryan, R. M., & Deci, E. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55 (1), 68-78.
26. Standage, M., Duda, J., & Ntoumanis, N. (2005). A test of self-determination theory in school physical education. *British Journal of Educational Psychology*, 75, 411-433.
27. Stipek, D. J., Salmon, J. S., & Givven, K. B. (1998). The value of practices suggested by motivation research and promoted by mathematics education reformers. *Journal of Research in Mathematics Education*, 29 (4), 465-488.
28. Vallerand, R. J., & Blanchard, C. (1998). Education permanente et motivation: Contribution du modèle hiérarchique de la motivation intrinsèque et extrinsèque. *Education Permanente*, 136, 15-35.
29. Young, M., Klemz, B., & Murphy, J. (2003). Enhancing learning outcomes: The effects of instructional technology, learning styles, instructional methods, and student behaviour. *Journal of Marketing Education*, 25 (2), 130-142.
30. Young, M. R. (2005). The motivational effects of the classroom environment in facilitating self-regulated learning. *Journal of Marketing Education*, 27 (1), 25-40.

Appendix A. Constructs, scale items and reliabilities

Constructs, scale items and reliabilities		Std. coefficients	T-values
CONSCIENTIOUSNESS			
(Scale 1 = Strongly disagree / 5 = Strongly agree)			
(a=.661, $\rho_{vc(n)}=.50$, $\rho=.66$)			
V1	I try to perform all the tasks assigned to me conscientiously	0.69	24.80
V2	I have a clear set of goals and work toward them in an orderly fashion	0.72	25.62
Adapted from Costa e McCrae (1992a)			
INTRINSIC MOTIVATION			
(Scale 1 = Strongly disagree / 5 = Strongly agree)			
(a=.855, $\rho_{vc(n)}=.60$, $\rho=.86$)			
V3	Having satisfaction of improving my personal knowledge and skills	0.83	43.16
V4	Having a sense of personal accomplishment	0.85	44.99
V5	Completing exciting and challenging class activities	0.72	35.57
V6	Enjoying learning about interesting subjects	0.69	33.57
Adapted from Young (2005)			
PERCEIVED LEARNING			
(Scale 1 = Strongly disagree / 5 = Strongly agree)			
(a=.77, $\rho_{vc(n)}=.63$, $\rho=.78$)			
V7	I am learning a lot in this course	0.84	39.60
V8	As a result of taking this course, I have more positive feelings toward this field of study	0.75	34.83
Adapted from Marks (2000)			
ACADEMIC ACHIEVEMENT			
(Ratio scale)			
(a=.90, $\rho_{vc(n)}=.78$, $\rho=.91$)			
V9	Classification obtained in the 1st period in the discipline	0.95	54.60
V10	Classification obtained in the 2nd period in the discipline	0.96	55.67
V11	Average classification on the set of all disciplines	0.73	37.60
Adapted from Young et al. (2003)			
Notes: a = Internal reliability (Cronbach, 1951)			
$\rho_{vc(n)}$ = MVE (Fornell & Larker, 1981)			
ρ = Composit reliability (Bagozzi, 1980)			

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A CASE OF SOCIAL UNIVERSITY RESPONSIBILITY. A LEARNING-SERVICE EXPERIENCE THROUGH THE SOCIAL BUSINESS GUIDANCE SERVICE

CONSUELO BENITO
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ABSTRACT

University work influences and has a presence in many areas of society: it is a job generator and influences employers' behavior; it is related to both its internal & external audiences, being integrated in the society in which it participates; it takes part in economic processes and consequently in local and regional decision-making processes; it disseminates and transfers knowledge. This relationship is acquiring increased meaning and presence nowadays and had been conceptualized as SRU (Social University Responsibility), that differs from the CSR (Corporate Social Responsibility) by the fact that it deals with impacts that companies ignore completely: where measuring the organizational and social impacts are common, academic, educational and cognitive impacts that require solutions to problems of pedagogical and epistemological order, are strange to business organizations. SRU is, then, the creation of a policy of ethical quality in the activities of the university community (students, faculty, administrative staff) through a responsible management education, cognitive impact, employment and the environment, in participatory dialogue with society, to promote sustainable human development. In that sense we want to present in this paper a concrete case of SRU in the business education arena: the *Social Business Guidance Service* a learning service structure created at a business school. The *SBGS* works as a consultancy firm where students are set up in groups of 3-5, with a senior consultant (usually a teacher), and have to solve a concrete business topic within a not-for-profit-organization.

KEY WORDS: Social University Responsibility, learning-service, Social business.

1. INTRODUCTION

Since the beginning of last century, universities and business schools have questioned their role as Social Transforming Agents. Beyond formal education, there are other areas where they can have an impact as organizations. Integrating Social Responsibility (SR) in management and in all the activities that academic institutions perform is one of the demands that our society has today. Recent financial scandals reveal the need to change the role of university into one that transforms society. Ghosal (2005) states that our theories and ideas have contributed to reinforce management practices that we now strongly criticize.

To be able to define the concept of Socially Responsible Universities (SRU) we need to briefly analyze the concept of Corporate Social Responsibility (CSR). The European Commission (2001) defines Corporate Social Responsibility (CSR) as the voluntary integration by business, of social and sustainable objectives in their commercial operations and in their relations with the rest of stakeholders.

From this concept, SR evolves and adapts itself to different realities, as the university one does. Universities play a very important role in the promotion of social responsibility and its compromise, which is vital to contribute to the social, economic and environmental sustainability of its surroundings.

In order to have an effective implementation of Social University Responsibility in all areas of universities, it is key to involve and create awareness for all the staff from each institution. Encouraging every internal and external stakeholder's participation in the social mission of the university is the most effective route to promote itself. SRU shouldn't be merely cosmetic; it should take us to a reflection of the social meaning of knowledge production and the training of the professionals of the future.

The identification of different perspectives of SRU should enable universities to design proper policies and strategies in relation to this matter. In the case of Spanish universities this can be transformed into an important opportunity to correctly respond to the challenges and demands that the EU 2015 is requesting in relation to socially responsible behavior.¹

In this regard, the learning-service is a practice that, according to the authors of this article, is an optimal way to perform this SRU. Martinez (2010;12) states that "*The model of learning-service in a higher education context and in particular in universities, are initiatives that should be framed in the training model of universities that want to combine academic training with education for an active citizenship in real time. That is why they are initiatives that should be integrated with the changes oriented towards a new model of universities that not only wants to deliver quality but also includes the practice of social responsibility*". In this article, an example of a good practice is presented, the case of the Social Business Guidance Service: a structured initiative that enables students from the business school to combine the

¹ EU 2015 is an initiative to modernize Spanish universities through the coordination of the different universities systems. (Ministerio de Educación, 2011).

practical application of their studies with the service to groups in need and the organizations that work with them and to reflect on the learning that they gain in the process.

2. THE LEARNING-SERVICE AS AN SRU INITIATIVE

2.1. What is SRU?

Vallaes (2008) introduces an SRU definition: a policy of ethics quality in the activities of the university community (students, faculty, administrative staff) through a responsible management of educational, cognitive, employment and environmental impacts on the university, in participatory dialogue with society to promote sustainable human development.

For Vallaes, de la Cruz and Sasia (2009) SRU is different from CSR since it deals with impacts that corporations are not aware of: if organizational and social impacts are common, academic, educational and cognitive impacts that demand pedagogical and epistemological solutions are strange to business organizations.

Quezada (2011) defines SRU as the group of obligations that university managers have to promote institutional policies to take decisions or to follow action plans that are aligned in terms of objectives and values of society.

For Gasca-Pliego y Olvera-García (2011) there is a need to give a greater role to the social aspect of universities as institutions that serve the individual and society. The S XXI challenge is to create a social citizenship where SRU, as a trainer of citizens, obtains great importance; in other words, we should not consider universities only as an important sector in the global economy, but primarily as knowledge creators and disseminators and, consequently, as opinion leaders.

As we have mentioned before, there is a lot of heterogeneity in the SRU definition and to understand and apply it, it is necessary to generate research groups in this field.

Sotomayor (2012) sustains that the United Nations and UNESCO have been the biggest promoters of SRU to the benefit of students and society as a whole.

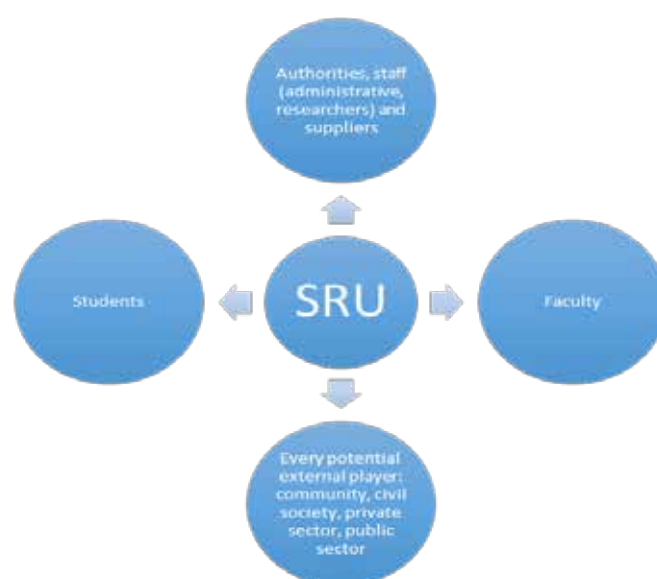
2.2. The different Stakeholders involved in SRU

Stakeholders are understood as any group of individuals that directly or indirectly have relation and are affected by university functioning.

Vallaes, de la Cruz and Sasia (2009) define interest groups or stakeholders as a term that includes a wide range of individuals such as: administrative staff, faculty, researchers, authorities, students, suppliers, graduates, employers, competitors, local communities, social organizations, public organizations and government.

The following chart shows the different stakeholders of SRU. Of all these groups, students and faculty are the groups that differentiate SRU from CSR since they generate impacts in society that businesses cannot generate, such as professional and citizenship training.

Figure 1.



Source: created from an adaptation of Vallaes, de la Cruz and Sasia (2009)

It is important to have open and constant communication channels between these groups to ensure the encouragement of the university's social mission.

According to Mora and Ibáñez (2009), university mission has influence and presence in many areas of society: it generates employment, influences it, has internal audience, is integrated in the society where it participates, takes part in economic processes and in local and regional decision taking, spreads knowledge and encourages research. Due to this relationship, SRU gains meaning and growing presence.

The same authors believe that university and society are interrelated. This implies dialogue, respect and openness with all stakeholders, although these relationships may have limitations and could be conflictive.

The action areas where SRU have impact are the following:

Figure 2.



Adapted from Vallaeys (2008)

2.3. Learning Service as an SRU paradigm

The learning-service is a method designed to link traditional learning with social compromise. It implies putting in practice the knowledge acquired in different courses in a particular degree (as is done in the *practicum*) but in this case, putting that knowledge to the service of the common good. As Martinez (2010) explains, there are different models: integrated as practical exercises in a particular course and part of the evaluation; as final assignment from bachelors degree or master; as a course per se; as a voluntary activity (or even compulsory) etc. Martinez et al. (2013), themselves consider the learning-service as a good source of innovative teaching, in which students learn through an action on which then they must reflect at the same time they are doing good for the community. In this regard learning-service is seen as a key element of what the modern university mission must be: to train critical citizenship towards the promotion of a different world (Francisco y Moliner, 2010).

3. THE CASE: THE SOCIAL BUSINESS GUIDANCE SERVICE AT UNIVERSIDAD PONTIFICIA COMILLAS (SPAIN)

Started in September 2014, the Social Business Guidance Service ICADE is a Project from the business school of the Pontifical University Comillas through its Chair of Business Ethics and in the framework of what it is called Learning-Service.

With this initiative the university was looking to offer learning spaces between students, combining voluntary services that could be considered professional with social training, collective reflection and putting in practice the student's academic knowledge in social projects in service of people in need. All this has been summarized with the logo **Create, Understand, Touch**:

- **Create**, because the projects where work is performed must be innovative and should add social value;
- **Understand**, because it should not lose perspective and should assess why what is happening is happening. Why do we need to act in *the social*? What are the causes and consequences of the sociopolitical and economic situation in the lives of these people?

- **Touch**, because meeting other realities, getting out of the classroom and university, knowing, sharing and seeing is important.

It is a project where as a whole it is offering:

- **Training** in business at the service of the person. Insertion companies, special employment centers, social entrepreneurship, inclusive business ...
- **Performance** over a specific matter: design a marketing plan for an African restaurant, draft a business plan for a business that inserts young adults at risk of social exclusion, collaborate in the start phase of a school in basic itinerant economy for groups at risk of exclusion, support to Moroccan women to start a micro entrepreneur project, etc.
- **Reflection** on the encounter with realities and people different from our daily ones and the learning process that this implies.

The principal action areas where work has been done have been: development, employment insertion, social entrepreneurship-coworking, economic empowerment to be able to live independently, social housing and advocacy. While the main working areas where work has been performed in 2014-2015 have been marketing and commerce, sectorial analysis, market research, entrepreneurial support, design of business plans, training, economic management and *benchmark*.

Some figures that can illustrate the dimensions of this activity are:

- Over 50 alumni have participated (8% of the business school). Being a voluntary and extracurricular activity that doesn't give any academic reward, it is a good figure for the first year.
- As mentors of the projects, 10 professors have been participating whose role has been to boost, motivate, accompany and, if the case was needed, solve issues and ensure the quality of the technical proposal.
- 8 organizations from the third sector have been assisted in 13 different projects: from a marketing study to design a commercial strategy to a sectorial analysis or a viability plan.
- Two seminars of 15 hours each have been organized. In them the following topics have been covered: exclusion economy, social entrepreneurship, solidarity economy, ethics bank, fair trade and in general issues focused on serving the person. All of them are extracurricular topics that generate great interest, debate and that students, our future business managers, are keen to know.
- Three sessions to reflect and share have taken place.

It can be noted that the previous stakeholders shown in (fig. 1) in the theoretical model are in line with the different players that take part in this experience. First of all, the **Social Organization – Customer**: a not-for-profit-organization (NGO), institution, insertion business, special employment centers, cooperatives and in general any third sector entity that demands the services for a particular project and that must require the social business guidance service (SBGS), the compliance of deadlines and a quality project, as well as accurate delivery of data, documents and any information needed for the project. They also should convene and encourage students to participate in activities that could relate their assignment to the social context where they are collaborating. Secondly, the **Students-Consultants**, the reason and engine behind these projects: students from the business school enrolled in any of its programs and from any year (except 1st year). They are grouped in mixed teams and a particular project is assigned to them. At the same time they acquire the commitment to attend the training and reflection sessions. Thirdly, the **Escorts, companion**: professors from the business school and or active professionals, alumni or in close connection with the university. They provide a voluntary service to SBGS and are assigned to a particular project according to their skills and preferences. They have a double role: on one hand they provide technical support and on the other they motivate, encourage, guide and are in a way the reference person for the students and the customer. Lastly, a team of **Management –Coordinators** made up of people assigned by the university in its commitment to this program. The manager is a professor from the school of business and the coordinator is the person in charge of the Learning-Service program across the whole university (there are similar programs in the Engineering School, Law, etc.). Additionally, there is an **Academic Board** with experts and prestigious persons from the social service sector whose role is to assist the manager in the organization of the different projects, in the training activities and in the assessment of both.

The different projects are many and diverse; following is an example of some that serve to illustrate how this university structure/initiative is a tool for SRU.

- An intervention has taken place in an underprivileged Madrid neighborhood, through an action-investigation carried out by a group of students from different fields (architecture, design, business, engineering, social work, art) from two universities; Comillas Pontifical University and Rey Juan Carlos University, several NGOs from the area and some neighbors. The objective was to recuperate and boost a particular space (a park that links different areas of the neighborhood).

- Assistance has been provided to prepare all necessary documentation (1 and 3 year viability plan, cash-flow, marketing plan) so that a business that employs youth at risk of exclusion in the construction sector and building maintenance can gain official certification as an insertion business from the authorities from the autonomous community of Madrid.
- Collaboration has been provided in the design of a business plan for an African restaurant that employs and trains immigrants with scarce resources. This restaurant was very successful during weekends but was inactive during weekdays with losses. New business models and business lines have been created, such as events caterings.
- A study has been performed in collaboration with an international NGO to assess how to import handmade crafts from a country in Africa and how its makers can retain the benefits.
- Collaboration with a fair trade NGO that produces sport clothing in a women's workshop in the Philippines. This collaboration is twofold; on one hand they assess how to introduce the sport equipment (track-suits) in the Spanish market through schools. On the other, they collaborate with local associations that assist prostitutes in Madrid in the creation of a brand and commercial material for a fitness line to sell in local sports stores.
- A viability study has been performed about how to introduce fair trade coffee and other similar products in universities canteens and certify them as Universities for Fair Trade.

Many more examples could be provided. These are just to show, as is stated in part 2.3, that learning-service experience is a great tool for SRU and its multi-stakeholder perspective. In some cases, in addition to students, faculty and local organizations, some university services are also involved (canteen) and a global perspective is taken.

The learning and assessment of this first year is positive. A lot of work has been done, not only in the projects, but also in the two training seminars. The feedback from the different players is overall satisfactory. It is true that there are areas to improve: the re-design of the projects deliveries so it is more a *continuum* than a delivery at the end of the term; the role of the companion and his/her responsibility to deliver; the student commitment so the quality of his/her work is improved and to make him/her see that voluntary doesn't mean "I will do it if I can". Reflect on how to facilitate the interaction of the student with other realities. Nevertheless, there have been many positive aspects that make this program a fundamental one for the University. In the Rector's words the goal is "not to train the best professionals in the world but the best people for the world".

4. CONCLUSIONS

The case presented in this paper (the SGBS) could be considered paradigmatic as it fills in every single item of the given definition of SRU:

- It implies all the educative community: staff, students and teachers and, in particular, the University's highest authorities. It is a challenge that has been pushed up-bottom, and evolves from the University's Declaration of Mission, even though it is assumed and come to participative by the students and rest of the educational community.
- It is a voluntary activity for students and mentors that contributes to create a solidarity climate within the whole university, facilitate to establish relationships further than the classroom-based ones as well as reinforces the vincula with the Alumni, who play an important role as mentors. It also strengthens the proud and fulfilled feeling throughout the entire community.
- It contributes to the academic performance of the students, as they have to face a concrete, real and somehow difficult (due to the lack of resources that this type of entities usually presents) challenges which they have to solve.
- It gives opportunity to meet a variety of situations, from diverse socioeconomic and even geographic circumstances, often very different to which students (and teachers) live in.
- It provides concrete, real, of good quality and useful services to organizations that otherwise, cannot access to professional services.
- It gives the University a chance to connect with the 'real world' and its problems, to provide solutions and, in the large run, to build a better, fairer, cleaner world.

LITERATURE

1. Comisión de las Comunidades Europeas (2011). Libro verde de la responsabilidad social de las empresas, COM (2001)366 final, Bruselas. 18.07.2001.
2. Francisco, A. Moliner, Lidón (2010). "El Aprendizaje Servicio en la Universidad: una estrategia en la formación de ciudadanía crítica" REIFOP, 13 (4). <http://www.aufop.com> Retrieved July 2015
3. Gasca-Pliego, E., & César Olvera-García, J. (2011). Construir ciudadanía desde las universidades, responsabilidad social universitaria y desafíos ante el siglo XXI. (spanish).Convergencia: Revista De Ciencias Sociales,18(56), 37-58.
4. Ghoshal, S. (2005). Bad management theories are destroying good management practices. Academy of Management Learning & Education,4(1), 75-91.
5. Martínez, M (ed.) (2010) Aprendizaje servicio y responsabilidad social de las universidades Barcelona, Octaedro.
6. Martínez, B., Martínez, I, Alonso, I. Gezuraga, M. (2013), El Aprendizaje-Servicio, Una Oportunidad Para Avanzar en la Innovación Educativa dentro de la Universidad del País Vasco http://www.tendenciaspedagogicas.com/Articulos/2013_21_08.pdf Retrieved July 2015
7. Ministerio de Educación (2011). Estrategia Universidad 2015. Contribución de las universidades al progreso socioeconómico español 2010-2015, Madrid: Ministerio de Educación. Disponible en <http://www.mecd.gob.es/dms/mecd/educacion-mecd/areas-educacion/universidades/educacion-superior-universitaria/servicio-documentacion/libros/2011-estrategia-universidad-2015-pdf.pdf> [Accessed: 5/05/2014]
8. Mora, I. M. R., & Ibáñez, María del Mar Soria. (2009). Responsabilidad social en las universidades de España. Razón y Palabra, (70), 1-22.
9. Quezada, R. A. G. (2011). La responsabilidad social universitaria como desafío para la gestión estratégica de la educación superior: El caso de España. Revista De Educación, (355), 109-133.
10. Sotomayor, J. M. (2012). University social responsibility: Origins, scope, and potential future. Journal of International Business Education, 7, 77-102.
11. Vallaes, F. (2008). Responsabilidad social universitaria: una nueva filosofía de gestión ética e inteligente para las universidades. Revista Educación Superior y Sociedad, 13(2), 191-220.
12. Vallaes, F., De la Cruz, C. y Sasía, P. M. (2009). Responsabilidad Social Universitaria. Manual de primeros pasos. México: McGraw-Hill.

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PLACE OF HUNGARY IN THE GLOBAL COMPETITION

NIKOLETTA KOVÁCS

ABSTRACT

This paper aims at finding the answer for along what criteria do international companies choose location when building out their strategy and what possibility has Hungary in this competition. First an outline of the factors behind decisions concerning the choice of location and their significance will be presented, then applying statistical data and examining correlation relations it aims at supporting the hypotheses about the companies' location. One of the main conclusions of this study is that in order to overcome our main disadvantage and the established "addiction" we can organize clusters to taking advantage of the regional features and be more competitive.

KEY WORDS: competitiveness, automotive suppliers, cluster development.

INTRODUCTION

The importance of location and outsourcing.

The supply price, which concerns the consumer, is influenced by the most important cost factors of the supply chain – costs of establishment and operating of institutions, costs of inventory, shipping and information – which are the responsibilities of the manufacturer. This is why there is a strong interrelationship between the supply prices and the location of facilities and this is why an inappropriate choice of the latter might pose a problem (Vörös, 2010). In the course of strategically planning not only the location, but the number of facilities is an important issue too, as the increase of the number of premises may enhance flexibility and may decrease costs of logistics; but at the same time it may increase costs if the stock level is not optimal.

Thanks for globalization production or service unit may be located anywhere and companies' strategy may be built taking advantage of countries (Slack, et al., 2001). A recent trend is that different industries are concentrated on one particular part of the world, for example IT in the Silicon Valley in the USA, European machinery industry in Germany, banks group into Zurich, London or New York, whereas cotton originates in Asia therefore it is worth installing the textile industry there so as not to fall behind on quality (Krajewsky-Ritzman, 2005). According to projections, by the second half of the 21st century developing countries that is the BRIC (Brazil, Russia, India and China), with their low wages will be market- and cost leaders on the market of several products thus becoming leading factors in the price policy world-wide (Reketttye, 2011).

Companies often appoint experts of a distant country for certain jobs because of cost optimization and competitiveness – this is called offshoring (offshore outsourcing). Offshoring helps keeping costs low; nevertheless, some risk factors should be taken into account: because of different time zones, project managing and communication problems may arise, cultural differences should be considered, and different levels of qualification as well as language often pose problems too. These factors may affect quality labour negatively, not to mention that they may entail additional costs in long-term. Nearshoring (nearshore outsourcing) can help find the balance between cost efficiency and quality. In this case, a company looking to outsource wants to find a partner that is "near" both physically and culturally, also, beside cost considerations, professional experience and reliability, ultimately quality, will be important factors of its choice.

HUNGARIAN EXAMPLE

The 1988-1990 year was characterized by a lack of capital in the Hungarian economy. Therefore the government sought to win multinational investors with investment promotion system and offered them significant discounts (Antalóczy-Sass, 2003). However, often the accusation is raised that foreign subsidiaries interested only in the purposes of knowledge adaptation and cost effectiveness. The example of German manufacturing firms shows that they build more vertical relationship with the Hungarian subsidiaries than horizontal (Szalavetz, 1999).

Supplier network of the vehicle industry in Hungary

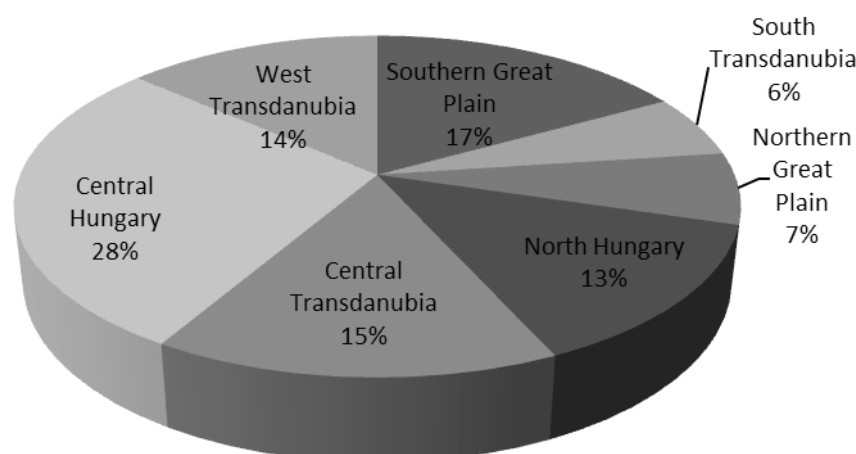
A study that was carried out in June 2011 by the Data Collecting Institute on behalf of the Vehicle Industry and Regional Economics Study Group at Széchenyi István University identified the factors determining competitiveness related to supplier activity in the vehicle industry. These are: low price, partner relations, quality, productivity, a complex range of products and adaptability (Páthy-Róbert, 2012). According to economic literature automotive industry is one of the most innovative ones, but, despite existing innovative activities, only a third of the researched suppliers see innovation

as a determining factor in competitiveness. Setting the right prices, maintaining a good relationship with costumers, ensuring a cheap but skilled workforce, diversification are all more important factors. Therefore, the most determining parameters of a decision are cost, reliability and quality.

Foreign-owned companies often choose already established and well-performing partners as suppliers, which do not necessarily include Hungarian companies but important that there will be a reliable supplier in the area. An interview based research within the frames of the above mentioned research has found that size-efficiency and bureaucracy are among Hungary's main weaknesses.

As a result of the above mentioned research a database has been formed among the Hungarian suppliers of the automotive industry which incorporates 118 companies. Their regional distribution is represented on figure 1, the interpretation of which can be found by graph 1 in the Appendix.

Figure 1: The regional distribution of the respondents of the questionnaire for suppliers of the automotive industry in Hungary (2011)



Source: own design based on Páthy, Á. – Róbert, P. (2012)

Most suppliers of the automotive industry are located in Central Hungary (around Suzuki in Esztergom) in Southern Great Plain (around Mercedes in Kecskemét – although the factory had not opened in the year of the research) and in Central Transdanubia, which is surprising because Audi in Győr and Opel in Szentgotthárd are located in Western Transdanubia which only ranked as fourth. This indicates that suppliers do not need to be located in the same region as large companies in the automotive sector in order to maintain business relations in long-term.

Companies in this research gave the following answers to the question whether they were formed as the result of a Greenfield investment (Table 1).

Table 1: Was the company formed by Greenfield investment? (2011)

Greenfield investment	Respondents	
	Number	%
Fully	34	30,1
No	75	66,4
Partially	4	3,5
All	113	100,0

Source: own design based on Páthy, Á. – Róbert, P. (2012)

Greenfield investment refers to a new industrial undertaking which was formed on a previously cultivated agricultural area and is entirely new without any previous operational activity. Brownfield investment refers to the process where a run-down, mostly out of use, environmentally damaged area with ownership problems is cleared of its liabilities, and infrastructural and functional investments necessary for the its new function are done. The investments in this research were not formed as Greenfield investments which are beneficial because industrial areas are available in Hungary where businesses may be started up even with a smaller investment. Presumably this may also be an underlying factor.

Motivation of location choice of Audi AG

Motivations of companies settling in Hungary are diversified. Starting from a broader context, at the time of the political transition external stakeholder influencing local economics can be divided into two groups. One was the Hungarian government, which helped economic transformation, the market economy transition by creating the necessary regulatory environment. The other determining stakeholders in this period were the member states of the EU and OECD with their well-developed economy which, as a part of their national economy policy, encouraged capital investments in countries of the former Eastern bloc. During this period Győr became a popular target of operational capital, what is more, together with Vienna and Bratislava, it was often referred to as one of the investment golden triangle of Central Europe. Foreign capital not only took its share in green- and brownfield investments, but also in developing Industrial Parks (Lados, 2011). Audi Hungária Motor Ltd. and other companies of the processing industry such as machinery manufacturers, automotive suppliers, companies of the electronic and plastic industry and shipping companies reside in this park. In Győr's case knowledge-formation was an important factor as well, to which institutions of higher education, research laboratories and research institutions contributed. Where higher education is of high standard, industries requiring research and development activities will flow into (Lados, 2011).

Another advantage of Győr is its geographical position. In east and westward directions it has railway lines, public roads and waterways, all suitable for shipping, but its north and southward connections would need to be developed. Choice of location may also be influenced by business tax. Local authorities provide various discounts on local taxes in order to draw companies into the city, however local tax exemption for companies cannot be granted anymore since 1st of January 2008 in accordance with competition law of the EU.

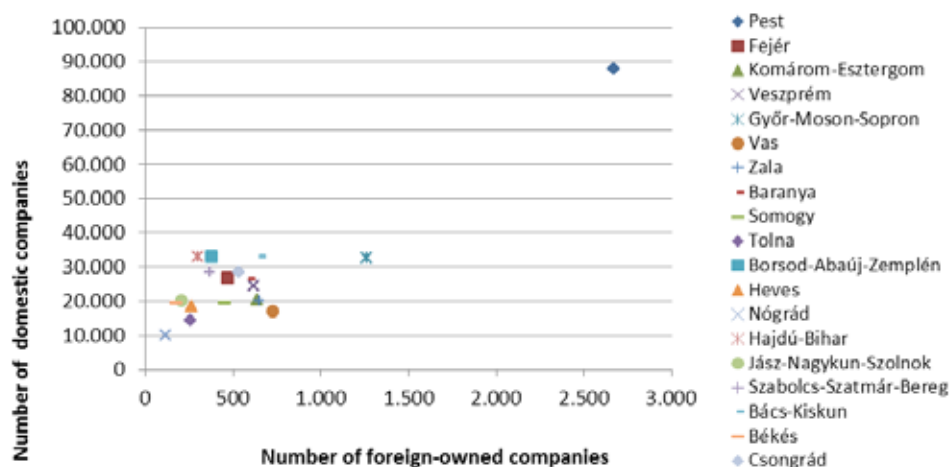
Conclusively, according to the respondent suppliers, cost and quality form the basis of decisions on choice of supplier and location. Beside this, in Hungary competition priorities lie in partner relations and adaptability. Size efficiency and bureaucracy are the main weaknesses of Hungary. The research also shows that it is not necessary for potential suppliers to be in the direct area. Furthermore, it was also found that they do not pick the location specifically for their activity, the favourable conditions of brownfield investments are sufficient.

RELATIONSHIP RESEARCH

Correlation between the numbers of Hungarian and foreign-owned companies

According to a database found on the webpage of the Hungarian Central Statistical Office there is a decrease in the number of Hungarian and foreign companies from 2008 until 2012. The number of Hungarian companies went down from 513 773 to 466 611 – an approximately 10% decrease -, while the number of foreign companies went down from 11 338 to 10 984 – an approximately 4% decrease. According to the Figure 2 the highest number of Hungarian companies is in Pest County, which was followed sometimes by Bács-Kiskun County and sometimes by Hajdú-Bihar County between 2008 and 2012, and only then was it followed by Győr-Moson-Sopron County. The highest number of foreign companies is also located in Pest County, followed by Győr-Moson-Sopron and Vas counties. Nógrád County was the least favoured location in both categories. (Figure 2. in the Appendix may help allocate the counties on the map.)

Figure 2: The relationship between the number of domestic and foreign-owned companies in each county (2008)



Source: own design

A COLLABORATIVE POSSIBILITY

The clusters impact on domestic economy

The Pannon Automotive Cluster (PANAC) is a Hungarian corporation where automotive companies can join voluntarily. It was founded in 2000 to improve the domestic competitiveness. The goal of the PANAC was to develop the network of suppliers. The regional distribution of the cluster members is shown in Figure 3.

Figure 3: The founders and members of PANAC



Source: <http://www.autocluster.hu/>

The establishment of the cluster serve as a good example for competitiveness through collaboration. A complex cluster support system was designed by EU supports during the 2007-2013 (New Hungary Development Plan) periods. Because the ability and willingness of SMEs cooperation has not been developed enough, the New Hungary Development Plan gave a main role to the cluster development.

The specific development places to develop cooperation were:

- Central Hungarian Operational Program: organize communication and organizational activities, develop physical infrastructure
- Southern Great Plain Operational Program: build regional economic networks
- South Transdanubian Operational Program: focus on industries with strong tradition in the region, e.g. tourism
- Northern Great Plain Operational Program: promote the development of management activities and services in the region
- North Hungarian Operational Program: provide operational support for existing clusters
- Central Transdanubian Operational Program: strengthen the competitiveness and formal relations of SMEs

The most developed region is the West Transdanubian where are the most key sectors and related infrastructures.

Hungary has examples for successful and less successful clusters too. Experience has shown that for the successful development is necessary to offer source to the cluster by large companies. Long term it can only be achieved if the large companies will see real opportunities for domestic SMEs in innovative and mutually beneficial cooperation (Horváth et. al., 2013).

CONCLUSIONS

The importance of outsourcing and location-choice is found briefly in reducing costs and enhancing competitiveness. The question is where and how, what and who organize. To our country constantly happening outsourcing since 1990, but we maintain mostly the vertical relationship with companies relocating here. It seemed the relocating companies appreciate our strengths, but our main weakness, the economies of scale prevents us to switch horizontal relationships to vertical. The automotive suppliers are mostly located in the western part of the country - as the relocating companies - but in general it can be said about the regional dispersion: where are more foreign-owned companies, there are more domestic companies too. It remains the supported relationship with large companies. Between 2007 and 2013, several clusters have been launched by resources of EU, who taking advantage of economies of scale to fit into the fabric of the domestic economy. Our regional specialities reveals from the survey conducted by The New Hungary Development Plan, so accordingly this we could overcome the deficit with help of institutional conditions. However, the long-term sustenance required further investment as tangible and intangible terms.

LITERATURE

1. Antalóczy, K. – Sass, M. (2003): Befektetés ösztönzés és Magyarország csatlakozása az Európai Unióhoz, Külgazdaság, XLVII. évfolyam, 2003. április, Budapest
2. Horváth, M. – Kerekes, I. – Patik, R. (2013): Elemzés a magyar klaszterfejlesztés elmúlt 4 évéről (tények és tanulságok), Magyar Gazdaságfejlesztési Központ Zrt., Budapest
3. Krajewski, L. J. – Ritzman, L. P. (2005): Operations Management – Processes and Value Chains, Pearson Education International
4. Lados, M. – Kollár, K. (2012): A helyi gazdaságfejlesztés és a járműipar Győr példáján, In Rechnitzer J, Smahó M (szerk.): A járműipari beszállítói hálózat Kelet- Közép Európában és Magyarországon. Győr: Universitas-Győr Nonprofit Kft.
5. PANAC: <http://www.autocluster.hu/>
6. Páthy, Á. – Róbert, P. (2012): A járműipari beszállítók körében végzett kérdőíves felmérés módszertana. In: Rechnitzer J, Smahó M (szerk.) A járműipari beszállítói hálózat Kelet- Közép Európában és Magyarországon. Győr: Universitas-Győr Nonprofit Kft.
7. Reketye, G. (2011): Multidimenziális árazás, Akadémia Kiadó, Budapest
8. Slack, N. - Chambers, S. – Johnston, R. (2001): Operations Management, Pearson Education International
9. Szalavetz, A. (1999): Technológiai transzfer, innováció és modernizáció német tulajdonban lévő feldolgozóipari cégek példáján, OMFB, Budapest
10. Vörös, J. (2010): Termelés- és szolgáltatásmenedzsment, Akadémia Kiadó, Budapest

APPENDIX

Figure 1: Hungary's regional allocation



Figure 2: Hungary's counties**DETAILS ABOUT AUTHOR:**

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THE EFFECTS OF CONSUMER PERCEPTION ON STORE IMAGE AND PRIVATE LABEL: COMPARATIVE STUDY BETWEEN TAIWAN AND JAPAN

MASAE KANAI

SHIH-YI CHEN

MASAAKI TAKEMURA

ABSTRACT

In this paper, we report on empirical results on the relation between a private label and store image in Taiwan and Japan. Private labels are generally defined as goods which shall be sold in a specific retailer as the retailer's original brand. Retailers preferred to sell private labels because the private label cannot be sold in other retail stores, and can contribute to the retailer's profit.

Private labels, however, have been regarded as cheaper goods than national brands. Indeed, average prices of private labels are always cheaper than national brands' are. So typically, when consumers choose a private label, just for price reason.

Recently in Japan, consumer perceptions to private labels are gradually changing. This change is attributed in some extent to new product development by convenience stores. These private labels are placed at better locations than national brands are in the stores. These private labels are no longer regarded as cheaper goods, rather as "the only-one goods" at the specific retail store.

In this paper, we examine how the consumers' perceptual characteristics and a store's image influence private label attitude and purchase intention. We conducted two surveys of 350 and 670 consumers both in Taiwan and Japan, respectively. We found that consumer perceptual characteristics and store image both impact on purchase intention, but that consumer perceptual characteristics have a stronger effect on private label attitude than store image. In addition, store image plays the role of antecedent in consumer perceptual characteristics.

KEY WORDS: Private labels, Consumer perception, Store image, Attitude, Purchase intention.

1. INTRODUCTION

The purpose of this paper is to show two empirical results on the relation between private label and store image in Taiwan and Japan. Private labels, also known as store brands or private labels, are owned and branded by retailers. In our research, we will focus on the relation between consumer perceptions on private labels and store image.

Private label users have particular consumer perceptual characteristics, especially a price-quality related perception. Particular consumers will be attracted to the benefits of lower prices, and as a result lower prices become an important reason for purchasing private labels, in general (Hoch and Banerji, 1993). Ailawadi et al. (2001) indicate that price consciousness and low quality consciousness are particular characteristics of private label users.

International context of private labels, private labels have around 17% of the market share, and the rate of growth keeps increasing (ACNielsen, 2005). As private labels are priced on average 31% lower than national brands (ACNielsen, 2005). Private labels have become an important contribution for retailers to build consumer store loyalty (Richardson et al., 1996; Batra, 2000).

Nonetheless there are several persuasive empirical studies, the role of private labels is gradually changing in the Japanese retail context. Many Japanese convenience stores are developing and introducing a variety of private label goods. Private labels in Japan began in 1960 with Daiei, one of the biggest retailers in Japan (Ono, 2010). Since 1960, Daiei led Japanese private label competitors against the national brands. Here national brand means products that large manufactures produced. Table 1 shows some samples of price differences between private labels and national brands in Japan. At that time, the reason Japanese consumers bought private labels was price. That is, private labels were cheaper than national brands. It took more than 20 years for our perceptions of private labels to slightly change. Brands are still cheaper, but one important difference exists; producers' names on them.

Table 1. Price differences between private label and national brand

	Detergent	Orange juice	Coke	Films (3 in one, ISO100)	Beer
NB	830	340	110	1470	220
PL	348	198	39	498	128

(Unit: JPY, EUR1=JPY120, average 1995)

Source: Ono (2010), p. 96, Figure 5-2.

It was normal that the original manufacturer was not known in private label developments. There have never been manufacturers' names on private label goods. Against this general trend, one dominant convenience store, 7-ELEVEN Japan now displays the manufacture's name on its private label goods. This is sometimes called "double-chop". In double-chop type private labels, consumers strongly care about which manufacture produced the private label goods. In this case, Japanese consumers do not choose a private label as cheaper goods. So, private labels do not have the same perception in an international context.

With regard to consumer perceptual characteristics, the link between store image and consumers purchase behaviour toward private labels is also being discussed. A store image is viewed as the image of a particular store in the consumer's minds (Chowdhury et al., 1998). Store image is an important factor in the retailer's ability to achieve a competitive advantage and is viewed as a predictor of consumer behaviour (Hartman and Spiro, 2005). Prior studies have indicated that store image directly impacts on consumer attitude and purchase intention toward private labels (Thang and Tan, 2003; Bao et al., 2011). Moreover, store image may also indirectly impact on the attitude and purchase intention of private labels. If a private label is perceived to be of lower quality, it might be due to the fact that store image is an extrinsic cue for improving the quality perception by a consumer toward a private label (Bao et al., 2011).

From above discussions, we suppose that store image and consumer purchase behaviour toward private labels are associated positively with each other. Hoch and Banerji (1993) indicated that the consumer factor and the retailer factor affected the development of private labels simultaneously. However, empirical research investigating the links between these two concepts is still scarce. Moreover, studies on private labels have been conducted primarily in Europe and the USA, and few studies are available in Asia (Jin and Suh, 2005; Au-Yeung and Lu, 2009).

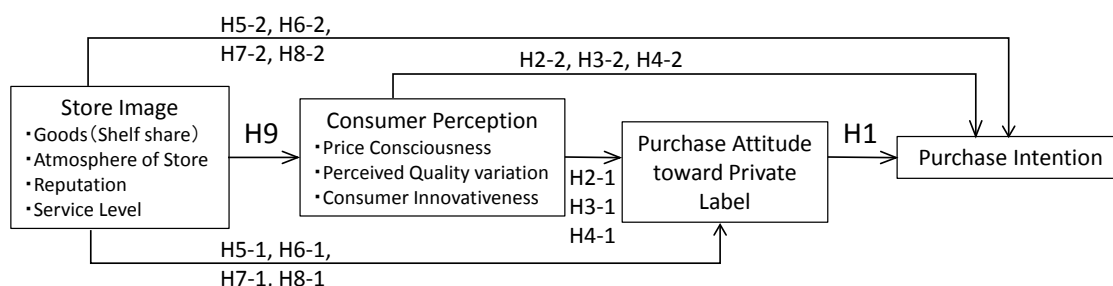
In an attempt to bridge this gap, we investigated how consumer perceptual characteristics and store image influence the attitude and purchase intention toward private labels in both Taiwan and Japan. Our focus is primarily on price and quality related consumer perceptions toward private labels. Jin and Suh (2005) found that consumer innovativeness has a stronger influence than the perceptions of price and quality. Thus, in this study, the consumer perceptual variables consist of price consciousness, perceived quality variation, and consumer innovativeness. Store image variables include merchandize, store atmosphere, reputation, and service quality. In addition, we also investigated if store image is an antecedent of a consumer's individual perception. Our findings provide new insights to retailers allowing them to better apply the strategy of private labels to enhance their consumers' attitude and purchase intention toward the store's private label. The remainder of this paper is organized as follows. The next section develops the theoretical foundation for our hypotheses. We then describe the study method and the results, which are followed by a discussion of our findings.

2. THEORY AND HYPOTHESES

2.1. Theory and Model

In this section, we develop research hypotheses. Before to do so, we will show our research framework. Figure 1 is the research framework. This framework describes the relationships among four main elements in our study. They are store image, consumer perception, purchase attitude toward private label, and purchase intention. The basis of this framework is based on the relationship between attitude and intention model (Fishbein and Ajzen, 1975).

This model supposes that purchase intention shall be constructed with consumers' attitudes. Attitude is defined as an expression of favour (or disfavour) toward a person, place, thing, or event; the attitude objects. In our study, purchase attitude forms purchase intention. This is related with a hypothesis 1. In regard with hypotheses, we will introduce later. Purchase attitude is influenced by two elements. One is consumer perception, another is store image. Moreover, these elements influence the others. So, we will specify our research hypotheses more detailed in next section.

Figure 1. Conceptual framework

2.2. Hypotheses

In our model, there are four elements. They are purchase intention, purchase attitude toward private label, consumer perception, and store image. They are all related. Then, we will define them and specify the relation as the research hypotheses below. All measures were adopted from prior research and were assessed using a Likert-type five-point scale.

Private label attitude and purchase intention

Private label attitude is an important factor in the prediction of purchase intention (Burton et al., 1998; Garretson et al., 2002). Existing literature has indicated that attitude and intention have a consistent relationship (Schiffman and Kanuk, 2000). When consumers consider private labels as being inferior, their purchase intention will be reduced (Jin and Suh, 2005). Private label attitude was measured by two items. The measures were derived from Burton et al. (1998). Purchase intention was measured by three items. The measures were adopted from Dodds et al. (1991). We therefore proposed the following hypothesis.

H1: Private label attitude is positively associated with purchase intention.

Consumer perceptual characteristics

Consumer perceptual characteristics have three factors; price consciousness, perceived quality variation, and consumer innovativeness. Those definitions and hypotheses are as follows.

Price Consciousness

Private label users pay more attention to price than national brand users do (Rothe and Lament, 1973). When consumers cannot understand the quality of a private label from the packaging or labeling, consumer can only use the price to evaluate the private label. Consumers use price as an indicator to whether to purchase a private label (Rothe and Lamont, 1973). Kirk (1992) found that 67% of the consumers who buy private labels consider price as a key factor. In addition, Batra and Sinha (2000) found that price awareness has a direct impact on purchase intention toward a private label. Because the lower price of a private label is the main reason of purchasing private label, it can be hypothesized that consumers that are more price conscious will prefer private labels. Price consciousness was measured by a two-item scale based on the scale from Lichtenstein et al. (1993) and Burton et al. (1988). The scale was used to measure the answer to the statements: "When I want to buy a product, I will look for the cheapest brand," and "When I'm choosing a brand, the price is the most important factor". We therefore proposed the following hypotheses.

H2-1: Price consciousness is positively associated with private label attitude.

H2-2: Price consciousness is positively associated with purchase intention.

Perceived Quality Variation

This means the fact that consumers perceive that there is a difference in quality between national brands and private labels (Richardson et al., 1996). In general, the level of perceived quality of national brands is higher than that of private labels (Cunningham et al., 1982; Richardson et al., 1994). Prior studies have shown that perceived quality variation affects the consumer's attitude and purchase intention toward a private label (Richardson et al., 1996; Batra and Sinha, 2000). If consumers are more inclined to buy private labels, then that means that consumers consider that the variation in quality between a private label and a national brand is low. Perceived quality variation was measured by two items adopted from Dick et al. (1995). The scale assessed the difference between national brands and private labels for overall quality and reliability of ingredients. We therefore propose the following hypotheses.

H3-1: Perceived quality variation is negatively associated with private label attitude.

H3-2: Perceived quality variation is negatively associated with intention to purchase.

Consumer Innovativeness

Here, we employ the definition of consumer innovativeness, as Ailawadi et al. (2001)'s; it is a psychological consumer characteristic of exploring new things. Innovative consumers can judge independently and are more willing to buy a new product (Manning et al., 1995). When a private label is considered as a new product, consumers with innovative tendencies will have a positive perception toward private labels (Granzin, 1981). Jin and Suh (2005) found that consumer innovation positively affects private label attitude and purchase intention. Consumer innovativeness was measured by five items. The measures were adopted from Manning et al. (1995). We therefore proposed the following hypotheses.

H4-1: Consumer innovativeness is positively associated with private label attitude.

H4-2: Consumer innovativeness is positively associated with purchase intention.

Store Image

Store image is a combination of overall perception of consumers of a store (Lindquis, 1974), and is particularly derived from their subjective and objective perceptions (Hartman and Spiro, 2005). The conceptualization of store image attributes is diverse and multi-dimensional (Vahie and Paswan, 2006). According to the literature (Sirohi et al., 1998; Thang and Tan, 2003), store image in this study will refer to merchandise, atmosphere, store reputation, and service quality.

Consumers use this image to evaluate a store. Bao et al. (2011) indicate that a store image may reduce consumers' uncertainty about the quality of a store's private label and that it influences their willingness to buy. Prior research has found that a store's image has a positive relationship with private label attitude and purchase intention (Grewal et al. 1998; Collins-Dodd and Lindley, 2003; Vahie and Paswan, 2006; Bao et al., 2011). Consequently, consumers will adopt a positive attitude and intention to purchase toward a private label if they have a good image of the store. The dimensions of store image included merchandize, atmosphere, reputation, and service quality (Thang and Tan, 2003; Sirohi et al., 1998). Service quality was measured by five items, merchandize and reputation were both measured by two items, and atmosphere was measured by three items. We therefore proposed the following hypotheses.

H5-1: Merchandise is positively associated with private label attitude.

H5-2: Merchandise is positively associated with purchase intention.

H6-1: Atmosphere is positively associated with private label attitude.

H6-2: Atmosphere is positively associated with purchase intention.

H7-1: Reputation is positively associated with private label attitude.

H7-2: Reputation is positively associated with purchase intention.

H8-1: Service quality is positively associated with private label attitude.

H8-2: Service quality is positively associated with purchase intention.

Antecedent of store image on the individual perception of consumers

The consumers' attitude toward a private label may become negative if they have an uncertain attitude towards the quality of that private label and consider it a risky product (Richardson et al., 1996; Batra and Sinha, 2000). Store image is an extrinsic cue that provides a reference for the consumer to evaluate a private label (Bao et al., 2011). Prior studies found that store image may affect consumer perception, especially quality perception (Richardson et al., 1996; Bao et al., 2011). We therefore proposed the following hypothesis.

H9-1: Store image is positively associated with price consciousness.

H9-2: Store image is positively associated with a variation of perceived quality.

H9-3: Store image is positively associated with consumer innovativeness.

3. DATA COLLECTION AND ANALYSIS

3.1 Data Collection

In previous section, we have defined and set our research hypotheses on store image, consumer attitude for private label, and purchase intention. Our research model is not complicated, but also tricky. Here we explain the research method related issues. We observed the effects of consumer perception and store image on private label attitude and purchase intention in a convenience store chain. According to the AC Nielsen report, compared to other retail industries, private labels in convenience stores have a high rate of growth (ACNielsen, 2008a). The main convenience store chain both in Taiwan and Japan, 7-ELEVEn was chosen as the convenience store chain for our questionnaire survey.

In order to ensure what was meant by private labels, a detailed written description of the 7-ELEVEn private label products was provided, complete with photos, at the beginning of the questionnaire. Respondents were requested to answer the question according to their experience with 7-ELEVEn and their private label products. We had two surveys in Taiwan and Japan. In Taiwan, from the 692 questionnaires that were handed out, a total of 350 usable responses were received, yielding a 50.6% response rate. Of these eligible participants, 52.0% were male, and 48 % were female, with 71.2% of them ranging in age between 18 to 34. In Japan, 593 were used out of 720 questionnaires; for male 403, 56.0% and for female 317, 44.0%. These demographics are similar to those in the survey of AC Nielsen (2008b) in which the majority of the users of the convenience store were male, ranging in age from 15 to 34.

3.2 Analysis

In this section, we will analyse data above. In this analysis, as Figure 1 above showed, a structural equation modelling shall be employed. This model is included two main variables. One is causal relations of measured variables. Another is to show latent variables. The former employed regression analysis and the latter used a confirmatory factor analysis. Here we show two results; Taiwan's and Japan's because Japan's analysis was not convergence the model estimation. Here, first we show Taiwan result, then Japan result.

3.2.1 Taiwan Results

Taiwan result shall be shown below as construct validity and overall model fitting indicators. Detailed results in descriptive statistics are reported in table 2. This table 2 provides the means, standard deviations and correlation of the variables used in this study.

Table 2. Descriptive statistics in both Taiwan and Japan results

	1T	1J	2T	2J	3T	3J	4T	4J	5T	5J	6T	6J	7T	7J	8T	8J	9T	9J	Mean(T)	Mean(J)	S.D.(T)	S.D.(J)
1 Price consciousness	1.000	1.000																	2.813	2.329	0.794	0.384
2 Perceived quality variation	0.151	0.004	1.000	1.000															5.391	3.052	1.512	0.496
3 Consumer innovativeness	0.144	0.046	-0.135	-1.310	1.000	1.000													3.442	3.679	0.676	0.472
4 Merchandise	0.030	0.149	-0.038	-2.040	0.080	0.135	1.000	1.000											3.426	2.816	0.749	0.789
5 Atmosphere	0.017	0.178	-0.025	0.880	0.200	0.175	0.374	0.125	1.000	1.000									3.656	3.486	0.567	0.419
6 Reputation	0.092	0.161	-0.105	-0.017	0.109	0.136	0.357	0.091	0.401	0.612	1.000	1.000							7.350	3.361	1.310	0.480
7 Service quality	-0.096	0.168	-0.120	0.003	0.234	0.190	0.292	0.111	0.451	0.599	0.422	0.419	1.000	1.000					3.600	3.684	0.547	0.454
8 Private label attitude	-0.121	0.114	-0.221	0.059	0.174	0.189	0.102	0.108	0.039	0.582	0.273	0.393	0.105	0.628	1.000	1.000			2.970	3.719	0.617	0.444
9 Purchase intention	-0.080	0.651	0.049	0.009	0.140	-0.034	0.090	0.148	0.065	0.133	0.162	0.108	0.157	0.108	0.520	0.093	1.000	1.000	3.328	2.668	0.672	0.860

Note: Bold boarder p<0.05, shade p<0.01

Construct Validity

A confirmatory factor analysis was used to assess the measurement model. The measurement model fitted the data acceptably (chi-square=387.780, df=288, p=0.000; GFI=0.925, CFI=0.972, NFI=0.901, RMSEA=0.032), and all factor loadings were significant (p<0.001). The composite reliability of all the constructs exceeded the 0.60 threshold. The average variance extracted scores from this analysis ranged between 0.499 and 0.670. Overall, these results showed that our proposed measures possessed adequate reliability and validity.

Overall Model

The results are shown in Table 3. H1 postulated that private label attitude impacts purchase intention. Private label attitude was positively associated with purchase intention ($\beta=0.546$, $p<0.001$), thus supporting H1. H2-1 to H4-1 postulated that perceptual characteristics of the consumer impact private label attitude. As shown in Table 3, price consciousness and consumer innovativeness were positively related to private label attitude ($\beta=0.168$, $p<0.05$; $\beta=0.238$, $p<0.001$), thus supporting H2-1 and H4-1. Perceived quality variation was negatively related to private label attitude ($\beta=-0.190$, $p<0.05$), thus supporting H3-1.

H2-2 to H4-2 postulated that the perceptual characteristics of the consumer impact purchase intention. As shown in Table 3, price consciousness was positively related to purchase intention ($\beta=0.180$, $p<0.01$), thus supporting H2-2. However, perceived quality variation and consumer innovativeness were not significantly associated with purchase intention ($\beta=0.107$; $\beta=-0.003$), thus failing to support H3-2 and H4-2.

H5-1 to H8-1 postulated that the attributes of store image impact private label attitude. Service quality was positively associated with private label attitude ($\beta=0.284$, $p<0.01$), thus supporting H8-1. However, the rest of the hypotheses were not significantly associated with private label attitude (H5-1: $\beta=0.032$; H6-1: $\beta=-0.055$; H7-1: $\beta=-0.047$), thus failing to support H5-1, H6-1 and H7-1.

H5-2 to H8-2 postulated that the attributes of store image impact purchase intention. Reputation was positively associated with purchase intention ($\beta=0.181$, $p<0.05$), thus supporting H7-2. However, the rest of the hypotheses were not significantly associated with private label attitude (H5-2: $\beta=0.044$; H6-2: $\beta=-0.160$; H8-2: $\beta=-0.031$), thus failing to support H5-2, H6-2 and H8-2.

Table 3. Hypotheses Tests (H1-H8)

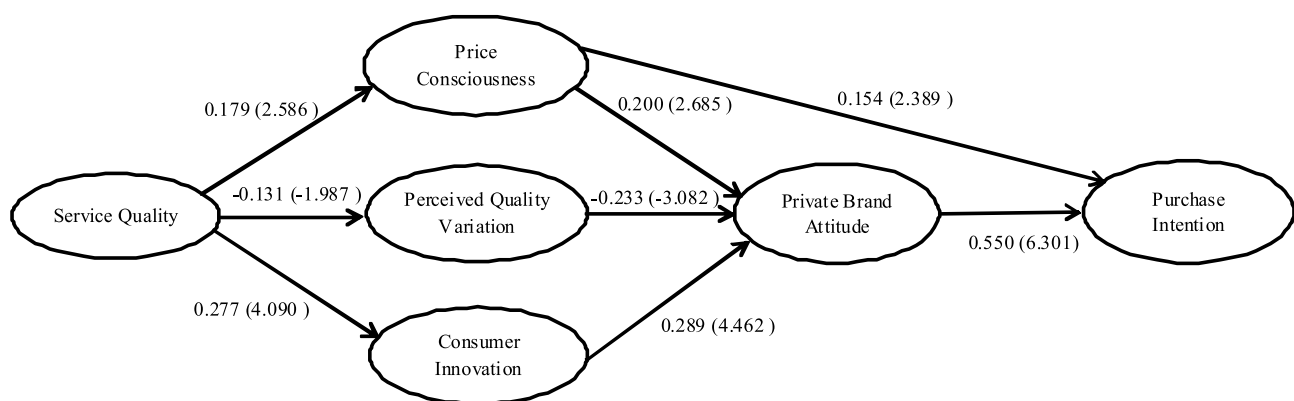
		β	t	Results
H1	Private label attitude \rightarrow Purchase intention	0.546***	6.09	Accepted
H2-1	Price consciousness \rightarrow Private label attitude	0.168*	2.30	Accepted
H2-2	Price consciousness \rightarrow Purchase intention	0.18**	2.69	Accepted
H3-1	Perceived quality variation \rightarrow Private label attitude	-1.90*	-2.29	Accepted
H3-2	Perceived quality variation \rightarrow Purchase intention	0.11	1.58	
H4-1	Consumer innovativeness \rightarrow Private label attitude	0.238***	3.65	Accepted
H4-2	Consumer innovativeness \rightarrow Purchase intention	0.00	-0.05	
H5-1	Merchandize \rightarrow Private label attitude	0.03	0.38	
H5-2	Merchandize \rightarrow Purchase intention	0.04	0.58	
H6-1	Atmosphere \rightarrow Private label attitude	-0.06	-0.56	
H6-2	Atmosphere \rightarrow Purchase intention	-0.16	-1.72	
H7-1	Reputation \rightarrow Private label attitude	-0.05	-0.52	
H7-2	Reputation \rightarrow Purchase intention	0.181*	2.08	Accepted
H8-1	Service quality \rightarrow Private label attitude	0.284**	3.06	Accepted
H8-2	Service quality \rightarrow Purchase intention	-0.03	-0.36	
* $p<0.05$, ** $p<0.01$, *** $p<0.001$				
		Model fit		
		Chi-square	386.555	
		df	291	
		GFI	0.926	
		CFI	0.979	
		NFI	0.902	
		RMSEA	0.031	

Model of antecedent of store image on consumer individual perception

As mentioned above, the model proposed that store image is considered the antecedent of the perceptual characteristics of the consumer and these characteristics are viewed as the antecedent of private label attitude and purchase intention. The results obtained from the confirmatory factor analysis using Amos 7 are shown in Table 4. The results indicated a good fit of the model to the data (chi-square=454.136, $df=305$, $p=0.001$; GFI=0.912, CFI=0.958, NFI=0.884, RMSEA=0.037). All the factor loadings were significant at the 0.001 level. As shown in Table 4, the effect of the perceptual characteristics of the consumer on private label attitude and purchase intention in this model were the same as those of the overall model (Table 3 and Figure1). H9-1 to H9-3 postulated that store image impacts the perceptual characteristics of the consumer. Store image was positively associated with price consciousness ($\beta=0.179$, $p<0.01$), perceived quality variation ($\beta=-0.131$, $p<0.01$) and consumer innovativeness ($\beta=0.277$, $p<0.01$), thus supporting H9-1, H9-2 and H9-3.

Table 4. Hypothesis Test (H9)

		β	t	Results
H9-1	Store image \rightarrow Price consciousness	0.179**	2.59	Accepted
H9-2	Store image \rightarrow Perceived quality variation	-0.131*	-1.99	Accepted
H9-3	Store image \rightarrow Consumer innovativeness	0.277***	4.09	Accepted
H3-1	Price consciousness \rightarrow Private label attitude	0.200**	2.69	Accepted
H3-2	Price consciousness \rightarrow Purchase intention	0.154*	2.39	Accepted
H4-1	Perceived quality variation \rightarrow Private label attitude	-0.233**	-3.08	Accepted
H4-2	Perceived quality variation \rightarrow Purchase intention	0.10	1.55	
H5-1	Consumer innovativeness \rightarrow Private label attitude	0.289***	4.46	Accepted
H5-2	Consumer innovativeness \rightarrow Purchase intention	-0.02	-0.35	
H6-1	Private label attitude \rightarrow Purchase intention	0.550***	6.30	Accepted
*p<0.05, **p<0.01, ***p<0.001				
		Model fit		
		Chi-square	454.136***	
		df	305	
		GFI	0.912	
		CFI	0.958	
		NFI	0.884	
		RMSEA	0.037	

Figure 3. Results of the Antecedent of Store Image on the Perceptual Characteristics of the Consumer

Note: Only significant paths were included. The number in parentheses denotes t-value.

3.2.2. Japan Results

The result of Japan did not convergent as the same model with Taiwan's, but it has some characteristic. As Table 2 showed, most mean of variables in Taiwan had bigger than Japan had; price consciousness, perceived quality variation, merchandise, atmosphere, reputation, and purchase intention. Compared to means, standard deviations did not show the same pattern to mean. For instance, merchandise and purchase intention were smaller deviation than Japan had. This result means that Japanese consumers have many varieties of thoughts to private label of convenience stores.

Hypothesis Tests

As we noticed above, Japanese result Rotation failed to converge in specific iterations (default times were 25.). Here we will show regression results. Our structural equation modelling above was actually multi variate regression, but the modelling could estimate the fitness of overall model.

Table 5. Hypothesis Tests (H1- H8)

		β	t	Results
H1	Private label attitude → Purchase intention	0.61	20.70	Accepted***
H2-1	Price consciousness → Private label attitude	0.13	2.76	Accepted**
H2-2	Price consciousness → Purchase intention	0.13	2.67	Accepted*
H3-1	Perceived quality variation → Private label attitude	-0.06	-1.34	
H3-2	Perceived quality variation → Purchase intention	-0.10	-2.14	Accepted*
H4-1	Consumer innovativeness → Private label attitude	0.09	2.17	Accepted*
H4-2	Consumer innovativeness → Purchase intention	0.01	0.12	
H5-1	Marchandize → Private label attitude	0.08	1.37	
H5-2	Marchandize → Purchase intention	0.08	1.45	
H6-1	Atmosphere → Private label attitude	0.05	1.13	
H6-2	Atmosphere → Purchase intention	0.09	1.76	Accepted*
H7-1	Reputation → Private label attitude	0.14	2.56	
H7-2	Reputation → Purchase intention	0.00	-0.03	
H8-1	Service quality → Private label attitude	-0.05	-0.89	
H8-2	Service quality → Purchase intention	-0.03	-0.46	
*p<0.05, **p<0.01, ***p<0.001				
		H1	Hn-1	Hn-2
R ²		0.38	0.06	0.03
df		1	7	7
F		428.59	6.70	3.15

As Table 5 showed, results of regression were not satisfied from Japanese survey. Rather insufficient power of explanations was. Some of hypothesis was accepted, but overall powers of explanations were very weak, R²s for both Hn-1 and Hn-2 were very low.

However, in detail, price consciousness significantly influenced both private label attitude and purchase intention. Perceived quality variation could influence purchase intention. The higher consumer innovativeness, the higher private label attitude. And atmosphere influenced purchase intention. Only five variables could be accepted from Japanese survey. And since Japanese survey was not accepted by structural equation modelling, it did not have the results of the antecedent of store image on the perceptual characteristics of the consumer, like in figure 3 in this time.

4. DISCUSSION

Investigating the combined impact of consumer-level factors and retailer-level factors on predicting purchase intention of private label products is necessary to some extent of understand consumer behaviour toward private labels. In addition, there is scant literature available on the topic of private labels in Asia. The main objective of this paper was to examine the impact of the perceptual characteristics of the consumer and their store image on their purchase decision toward private labels in a convenience store chain in Taiwan and Japan. By combining these two concepts, this study was able to determine their relative importance, and in addition determined that store image is the antecedent of the perceptual characteristics of the consumer.

All consumer perceived variables were found to have a significant effect on private label attitude. However, only one store image variable, service quality, was associated with private label attitude, and purchase intention rose significantly with price consciousness and reputation. Therefore, the perceptual characteristics of the consumer have a stronger impact on private label attitude than does store image, it has however the same effect on purchase intention as store image.

In particular, both in Taiwan and Japan, price consciousness impacts both private label attitude and purchase intention, as suggested in the literature (Batra and Sinha, 2000; Ailawadi et al., 2001). Consequently, lowering the prices of private labels may build greater consumer acceptance of private labels and improve purchase intention. Private label goods are still price conscious buying behaviour in Japan. Japanese consumer still regarded private label goods as cheaper.

Second, consistent with earlier research (Sethuraman and Cole, 1999), we found that perceived quality variation was negatively related to private label attitude in Taiwan, but not in Japan. Higher perceived quality variation leads to a lower acceptance of the private label. However, perceived quality variation was not associated with purchase intention. This means that perceived quality variation impacts purchase intention by means of the private label attitude.

Third, we found that consumer innovation has an effect on private label attitude both in Taiwan and Japan, as suggested in the literature (Jin and Suh, 2005). This result seems to indicate that a private label is viewed as a new product in the convenience stores, which tend to have only a short history of private labels. However, consumer innovation was not associated with purchase intention. This means that consumer innovation affects purchase intention by means of private label attitude.

Fourth, in terms of store image, service quality had a direct effect on private label attitude, and reputation was positively associated with purchase intention. Prior studies found that store image is viewed as an extrinsic cue that reduces purchase risk and improves the private label attitude and purchase intention (Richardson et al., 1996; Bao et al., 2011). These findings indicate that although service quality affects purchase intention by means of private label attitude, it is reputation that directly impacts purchase intention.

Finally, store image was found to be an antecedent of the perceptual characteristics of the consumer. This is consistent with the literature regarding the impact of a store's image on the perceptual variables of the consumer toward private labels (Bao et al., 2011). The perceptual characteristics of the consumer regarding private label attitude and purchase intention are established based on a strong store image.

5. IMPLICATIONS AND FUTURE RESEARCH

In this paper, we conducted consumer perception of relationship between private label and store image. This empirical study is important to conventional understanding of private label. Private label has been regarded as cheaper goods than national brand goods were.

Private label, however, must play different role in different country. For instance, private label is no longer regarded as cheaper goods in Japan. Dominant convenience store, now, developed private label with convenience store brand and manufacture's name. This type of private label received good reputation in some generation.

Second, store image is considered an antecedent of the perceptual characteristics of the consumer toward private labels. These findings provide an insight why retailers should adjust their management to transfer their store image to their private label. For example, consumers seek hedonic shopping in department stores, but they seek utilitarian shopping in discount stores. Thus managers of department stores should focus on creating a high quality of store image to enhance the acceptance of their private labels by their customers.

A number of future research ideas arise from the findings of this study. First, this study did not focus on a particular product category. Prior research has found that different product categories have different effects on private label attitude and purchase intention (e.g. Jin and Suh, 2005). Thus, future research could discuss the different impact of different product categories. Second, because different types of retailers develop a different store image, more research is needed to investigate the different types of retailers.

LITERATURE

1. ACNielsen (2005), "The Power of Private Label 2005", available at: http://www.acnielsen.se/site/documents/ThePowerofPrivateLabel2005_A4.pdf, (accessed 26 June, 2011).
2. ACNielsen (2008a), "Huge Growth Opportunities for Private Label in Convenience Stores", available at: <http://www.reuters.com/article/2008/10/02/idUS157499+02-Oct-2008+BW20081002>, (accessed 6 October, 2011).
3. ACNielsen (2008b), "Consumer Shopping Behavior Report", available at: <http://tw.cn.acnielsen.com/site/news20080416.shtml> (accessed 6 October, 2011).
4. Ailawadi, K. L., Neslin, S. A., & Gedenk, K. (2001). Pursuing the value-conscious consumer: store brands versus national brand promotions. *Journal of Marketing*, 65(1), pp. 71-89.
5. Au-Yeung, A. Y. S., & Lu, J. (2009). Development of retailers' own label products in Taiwan. *Asia Pacific Journal of Marketing and Logistics*, 21(4), pp. 540-554.
6. Bao, Y., Bao, Y., & Sheng, S. (2011). Motivating purchase of private brands: Effects of store image, product signatureness, and quality variation. *Journal of Business Research*, 64(2), pp. 220-226.
7. Batra, R., & Sinha, I. (2000). Consumer-level factors moderating the success of private label brands. *Journal of Retailing*, 76(2), pp. 175-191.
8. Burton, S., Lichtenstein, D. R., Netemeyer, R. G., & Garretson, J. A. (1998). A scale for measuring attitude toward private label products and an examination of its psychological and behavioral correlates. *Journal of the Academy of Marketing Science*, 26(4), pp. 293-306.
9. Chang, T-Z. & Wildt, A. R. (1994). Price, product information, and purchase intention: an empirical study. *Journal of the Academy of Marketing Science*, 22(1), pp.16-27.
10. Chowdhury, J., Reardon, J., & Srivastava, R. (1998). Alternative modes of measuring store image: an empirical assessment of structured versus unstructured measures. *Journal of Marketing Theory and Practice*, 6(2), pp. 72-86.

11. Collins-Dodd, C., & Lindley, T. (2003). Store brands and retail differentiation: the influence of store image and store brand attitude on store own brand perceptions. *Journal of Retailing and Consumer Services*, 10(6), pp. 345-352.
12. Cunningham, I. C., Hardy, A. P., & Imperia, G. (1982). Generic brands versus national brands and store brands: A comparison of consumers preferences and perceptions. *Journal of Advertising Research*, 22(5), pp. 25-32.
13. Dick, A., Jain, A., & Richardson, P. (1995). Correlates of store brand proneness: some empirical observations. *Journal of Product & Brand Management*, 4(4), pp. 15-22.
14. Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research*, 28(3), pp. 307-319.
15. Fishbein, M. & Ajzen, I. (1975). *Belief, attitude, intention, and behavior : an introduction to theory and research*, Addison-Wesley, Reading, MA, USA.
16. Garretson, J. A., Fisher, D., & Burton, S. (2002). Antecedents of private label attitude and national brand promotion attitude: similarities and differences. *Journal of Retailing*, 78(2), pp. 91-99.
17. Granzin, K. L. (1981). An investigation of the market for generic products. *Journal of Retailing*, 57(4), pp. 39-55.
18. Grewal, D., Krishnan, R., Baker, J., & Borin, N. (1998). The effect of store name, brand name and price discounts on consumers' evaluations and purchase intentions. *Journal of Retailing*, 74(3), pp. 331-352.
19. Hartman, K. B., & Spiro, R. L. (2005). Recapturing store image in customer-based store equity: a construct conceptualization. *Journal of Business Research*, 58(8), pp. 1112-1120.
20. Hoch, S. J., & Banerji, S. (1993). When do private labels succeed?. *Sloan Management Review*, 34(4), pp. 57-67.
21. Jin, B., & Suh, Y. G. (2005). Integrating effect of consumer perception factors in predicting private brand purchase in a Korean discount store context. *Journal of Consumer Marketing*, 22(2), pp. 62-71.
22. Kirk, J. (1992). The new status symbols. *Adweek*, 5, pp. 38-39.
23. Lichtenstein, D. R., Ridgway, N. M., & Netemeyer, R. G. (1993). Price perceptions and consumer shopping behavior: a field study. *Journal of Marketing Research*, 30(2), pp. 234-245.
24. Lindquis, J.D. (1974). Meaning of image-survey of empirical and hypothetical evidence. *Journal of Retailing*, 50(4), pp. 29-38.
25. Manning, K. C., Bearden, W. O., & Madden, T. J. (1995). Consumer innovativeness and the adoption process. *Journal of Consumer Psychology*, 4(4), pp. 329-345.
26. Ono, T. (2010). *PB strategy: The structure and dynamics*, Chikura-Shobo, Tokyo.(in Japanese)
27. Richardson, P. S., Dick, A. S., & Jain, A. K. (1994). Extrinsic and intrinsic cue effects on perceptions of store brand quality. *Journal of Marketing*, 58(4), pp. 28-36.
28. Richardson, P., Jain, A. and Dick, A. (1996). Household store brand proneness: a framework. *Journal of Retailing*, 72(2), pp. 159-185.
29. Rothe, J. and Lamont, L. (1973). Purchase behavior and brand choice determinants. *Journal of Retailing*, 49(3), pp. 19-33.
30. Sethuraman, R., & Cole, C. (1999). Factors influencing the price premiums that consumers pay for national brands over store brands. *Journal of Product & Brand Management*, 8(4), pp. 340-351.
31. Schiffman, L. and Kanuk, L. (2000). *Consumer Behavior*. Prentice-Hall, Upper Saddle Rivers, NJ.
32. Sirohi, N., McLaughlin, E. W., & Wittink, D. R. (1998). A model of consumer perceptions and store loyalty intentions for a supermarket retailer. *Journal of Retailing*, 74(2), pp. 223-245.
33. Thang, D. C. L., & Tan, B. L. B. (2003). Linking consumer perception to preference of retail stores: an empirical assessment of the multi-attributes of store image. *Journal of Retailing and Consumer Services*, 10(4), pp. 193-200.
34. Vahie, A., & Paswan, A. (2006). Private label brand image: its relationship with store image and national brand. *International Journal of Retail & Distribution Management*, 34(1), pp. 67-84.

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MODERNIZATION OF THE CONSUMPTION IN EUROPE

ÁKOS KOZÁK

ABSTRACT

The researchers of the economy have not paid enough attention to the macro aspects of micro-level consumption in the last twenty-five years and especially not during the long years of the crisis. The analysis of the post-crisis should become the focus of researches, which also provides new knowledge in absence of empirical work. The habits, rites and values incorporated into consumers' habits themselves also determined the path and speed of changes. In the light of all these, I compared the data of socialist and capitalist countries using time series analysis and an analogue study. The objective of the research is to understand the long-term trends of consumption in relation to the macro economy, with special view to the exploration of the trends and drivers expected to appear after the crisis. The research programme deals with the crisis phenomena since 2008 (2007 in Hungary), as well as to their aspects appearing in households' consumption. This latter topic is of importance because it is knowledge of the drivers of the period in question that is necessary for long-term planning. The research includes extensive European and secondary data collection in relation to the macro economy, with special view to the exploration of the trends and drivers expected to appear after the crisis.

KEY WORDS: Convergence, Household expenditure, Crisis, Consumption structure

1. INTRODUCTION

The central topic of this paper is to examine whether the convergence of the private (household) consumption of the ex-communist countries has happened – and if so, to what extent. When this issue is closely examined, we need to go beyond the pure statistical-methodological comparative approach. This topic needs to be placed in a wider interpretation context, since the history of development of countries fallen behind with even many centuries is examined. This is necessary because the economic trends of the decades following World War II, and so consumption as well were basically determined by the ruling political regime. This was a foundation which had a great influence on the economic structure of later periods, and in this manner on that of the period after the political transformation. As it will be discussed to later on, this is not only a consequence determined by (economic) policy, but a phenomenon manifested in the fields of values, consumer behaviour and consumer culture in general and built into the lifestyles of households. This means that the form and development of the consumption structure are not only limited by external circumstances, but consumer preferences as well.

The political, cultural and economic historical determinations of the geographical region set a path for these societies where the gap between them and the longed for Western world often seemed unbridgeable. This is the context in which the efforts and results have to be evaluated. The delayed rise of the middle-class, the semi-feudal social system, the special asymmetry of the economy, or the settlement structure (apart from a few exceptions, such as the Czech example) offered a not very promising base for a fast catching up after the war. This was indeed a correct assumption, as the data in the following table bear witness.

Table 1: Truth in Retrospect

Country	Average annual growth of per capita real consumption (%)
Communist Countries	
Czechoslovakia	1.6
Poland	2.9
Hungary	2.6
Soviet Union	3.7
Capitalist Countries	
United States	2.3
United Kingdom	2.1
France	3.9
Japan	6.5
Italy	3.8

Source: Kornai, J. (1992.). The Socialist System – The political economy of Communism

2. CONVERGENCE OF CONSUMPTION STRUCTURE BETWEEN EASTERN AND WESTERN EUROPE

Table 2. shows the entirely different priorities of the two political-economic systems. The private and public consumption of Hungary and a few selected countries of Western Europe indicates how important the Communist industrial policy considered central state investments. Private consumption was only one of the areas to be regulated. This was through which the central (party) wish was enforced and the otherwise increasing consumer demands were held on a short leash. Private consumption was on politics' short leash, import, price and distribution regulations served the balance of the (national) economy for decades.

Table 2: The use of gross domestic product in Hungary and Western Europe, 1921-1980 (ratios as percentage of GDP/NNP)

Hungary	1921-1930	1931-1940	1951-1960	1961-1970	1971-1980
Private consumption					
Public consumption	88,8	92,2	80,2	71,9	68,4
Aggregation	11,2	7,8	20,3	29,0	35,2
Balance of external trade			-0,5	-0,8	-3,6

Germany/West-Germany	1921-1930	1931-1940	1951-1960	1961-1970	1971-1980
Private consumption	72,6	67,5	58,6	56,1	56,3
Public consumption	11,2	17,3	13,7	15,4	19,7
Aggregation	17,0	14,8	24,7	26,4	20,8
Balance of external trade	-0,8	0,5	3,0	2,1	3,2

Austria	1921-1930	1931-1940	1951-1960	1961-1970	1971-1980
Private consumption	81,8	83,9	62,6	58,9	55,8
Public consumption	10,2	13,2	13,2	13,8	17,4
Aggregation	15,4	5,3	24,6	27,7	26,4
Balance of external trade	-7,4	-2,3	-0,3	-0,4	0,4

Ireland	1921-1930	1931-1940	1951-1960	1961-1970	1971-1980
Private consumption			78,3	72,0	65,0
Public consumption			12,4	13,3	17,7
Aggregation			16,3	21,5	25,9
Balance of external trade			-0,7	-6,7	-8,6

Source: Tomka, B.(2011.) Gazdasági növekedés, fogyasztás és életminőség

As a result, the economic period before the political transformation was not favourable for private consumption, the boundaries were set by the political framework and the current priorities.

A Hungarian specialist researcher, Ilona Kovács subjected the 1970-1980s to scrutiny in order to compare the levels of development and consumption structures. (Kovács, 1987).

Cluster analyses were prepared for the years 1970, 1977 and 1983, which placed the mentioned countries in five groups, and at the same time made Hungary's situation before the democratic transformation clear (actually, the period since the democratic transformation has not brought about marked changes, as regards the consumption structure, it is still not the consumption patterns seen on the most developed markets that are typical of Hungarian households).

Table 3: Grouping of the Countries (by 9 spend areas) on the Basis of the Similarities in their Consumption Structure

	1.	2.	3.	4.	5.
	Countries in the cluster				
1970	Hungary	Italy Spain Greece Portugal	France Norway Finland Switzerland Japan Belgium West Germany Austria	Denmark Sweden United Kingdom	Netherlands United States
1977	Hungary	Italy Spain Greece Portugal	France Norway Finland Switzerland Japan Belgium	United Kingdom Austria United States	Netherlands Denmark Sweden West Germany
1983	Greece Portugal	Italy Spain Hungary	France Norway Belgium West Germany Netherlands	United Kingdom Austria United States Finland Japan	Switzerland Denmark Sweden

Source: Kovács, I. (1987.) A fejlettségi szint és a fogyasztási szerkezet

Hungary was in a group of its own of the countries organised in five clusters both at the beginning and end of the first decade, then it was placed in a group with two South European markets, the Spanish and Italian economies in the middle of the eighties. This type of representation of consumption types perhaps faded the sharp contours that distinguished the different countries. The proportion of expenditure on house maintenance was higher in the USA than that on food products already in the sixties. It was pushed back to place four in the 1970's, and place six by 1983 within the structure of spending.

3. CONVERGENCE FROM THE POLITICAL TRANSFORMATION TO ACCESSION

Rapid changes took place following 1990 in the infrastructural conditions of consumption, a whole range of new venues and goods appeared. However, the catching up, the desire to reach the Western standard of living had at least the same effect. (Kozák, 2014). On the one hand, the development was not endogenous and explainable from previous trends, on the other hand, there was an explosion-like spread of goods, which made forecasting difficult at the time. The initial euphoric consumer mood had changed by the end of the decade inasmuch as it was influenced by hopes attached to an (economic) historical turning point: the accession to the European Union. The "fruits" of the western civilisation were in the foreseeable future, people had basically optimistic expectations of the accession. However, was it possible to make up for several decades of backlog in one or one and a half decades?

Martín-Lagos López processed the related data of EUROSTAT for 1998 and 2005 (Martín-Lagos López Maria, 2011). She distinguishes five groups of countries using complex statistical methodology and also discusses in her analysis which ex-

penditure groups distinguish the different clusters. She examined 12 main expenditure groups, which coincide with the COICOP classification (Classification of Individual Consumption According to Purpose).

It was mostly food consumption that explained their placement in the different groups (that is, it had the strongest differentiating effect), as well as expenditure on hotels and restaurants and home maintenance.

Table 4: Clusters of Consumption Categories

	Food and non-alcoholic beverages	Alcoholic beverages, tobacco and narcotics	Housing, water, electricity and other fuels	Furnishing, household equipment and routine maintenance of the house	Transportation	Recreation and culture	Education	Restaurant and hotels	Miscellaneous
Ward Method: average per cent 1998									
Belgium, France, Germany, The Netherlands, Finland, Sweden and Denmark	12,80	4,00	24,56	6,03	13,27	10,34	0,57	5,54	11,33
Italy, Slovenia, Austria, Luxembourg and The United Kingdom	13,32	4,82	19,16	7,34	4,74	9,64	,80	9,32	9,30
Cyprus, Portugal, Malta, Ireland, Spain and Greece	15,30	4,25	14,16	6,95	12,90	7,57	1,50	15,18	8,33
Estonia, Hungary, Poland, The Czech Republic and Slovakia	22,18	7,60	20,46	5,56	10,52	8,82	0,86	5,70	7,50
Romania, Latvia, Lithuania and Bulgaria	32,62	5,90	21,05	3,60	11,12	4,85	0,90	5,77	3,22
Total	18,13	5,15	19,97	6,03	12,63	8,50	0,92	8,45	8,38
Dif. max. and min.	19,82	3,60	5,40	3,74	8,53	5,49	0,93	9,64	8,11
Ward Method: average per cent 2005									
Belgium, France, Germany, The Netherlands, Finland, Sweden and Denmark	12,04	3,65	24,81	5,88		10,20	0,57	5,43	11,76
Italy, Slovenia, Austria, Luxembourg and The United Kingdom	8,53	3,93	19,97	6,70		10,67	1,07	13,23	10,73
Cyprus, Portugal, Malta, Ireland, Spain and Greece	15,50	3,92	14,08	6,62		8,34	1,84	14,14	9,72
Estonia, Hungary, Poland, The Czech Republic and Slovakia	16,16	6,77	21,19	6,04		8,60	1,00	6,47	9,07
Romania, Latvia, Lithuania and Bulgaria	25,05	5,42	19,15	4,50		5,85	1,57	5,65	4,22
Total	15,44	4,92	20,37	5,95		8,79	1,14	8,25	9,35
Dif. max. and min.	16,52	3,12	5,66	2,20		4,82	1,27	8,71	7,54

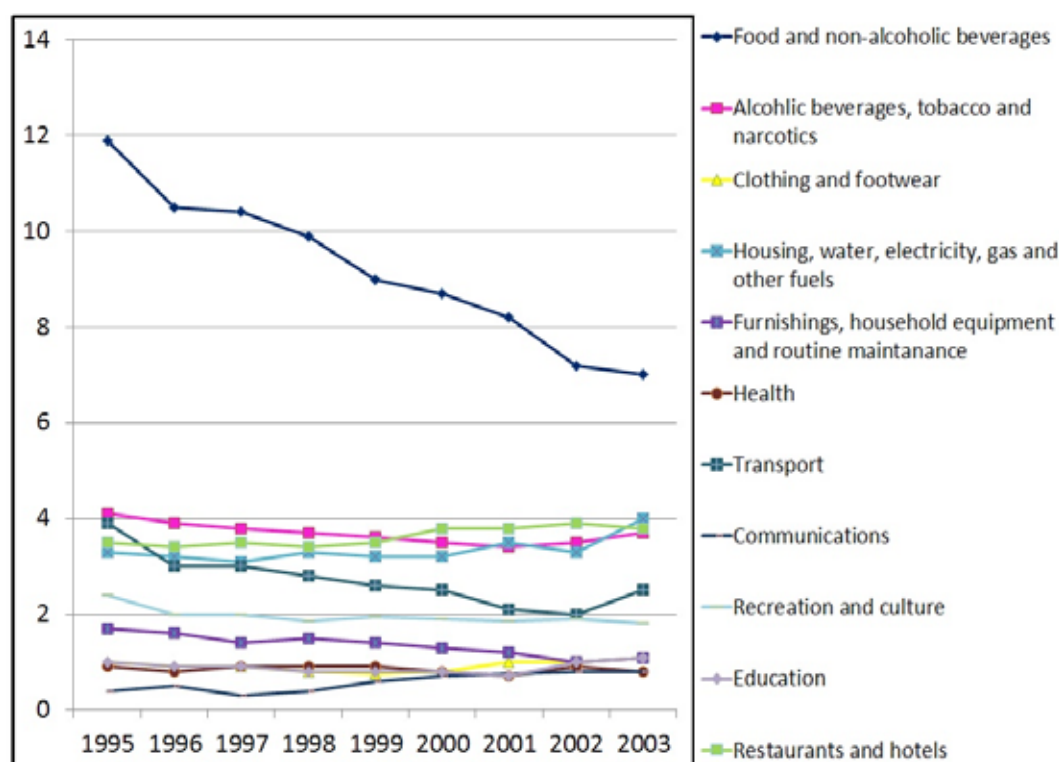
Source: Compiled by author from Eurostat Database

Hungary's position is perhaps not a surprise in this classification. While the difference in the expenditure on food is conspicuous compared to the countries that follow Hungary on the list (16.6 vs. 25.05% in 2005), it is alcoholic beverages, tobacco and narcotics as well as household equipment and routine maintenance that mostly distinguishes us from the countries in a higher position on the list (the latter was 21.19 vs. 14.08% in 2005). Energy expenditures are presumably lower there, because with the exception of Ireland, they are countries in the Mediterranean region, where they naturally spend less on them.

It is actually only Slovenia of the post-communist countries that is included here, which is a proof to Engel's law. Since Slovenia has always been the most developed in the region, expenditure on food products is the lowest there, while the proportion of hotel and restaurant services is well above the average, and recreational expenditure is also outstanding. This means that considering the structure of consumption and its level of modernisation, there was still a sharp line between the members of the two former political systems.

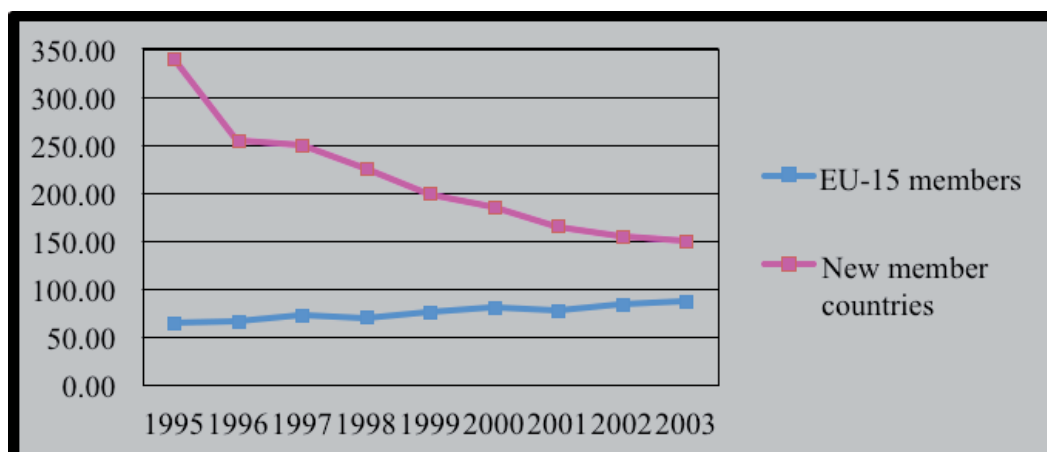
The analysis of the researchers of the Charles University in Prague did not only examine the events ex post facto, but by exploring the drivers they could provide useful data for simulating future trends (Cahlik, Honzák, Honzáková, Jiřina és Reichlová, 2005). Their work started from the basic fundamental uncertainty of the Post-Keynesian school, that is, we do not have information that can be projected to the future situation when making a decision. This is an especially valid conclusion in the last 25 years of the history of consumption – especially in the Eastern European societies. This is exactly why the Czech researchers had to go back to the theory of procedural rationality, which means, the choice (consumption preference) is made from among the actions satisfying the needs of the decision maker most (here the individual consumer). This logical path may follow either the former behaviour of the given person, or that of the reference group. Although the calculations and conclusions are based on the comparison of the data from the Czech Republic and Germany, they provide satisfactory explanation to understand the growth taking place in the consumption structure of the two geographic regions. Figure 1. does not offer a lot of help with the possible convergence, with the exception of food and beverages. There was annual growth of about one to four percent in the overwhelming majority of the goods categories, which in itself is an advantageous series of events, but does not say much about the distance from the old member states.

Figure 1: Development of Consumption Expenditures in New EU Members (%)



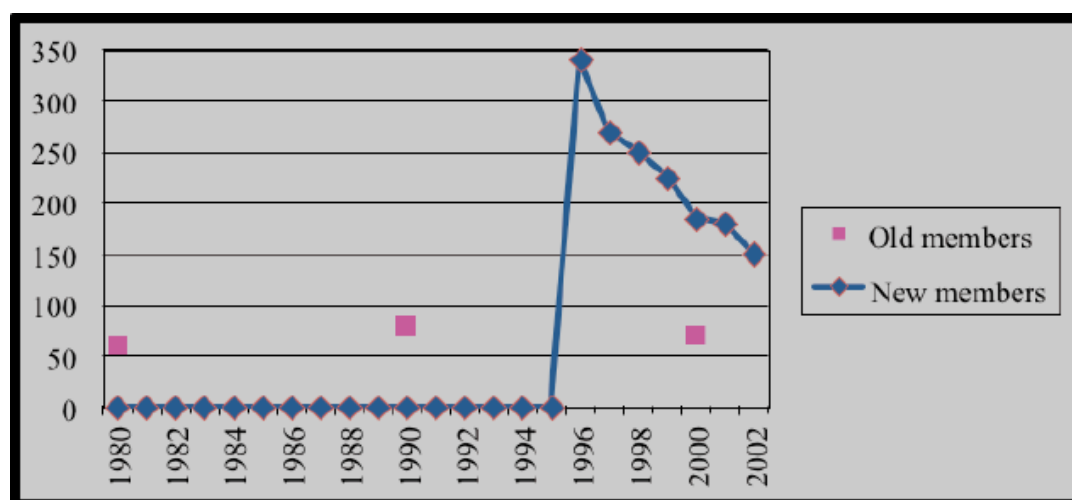
Source: Cahlik, T.-Honzák, T.-Honzáková, J.-Jirina, M.-Reichlová, N. (2005) Convergence of Consumption Structure. Univerzita Karlova V Praze. <http://ies.fsv.cuni.cz>

Figure 2. is more telling, it describes obvious trends. The series of values calculated from the variance of percentage shares within consumption clearly show the convergence.

Figure 2: Convergence from 1995 to 2003

Source: Cahlík, T.-Honzák, T.-Honzáková, J.-Jirina, M.-Reichlová, N. (2005) Convergence of Consumption Structure. Univerzita Karlova V Praze. <http://ies.fsv.cuni.cz>

The difference that existed in the consumption between the EU accession between the old and new member states spectacularly decreased, and it also posed questions about the future. Could it be expected a year before the accession that the trend lines would align within a short period of time (even within a few years). In this case, by its nature, the theory of fundamental uncertainty has limited predictive power. Starting from the “normal development rate” of the economy, a straight line of development could be expected in the case of the old member states, and the time series data of Figure 3. dating back to 1980 also show this kind of stability.

Figure 3: Long-Run Stability of Consumption Structure in the Old EU Members

Source: Cahlík, T.-Honzák, T.-Honzáková, J.-Jirina, M.-Reichlová, N. (2005) Convergence of Consumption Structure. Univerzita Karlova V Praze. <http://ies.fsv.cuni.cz>

Cahlík et al considered four types Post-Keynesian motivation in the forecasting model of the consumption structure:

1. Autocorrelation, where the behaviour is the continuation of the consumption pattern of a previous period.
2. Positive social correlation, where consumers imitate the behaviour of those belonging to the same profession and income group (especially in the field of leisure time activities).
3. Negative social correlation, where the differentiation from the closest lower income group is the main driver.
4. Alignment with the higher status groups (aspiration), where the closest higher income group sets the trend to be followed.

Each factor was given a different weight factor in the model. The processing and modelling of the data from 1,000 households yielded the following results: when the consumption patterns were projected for fifty months, convergence with the developed part of Europe seemed evident in all the income groups. The consumption structure of the fourth and fifth deciles will practically correspond to the EU averages, and there will not be significant differences even in the lower income strata. The Czech example considered an approximately four-year long approach and a twelve-year (140-month) complete catching up periods. On the basis of the consumption and retail statistics from the mid-2000s, many agreed with this forecast. However, the joining member states were at different levels in their economic development, which means, other markets cannot be precisely fit onto the same trend line. Yet, the forward calculation was acceptable in the case of the Eastern European countries, in effect, it had to be corrected by the performance and purchasing power of the individual economies so that we could agree with the results. The study also shed light on the fact that the increase of income itself does not provide enough explanation, and the real driving force of convergence is aspiration, the “assumed pressure” of alignment with higher status groups.

One of the few analyses about the convergence-modernisation of the consumption structure that adds further details to the picture of the new member states is a study by Liobikienė and Mandravickaitė (Liobikienė and Mandravickaitė, 2012). They did not overview the statistical data till the time of accession, but till 2007, calling the years 1995-2007 the period of prosperity. One of the main findings of their analysis was that the real winners of the convergence race were the Czech Republic, Estonia, Lithuania and Slovenia, while Latvia and Poland had the least success in overcoming the obstacles. The researchers also thought that convergence had happened during the researched period, yet a few countries stood out upwards from the consumption structure, while others were behind in some fields. In accordance with the findings of other researchers (Cahlík et al) the two Lithuanian researchers also seem to accept that it is not only income that is the main determinant at the bottom of the changes in the structure of consumption. Like many others, they also started from Engel's Law where an increase in income is accompanied by a fall in the proportion of spending on food, and from the fact that the former reduces the need for primary necessities. The eastern part of Europe served as a suitable experimental ground for this issue, and there are similar trends developing in the Asian or South American regions nowadays.

As Liobikienė and Mandravickaitė pointed out in their article, in addition to the generally valid trends of convergence, sharp contrasts appeared in the changes of the different consumption categories. They examined the estimates of price and income using the elasticity coefficient, where the elasticity module was interpreted as the ratio of percentage change in households' budget share for distinctive consumption categories to the percentage change in disposable income and prices. It was the Baltic states where the consumption of households increased most between 1995-2007, of which Estonia realised a 3.3 times growth, while Lithuania 2.9 times. The increase was twofold in the cases of Poland and Hungary, while the growth was lower for Slovenia and the Czech Republic (although they started from a higher base). The growth rate of consumption – with the exception of Slovenia – exceeded the increase of disposable income in all the surveyed countries. This then – logically – lead to the fact that many and for a long time financed consumption from loans and by exhausting their savings.

It is Lithuania, Estonia and the Czech Republic where income determines consumption the most, and Hungary, Latvia and Poland where the least. That price has a stronger explanatory power than income could only be shown in Hungary. The different rate of change in prices and disposable income had a different effect on the consumption structure of the individual countries. But all this does not override the fact that long strides were made towards the old member states as regards convergence. The convergence of the spending structure measured in consumer goods categories also resulted in a diverse pattern, with a few surprising figures (Table 6.). However, first let us have an overview of the changes taking place in the consumption structure in thirteen years (Table 5.).

Table 5: The NMS¹ and EU-15 structure of household expenditure in 1995 and 2007

	EU-15		Slovenia		Czech Republic		Poland		Hungary		Estonia		Latvia		Lithuania	
	1995 (%)	2007 (%)	1995 (%)	2007 (%)	1995 (%)	2007 (%)	1995 (%)	2007 (%)	1995 (%)	2007 (%)	1995 (%)	2007 (%)	1995 (%)	2007 (%)	1995 (%)	2007 (%)
Food and beverages	14	12	19	15	22	17	33	22	25	19	31	18	39	19	43	27
Clothing and footwear	7	6	7	6	6	5	7	4	5	4	8	8	7	9	6	9
Housing	21	22	19	19	23	23	21	25	19	22	19	21	22	23	23	14
Furnishings and household equipment	7	6	6	6	7	6	5	5	8	6	7	5	3	5	4	6
Health	3	4	3	4	2	3	3	4	3	4	2	3	4	6	3	5
Transport	14	14	18	17	12	13	7	10	13	17	10	14	8	13	9	18
Communication	2	3	2	3	2	4	2	3	2	4	2	4	2	4	1	3
Recreation and culture	9	10	9	11	12	12	9	8	8	8	6	10	4	9	3	8
Education	1	1	1	1	1	1	1	1	1	1	1	1	0	2	0	1
Restaurants and hotels	9	9	7	8	8	8	3	3	5	6	7	7	4	5	3	3
Miscellaneous goods and service	12	12	9	10	7	10	9	14	9	9	6	9	6	5	4	7

¹= New Member States

*p<0,05; **p<0,01

Source: Liobikien, G.-Mandravickait, J. (2012.). Convergence of new members of the EU: changes in household consumption expenditure structure regarding environmental impact during the prosperous period. *Environ Dev Sustain* (2013) 15:407–427. Received: 17 May 2012 / Accepted: 23 August 2012 / Published online: 11 September 2012. Springer Science+Business Media B.V.

It was typical at the beginning of the period that expenditure on food had the highest proportion, and this proportion decreased by the end of the period, although it still remained significant. Housing expenditures increased, and amounted to a significant part of households' budgets. Despite the marked structural changes, the distance was still big in the fields of some goods – services like recreation, Restaurant and Hotels. At the same time, no significant changes took place in the EU-15 member states.

Table 6. illustrates the convergence calculated for the different consumption categories so demonstrating the sometimes different paths of development.

Table 6: Convergence of the household consumption expenditure by consumption purpose (COICOP), in NMS toward OMS, 1995-2007

	Food and beverages	Clothing and footwear	Housing	Furnishings and household equipment	Health	Transport	Communication	Recreation and culture	Education	Restaurants and hotels	Miscellaneous goods and service
SL	0,63K*	0,16K	1,57K	0,07K	-0,1KP*	0,62K	-9,5DP*	20,7D*	8,08D	1,32D	0,73K
CZ	0,64K	1,14D	0,57K	1,16D	0,60K	0,81K	-4,1DP	0,89K	0,80K	3,29D	0,48K
HU	0,60K	1,25D	0,34K	-0,25KP	-0,8KP	-5,6DP	3,73D	1,39D	0,27K	1,07D	1,53D
PL	0,53K	5,29D	-4,5DP	0,70K	-1,3DP	0,73K	1,92D	3,95D	12,8D	1,23D	-0,83KP
EE	0,35K	1,44D	0,70K	1,98D	0,74K	0,00K	-5,2DP	-0,13KP	2,03D	0,90K	0,65K
LV	0,28K	-5,6DP	1,15D	0,37K	1,79D	0,16K	-4DP	0,20K	-1,9DP	1,03D	1,27D
LT	0,49K	-2,5DP	-4,3DP	0,15K	-1,8DP	0,7KP	0,14K	0,26K	-0,2KP	1,22D	0,61K

*K=Convergence; KP= Convergence switching position; D=Divergence; DP=Divergence switching position

Source: Liobikien, G.-Mandravickait, J. (2012.). Convergence of new members of the EU: changes in household consumption expenditure structure regarding environmental impact during the prosperous period. *Environ Dev Sustain* (2013) 15:407–427. Received: 17 May 2012 / Accepted: 23 August 2012 / Published online: 11 September 2012. _ Springer Science+Business Media B.V.

All the new member states drew nearer in food and beverage spending, the biggest changes in this category took place in Latvia and Estonia, while the Czech Republic showed the smallest changes. However, it was the Czech, Estonian, Lithuanian and Slovenian consumers who most converged towards the more developed and modern structure of the old member states, they managed to get closer in seven categories. Latvian and Polish consumers improved in only four categories, Hungarians in five. During the interpretation of the Latvian and Polish results it should be considered that there are the two countries where disposable income and price determine the changes in the consumption structure the least.

4. CONSUMER RESPONSES TO THE CRISIS

The crisis left such a deep mark on the economies and societies of the countries that had just caught up with the EU-15 countries, whose examination roused the interest of economists, sociologists and marketing alike. Although comprehensive analyses were made about the consequences of the nearly half a decade long recession, perhaps the time has not been long enough to draw conclusions. Certain trends can already be seen, consumers surprisingly quickly adapted to the new circumstances and reorganised their sometimes even decade-long consumer preferences. However, clear-sightedness is definitely made more difficult by the fact that some countries (economies) still show the signs of post-crisis, and it cannot be cleared up whether the consumption pattern is still developing under the influence of the crisis, or we should expect the so far seen trends will be abandoned?

Considering the GDP base, three groups of countries can be distinguished (Turcinkova, Stavkova, Skalova and Birciakova, 2014):

The countries most affected by the crisis: Estonia, Lithuania and Latvia, where the fall of the GDP in 2009 was in the 14.1-18.0% range).

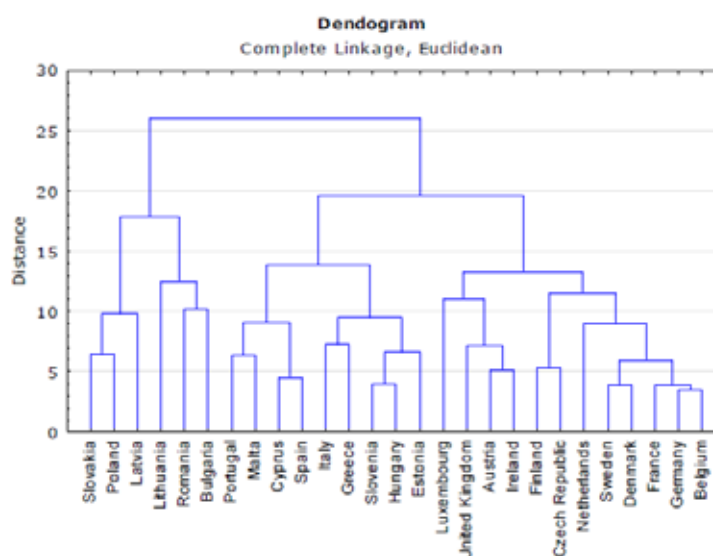
Less affected countries: Bulgaria, Hungary, Romania and Slovenia showing 5.0-7.8% fall.

The least affected countries: Czech Republic, Slovakia and Poland, where the rate of recession did not reach five per cent. A favourite method of comparisons made on the basis of households' consumption is cluster analysis, and Turcinkova and her colleagues also used it when grouping the member states of the European Union. However, the interpretation of the near past closely involves an overview of the calculations published in the international special literature.

Turcinkova and her colleagues scrutinized to the period from right after the accession till the deepest period of the crisis. Despite the different number of clusters, the grouping of the countries can, in many cases, be compared in the different

periods. Europe's economic structure bears distinguishing marks that need more work than just a few decades. This is how the southern member states were placed into the same field as Hungary or Slovenia in 2005 (Figure 4.). The members of the first group come from north and northwest Europe with the highly developed Austria and in many respects the regional leader Czech Republic added to them. The third cluster was made up by the then less developed countries (the Slovak and Polish economies have been developing dynamically since 2005).

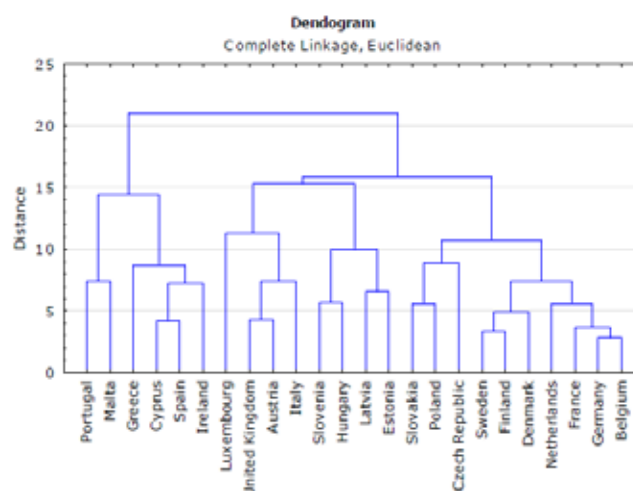
Figure 4: Dendrogram of EU household expenditures in 2005



Source: Turcinkova, J.-Stavkova, J.-Skalova, D.-Birciakova, D.: Changes in Consumer Behavior in the EU after its Enlargement and due to the Economic Crisis. Recent Advances in Economics, Management and Marketing Mendel University in Brno.

The crisis overwrote certain then existing rules and patterns. There was a sort of stability in the consumption structure of the most developed member states of the Union; certainly the faster developing markets could make the top of many lists (the economic development of Ireland was a model for the joining countries for a long time). Certain adjustments were made during the recession. Figure 5. shows that Ireland joined the southern countries hard hit by the recession, forming a separate cluster. Significant changes took place in West Europe as well. As Austria, Great Britain was also removed from the immediate vicinity of the North European group (together with Luxembourg), and these member states show similarities with East Europe in several respects (belonging to a bigger cluster group).

Figure 5: Dendrogram of EU household expenditures in 2011



Source: Turcinkova, J.-Stavkova, J.-Skalova, D.-Birciakova, D.: Changes in Consumer Behavior in the EU after its Enlargement and due to the Economic Crisis. Recent Advances in Economics, Management and Marketing Mendel University in Brno.

The effect of the crisis on consumption is also illustrated by an analysis of the Austrian National Bank (Corti and Scheiber, 2014). The households of Central Eastern and Southern Europe (CESEE) suffered significant blows, and the decrease in income was accompanied by decreasing consumption rates. The social system is (was) not s developed, and households did not have significant savings they could have mobilised for purchases. Table 7. details the years of prosperity following accession, and the difficulties of the crisis period following it.

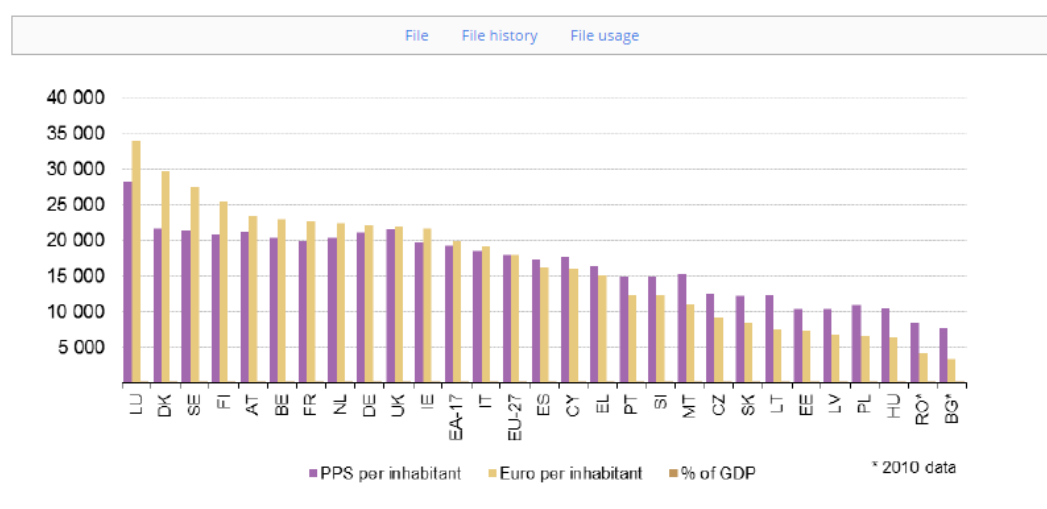
Table 7: Main Economic Indicators of the Household Sector

	BG	CZ	HR	HU	PO	RO	AL	BIH	FYROM	RS
	<i>Average annual change in %</i>									
GDP at constant prices (2004-2008)	6,5	5,5	4,1	2,7	5,4	6,8	6,1	8,5 ¹	5,0	5,5
GDP at constant prices (2009-2013)	-0,4	-0,5	-2,4	-0,9	2,7	-0,3	2,8	-0,5	1,5	-0,1
Private consumption (2004-2008)	7,1	3,6	3,8	1,2	4,5	12,0	7,5	6,5 ¹	7,2 ¹	6,8
Private consumption (2009-2013)	-0,5	-0,2	-2,4	-2,2	2,0	-1,4	2,2	-1,0	0,3	-1,7
Compensation per employee (real, whole economy, 2009-2013)	4,3	2,9	1,6	2,1	1,1	13,0	..	..	-0,9	..
Compensation per employee (real, whole economy, 2004-2008)	3,4	0,2	-0,4	-2,9	1,7	-3,4	..	..	1,1	..
Monthly net wages (real, 2009-2013)	..	..	..	..	..	..	1,4	0,4	..	-0,3
	<i>Average level 2009-2013</i>									
Unemployment rate (LFS, %, 15-64 years)	10,8	7,0	13,8	10,9	9,8	7,5	13,8	27,4	31,3	23,9 ²
	<i>Average annual change in %</i>									
Deposits of households and NPISH (2004-2008)	26,5	8,7	11,6	9,5	10,2	34,4	13,2	22,2	21,6	40,9
Deposits of households and NPISH (2009-2013)	11,4	4,6	4,3	-0,4	10,3	9,4	11,0	9,6	12,2	17,9
Loans to households and NPISH (2004-2008)	49,5	30,0	18,6	26,8	31,0	71,1 ¹	60,8	27,5	45,8	72,0
Loans to households and NPISH (2009-2013)	0,7	6,5	-0,2	-2,1	8,6	0,8	1,1	1,1	6,6	9,5

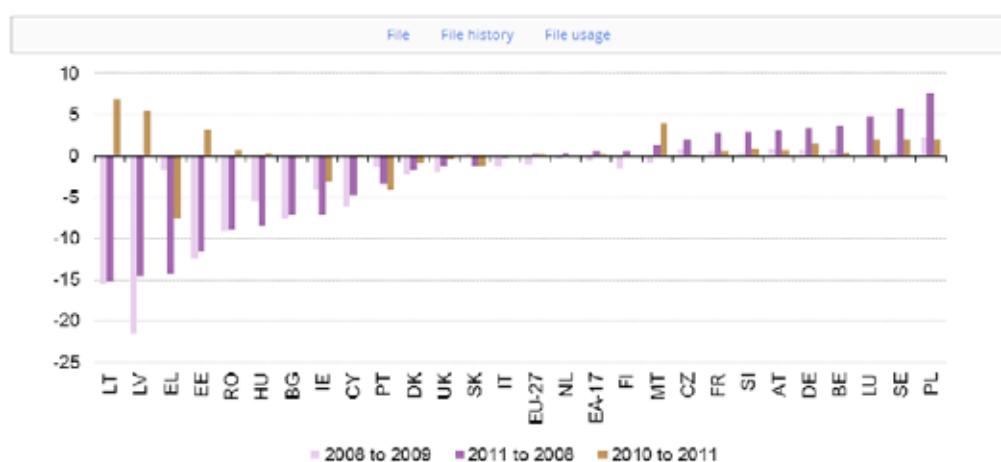
1= The average growth rate refers to the period 2005-2008.; 2= Average level 2011-2013. Note. LFS = labor force survey; NPISH = nonprofit institutions serving households.

Source: Corti, M.-Scheiber, Th. (2014.) How Did CESEE Households Weather the Crisis? Evidence from the OeNB Euro Survey. Focus on European Economic Integration Q2/14.

As the comprehensive analysis of the Union of Gerstberger and Janeva also shows, there are huge gaps in private consumption (Gerstberger and Janeva, 2013).

Figure 6: Actual individual consumption per capita in 2011 (euros or PPS per inhabitant)

Source: Household consumption expenditure - national accounts. Eurostat Statistic Explained, 23. March 2015

Figure 7: Impact of the crisis on actual individual consumption (volume figures, change in %)

Source: Household consumption expenditure - national accounts. Eurostat Statistic Explained, 23. March 2015

4. SUMMARY

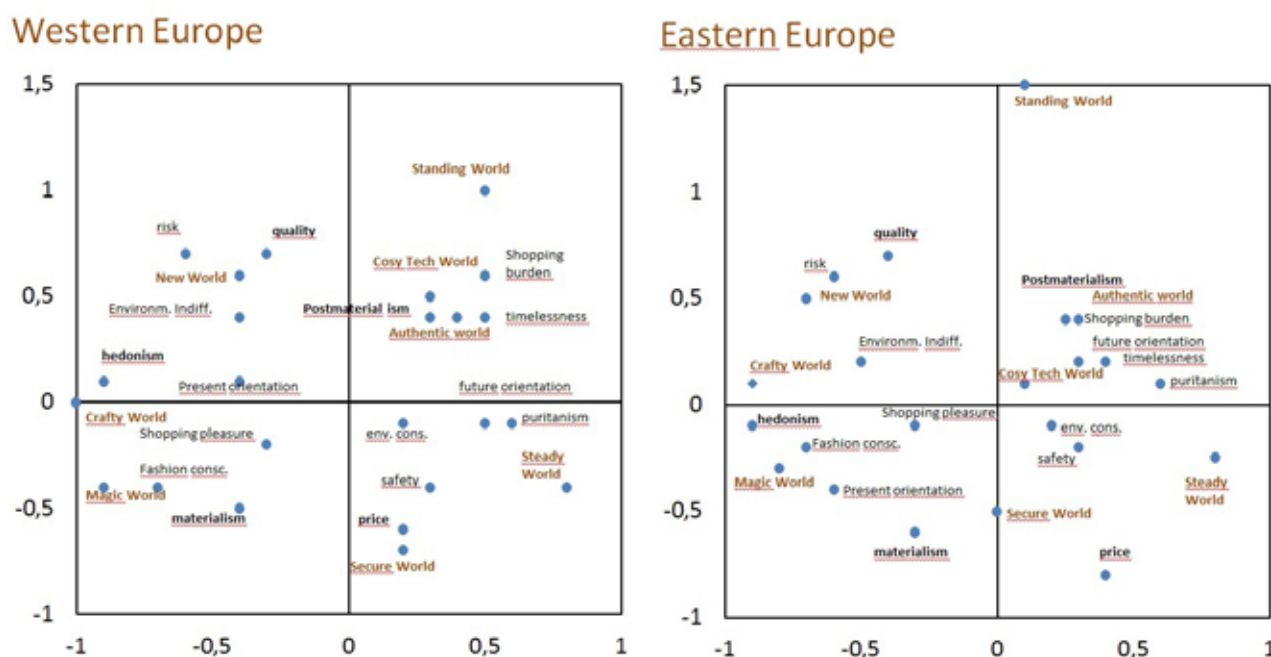
The consumption patterns (and naturally the possibilities above all) developing during the long decades of the Communist regime left a strong mark on the mental map of life, and consumer environment within it. The facts that primary necessities permanently dominated purchases, and central price control distorted market conditions, left their mark on the public's thinking as well. Environment consciousness, for example, was not important to Eastern European customers for a long time. The period following 1990 brought new prospects of consumption for the inhabitants of the region, and for nearly a decade it was "purchase and accumulation" that were emphasised. I dare to say that one of the main driving forces of the fall of the communist regime – even if latently – was the permanent shortage situation and people's unsatisfied consumption-shopping aspirations. The however superficial knowledge of western consumption, as well as its concept put on pedestal and the proofs manifested in the form of the goods of the western products were in constant contradiction to people's everyday experience, let alone the dominant political ethos. An eloquent testimony to it is the so-called refrigerator socialism debate (Váci, 1961), which started the discourse about the dichotomy of the wealth of the reviving lower-middle-class and politics. Nevertheless, politics determined its own objectives, as mentioned by

Tibor Valuch when presenting the ideology of the period (Valuch, 2003). The 8th Congress of the MSZMP in 1962 specified 1980 as the year by which the per capita consumption would have to reach and even exceed that of the capitalist countries.

After the early '90s, however, the picture changed, and Eastern European consumers caught up with, aligned themselves with the western consumer world considered a model in many respects. The survey conducted by the GfK Group in ten Central Eastern European countries¹ in the winter of 2004-2005 adds details to the picture of the typical Eastern European consumer after the political transformation (Figure 8).

The structure of the values attached to consumption and the lifestyle models corresponding to them had become very similar in the two halves of Europe.

Figure 8: Consumption and Values, 2005



Source: GfK Hungaria: Consumers in Central and Eastern Europe 2005. Lifestyle, Consumption and Media Preferences, pp. 33.

There is a slight shift on the Puritanism-Hedonism axis in the two geographic regions, and the views are different in the post-materialist perception as well, at the same time the two maps overlap in the case of almost all the lifestyle-character and value categories. The mid-2000s could be characterised by strong economic prosperity in almost all the ex-Communist countries, and consumption also dynamically increased. The result of all this was that in a lot of cases the previous aspirations and needs were met. The two worlds drew closer to one another, the convergence effect measured in the consumption structure prevailed in people's attitude to consumption and lifestyle as well. Now (in 2015) we certainly know that the crisis that followed a few years later had a different effect on Western European citizens who had savings, and they were forced to rearrange their preferences to a lot lesser extent.

Convergence in two parts of Europe had been proven by 2005, it steadily continued till the outbreak of the crisis, but in 2011, namely as a result of the crisis, certain old patterns surfaced in households' consumption. Convergence was seen as regards structure, but the differences in the actual consumption potential remain spectacular.

¹ Bosnia & Hercegovina, Croatia, Czech Republic, Hungary, Poland, Romania, Russian Federation, Serbia & Montenegro, Slovak Republic, Ukraine

LITERATURE (alphabetical order)

1. Cahlik, T.-Honzák, T.-Honzáková, J.-Jirina, M.-Reichlová, N. (2005) Convergence of Consumption Structure. Univerzita Karlova V Praze. <http://ies.fsv.cuni.cz>
2. Corti, M.-Scheiber, Th. (2014.) How Did CESEE Households Weather the Crisis? Evidence from the OeNB Euro Survey. Focus on European Economic Integration Q2/14.
3. Elaborated by author from Eurostat Database
4. GfK Hungaria: Consumers in Central and Eastern Europe 2005. Lifestyle, Consumption and Media Preferences, pp. 33.
5. Household consumption expenditure - national accounts. Eurostat Statistic Explained, 23. March 2015
6. Kornai, J. (1992.) The Socialist System – The political economy of Communism.
7. Kornai, J. (2006.) The great transformation of Central Eastern Europe. Economics of Transition, 14 (2), pp. 207-244.
8. Kornai, J. (2012.) A szocialista rendszer. Budapest: Kalligram Könyvkiadó.
9. Kovács, I. (1987.) A fejlettségi szint és a fogyasztási szerkezet. Budapest: Magyar Tudományos Akadémia Közgazdaságtudományi Intézete.
10. Kozák, Á. (2015.) Macroeconomics Indicators and Consumption, Karlovitz János Tibor (Ed.): Some Current Issues in Economics, Komárno:International Research Institute, 2015. pp. 47-64.
11. Kozák, Á. (2014.) A fogyasztás régi-új mintázatai, avagy: fogyasztás Kelet-Közép-Európában negyedszázaddal a rendszerváltást követően. Karlovitz János Tibor (Ed.) Kulturális és társadalmi sokszínűség a változó gazdasági környezetben: 2. IRI Társadalomtudományi Konferencia. 332 p.
12. Komárno: International Research Institute, 2014.pp. 75-86.
13. Kozák, Á. (2014.) A fogyasztás régi-új mintázatai, avagy a fogyasztás Magyarországon negyedszázaddal a rendszerváltást követően. Solt Katalin (Ed.) Alkalmazott tudományok I. fóruma: conference proceeding. (2014.) Conference: Budapest, Hungary, Budapest Business School, 2014.03.13-2014.03.14., pp. 458-475.
14. Liobikien, G.-Mandravickait, J. (2012.). Convergence of new members of the EU: changes in household consumption expenditure structure regarding environmental impact during the prosperous period. Environ Dev Sustain (2013) 15:407–427. Received: 17 May 2012 / Accepted: 23 August 2012 / Published online: 11 September 2012. _ Springer Science+Business Media B.V.
15. Martin-Lagos López, M. (2011.) Consumption and Modernization in the European Union. European Sociological Review, 27 (1), pp.124-137.
16. Tomka, B. (2011.) Gazdasági növekedés, fogyasztás és életminőség. Budapest: Akadémiai Kiadó.
17. Turcinkova, J.-Stavkova, J.-Skalova, D.-Birciakova, D.: Changes in Consumer Behavior in the EU after its Enlargement and due to the Economic Crisis. Recent Advances in Economics, Management and Marketing Mendel University in Brno.
18. Váci, M. in Valuch, T. (2003.) A bőséges ínségtől az ínséges bőség – a fogyasztás változásai Magyarországon az 1956 utáni évtizedekben. In. Rainer M. János (Ed.): Magyarország a jelenkorban – Évkönyv 2003, Budapest: 1956-os Intézet 2003, pp. 51-78,

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ADAPTING THE COMMUNICATION TO SENIORS

DAGMAR LESAKOVA

ABSTRACT

The core of our paper is the exploration of the role of age in seniors' population and how it could be used by retailers in their communication strategies. We analyze the impact of self perceived age on attitudes and shopping behaviour, the consequences for development of communication strategy and advertising. The particular aims of our paper are: 1) to explore the concept of cognitive age and how it relates to chronological age; 2) to explain the application of cognitive age in marketing strategies; and 3) to demonstrate the importance of cognitive age specific measures for marketing and advertising campaigns. We raise the questions: why is the concept of cognitive age useful in marketing and how it can be measured. We reveal the influence of cognitive age on attitudes and behaviour, which is relevant for marketing communication. Finally, we investigate, which of the two variables: chronological age or cognitive age, is more useful in marketing research. The answers to these questions are demonstrated based on empirical research among seniors. The sample consisted of people aged between 55-88 years. In our research two methods of self-perceived – cognitive age were applied. The first was the method of age identification with the single-item categorical measure. The second method used was the age decade scale, consisting of four dimensions „feel age, look age, interests age and do age“. The final part of the paper presents recommendations how to communicate with seniors effectively, taking into account the specifics of elderly people. The research is conducted within the Research Framework VEGA 1/0224/15 "Consumer behaviour and individual consumption in the periods of unemployment and relative deprivation of unemployed population".

KEY WORDS: Communication, Chronological Age, Self-perceived Age, Seniors.

1. INTRODUCTION

The constantly rising size of the age segment 55+ forces the companies to investigate the self concepts of the older consumers. Research studies demonstrated that stereotypes of older people in media or in society are not always identical by the perception of themselves hold by older people. Many seniors „think young“ and expect to be treated in this way (Ward, 1972). Marketing and advertising researchers investigate „cognitive age“ with the aim to improve the understanding of older consumers and to identify how they see themselves.

One of the most frequently used variable in marketing and consumer behavior research is chronological age. It is easily measured and is an objective and universal variable. that is used frequently (Churchill, 1979). Chronological age indicates the point at which a person can drive or drink alcohol, or receive a state pension. Chronological age is the most commonly used variable to describe the ageing process (Wei, 2005). Although chronological age has important influence on consumer behavior, it has also its limitations. People (especially with subsequent age) perceive themselves to be younger (or older) than is their chronological age and this „self-perceived“ or „cognitive age“ can influence their behavior (Barak and Schiffman, 1980).

This leads to the broadening the concept of age. The idea that a person is as young (or as old) as it feels, is more useful in understanding the behavior of older people. For this reason, cognitive - or self-perceived - age rather than chronological age directly influences people's attitudes and behavior and is used in consumer behaviour research of seniors (Barak, 1987; Barak, 2009). In sociology is the cognitive age defined as „an age perceived by a person self and considered as an element of self-concept“ (Barak and Gould, 1985). It is a theoretical variable; and as such, it is most easily defined by specifying its relationships with other variables.

The concept of cognitive or self-perceived age was found in sociological research. In 1956 Blau investigated age identification, asking older people whether they identify themselves as middle-aged or as old. Various other studies of seniors examining this concept, used terms such as „subjective age“ (Ward, 1997; Markides and Boldt, 1983), „perceived age“ (Linn and Hunter, 1979) or „age identification“ (Guptill, 1969; George et al., 1980; Baum and Russel, 1983). The term „cognitive age“ was used in the marketing literature by Barak and Schiffman (1980), Barak and Gould (1985) and Barak (1987). The concept of cognitive age can be applied to people of any age, because even young and middle-aged adults could have their cognitive age different from their chronological age (Guptill, 1969). However, most frequently is the cognitive age explored among seniors.

The proportion of older people in the population who feel younger than their chronological age, is estimated in various sociological studies about 50-75 per cent. It is documented that about half of seniors over 60 feel 10-15 years younger.

The cognitive age of people in their 50s and 60s are consistent with the lives they are leading. However, in the situation of a dramatic life change / life event, such as retirement, age-related physical illness or loss of a spouse, people are forced to re-examine their self-concepts and may shift to older cognitive ages. Cognitive age is also significantly correlated with some variables which have significant impact on the standard of living, such as disposable income or education. Seniors with less money and lower education feel themselves to be older than those with better financial conditions and higher education.

Social and psychological differences exist also among people in the same chronological age, but with different self-perceptions. People, who perceive themselves as being cognitively old, engage in less social, cultural or educational activities. People who feel old, evaluate their life situations as unfavorable and have lower self-esteem.

Several studies demonstrate that a relatively high number of seniors feel middle-aged. It is an important knowledge in developing marketing and advertising strategy. Campaigns targeting seniors aged 55+ should portray them with other family members, in active way and to avoid to picture them as sick, poor and powerless. Barak and Gould (1985) found in their research that older people perceived by themselves to be cognitively young, were less traditional, old-fashioned and have had a higher self-confidence. Cognitively young seniors were spending more frequently the time out of their home.

2. GOALS AND METHODOLOGY

The goals of our paper are 1) to explore the concept of cognitive age and its link to chronological age; 2) to explain the application of cognitive age in marketing strategies; and 3) to demonstrate the importance of cognitive age measures for marketing and advertising campaigns. We raise the questions: why is the concept of cognitive age useful in marketing and how it can be measured. We reveal the influence of cognitive age on attitudes and behaviour, which is relevant for marketing communication. Finally, we investigate, which of the two variables: chronological age or cognitive age, is more useful in marketing research. The answers to these questions are demonstrated based on empirical research among seniors.

Personal interviews were conducted with 68 adults aged 55+. The sample consisted from people aged between 57-86 years, with an average age of 66 years and standard deviation of 8,9 years.

Table 1. Chronological age in the sample

Age interval	%
55-64	32,4
65-74	42,6
75-84	20,6
85-94	4,4

Source: own calculation

Cognitive age is usually measured by two methods (Wilkes, 1992). The first and oldest method is age identity identification, indicating the age category (young, middle-aged, old) in which seniors perceive themselves to be, and is used most frequently in gerontology studies. The cognitive age is expressed by a single-item measure as a response to the question „which of the following adjectives best describes you“. Adjectives used include either 5-categories scale (young, not old, middle-aged, old, very old and elderly), or 3-categories scale (Ward, 1977; Linn and Hunter, 1979; Markides and Boldt, 1983; Gwinner and Stephens, 2001).

The basis of the second method was the acknowledgment of the ageing as an multidimensional process, comprising biological, psychological and sociological dimensions. In this sense the cognitive age is expressed by different dimensions of aging by asking people: how old they think they look (biological dimension), how old they feel (psychological and biological dimensions), and how old they think their behavior and interests are (social dimension). The original definition of cognitive age comes from Kastenbaum, who asked respondents how old they felt in terms of interests, things which they do, looks and feelings (Kastenbaum, 1972). In marketing was the term cognitive age used first by Barak and Schiffman (1980), who revised Kastenbaum method from 1972 into a decade matching format (Barak and Schiffman, 1980; Barak and Gould, 1985; Barak, 1987). The cognitive age scale is frequently used as the measure of self-perceived age in marketing research of seniors.

In our research both two methods of self-perceived – cognitive age were applied. The first was the method of age identification with its single-item categorical measure. We asked respondents, which of three adjectives – „young, middle-aged, old“ best described them. The second method used was the age decade scale, consisting of four dimensions „feel age, look age, interests age and do age“.

3. RESULTS AND DISCUSSION

Analysis of the single-item cognitive age measure is based on a simple frequency tabulation (Table 2).

The results of single-item measure indicate that slightly more than half of the sample respondents perceive themselves as being „middle-aged“, whereas approximately one in seven seniors still feel „old“ and one third of the sample felt „young“. Comparison of chronological age (Table 1) and single-item measure (Table 2) suggested that respondent aged 55-64 years feel themselves „young“ and all those aged 75+ feel themselves to be „old“.

Table 2. Results of single-item measure

Single-item measure	%
Feel „young“ / „younger“	33,9
Feel „middle-aged“	51,4
Feel „old“	33,9

Source: own calculation

The method of „age decade scales“ contains nine interval scales. On the age decade scale, respondents have to indicate their average feel, look, do, and interests ages. It is then compared to chronological age.

In several subsequent studies Barak (1987) found that „look age“ proved to be closest to chronological age than any other of the three other dimensions.

Table 3. Results of age decade scales

Age	Feel* (%)	Look* (%)	Interests* (%)	Do* (%)
Teens	0	0	0	0
20s	0	0	0	0
30s	4,4	1,5	10,4	4,4
40s	16,1	8,8	23,5	11,8
50s	29,5	25,1	26,4	27,9
60s	26,5	36,7	20,5	32,4
70s	14,7	17,6	10,3	13,2
80s	8,8	10,3	8,8	10,3
90s	0	0	0	0
Cognitive age (years)	54	66	52	58

Source: own calculation

*Response to statements:

„Most of the time, I feel like I am in my“

„Most of the time, I look like I am in my“.

„My interests are those of a person in his/her“.

„I do the things, which a person does in his/her“

Table 4. Correlations between chronological age and the age decade scales

	Age decade scales			
	Feel age	Look age	Interests age	Do age
Correlation coefficient	0,71	0,89	0,74	0,80

Source: own calculation

Significant at $p < 0,05$

Cognitive age seems to be an useful concept for marketers. It gives a more precise understanding of the attitudes and values of older consumers, which have an impact on consumer behaviour. Thus, the marketers can develop a better understanding of the customer decision taking and based of knowledge of cognitive age improve creative execution and media selection.

Older people, who are cognitively young are not very different from chronologically middle-aged and younger consumers. They usually lead active lives and purchase the same (or very similar) goods and services (Moschis and Mathur, 2006). Seniors who are cognitively young do not necessary require any special targeting. In contrast, seniors who are cognitively old, are suitable targets for goods and services which help them to make the life easier and to see the future in less negative perspective (Rentz et al., 1983).

Knowledge of cognitive age helps in creative execution of advertising to a clearer understanding of the self-concepts of older target segments. It means, it may help advertisers to avoid some stereotypes that could be rejected by seniors, or that could offend cognitively young seniors. In creating the advertisements it is to be remembered that the average look age of 55+ people is about 8-10 years younger than chronological age, and that the average interests age is about 10-15 years younger.

In our research we found the complete coincidence in look dimension between chronological age and cognitive age. High differences have been identified in both age measures in dimensions feel-age and interests-age (12 vs 14 years).

Advertising targeted at cognitively young seniors may promote also trying new products, since these people are positive towards new brand trial. Trying something new either for comparison or for variety does not appeal to the cognitively old (Szmigin, 2000). They exhibit behaviour with a high level of risk aversion. Respondents who felt younger, and who actually were younger, expressed more willingness to try new brands and seek information and were less likely to display cautiousness in buying.

Table 5. Correlations between single-item measures and behavioral measures

Single-item measure	Correlation coefficients (%)	
	New brand trial	Information seeking
Feel „young“	0,76	0,86
Feel „middle-aged“	0,65	0,81
Feel „old“	0,42	0,62

Source: own calculation

Significant at $p < 0,05$

3-point scale, where 1=less likely to try new brand and seek information; 2=likely to try new brand and seek information; 3=very much likely to try new brands and seek new information

The knowledge of cognitive age (in addition to chronological age) is useful also for media decision and the choice of media channels, which are most efficient in influencing this segment. People who are cognitively young, are easier to reach, because they are more likely to seek new information, to watch advertisements and to read the product labels. The media that reach chronologically middle-aged and younger target segments may be also effective for the seniors who feel cognitively young. On the other hand, the cognitively old seniors are harder to reach. They are firmly bound to products and media that are known and familiar to them. To pursue the cognitively old people to buy a new product / new brand, requires from the marketers to use convincing methods, such as free samples / in-store sampling, to encourage trial purchase. It is recommended to stimulate word-of-mouth, since cognitively old seniors believe more to this form than to printed advertisements.

However, the willingness of seniors to try new things is not only a function of feeling younger, but it may also be a function of income or education. People with higher income tend to feel younger and to be more open than those with less money.

The age decade scale is the preferred measure of cognitive age in the gerontology research for three reasons. First, it gives a more accurate estimate of cognitive age than the single-item scale, because it uses nine scale points and four items. It is expected that the estimates will be more accurate, if there are more points and more items on a rating scale. Second, the four dimensions of the age decade scale are easy for respondents to understand and answer. This is an important advantage, given the difficulty, which older people often have with scale questions. Third, analysis and interpretation of the age decade scale is easy.

Finally, cognitive age is a useful concept in marketing / advertising decision taking, that may be used as a supplement to chronological age. Advertisers can employ it to achieve more effective creative content and more efficient media selection. Cognitive age is not a substitute for chronological age, but it can enhance the understanding of a large and diverse segment of senior consumers.

4. CONCLUSION

The main finding from studies of age identity is that the majority of older people do not identify with the age category „old“, but prefer to consider themselves „middle aged“. Our research, which has applied two methods of cognitive age identification to measure the self-perceived age of older people, documented that:

- no perfect correlation exists between self-perceived age and chronological age
- the look age dimension exhibits the highest correlation with the actual age than any other dimension of self-perceived age.

The results demonstrate that the vast majority of seniors feel „middle aged“ or „young“ and are not ready to admit they feel „old“.

Cognitive age seems to be a useful concept for marketers and advertisers as a supplement to chronological age. It enables a deeper insight into the multidimensional segment of seniors and helps to understand the self-concepts, attitudes and behavior of older people. Chronological age remains in marketing a valuable segmentation variable, the most important and standard demographic measure. Nevertheless, the cognitive age makes the picture of seniors more clear and precise.

LITERATURE

1. Barak, B. (1987). Cognitive Age: A New Multidimensional Approach to Measuring Age Identity. *International Journal of Aging*, 1987, Vol. 25, No 2, pp. 109-125.
2. Barak, B.-Schiffman, L.G. (1980). Cognitive Age: A Nonchronological Age Variable. *Advances in Consumer Research*, 1980, Vol. 7, pp. 602-606.
3. Barak, B.-Gould, S. (1985). Alternative Age Measures: A Research Agenda. *Advances in Consumer Research*, 1985, Vol. 12, pp. 53-58.
4. Barak, B. (2009). Age-Identity: A cross-cultural global approach. *International Journal of Behavioral Development*, 2009, Vol. 33, No 1, pp. 2-11.
5. Baum, S.-Russell, L.B. (1983). Age Identification in the Elderly. *The Gerontologist*, 1983, Vol. 23 (October), pp. 532-537.
6. Churchill, G. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research*, 1979, Vol. 16 (February), pp. 64-73.
7. George, L.-Mutran, E.-Pennybacker, M. (1980). The Meaning and Measurement of Age Identity. *Experimental Aging Research*, 1980, Vol. 6 (June), pp. 283-298.
8. Guptill, C. (1969). A Measure of Age Identification. *The Gerontologist*, 1969, Vol. 9 (Summer), pp. 96-102.
9. Gwinner, K.P.-Stephens, N. (2001). Testing the Implied Mediational Role of Cognitive Age. *Psychology and Marketing*, 2001, Vol. 18, No. 10, pp. 1031-1048.
10. Kastenbaum, R.-Derbin, V.-Sabatini, P.-Artt, S. (1972). The Ages of Me: Toward Personal and Interpersonal Definitions of Functional Aging. *Aging and Human Development*, 1972, Vol. 3, No 2, pp. 197-211.
11. Linn, M.-Hunter, K. (1979). Perception of Age in the Elderly. *Journal of Gerontology*, 1979, Vol. 34 (January), pp. 46-52.
12. Markides, K.S.-Boldt, J.S. (1983). Change in Subjective Age among the Elderly: A Longitudinal Analysis. *The Gerontologist*, 1983, Vol. 23 (August), pp. 422-427.
13. Moschis, G.P.-Mathur, A. (2006). Older consumer responses to marketing stimuli: The power of subjective age. *Journal of Advertising Research*, 2006, Vol. 46, (September), pp. 339-346.

14. Rentz, J.O.-Reynolds, F.D.-Stout, R.G. (1983). Analyzing changing consumption patterns with cohort analysis. *Journal of Marketing Research*, 1983, Vol. 20, No 1, pp. 12-20.
15. Szmigin, I.-Carrigan, M. (2000). The Older Consumer as Innovator: Does Cognitive Age Hold the Key? *Journal of Marketing Management*, 2000, Vol. 16, pp. 505-527.
16. Ward, R.A. (1977). The Impact of Subjective Age and Stigma on Older People. *Journal of Gerontology*, 1977, Vol. 32, (March), pp. 227-232.
17. Wei, S. (2005). Consumers' Demographic Characteristics, Cognitive Ages, and Innovativeness. *Advances in Consumer Research*, 2005, Vol. 32, pp. 633-640.
18. Wilkes, R.E. (1992). A Structural Modeling Approach to the Measurement and Meaning of Cognitive Age. *Journal of Consumer Research*, 1992, Vol. 19, (September), pp. 292-301.

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LOCAL AUTHORITY ENGAGEMENT IN INFORMING THE PUBLIC ON ISSUES RELATED TO PHYSICAL PLANNING

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ABSTRACT

This paper deals with interpreting the results of an empirical study of the general public opinion, as well as the opinion of the interested public, on local authority engagement in informing members of the public on issues related to physical planning, including the level of public awareness about the intended repurposing and future plans for particular spaces. In Croatia, relevant decisions and activities related to physical planning are usually under the authority of the local government and are carried out in accordance with spatial plans devised on the municipal, city or county level. A well-organised public and civil sector can significantly influence certain proposals and future development projects that are to be included in such plans. If a planned project was not included in the pertaining spatial plan, the process of assessing its impact on the environment and the procedure related to obtaining the necessary permits cannot be initiated, thus making physical planning the first and most important step of the decision-making process. The goal of the study was to analyse the potential differences among the members of the interested public (defined by belonging to a particular sector or target group) in terms of the level of awareness and opinions on local authority engagement in informing the public on issues related to physical planning. The qualitative study was carried out using a purposive sample and the methods of in-depth interview and participant observation. Grounded theory was used in analysing the empirical data, while the quantification of the qualitatively processed coded material was performed using the Statistica ver. 11.00 software suite. The study determined the level of awareness in the target and sector groups on local authority engagement in informing and including both the general and interested public in processes related to physical planning. Most participants of the study stated that the local authorities have not done enough to inform the public about issues related to physical planning.

KEY WORDS: Local community, Public opinion, Physical planning.

1. INTRODUCTION

One of the basic characteristics of the current business setting and the marketing environment is the fact that businesses The aim of informing and including the public in public consideration procedures when adopting spatial plans is to create preconditions for approving the implementation of certain projects in the phase prior to the strategic and environmental impact assessments. The Aarhus Convention points to the fact that sustainable development can only be achieved by including all the concerned parties in the relevant activities (Svendsen, 1998). The responsibilities of government bodies and protecting the environment are connected, which is why the Convention calls for environmental democracy, i.e. democratic cooperation with the public in the processes related to providing information and implementing the provisions of international treaties.

If the planned project has already been accounted for in the local spatial plan, the developer / investor is to prepare the necessary documentation and apply for the environmental impact assessment procedure / assessment on the necessity of such a procedure at the appointed government office. This is done before the location permit is issued. All of these actions are preceded by studies which determine the feasibility and adequacy of the project, as well as activities related to property relations, land purchase, and so on (Dunlap, Van Liere, 1978).

Public debates in Croatia on studies related to the environmental impact of certain projects have in recent years frequently been characterised by the strong involvement of those stakeholders who oppose the implementation of a specific project (e.g. Srđ golf course, Plomin C, waste management centres, the Ombla hydroelectric power plant, and others). The concerned public is often opposed to such projects and believes that it has no real say in the related decision-making process (Bell, 2012). In other words, the concerned public was provided with information, but was not given the opportunity to influence the final decision, which is why they are suspicious of the procedure (Hertwich, Hammitt, Pease, 2000). Public participation is a mechanism established with the aim of involving the public in the decision-making process (a procedure governed by legislation), as well as a way of achieving broader social goals. Public administration is tasked with identifying and implementing public interest.

In time, we have come to a conclusion that state administrative bodies are not the sources of objective identifying and decision making in the best interest of the public, but are rather arbitrators between the various interests that exist, and

the practice has shown that economic and political interests are always stronger than the declarative and non-binding right to a healthy environment. That is why public participation is a challenge to the traditional management/decision-making model implemented by experts or public administration bodies. It serves not only as a means to control public administration, but as a way to, above all, determine what the public interest is in the first place (Ofak, 2009).

The broader social importance of public participation could be summed up in the following goals (Beierle, Cayford, 2002): giving the final decision a public character, improving the quality of the decision, resolving conflicts between different interests, increasing trust in institutions, educating and informing the public. The success of public participation is defined as the extent to which the five social goals are achieved, i.e. the success of achieving these social goals is proportional to the quality of public participation. The European Community was well prepared in this area even before the Aarhus Convention. Moreover, the so-called EIA Directive and the IPPC Directive of the European Community have served as the basis for Appendix I of the Convention. When it comes to public participation, the solution is in more modern legislation.

For the past 30 years, the importance of public participation in the procedures of environmental impact assessment has constantly been growing. Little is going to change in practice with no procedural, administrative, and legal instruments for monitoring the processes of environmental impact assessment and decision-making in the hands of citizens. The main objectives of developing effective strategies for involving the public are better understanding, better communication, strengthening the ability/skills to apply the appropriate forms of participation/involvement with respect to the purpose of the process, and strengthening the relationship and cooperation between stakeholders, with the aim of better planning and realisation of (local) sustainable development. For this to be achieved, the public has to be informed, aware of the issue and involved in the decision-making process (Cifrić, 2009). Introducing new legal opportunities for public participation is not enough in itself - the public must first become aware of the available tools and learn how to properly use them, so that an adequate procedure for social assessment can be devised and implemented. Public participation is ensured while issuing the decision on integrated environmental protection conditions, which is a novelty in Croatian legislation related to the environment, and it results from further harmonisation with the IPPC Directive (Ofak, 2009).

Physical planning as an interdisciplinary endeavour has shown appreciation for an integral approach to space protection in Croatia since the 1950s. Studies on environmental impact have been included as a part of the formal procedure in Croatia since 1980, when they were first included as a part of the obligatory documentation for a spatial plan, thus formalising the existing integral approach. With this in mind, it could be stated that procedures related to assessing the environmental impact of a project were introduced in Croatia much earlier than in other European countries, mostly thanks to the long and uninterrupted tradition of comprehensive physical planning. Regardless of the institutional backbone, the last few years have shown a significant level of public opposition in all parts of Croatia when it comes to building waste management centres. According to Croatia's Treaty of Accession, Chapter III, Waste Management, p. 148, all existing landfills in Croatia have to meet the requirements of the Directive (1999/31/EC) before 31 December 2018, except those defined under Appendix I, Article 1.

This paper presents the results of empirical research on informing and involving the general and concerned publics in the process of public review when adopting spatial plans, i.e. the stage when, among other things, the intended future use and location of the waste management centres is defined. Undertaking activities in space management is one of the most visible activities of the government, which is directly manifested in the local community and thus felt most directly by the residents. In formulating space management policies and making decisions in relation to spatial planning in the Republic of Croatia, the local government dominates compared to other participants. A well-organised civil sector, consisting primarily of citizens with a higher level of cognitive engagement (knowledge, interest, a feeling of satisfaction as motivating force), can strongly influence certain solutions, particularly those dealing with public space, through various motivational methods, resources, and existing social capital.

The public sphere was first conceptualised by Jürgen Habermas. Habermas provides a theoretical basis for a form of planning that emphasises widespread public participation, sharing information with the public, reaching consensus through public dialogue instead of displaying power, avoiding empowering experts and bureaucrats, and substituting patterns of a technical expert with those of a thought planner. In this regard, the legitimacy of democracy depends not only on the constituent processes of introducing legislation, but also on the "discursive quality of the complete deliberation process that leads to the final result", according to White (Bolton, 2005). Communicative action is an individual action undertaken in order to promote common understanding in the group, and to promote cooperation, as opposed to "strategic action", undertaken just to achieve personal goals. Some planning theorists believe that the desire to plan means to encourage communicative action to enable the production of social capital. Habermas sets civil society in contrast to systemic integrated areas of the economy and the state that have over time differentiated according to the media of money and power. This is where Habermas warns that the privileged appropriation of socially produced wealth in a capitalist civil society with the legally institutionalised mechanisms of labour and capital markets is disguised and objectified. System integration and social integration in the political public are confronted through exclusion. Autonomy

of life in the political public opposes the systemic perspective of the state apparatus. On the one hand, there is public opinion as the general will, i.e. the pluralistic expression of the general interest and social consensus (Vreg, Mlač, 1991). There is little analysis of the contents of slogans such as *civic participation* or *maximum feasible participation*, as well as responses to questions such as what actually constitutes civic participation and what its relation to the social imperatives of our time is. Sherry R. Arnstein points out in her paper, "The Ladder of Civic Participation", that civic participation is a categorical term for the power of citizens, and believes that it is the redistribution of power that enables the existence of poor people, currently excluded from political and economic processes, so that they can be intentionally included sometime in the future. It is a strategy used to include the poor in determining how to share information, how to set goals and conditions, how to allocate tax assets, how programmes work, and how benefits like contracts and patronage are distributed. Put shortly, it is a way in which they can produce significant social reform, which enables them to enjoy the benefits of living in a rich society (Arnstein, 1969). It is vital to highlight the criteria used in setting public policy, as physical planning deals with policy formulation, while environmental impact study assessment procedures deal with policy implementation (Petak, 2009). This is also the reason why the differences in levels of awareness and participation among members of the concerned public can be best approached from the viewpoint of information and communication studies.

The aim of this study is to use scientific methods to analyse the possible differences in awareness and participation of the interested public in the public review during the processes of adopting spatial plans, determining the future use of space and implementing planned projects. Based on the goal of the study as previously defined, the following hypothesis was set:

H – There are significant differences in levels of awareness and participation between various target and sector groups, parts of the general and concerned public, when it comes to the procedures related to adopting spatial plans, defining the future use of a space and assessing a particular project.

2. METHODOLOGY

A qualitative approach was used in this study as it best explains the interaction between the processes in this project and an interpretative and multi-method approach for studying people in their natural environment (Denzin, 2000). The inclusion of quantitative methods in a qualitative study has for its aim the integration of different research methodologies in a single study draft, thus allowing more complete insight into particular areas of the study and binding all the phases of the process into a sort of methodological triangulation (Mejovšek, 2013). This triangulation is represented in a qualitative study by the application of several different methods at the same time in order to obtain complete and more reliable information about the subject of the study (Mejovšek, 2013). The samples were constructed as targeted groups, i.e. as deliberate and purposeful, so that they would be rich in information and could provide deeper insight into the research problem.

A comprehensive list (description) of the subject field was devised in order for the research subject to be made more accessible through the processes of discovering, understanding and interpretation. The qualitative study was carried out using a purposive sample and the methods of in-depth interview and participant observation. The method of grounded theory was used in the analysis of the empirical material. Three basic types of coding were applied: open or initial coding, axial coding, selective coding. The initial coding included the first rearranging and sorting of the data, noting similarities and forming response groups. Final analysis and categorisation of the key concepts created the conceptual matrix with the content of qualitative empirical material in the integrated theoretical framework (Holton, 2007; Charmaz, 1990). Inductive and deductive methods were used on the data, as well as the method of analysis and synthesis, comparison method, classification method, and the descriptive method (Cifrić, 2009). The study was conducted in 2014. Respondent selection was done according to previously set criteria: a target sample of participants in the empirical study who are involved in the procedures relevant to the research either professionally or voluntarily. The sample was defined with 100 entities, 46 males and 54 females. The average participant age was 52.1 years old. Respondents were divided into 10 subsamples (target groups) which were qualitatively defined with 10 entities:

1. STUDY MAKERS – persons authorised by the Ministry of Environmental and Nature Protection;
2. DEVELOPERS – investors;
3. MINISTRY OF ENVIRONMENT/COMMITTEE – representatives of the governing body conducting the process, and members of committees for study evaluation;
4. CITIES – representatives of the employees of the city administration for environmental protection responsible for conducting public debates, and spatial planning representatives;
5. COUNTIES – representatives of the employees of the county administration for environmental protection responsible for conducting public debates, and spatial planning representatives;

6. ASSOCIATIONS – representatives of non-governmental environmental associations;
7. CIVIL INITIATIVES – representatives of NGOs and civil society who are involved in the process, but are not environmentally oriented;
8. ECONOMIC ASSOCIATIONS – representatives of the Croatian Employers' Association, Croatian Chamber of Commerce, and other economic interest associations;
9. POLITICAL PARTIES – representatives of political structures which are included in the process;
10. SCIENTISTS/JOURNALISTS – representatives of academic institutions and journalists who are involved in the process.

Three new qualitatively defined control groups (clusters) were classified based on the above subsamples:

1. PUBLIC SECTOR – 40 respondents from target groups: MIN. OF THE ENVIRONMENT/COMMITTEE, CITY, COUNTY, SCIENTISTS/JOURNALISTS;
2. CIVIL SECTOR – 30 respondents from target groups: ASSOCIATIONS, CIVIC INITIATIVES, POLITICAL PARTIES;
3. ECONOMIC SECTOR – 30 respondents from target groups: STUDY MAKERS, DEVELOPERS, ECONOMIC ASSOCIATIONS.

The research material consisted of two dependent (grouping) variables according to target and sector group, and one independent variable. The participants were asked to express their opinion on whether the public review procedure in the process of adopting spatial plans provides enough information on the intended future use of the space and related planned projects. Responses were coded on a measuring scale from 1 to 3. We calculated the descriptive parameters: frequency and cumulative relative values of the responses in the whole sample, and in the predetermined focus and control groups. Processing was carried out using the Statistica Ver.11.00 software suite (Beierle, Cayford, 2002).

3. RESULTS

Quantitative processing of the entity matrix for the variable coded under *Public awareness and involvement in PP procedures* was based on the responses given to the qualitatively defined question:

*Do you believe that local **government offices** in charge of physical planning are doing enough to inform and involve the public in the procedures related to creating and adopting spatial plans?*

Participants were asked to express their opinion on the level and character of the ways in which the public is informed about and involved in the procedures related to creating and adopting spatial plans by local government offices.

The responses were defined on three levels:

The first group was classified according to negative responses, and represents those entities who answered:

No, the public is not sufficiently involved and informed. Local officials want to keep the public at a distance, they work with individual interests, rather than general well-being in mind, their function, responsibilities and authority are not clearly defined, they only carry out the legal minimum of expected activities.

Quantitatively, these negative responses were coded as zero (0), for the upcoming statistical data processing.

The second group says that it does not have enough information, does not know, or is not sure how to respond, is undecided, and stands by the following positions:

I am not familiar with it, I do not know, I am not sure. I believe that public review is a necessary and useful mechanism and that the public should be involved, but I am not certain if this is enough and to what extent it is actually used.

Quantitatively, these undecided responses were coded as one (1) for later statistical processing.

The third group was classified according to positive responses, and represents those entities who answered:

Yes, but only as a formality. The public is seen as a necessary level, a task on a to-do list. In practice, a part of the work related to informing the public should be carried out by the public's elected representatives, but, sadly, they lack the necessary competency.

Quantitatively, these undecided responses were coded as two (2) for later statistical processing. The responses were coded under the variable *Public awareness and involvement in PP procedures* for statistical processing. Table 1 shows the frequency of all instances of the variable *Public awareness and involvement in PP procedures* in the study.

Table 1. Absolute and cumulative relative frequencies of the variable *Public awareness and involvement in PP procedures*, N=100.

Responses	Frequency	Cumulative relative frequency
0	58	58.00
1	5	63.00
2	37	100.00

Legend: 0 - no; 1- I don't know, I'm not sure; 2 - yes.

An analysis of the frequency of certain responses contained under the variable coded as *Public awareness and involvement in PP procedures* shows that a relative value of 58% accounts for those respondents who believe that local officials do not want to include the public because they work with particular, rather than general interest in mind, and that would certainly become apparent if a broader public debate was carried out. For this reason, local officials either exclude the public completely or include it only to meet the minimal legal requirements. 37% of the respondents expressed a positive opinion on the level of public awareness and involvement in procedures related to physical planning. Table 2 shows the frequency of the variable *Public awareness and involvement in PP procedures* in the 10 predefined target groups.

Table 2. Frequency of the variable *Public awareness and involvement in PP procedures* according to target group, N=100.

Responses	SM	DE	ME	CI	CO	AS	CI	EA	PP	S/J	Total
0	5	8	7	3	1	7	8	5	8	6	58
1	0	0	0	0	0	3	2	0	0	0	5
2	5	2	3	7	9	0	0	5	2	4	37

Legend: 0 - no; 1- I don't know, I'm not sure; 2 - yes.

SM - STUDY MAKERS – persons authorised by the Ministry of Environmental and Nature Protection;

DE – DEVELOPERS – investors;

ME – MINISTRY OF ENVIRONMENT/COMMITTEE – representatives of the governing body conducting the process, and members of committees for study evaluation;

CI – CITIES – representatives of the employees of the city administration for environmental protection responsible for conducting public debates and spatial planning representatives;

CO – COUNTIES – representatives of the employees of the county administration for environmental protection responsible for conducting public debates and spatial planning representatives;

AS – ASSOCIATIONS – representatives of non-governmental environmental associations;

CI – CIVIL INITIATIVES – representatives of NGOs and civil society who are involved in the process, but are not environmentally oriented;

EA – ECONOMIC ASSOCIATIONS – representatives of the Croatian Employers' Association, Croatian Chamber of Commerce, and other economic interest associations;

PP – POLITICAL PARTIES – representatives of political structures which are included in the process;

S/J – SCIENTISTS/JOURNALISTS – representatives of academic institutions and journalists who are involved in the process.

It is obvious from Table 2 that only the representatives of the country and city administrations in charge of public debate procedures related to physical planning (target groups CITIES and COUNTIES) believe that local government offices are doing enough to inform and involve the public. Members of all other target groups believe that the level of public

awareness and involvement is inadequate, incomplete and only meets the legal minimum. A quantitative analysis of the frequency of the variable Public awareness and involvement in PP procedures is presented in Table 3.

Table 3. Frequency of the variable *Public awareness and involvement in PP procedures* according to sector group, N=100.

Responses	PUBLIC SECTOR	CIVIL SECTOR	ECONOMIC SECTOR	Total
0	17	23	18	58
1	0	5	0	5
2	23	2	12	37
Total	40	30	30	100

Legend: 0 - no; 1- I don't know, I'm not sure; 2 - yes.

Public sector - MIN. OF THE ENVIRONMENT/COMMITTEE, CITY, COUNTY, SCIENTISTS/JOURNALISTS;

Civil sector - ASSOCIATIONS, CIVIC INITIATIVES, POLITICAL PARTIES;

Economic sector - STUDY MAKERS, DEVELOPERS, ECONOMIC ASSOCIATIONS.

23 entities, i.e. 58% of the public sector, believe that the public has been sufficiently informed and involved in the procedures related to creating and adopting a spatial plan. However, most of the respondents from the *civil sector* (77%) and the *economic sector* (66%) do not support such a view and believe that local officials do not want to include the public, they work with particular, rather than general interest in mind, they only meet the legal minimum because the process is not clearly described and their function, responsibilities and authority are not clearly defined.

A one-way ANOVA analysis was carried out to determine if statistically significant differences were present between the predefined subsamples, i.e. between the ten target groups, with an additional *post hoc* analysis (Tukey HSD test). Discriminant analysis was also performed in order to determine the significant differences between the three sector groups.

ANOVA variance analysis of the results shows that there is a statistically significant difference between the target groups, with a significance level of $p=0.00$.

The results of a post hoc analysis of the variable *Public awareness and involvement in PP procedures* between target groups are presented in Table 4.

Table 4. Results of post hoc analysis of the variable *Public awareness and involvement in PP procedures* between target groups, N=100.

	SM	DE	ME	CI	CO	AS	CI	EA	PP	S/J
SM		0.86	0.99	0.99	0.55	0.72	0.55	1.00	0.86	1.00
DE	0.86		1.00	0.23	0.02	1.00	1.00	0.86	1.00	0.99
ME	0.99	1.00		0.55	0.07	1.00	0.99	0.99	1.00	1.00
CI	0.99	0.23	0.55		0.99	0.13	0.07	0.99	0.23	0.86
CO	0.55	0.02	0.07	0.99		0.01	0.00	0.55	0.02	0.23
AS	0.72	1.00	1.00	0.13	0.01		1.00	0.72	1.00	0.95
CI	0.55	1.00	0.99	0.07	0.00	1.00		0.55	1.00	0.86
EA	1.00	0.86	0.99	0.99	0.55	0.72	0.55		0.86	1.00
PP	0.86	1.00	1.00	0.23	0.02	1.00	1.00	0.86		0.99
S/J	1.00	0.99	1.00	0.86	0.23	0.95	0.86	1.00	0.99	

Legend:

SM - STUDY MAKERS – persons authorised by the Ministry of Environmental and Nature Protection;

DE – DEVELOPERS – investors;

ME – MINISTRY OF ENVIRONMENT/COMMITTEE – representatives of the governing body conducting the process, and members of committees for study evaluation;

CI – CITIES – representatives of the employees of the city administration for environmental protection responsible for conducting public debates and spatial planning representatives;

CO – COUNTIES – representatives of the employees of the county administration for environmental protection responsible for conducting public debates and spatial planning representatives;

AS – ASSOCIATIONS – representatives of non-governmental environmental associations;

CI – CIVIL INITIATIVES – representatives of NGOs and civil society who are involved in the process, but are not environmentally oriented;

EA – ECONOMIC ASSOCIATIONS – representatives of the Croatian Employers' Association, Croatian Chamber of Commerce, and other economic interest associations;

PP – POLITICAL PARTIES – representatives of political structures which are included in the process;

S/J – SCIENTISTS/JOURNALISTS – representatives of academic institutions and journalists who are involved in the process.

The table in which the results of the post hoc Tukey HSD test analysis of the variable *Public awareness and involvement in PP procedures* with respect to target groups are given clearly shows that there is a statistically significant difference between five target groups. Furthermore, it shows that respondents belonging to the target group COUNTIES differ in their results the most from the target groups DEVELOPERS, ASSOCIATIONS, CIVIL INITIATIVES and POLITICAL PARTIES.

4. CONCLUSION

58% of the respondents believe that local officials do not want to include the public because procedures related to physical planning are used to cater to private, rather than general interest, a fact which would certainly become apparent in a broader public debate. For this reason, the public is either completely excluded or only included to the extent required to meet minimal legal requirements. 37% of the respondents expressed a positive opinion on the level of public awareness and involvement in procedures related to physical planning. A statistically significant difference was found between the 10 predefined target groups, with the level of significance being $p=0.00$ and the F-test coefficient 3.62. 23 entities, i.e. 58% of the participants belonging to the public sector, believe that the public has been sufficiently informed and involved in procedures related to physical planning. However, most of the respondents from the *civil sector* (77%) and the *economic sector* (66%) do not support such a view and believe that local officials do not want to include the public, they work with particular, rather than general interest in mind, they only meet the legal minimum because the process is not clearly described and their function, responsibilities and authority are not clearly defined. The findings of the analysis of the level of public awareness and involvement and the results of this study correspond to the 4th crossbar (standing for "CONSULTATION") on the ladder of public participation as defined by Sherry R. Arnstein (1969). Consultation, as defined in the fourth ladder crossbar, entails seeking the opinion of the citizens and is, like actions related to informing the public, a legitimate step towards full citizen participation. However, unless consulting with the citizens is combined with other modes of participation, this ladder crossbar does not offer a guarantee that the concerns and ideas of the public will be taken into account and is thus little more than a ploy. The most common methods used for consultation are the surveys of attitudes, meetings and public debates, while the actual inclusion of the public at this level remains but a decorative ritual. Participants are primarily perceived as statistical abstractions, while participation is measured by how many of them come to meetings, take brochures or respond to the questionnaire. What the citizens gain in all these activities is the ability to participate, while the organiser on the other hand obtains proof to show that they have undertaken all the necessary actions for involving the public. As is the case with the third crossbar, information, Arnstein classifies the fourth crossbar, consultation, as tokenism. This places it at a half-way point between the first and the eighth crossbar, which stands for public participation through *citizen control*.

Due to a lack of transparency in procedures related to physical planning, the public suspects the relevant authorities and their motives. The local community often lacks the expert capacity to improve the level of public awareness and involvement – an issue that could be addressed by hiring external partners, student volunteers or volunteers from the civil sector. They would be tasked with raising public awareness on the importance of participation in the procedures related to physical planning. The public would have to be regularly informed about their work, which would be organised in a planned manner / through specific projects. Two public debates are more than enough to sufficiently inform the public and encourage it to participate, i.e. it would not be necessary to increase the administrative scope of the procedure or prolong the process. All three sectors must develop mutual trust and two-way symmetrical communication.

LITERATURE

1. Arnstein, S. R. (1969.) A ladder of citizen participation. *Journal of the American Planning Association*. The Web version. P. 4. URL: <https://www.planning.org/pas/memo/2007/mar/pdf/JAPA35No4.pdf> (15/5/2014).
2. Beierle, T. C. Cayford J. (2002.) *Democracy in Practice: Public Participation in Environmental Decisions*. Washington, DC: RFF Press.
3. Bell, M. (2012.) *An Invitation to Environmental Sociology*. Los Angeles. London. New Delhi. Singapore. Washington, DC: SAGE Publications.
4. Bolton, R. (2005.) *Habermas's Theory of Communicative Action and the Theory of Social Capital*. URL: <http://web.williams.edu/Economics/papers/Habermas.pdf> (10.5.2014.)
5. Charmaz, K. (1990.) Discovering Chronic Illness: Using Grounded Theory. *Soc.Sci.Med.* 30, 11(1990), pp. 1161-1172.
6. Cifrić I. (2009.) *Kultura i okoliš*. Zaprešić: Visoka škola za poslovanje i upravljanje s pravom javnosti Baltazar Adam Krčelić.
7. Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste – Direktiva EU-a o odlaganju otpada
8. Čaldarović, O. (2006.) Konceptualizacija prirode kao vrijednosti javnog dobra i aspekti njezine valorizacije. *Revija za sociologiju*, Vol XXXVII. No 1–2(2006), pp. 47–62.
9. Denzin, N. K., Lincoln Y. S. (2000.) *Handbook of Qualitative Research*. 2nd ed. Thousand Oaks, CA: Sage Publications. pp. 4-5.
10. Dunlap R. E., Van Liere, K. D. (1978.) The New Environmental Paradigm: A Proposed Measuring Instrument and Preliminary Results. *Journal of Environmental Education*. 9(1978), pp. 10-19.
11. Hertwich, E. G., Hammitt, J.K., Pease, W.S. (2000.) A Theoretical Foundation for Life-Cycle Assessment: Recognising the Role of Values in Environmental Decision Making. *Journal of Industrial Ecology*. 4, 1(2000), pp. 13-28.
12. Holton, J. A. (2007.) The Coding Process and Its Challenges. *Grounded Theory: the Sage Handbook*. Ed. Antony Bryant, Kathy Charmaz. London. Thousand Oaks. New Delhi. Singapore: Sage Publications.
13. Mejovšek, M. (2013.) *Metode znanstvenog istraživanja u društvenim i humanističkim znanostima*. 2nd ed. Jastrebarsko: Naklada Slap, p. 161.
14. Ofak, L. (2009.) Sudjelovanje javnosti u odlučivanju u pitanjima okoliša. *Ekonomika i menadžment u javnom sektoru*. Ed. Marija Kaštelan Mrak. Rijeka: Ekonomski fakultet Sveučilišta u Rijeci. pp. 114-150, 125.
15. Petak, Z. (2009.) Pojmovnik. *Hrvatska javna uprava*. 9, 1(2009), pp. 283–295.
16. Petz B., Kolesarić V., Ivanec D. (2012.) *Petzova statistika: osnovne statističke metode za nematematičare*. Jastrebarsko: Naklada Slap.
17. Pfeffer, J. (2010.) Building Sustainable Organisations: The Human Factor. *Academy of Management Perspectives*. 24, 1(2010), pp. 34-45.
18. Radman, Z. (2009.) Utjecaj različitih modela građanstva na rezultate politike upravljanja prostorom u jadranskim regijama. *Politička misao*. 46, 4(2009), pp. 223-230, 226-227.
19. Radović, G. (2013.) Interakcija prostornih planova i studija utjecaja na okoliš. *Zbornik radova: Prva regionalna konferencija o procjeni utjecaja na okoliš*. Ed. Marta Brkić, Nenad Mikulić. Zagreb: Hrvatska udruga stručnjaka zaštite prirode i okoliša. pp. 70-75, 69.
20. Silverman, D. (2006.) *Interpreting Qualitative Data: Methods for Analyzing Talk, Text and Interaction*. 3rd ed. London. Thousand Oaks. New Delhi: Sage Publications.
21. Svendsen, A. (1998.) *The Stakeholder Strategy: Profiting From Collaborative Business Relationships*. San Francisco: Berrett-Koehler Publishers.
22. Vreg, F., Mlač, A. (1991.) *Demokratsko komuniciranje: Prilog pluralističkoj paradigmi u komunikacijskoj nauci*. 2nd ed. Sarajevo: Narodna i univerzitetska biblioteka BiH Sarajevo i Fakultet političkih nauka Sarajevo.

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ADVANTAGES AND DISADVANTAGES OF COOPERATION AMONG COMPANIES

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ABSTRACT

The contribution deals with the cooperation among companies, as well as its advantages and disadvantages in the context of marketing. The idea of cooperation is defined in many different ways. However, it is generally understood to mean the collaboration of several people with differing subtasks to achieve a common goal. Generally, cooperation in business and administration is described as the collaboration of at least two legally and commercially independent companies in clearly defined areas of cooperation. The cooperation can take place on a contractual basis to improve productivity, as well as on a voluntary basis between the cooperation partners.

The potential advantages of cooperation among companies can be described as risk reduction by safeguarding important resources. Errors can be compensated and risks spread by the sharing of investments, cutting back on waste by reducing errors and work duplication. The cooperation enhances the advantages in quality, innovation, flexibility and speed by using a systematic approach: the development of new skills by grouping individual services into a complete solution, etc.

The disadvantages of cooperation should not go unmentioned, for example a growing dependence on one another and a concurrent reduction in independence, disclosure of company secrets and core competences, the danger of a drain of expertise, etc.

Overcoming mistrust on both sides can be seen as the deciding factor in the failure of cooperation projects. The cooperation requires a deliberate exchange of sensitive know-how. Often an unwanted drain of this expertise terminates the relationship, or the cooperation fails at the very beginning. A further aspect that can negatively influence company cooperation is underestimating the complexity of the tasks involved.

KEY WORDS: company's cooperation, targets of collaboration, advantages and disadvantages of cooperation.

1. INTRODUCTION

In the last years, the theme of the development of regions is connected with the industrial organisation as well as the problem of companies or industries concentration in some regions or localities. The investigations of these processes in the business environment are connected in literature with terms of cluster or network creation, the value management and supply chain management too. There are various effects in term of economics – digital or network economics in connection with the development of information and communication technologies. The enormous network development brings also the new questions and problems. The impacts of trends characteristics of the business environment are evident. The development trends activate new questions, discrepancy and disparity in the scene of cooperation among the companies as well as in the clusters and networks.

It is possible to identify more forms of cooperation for discovering of global trends in the business environment, e.g. vertical-operating strings, clustering of interconnected sectors and networks. On the other side, it is possible to identify the barriers that hinder the creation of networks and growth of reciprocal interconnection of individual subjects.

The formal study of cooperation is based on the definition of subjects or units that are included to specific form of cooperation, on the definition of links and flows and looked for the solution of maximum or minimum flows problems as well as on the identification of sources of benefits or risk.

2. THEORETICAL BACKGROUND

The term "cooperation" has many definitions. Generally, it is understood to mean the collaboration of several people with different subtasks to achieve a common goal (Knaur, 1991) depending on the target of research (Klanke, 1995). The cooperation in relation with business and administration could be described as the collaboration of at least two legally and commercially independent companies in clearly defined areas of cooperation.

According to Wöhe (1993) the cooperation can be divided into the following groups:

- Occasional teams e.g. consortium, working team etc.
- Teams created on the common interest
- Cartels
- Group of companies

The following features are characteristic for company cooperation (Jansen, 2000):

- Collaboration between two legally and commercially independent companies
- Reciprocal agreement and/or joint completion of tasks
- A voluntary decision by all cooperation partners
- All aim for the same goals
- Achievement of higher targets compared to working alone

A relationship of trust is the prerequisite for company cooperation. Without it, collaboration makes no sense. Thus, a company must give up part of its autonomy in order to fulfil the requirements for successful cooperation (Kugler/Zickert, 2004). Nowadays, active work in the area of cooperative management may help companies not only to keep their position on the market and it can even enhance its competitiveness and find new perspective partners (Soviar, 2009). It is essential to form suitable conditions in the company to have cooperative management applied. That requires identification of current conditions of meeting of the key elements of cooperative management (Vodak/Soviar/Lendel, 2013).

3. FORMS OF COOPERATION

The individual cooperation forms are discussed in reference texts in different ways. Wöhe (1993) calls them “a type of linked economic tiers”. Göldenboth (1998) describes them as forms and Kugler/Zickert (2004) speak of cooperation structures.

In general, the main structural forms of cooperation can be divided into three groups:

- Horizontal company cooperation
- Vertical company cooperation
- Diagonal company cooperation.

Company alliances at a horizontal level are indicative of cooperation between companies at the same stage of the value chain (Göldenboth, 1998). In this sort of cooperation, an attempt is made to combine the strengths of the two companies in order to achieve a stronger competitive and negotiation position. A further aim may be to achieve quantity and specialisation results that will lead to cost savings (Kugler/Zickert, 2004). Alliances of companies in the same industry in order to create specialist or trade associations fall into this category (Wöhe, 1993). In view of the competitive relationship between the partners, the choice of a partner must be made with great care (DIHK, 2002). Sharing company expertise is the major factor here. Often, one party tries to hold information back which could help to make the cooperation successful, in order to avoid giving the other partner a competitive advantage (Göldenboth, 1998).

The alliance of companies at consecutive stages in the value chain is referred to as vertical cooperation. A distinction is made on the content basis (Wöhe, 1993) to two forms:

- forwards cooperation or forwards integration and
- reverse orientated cooperation or reverse integration (Theling/Loos, 2004):

The main aim of reverse integration is risk reduction by securing supplies and main aim of forwards integration is risk reduction by securing sales.

Vertical company links are mostly long term in nature and, when a number of companies are involved, they have a network structure or create the cluster. The most important aims are the potential for cost reduction, achieving competitive advantages and a change in market and mobility barriers. In vertical cooperation, a flow of resources between the companies involved takes place. The aim, therefore, is to open up the potential for cost reduction, which is of paramount importance, as nearly all companies in this type of cooperation are concerned with somehow increasing the efficiency of the flow of resources (Jung, 2002). The endeavour to change market and mobility barriers can be listed under general market aims, which are only indirectly deciding factors. The realisation of competitive advantages can include the attainment of synergy advantages, access to new knowledge and also an increase in flexibility. However, this aim is also only of secondary importance. To sum up, it can be said that efficiency targets are the most important reasons for vertical cooperation (Göldenboth, 1998).

Reference texts often refer to diagonal cooperation as a conglomerate, lateral or complementary cooperation. It is a special form of horizontal cooperation between companies in different sectors and/or from different production and trade levels (Theling/Loos, 2004). Fiscal considerations or a better spread of risks can be the reasons for this kind of alliance (Wöhe, 1993). This type of cooperation is appropriate for companies whose services are very complex, for example, service organizations (Kugler/Zickert, 2004). New services, products and markets can be created through the technological, financial or logistic support of the partners. Generally, such cooperation is terminated after the respective targets have been reached, or it is taken over by one of the partners (DIHK, 2002).

The cooperation can furthermore be classified also into:

- Redistributive forms
- Reciprocal forms.

When resources are combined in one way or another, the term redistributive cooperation is used. This inevitably leads to allocation problems such as profits, loss or knowledge have to be distributed to partners in an agreed proportion. This type of cooperation often occurs in horizontal cooperation where two or more companies of “equal strength” form an alliance (Göltenboth, 1998).

In reciprocal cooperation, an action by one partner is answered by a reciprocal action by the other. It is a matter of giving and take on both sides, which avoids allocation problems. This form chiefly occurs in vertical company cooperation (Göltenboth, 1998).

4. ADVANTAGES AND DISADVANTAGES OF COOPERATION

In order to ensure an optimum structure, the disclosure of targets before the start of cooperation is particularly important (Fuest, 1998). The potential benefits or advantages of cooperation among companies by Theis (1997) can be described as follows:

- Risk reduction by safeguarding important resources as errors can be compensated and risks spread by the sharing of investments
- Cutting back on waste by reducing errors and work duplication
- Advantages in quality, innovation, flexibility and speed by using a systematic approach: the development of new skills by grouping individual services into a complete solution.
- Cost reduction through the economies of scale and economies of scope associated with an improved use of ever scarcer resources
- Better market access due to the structure of local contacts and
- Larger, joint market power

Richter (2004) describes the effects of cooperation in relation with company goals and with targeting on competitive advantages. The position on market and achieving the competitive advantages are related with:

- Capacity advantages e.g. improvement of customer binding, broadening the capacity catalogue, image improvement
- Costs e.g. access to capital, using the distribution channels
- Time e.g. time savings, speed up market entrance, increasing the flexibility
- Access to new markets with the access and using of market know-how
- Access to know-how including the access to information, using the business contacts etc.

The focus of cooperation can extend to all functional areas in a company. However, in most cases it is one aim that is the deciding factor for entering into an alliance with another company. Nevertheless, a number of intentions can be pursued in parallel. The deciding aim or combination of aims is generally what determines the legal form, intensity and length of a business alliance (Wöhe, 1993).

Cooperation entered by the procurement sector tends to focus on either cost or performance targets. Joint purchasing can be classified under the heading of cost targets (Klanke, 1995). By grouping purchasing needs, costs can be reduced, logistics costs cut and the company can pass the lower purchase prices on to the customers (DIHK, 2002). Performance targets are achieved when one of the cooperation partners has access to means of purchasing goods that are not generally available. This in turn has a positive effect on the quantity of goods at the procurement stage and the quality level of the products can be maintained or improved for all cooperation partners (Jung, 2002).

In the production department, cooperation is mainly aimed at optimising the utilization of capacity and employees. Cost reduction is pursued through series production, as well as risk reduction through the improved use of available equipment (Wöhe, 1993).

Cost savings through the use of synergy effects are often the reason for cooperation projects in the sales department. The grouping of resources in sales, services and customer service can be an objective of the sales area. Ideally, the fields of operation of the partners complement one another and lead to savings in resources (Jung, 2002).

The joint use of exhibition and showrooms, subsidiaries, training, common transport and storage, as well as a joint presence at trade fairs, give cooperation projects in sales a direct influence on the company success. Equally, cooperation at the service level is meaningful from the economic point of view, because some companies do not have their own customer service department (Kugler/Zickert, 2004).

Wöhe (1993) deals with other factors that could be of interest in a company alliance:

- Financial aims to:
 - Raise large sums of capital
 - Open up international markets
 - Finance large projects
 - Fiscal targets
 - Certain operations are moved abroad to take advantage of lower tax rates
 - Grouping of far-reaching economic interests
 - Pursuing joint technical-economic plans
 - Joint R & D projects

Sources of risk and limitations of cooperation among the companies or disadvantages of cooperation should not go unmentioned. The following difficulties can occur when entering into the cooperation (Theis, 1997):

- A growing dependence on one another and a concurrent reduction in independence,
- it is often difficult to supervise cooperation activities,
- the effort involved and the costs of cooperation transactions (coordination, setting up, etc.),
- disclosure of company secrets and core competences,
- the danger of a drain of expertise.

The cooperation among companies requires a deliberate exchange of sensitive know-how. Often an unwanted drain of this expertise terminates the relationship or the cooperation fails at the very beginning. A further aspect that can negatively influence company cooperation is underestimating the complexity of the tasks involved. Quality management is thus unavoidable for successful company cooperation (Theis, 1997).

A one of the best-practice study, in which 500 CEOs (Richter, 2004) were asked for the reasons of cooperation failure, lead to the following results:

- Wrong partners
- Too optimistic thoughts
- Hand warm engagement
- Insufficient communication
- Insufficient distribution of roles or tasks
- No clear results
- Unclear value added situation
- Small relationship built up
- Weak business plan
- Insufficient cooperation experience
- Different company cultures and related misunderstandings

Cooperation has its limits. Not all company aims can be achieved by alliances. Shortfalls in resources can be compensated, for example, but the technical success of an intended cooperation cannot be guaranteed when it is not yet possible to identify its technical feasibility. Furthermore, cooperation does not compensate for lacking management skills and will merely reduce risks rather than eliminate them (Staudt, 1992). The question of the time involved should also not be ignored.

5. CONCLUSION

Undoubtedly, the main reason for cooperation among the firms is to enable the collaborating firms to achieve goals and activities. These goals and activities include mainly the access to new markets and to help reciprocal at market entry, the increasing profit from customers and supporting the market position, the turnover growth and cost advantages through agreed cooperative marketing tools, etc. We can conclude that the cooperation among the firms is orientated on maximising the synergy effect by an efficient combination of activities of all cooperating companies. The forms and scale of cooperation depend on the possibilities in each industry as well as on the market regulations.

LITERATURE

1. DIHK – Deutscher Industrie- und Handelskammertag: Mit Kooperationen zum Erfolg! – Praxisleitfaden Unternehmenskooperationen, typoplus (W. Siewer), Bonn, 2002
2. Fuest, U. (1998.) *Die Organisation von Kooperationen – Rahmen, Parameter und Modelle der Gestaltung von interorganizational relations*, St. Gallen
3. Göltzenboth, M. (1998.) *Global sourcing und Kooperationen als Alternativen zur vertikalen Integration*, Europäischer Verlag der Wissenschaften, Frankfurt
4. Jansen, S. A. (2000.) *Unternehmensakquisitionen und -kooperationen*, Verlag Dr. Th. Gabler, Wiesbaden, 2000
5. Jung, H. (2002.) *Allgemeine Betriebswirtschaftslehre*, 8. Auflage, R. Oldenbourg Verlag, München/ Wien
6. Klanke, B. (1995.) *Kooperationen als Instrument strategischer Unternehmensführung – Analyse und Gestaltung – dargestellt am Beispiel von Kooperationen zwischen Wettbewerbern*, Wilhelms-Universität Münster, Münster
7. Knaur (1991.) *Universalexikon*, Band 8, Lexikographisches Institut, München
8. Kotler, Ph.- Armstrong, G.- Saunders, J. - Wong, V. (2005.) *Grundlagen des Marketing*, 4. Auflage, Pearson Education Deutschland GmbH, München
9. Kotler, Ph. - Bliemel, F. (1995.) *Marketing-Management*, 8. Auflage, Schäffer-Poeschel Verlag, Stuttgart
10. Kugler, F. – Zickert, K. (2004.) *Kooperationen – Möglichkeit zur Intensivierung von Innovationsaktivitäten*, Fachhochschule Schmalkalden, Schmalkalden
11. Ludwig, C. (2008.) *Das Management von funktionellen Dienstleistungen im B-to-B-Geschäft*, Dissertationarbeit, Zilinska univerzita v Ziline, Zilina 2008
12. Richter, Ch. (2007.) *Unternehmenskooperationen erfolgreich gestalten*, WWW-Seite unter der URL-Adresse: [http://www.economics.phil.uni-erlangen.de/bwl/lehrbuch/aufbau/koop/ a_koop.pdf], letzte Änderung 09/ 2004, Zugriff am 26.04.2007
13. Rose, G. - Glorius-Rose, C. (1995.) *Unternehmensformen und -verbindungen*, Verlag Dr. Otto Schmidt, Köln
14. Soviar, J. (2009.) Cluster initiatives in Žilina region (Slovak Republic), *Economics and Management* 16: 528–534.
15. Staudt, E. et al. (1992). *Kooperationshandbuch – Ein Leitfaden für die Unternehmenspraxis*, VDI-Verlag, Düsseldorf
16. Theis, Ch. (1997.) *Qualitätsmanagement zwischenbetrieblicher Kooperationen*, Shaker Verlag, Aachen
17. Theling, Th. - Loos, P. (2007.) *Determinanten und Formen von Unternehmenskooperationen*, WWW-Seite unter der URL-Adresse: [http://wi.bwl.uni-mainz.de/downloads/Publikationen/ Theling_Loos_2004_ Unternehmenskooperationen.pdf], letzte Änderung unbekannt, Zugriff am 26.04.2007
18. Vodak, J. – Soviar, J. – Lendel, V. (2013.) The evaluation system proposal of the business preparedness for cooperative management implementation. *Verslas: Teorija ir praktika. Business: Theory and practice*. ISSN 1648-0627
19. Vogt, G. (1999.) *Nomaden der Arbeitswelt – Virtuelle Unternehmen – Kooperationen auf Zeit*, Versus Verlag, Zürich
20. Wöhe, G. (2002.) *Einführung in die allgemeine Betriebswirtschaftslehre*, 21. Auflage, Verlag Franz Vahlen, München, 2002

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INTERNATIONAL DIVERSIFICATION AND PERFORMANCE IMPROVEMENT IN PORTUGUESE SMES: THE MEDIATING ROLE OF INTERNATIONAL LEARNING

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ABSTRACT

International operations, with its multiplicity of objectives, can be seen as a diversification strategy, sometimes even as a strategic option taken as an effective alternative to product diversification. This work, focusing on a sample of SMEs of Portuguese manufacturing industries, analyzes the mediating role of experiential knowledge arising from the international learning, on the relationship between the international diversification strategies and performance. Data used were collected in 390 companies through an online questionnaire. Data analysis suggests the existence of this mediating effect, stressing therefore its importance as a potential source of competitive advantage. These results provide guidelines for managers and generate directions for future research.

Keywords: International diversification, intensity, scope, international learning, international performance, mediating role.

1. INTRODUCTION

Enhance performance through international intervention, developing various strategies to achieve this goal, has become a crucial, if not critical, task to many managers around the world, even for those running smaller enterprises (Hymer, 1968; Dunning, 1980; Lu and Beamish, 2001; Hitt *et al.*, 2006a; Cavusgil *et al.*, 2012). International diversification of a company can be defined as the phenomenon of expansion beyond borders of countries and global origin regions, aiming at different locations or markets (Hitt *et al.*, 1997). It is a concept that refers to the geographical scope of the international presence of the company (Goerzen and Beamish, 2003) and it reveals the extent of their dependence on external markets (Thomas and Eden, 2004). According to Contractor (2007), the use of “international diversification” instead of “degree of internationalization” should be avoided, unless it is a reference to an explicit purpose of global risk reduction of the multinational company. However, researchers in the area of strategic management have a richer perspective of international diversification than the simple risk reduction strategy (Hitt *et al.*, 1994), considering it a way to strengthening competitiveness, which is why the research area has dedicated so much attention to the study of the relationship between international diversification and performance (Hitt *et al.*, 2006a). This is the prevailing perspective in this study.

2. THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

International performance

Despite the diversity of topics and subjects studied in the context of international diversification (Buckley and Casson, 2009; Buckley, 2011), undoubtedly one of the most targeted by this investigative stream has been the relationship between this type of strategy and performance achieved. However, despite numerous and important contributions to the understanding of the relationship between international diversification and performance (DI-P), this enormous diversity of work has proved inconclusive, inconsistent, if not contradictory (Chao and Kumar, 2010; Beleska-Spasova *et al.*, 2012). While some of these studies point out to the existence of a positive relationship between international diversification and performance (e.g., Grant *et al.*, 1988; Delios and Beamish, 1999a; Pangarkar, 2008), other works report the existence of different type of relations, for example, “U-shaped” (Lu and Beamish, 2001; Ruigrok and Wagner, 2003), inverted “U-shaped” (Hitt *et al.*, 1997; Kotabe *et al.*, 2002), “Horizontal S” (Contractor *et al.*, 2003; Lu and Beamish, 2004), pointing, still others, for a linear and negative relationship (Fatemi, 1984; Collins, 1990). Not integrated into any of the above mentioned situations, some studies (Siddharthan and Lall, 1982; Hoskisson and Hitt, 1990) didn’t find any kind of relationship. However, from a business point of view, as revealed by the attitude of thousands of companies worldwide, the expectation is always that there are advantages in strengthening their internationalization processes. And, indeed, from an academic point of view, most of the studies show that these expectations are often confirmed (Contractor, 2007). This is obviously the basic assumption that supports all research work in international business (Contractor *et al.*,

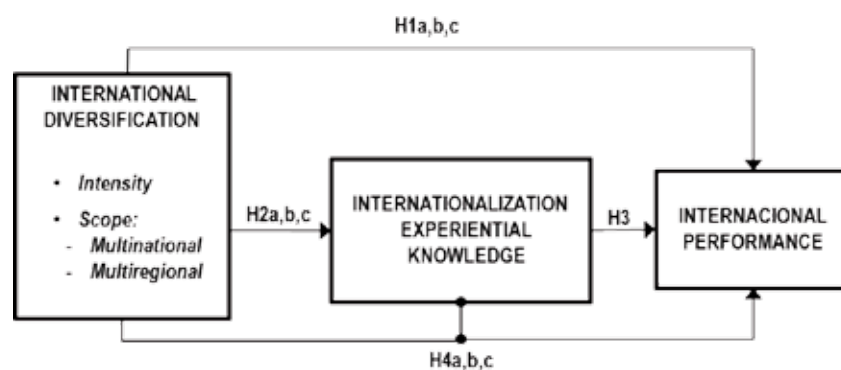
2003). Several authors have advocated the dependence of ID-P (International Diversification-Performance) relationship to aspects such as the industry in question, company factors, foreign markets cultural, political and institutional aspects (Contractor, 2007) or even contextual factors from the home market (Nachum, 2004). Stressing the argument that the reality of origin or host markets have also an influence on the ID-P relationship, (Barkema *et al.*, 1996) researched and confirmed an influence of the cultural factors in destination countries, having Nachum (2004) recognized the existence of a significant effect of the company's origin region on that relationship.

International learning

Organizational learning through experience is enhanced by the degree of diversity of that experience (Penrose, 1959). Exposure to diversity of contexts, events and ideas has positive influence on the degree of knowledge, whether technological or administrative in nature or even in adopting a more innovative approach (March, 1991). Thus, a firm acting in several countries and therefore facing a greater diversity of environments is potentially more-prone to the development of knowledge when compared to other companies operating only in their local market or in very few countries (Barkema and Vermeulen, 1998). Organizational knowledge and learning are interconnected (Eriksson *et al.*, 1997; Petersen *et al.*, 2008). Organizational learning mechanism is developed as a process of transformation of accumulated experience into useful knowledge for the organization (Petersen *et al.*, 2008; Sandberg, 2014). Through the experience gained in the course of its international operations, the firm, subjected in this context to an intense learning process, will acquire experiential knowledge to its international business, not only at international generic level, but also in terms of specific local markets as well as in what international individual relationships is concerned (Sandberg, 2014). One of the most important experiential knowledge categories in the international business setting is the internationalization knowledge (Eriksson *et al.*, 2000a; Hilmerston, 2012) or, to use the designation suggested by Sandberg (2013; 2014), the internationalization experiential knowledge. This kind of experiential knowledge refers to the ability of a company to carry out research of various kinds in markets outside its home base, although having nothing to do with aspects or specific details of this or that market in particular (Blomstermo *et al.*, 2004a). Internationalization experiential knowledge stemming from international learning is object of study in this research work.

Figure 1 presents the conceptual model of this study.

Figure 1. Conceptual model



International diversification and international performance

Depending on the priority given to intensity and scope dimensions of company's international intervention, this may occur more by concentration or diversification of international markets (Ayal and Zif, 1979; Saarenketo *et al.*, 2008). Also in this context, Cieřlik *et al.* (2012) refer to alternative strategies of balance or, to use author's words, ambidextrous international strategic options. Not being conclusive on which strategy has a more intense effect on performance, results from different studies in this field (e.g., Cooper and Kleinschmidt, 1985; Crick *et al.*, 2000; Katsikea *et al.*, 2005), instead, generally have revealed positive influence in both cases. Thus, we propose the following hypotheses:

Hypotheses 1a, 1b, 1c: International diversification, in terms of (1a) intensity, (1b) multinational scope and (1c) multiregional scope, has a positive effect on international performance.

International diversification and internationalization experiential knowledge

According to Yeoh (2004), the international diversification of a company can be envisaged as an organizational learning process and, therefore, a means of knowledge accumulation through experience acquired with the internationalization

process. This interpretation, in line with the same author, is based on the fact that this type of strategy, favoring exposure to a wider range of markets, enhances the chances of occurring organizational learning. The potential raise of opportunities for knowledge acquisition derives from this greater exposure that, influenced by cultural diversity, takes place through the “coexistence” with new and diverse ways of doing business in the various markets in which the company operates. One kind of experiential knowledge developed by the companies during their internationalization process is experiential knowledge of internationalization (Johanson and Vahlne, 1977; Eriksson *et al.*, 1997; Sandberg, 2013). Inasmuch as the reinforcement in any dimension of the international diversification strategy, both in intensity or scope, enhances exposure to diversity and favors international learning, the following hypotheses are formulated:

Hypotheses 2: International diversification, in terms of (2a) intensity, (2b) multinational scope and (2c) multiregional scope, has a positive effect on internationalization experiential knowledge.

Internationalization experiential knowledge and international performance

Experiential knowledge is identified in several studies as an antecedent of international performance (e.g., Katsikeas *et al.*, 2000; Yeoh, 2004). The level of experiential knowledge of internationally more experienced companies may leverage superior performance (Delios and Beamish, 1999a; Blomstermo *et al.*, 2004a). Or, even more specifically, international learning can be analyzed as a complex resource to use in strengthening or development of competitive advantage and, therefore, in getting high performance in international business (Yeoh, 2004). Based on this discussion, the following hypothesis is formulated:

Hypothesis 3: Internationalization experiential knowledge has a positive effect on international performance.

Efeito mediador do conhecimento experiencial de internacionalização na relação “diversificação internacional-desempenho internacional”

According to Buckley *et al.* (1988), company's international performance is the result of competitiveness level, past or present, achieved by the company through its choices and initiatives in the context of its international activities. The entry in international markets enables the company to acquire knowledge through which it develops new capabilities to carry out value creation activities (Ghoshal, 1987; Zahra *et al.*, 2000). On the other hand, Hsu and Pereira (2008) argue that companies engaged in learning through their international intervention continuously strive to create competitive advantage in international markets and, thus, improve their performance. International diversification strategies, either with priority to intensity or scope, normally require the need of dealing with diversity in terms of countries, markets and market segments, which can lead to significant organizational learning and knowledge accumulation. This learning process arising from the confront with all that diversity, allowing, for instance, the exploitation of scope or scale economies resulting from higher international presence (Ayal and Zif, 1979; Zahra *et al.*, 2000; Saarenketo *et al.*, 2008), may become an important basis for strengthening and sustaining competitive advantage and, therefore, to achieve superior performance. Consequently, we propose the following hypotheses:

Hypotheses 4a, 4b, 4c: The relationship between international diversification, in terms of (4a) intensity (4b) multinational scope and (4c) multiregional scope, and international performance is mediated by internationalization experiential knowledge.

3. METHODOLOGY

Sample

Sample selection was based exclusively on a database (of Portuguese exporter companies) from the AICEP - Agency for Investment and Foreign Trade of Portugal. As basic profile in terms of firm size, we adopted the SME definition according to the European Union and, thus, the minimum number of 10 employees and a maximum turnover EUR 250 million were defined as requirements. Besides, in line with Beleska-Spasova and Glaister (2010), we established, as additional conditions, the involvement in international business at the time, and that this involvement should be, in terms of minimum previous temporal period, of at least five years, nevertheless, without defining a minimum value for the foreign sales to total sales ratio. The five years minimum period of involvement in international business was considered sufficient to assess the impact of international diversification in performance (Beleska-Spasova and Glaister, 2010; Beleska-Spasova *et al.*, 2012). After adjusting the original database to the requirements, a list of 2895 companies was then compiled, and, thus, the sampling frame used in the study was established. As final result of the data collection process, we obtained 390 valid questionnaires, corresponding to an effective rate higher than 16%, which can be considered a satisfactory rate, since the average percentage level of response in case of questionnaires sent to top managers is typically between 15 and 20% (Menon *et al.*, 1996).

Measures

The following measures were adopted for this study's independent, dependent and control variables.

International diversification.

International diversification strategies were investigated along the two following dimensions: intensity and scope. In order to assess the first dimension, the intensity, we used the foreign sales to total sales ratio. This is an international engagement indicator widely used in the literature (e.g., Lu and Beamish, 2001; Kafouros *et al.*, 2008; Hsu *et al.*, 2013). Regarding the scope of international diversification, it was measured in two different perspectives: (1) the level of presence in multinational terms, measured by the number of countries where the company operates and (2) the distribution of these operations for a set of predefined globe regions. The measure of international diversification strategy's scope in a multinationality perspective, originally used by Vernon (1979) and since then also widely used in the literature (e.g., Tallman and Li, 1996; Zahra *et al.*, 2000; Lu and Beamish, 2006; Yeoh, 2014), aims at evaluating the overall geographical distribution of activities, without, however, consider any other quality of this distribution. Due to this feature of the scope's measure through the number of countries, some authors have been criticizing its use, since it assumes the absence of differences between countries in terms of cultural, institutional and business practices (Yeoh, 2004). Therefore, for measuring the dimension "scope", we also used an entropy measure, developed by Hitt *et al.* (1997), which considers both the number of global market regions in which a firm operates and the relative importance of each one. According to those authors, international diversification can be calculated by the following expression:

$$ID = \sum_i^n [P_i \times \ln(1/P_i)]$$

In this expression, P_i is the company's sales volume in the region i and $\ln(1/P_i)$, ie, the natural logarithm of the inverse of this sales volume, represents the sales weight of region i . In this study, the following regions of the world were considered: European Union PALOP (African Countries of Portuguese Official Language), NAFTA (North American Free Trade Agreement), Maghreb, MERCOSUR (Southern Common Market) and Rest of World.

Internationalization experiential knowledge

Internationalization experiential knowledge was measured based on a scale used by Sandberg (2014) (for further details see Appendix).

International performance

For the assessment of international performance we used the EXPERF scale developed by Zou *et al.* (1998). Data collected through this scale reflected the perception of the informants on the company's international performance in the previous three years (see Appendix).

Control variables

Since other factors may have an effect on the relationships presented in the hypotheses, five control variables were included: age, international experience, international business assistance, size, and host countries pulling factors. Age – measured in terms of years in business (natural logarithm). International experience – number of years of international activity (natural logarithm). International business assistance – forms of support translated into specific measures of the government or other entities (Lages and Montgomery, 2005) (for further details see Appendix). Size – number of fulltime employees (natural logarithm). Host countries pulling factors – attractiveness factors related to markets to where companies seek to expand their operations (Etemad, 2004; Pangarkar, 2008; Cavusgil *et al.*, 2012) (see Appendix).

4. RESULTS

To assess the goodness of fit of the measurement model, absolute measures as the chi-square statistical significance (χ^2) and the RMSEA (Root Mean Square Error of approximation) were used. The overall chi-square was found significant ($\chi^2 = 332.64$; d.f.= 171; $p < 0.000$) and the RMSEA = 0.046, which is an indicative factor of a good fit. Additionally, three incremental measures of fit were assessed: Comparative Fit Index (CFI=0.95), Incremental Fit Index (IFI=0.96) e Tucker-Lewis Fit Index (TLI=0.96).

Structural equation model

The conceptual model was tested using structural equation model. Results of this test suggest an acceptable fit of the model to the data: $\chi^2 = 383.68$; d.f.=176; $p < 0.000$; RMSEA = 0.052; CFI = 0.95; IFI = 0.96; TLI = 0.96. Table 1 depicts the estimates of the parameters and the T-values obtained for the various tested hypotheses.

Table 1. Structural model results

Hypotheses	β	T	Supp./Not supp.
H1a: International Diversification (Intensiy) → International Performance	0,29	3,75***	Supported
H1b: International Diversification (multinational scope) → International Performance	0,22	2,27*	Supported
H1c: International Diversification (multiregional scope) → International Performance	0,21	3,54***	Supported
H2a: International Diversification (Intensity) → Internationalization Experiential Knowledge.	0,29	5,5***	Supported
H2b: International Diversificati (multinational scope) → Internationalization Experiential Knowledge.	0,27	4,87***	Supported
H2c: International Diversificaton (multiregional scope) → Internationalization Experiential Knowledge.	0,12	2,39*	Supported
H3: Internationalization Experiential Knowledge → International Performance	0,39	6,79***	Supported

* $p < 0,05$; ** $p < 0,01$; *** $p < 0,001$. Two-tailed test.

Table 2. Effect of the control variables

Control Variables	β	T
Age → International Performance	0.01	0.22
Size → International Performance	0.09	1.85
International Experience → International Performance	-0.11	-1.69
International Business Assistance → International Performance	-0.04	-0.53
Host Countries Pulling Factors → International Performance	0.13	2.76**

* $p < 0,05$; ** $p < 0,01$; *** $p < 0,001$. Two-tailed test.

Regarding the control variables used, as presented in Table 2, only “host country pulling factors” revealed a significant influence on international performance.

To assess the existence of the mediation effect of internationalization experiential knowledge in the relationship between international diversification and international performance we used the methodology adopted in Anderson and Gerbing (1988) and Lu *et al.* (2010). For that purpose, several nested models were analyzed (see table 3).

Table 3. Mediation effect of internationalization experiential knowledge in the “international diversification-international performance” relationship

	Model	χ^2	df	$\Delta\chi^2$	Δdf
A	Full model: direct and indirect effects (through the internationalization experiential knowledge) between international diversification and performance.	383,68	176	-----	-----
B	Full mediation; canceling all direct paths from international diversification to performance.	399,89	179	16,21*	3
C	No direct path from international diversification (intensity) to performance	394,29	177	10,61*	1
D	No direct path from international diversification (multinational scope) to performance.	388,97	177	5,29*	1
E	No direct path from international diversification (multiregional scope) to performance.	394,11	177	10,43*	1
F	No path from international diversification (intensity) to internationalization experiential knowledge	420,51	177	36,83*	1
G	No path from international diversification (multinational scope) to internationalization experiential knowledge	386,13	177	2,45	1
H	No path from international diversification (multiregional scope) to internationalization experiential knowledge	390,59	177	6,91*	1
I	No path from internationalization experiential knowledge to performance.	447,59	177	63,91*	1

* $p < 0,05$. Two-tailed test

According to table 4, the “international diversification - performance” relationship is partially mediated by the internationalization experiential knowledge when it comes to the “intensity” and “multiregional scope” dimensions of international diversification, but, surprisingly, not in the case of “multinational scope”.

Table 4. Mediation effect - hypotheses

Hypotheses - mediation effect:	Result
H4a: International Diversification (intensity) → Internationalization Experiential Knowledge → International Performance	Supported (partial effect)
H4b: International Diversification (multinational scope) → Internationalization Experiential Knowledge → International Performance	Not supported
H4c: International Diversification (multiregional scope) → Internationalization Experiential Knowledge → International Performance	Supported (partial effect)

5. DISCUSSIONS AND IMPLICATIONS

Results, significantly, suggest that more intense international diversification strategies or higher level of (multinational or multiregional) scope have a significant and positive effect on firm's international. That is, despite the inevitable costs and benefits entailed by the strengthening of international diversification (Contractor, 2007), this strategic option usually contributes to the optimization of the cost-benefit ratio, thus resulting in better international performance (Pangarkar, 2008; Beleska-Spasova and Glaister, 2010). Consistent with the conceptual model, the result analysis seems to enable the conclusion that a higher exposure and needing to deal with diversity in terms of countries, markets, market segments etc. enhances learning through international experience, reinforcing, therefore, the firm's internationalization experiential knowledge. I.e., company, during the process of its international learning, will turn the international experience gained in each market into internationalization experiential knowledge. This knowledge, getting embedded in routines and company structures, enhances problem-solving ability and the alternatives selection capacity, in the context of its international operations (Hsu and Pereira, 2008). Thus, this study supports and reinforces the findings of Eriksson *et al.* (2000a) and (Blomstermo *et al.*, 2004a).

On the other hand, results also suggest that internationalization experiential knowledge developed by the company through its international learning positively and significantly contributes to the strengthening of international performance. Meaning that, by increasing its experiential knowledge of internationalization, the firm will perfect their skills to research, identify and embrace opportunities, either in new markets or in those in which the company has already been active (Eriksson *et al.*, 2000a; Blomstermo *et al.*, 2004a), resulting in a significant influence on performance. Hence, this confirmation contributes to an important line of research which includes studies such as Makino and Delios (1996), Autio *et al.* (2000) and Villar *et al.* (2014), since all of them concluded by the existence of a positive and significant relationship between organizational knowledge (studied in various forms) and firm performance.

Finally, we confirmed the existence of the mediation effect, even if in partial terms, of the experiential knowledge of internationalization in the relationships between both intensity and multiregional scope of international diversification and international performance of the company: However, such mediating effect, was not confirmed, neither full nor partially, when it comes to scope dimension in multinational terms. Thus, in general terms, it seems it can be stated that, in the case of the sample investigated, the effect on performance will be significantly more effective if the strengthening of international diversification is translated into a higher degree of experiential knowledge of internationalization, which, in turn, will influence performance more successfully. This conclusion is in line with the arguments of Buckley *et al.* (1988), since, here too, is concluded that international performance, more than direct and automatically stemming from “choices” made, it is the outcome of the competitiveness gains resulting from those ‘choices’, triggering, in turn, a performance improvement.

In conclusion, as generally accepted in the literature (e.g., Ghoshal, 1987; Vermeulen and Barkema, 2002; Beleska-Spasova *et al.*, 2012), our findings also remain an important support base to suggest that SMEs managers should start or strengthen the international diversification processes of their firms. In addition, this study also points out to the need for SMEs to leverage learning opportunities during their international business – in this study assessed by the accrual of general knowledge of internationalization - as a major net input to performance improvement.

Two main limitations of the study should be noted. First, its cross-sectional nature, since for many of the studied variables, involving processes over time, the use of longitudinal data, therefore (related to a time-series), would allow a more appropriate assessment of relations between the main variables. Second, studying international learning exclusively based on the acquisition of internationalization experiential knowledge can also be a limitation to the study, since, alone, this construct does not capture the diversity of aspects of the company’s international learning. Concurrently, two suggestions for future studies are presented. First, a longitudinal study, also focusing on SMEs, once the scarcity of research work on the current theme is the major note. Second, other forms of organizational knowledge resulting from international activity, such as social knowledge (associated with relational firm’s capital), technological expertise, market knowledge, institutional knowledge or customers knowledge could be studied (Eriksson *et al.*, 2000a; Yeoh, 2004; Sandberg, 2014).

APPENDIX – measurement scales

Internationalization experiential knowledge (Adapted from Sandberg, 2014)

Question: Please indicate the extent to which your company, in the course of your international operations, has gained new knowledge/new skills in:

(1 – Limited knowledge or skills; 5 – Extensive ...)

- Supplying foreign customers.
- Adapting our products and services to meet the needs and wants of foreign customers.
- Marketing and sales of our products abroad.
- Adapting our organization to meet the needs and wants of foreign customers.

*International performance (Adapted from: Zou *et al.*, 1998; Beleska-Spasova *et al.*, 2012)*

Question: Please indicate the extent to which you agree with the following statements

(1 – Strongly disagree; 5 – Strongly agree)

- Has contributed significantly to our overall profitability
- Has generated a high volume of sales
- Has achieved rapid growth
- Has improved our international competitiveness
- Has strengthened our strategic position in the international market
- Has significantly increased our international market share
- Has been very successful
- Has fully met our goals and expectations.

International business assistance – control variable (Adapted from: Lages and Montgomery, 2005)

Question: Over the last five years, how would you rate the support to your company's international activities received from:

(1 – None; 5 – Substantial)

- European Union
- Government (excluding EU support)
- Trade associations.

Host countries pull factors - control variable (Adapted from: Pangarkar, 2008; Etemad, 2004; Cavusgil et al., 2012)

Question: Please indicate the degree of importance assigned, in overall terms, to the following factors as elements weighed in the decision to enter the various countries in which your company operates:

(1 – Not significant; 5 – Absolutely crucial)

- Attractiveness in the medium / long term of the host country markets.
- Favorable government policies of the host country markets.
- Lower intensity of the competitive environment in the host country markets.
- Existence of capable partners in the host country markets.
- Access to resources (financial, natural, knowledge, etc.) in the host country markets.

REFERENCES

- Anderson, J. C. e D. W. Gerbing (1988). "Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach." *Psychological Bulletin* 103(3): 411-423.
- Autio, E., H. J. Sapienza e J. G. Almeida (2000). "Effects of age at entry, knowledge intensity, and imitability on international growth." *Academy of Management Journal* 43(5): 909-924.
- Ayal, I. e J. Zif (1979). "Market Expansion Strategies in Multinational Marketing." *Journal of Marketing* 43(2): 84-94.
- Barkema, H. G., J. H. J. Bell e J. M. Pennings (1996). "Foreign entry, cultural barriers, and learning." *Strategic Management Journal* 17(2): 151-166.
- Barkema, H. G. e F. Vermeulen (1998). "International Expansion through Start up or Acquisition: A Learning Perspective." *The Academy of Management Journal* 41(1): 7-26.
- Beleska-Spasova, E. e K. Glaister (2010). "Geographic Orientation and Performance." *Management International Review* 50(5): 533-557.
- Beleska-Spasova, E., K. W. Glaister e C. Stride (2012). "Resource determinants of strategy and performance: The case of British exporters." *Journal of World Business* 47(4): 635-647.
- Blomstermo, A., K. Eriksson, A. Lindstrand e D. D. Sharma (2004a). "The perceived usefulness of network experiential knowledge in the internationalizing firm." *Journal of International Management* 10(3): 355-373.
- Buckley, P. J. (2011). "The theory of international business pre-Hymer☆." *Journal of World Business* 46(1): 61-73.
- Buckley, P. J. e M. C. Casson (2009). "The internalisation theory of the multinational enterprise: A review of the progress of a research agenda after 30 years." *Journal of International Business Studies* 40(9): 1563-1580.
- Buckley, P. J., C. L. Pass e K. Prescott (1988). "Measures of international competitiveness: A critical survey." *Journal of Marketing Management* 4(2): 175 - 200.
- Cavusgil, S. T., G. Knight e J. R. Riesenberger (2012). *International Business - The New Realities*. One Lake Street, Upper Saddle River, New Jersey 07458, Prentice Hall.
- Chao, M. C.-H. e V. Kumar (2010). "The impact of institutional distance on the international diversity–performance relationship." *Journal of World Business* 45(1): 93-103.
- Cieřlik, J., E. Kaciak e D. Welsh (2012). "The impact of geographic diversification on export performance of small and medium-sized enterprises (SMEs)." *Journal of International Entrepreneurship* 10(1): 70-93.
- Collins, J. M. (1990). "A market performance comparison of U.S. firms active in domestic, developed and developing countries." *Journal of International Business Studies* 21(2): 271-287.
- Contractor, F. (2007). "Is international business good for companies? The evolutionary or multi-stage theory of internationalization vs. the transaction cost perspective." *Management International Review* 47(3): 453-475.
- Contractor, F. J., S. K. Kundu e C. C. Hsu (2003). "A three-stage theory of international expansion: the link between multinationality and performance in the service sector." *Journal of International Business Studies* 34(1): 5-18.
- Cooper, R. G. e E. J. Kleinschmidt (1985). "The Impact of Export Strategy on Export Sales Performance." *Journal of International Business Studies* 16(1): 37-55.
- Crick, D., S. Chaudhry e S. Batstone (2000). "Revisiting the concentration versus spreading debate as a successful export growth strategy: the case of UK SMEs exporting agricultural-related products." *Entrepreneurship & Regional Development* 12(1): 49-67.
- Delios, A. e P. W. Beamish (1999a). "Geographic scope, product diversification, and the corporate performance of Japanese firms." *Strategic Management Journal* 20(8): 711-727.
- Dunning, J. H. (1980). "Towards an Eclectic Theory of International Production: Some Empirical Tests." *Journal of International Business Studies* 11(1): 9-31.
- Eriksson, K., J. Johanson, A. Majkgard e D. D. Sharma (1997). "Experiential Knowledge and Cost in the Internationalization Process." *Journal of International Business Studies* 28(2): 337-360.
- Eriksson, K., J. Johanson, A. Majkgård e D. D. Sharma (2000a). "Effect of Variation on Knowledge Accumulation in the Internationalization Process." *International Studies of Management & Organization* 30(1): 26.
- Etemad, H. (2004). "Internationalization of Small and Medium-sized Enterprises: A Grounded Theoretical Framework and an Overview." *Canadian Journal of Administrative Sciences / Revue Canadienne des Sciences de l'Administration* 21(1): 1-21.
- Fatemi, A. M. (1984). "Shareholder benefits from corporate international diversification." *The Journal of Finance* 39(5): 1325-1344.
- Ghoshal, S. (1987). "Global strategy: An organizing framework." *Strategic Management Journal* 8(5): 425-440.
- Goerzen, A. e P. W. Beamish (2003). "Geographic scope and multinational enterprise performance." *Strategic Management Journal* 24(13): 1289-1306.
- Grant, R. M., A. P. Jammine e H. Thomas (1988). "Diversity, diversification, and profitability among British manufacturing companies, 1972–1984." *Academy of Management Journal* 31(4): 771-801.
- Hilmersson, M. (2012). "Experiential knowledge types and profiles of internationalising small and medium-sized enterprises." *International Small Business Journal* 32(7): 802-817.
- Hitt, M. A., R. E. Hoskisson e R. D. Ireland (1994). "A Mid-Range Theory of the Interactive Effects of International and Product Diversification on Innovation and Performance." *Journal of Management* 20(2): 297.

31. Hitt, M. A., R. E. Hoskisson e H. Kim (1997). "International diversification: effects on innovation and firm performance in product-diversified firms." *The Academy of Management Journal* 40(4): 767-798.
32. Hitt, M. A., L. Tihanyi, T. Miller e B. Connelly (2006a). "International Diversification: Antecedents, Outcomes, and Moderators." *Journal of Management* 32(6): 831-867.
33. Hoskisson, R. E. e M. A. Hitt (1990). "Antecedents and Performance Outcomes of Diversification: A Review and Critique of Theoretical Perspectives." *Journal of Management* 16(2): 461-509.
34. Hsu, C.-C. e A. Pereira (2008). "Internationalization and performance: The moderating effects of organizational learning." *Omega* 36(2): 188-205.
35. Hsu, W.-T., H.-L. Chen e C.-Y. Cheng (2013). "Internationalization and firm performance of SMEs: The moderating effects of CEO attributes." *Journal of World Business* 48(1): 1-12.
36. Hymer, S. H. (1968). "La grande "corporation" multinationale: Analyse de certaines raisons qui poussent à l'intégration internationale des affaires." *Revue économique* 19(6): 949-973.
37. Johanson, J. e J.-E. Vahlne (1977). "The internationalization process of the firm - a model of knowledge development and increasing foreign market commitments." *Journal of International Business Studies* 8(1): 25-34.
38. Kafourous, M. I., P. J. Buckley, J. A. Sharp e C. Wang (2008). "The role of internationalization in explaining innovation performance." *Technovation* 28(1-2): 63-74.
39. Katsikea, E. S., M. Theodosiou, R. E. Morgan e N. Papavassiliou (2005). "Export Market Expansion Strategies of Direct-Selling Small and Medium-Sized Firms: Implications for Export Sales Management Activities." *Journal of International Marketing* 13(2): 57-92.
40. Katsikeas, C. S., L. C. Leonidou e N. A. Morgan (2000). "Firm-Level Export Performance Assessment: Review, Evaluation, and Development." *Journal of the Academy of Marketing Science* 28(4): 493-511.
41. Kotabe, M., S. S. Srinivasan e P. S. Aulakh (2002). "Multinationality and firm performance: the moderating role of R&D and marketing capabilities." *Journal of International Business Studies* 33(1): 79-97.
42. Lages, L. F. e D. B. Montgomery (2005). "The relationship between export assistance and performance improvement in Portuguese export ventures: An empirical test of the mediating role of pricing strategy adaptation." *European Journal of Marketing* 39(7/8): 755-784.
43. Lu, J. e P. Beamish (2006). "SME internationalization and performance: Growth vs. profitability." *Journal of International Entrepreneurship* 4(1): 27-48.
44. Lu, J. W. e P. W. Beamish (2001). "The internationalization and performance of SMEs." *Strategic Management Journal* 22(6/7): 565.
45. Lu, J. W. e P. W. Beamish (2004). "International diversification and firm performance: the s-curve hypothesis." *Academy of Management Journal* 47(4): 598-609.
46. Lu, Y., L. Zhou, G. Bruton e W. Li (2010). "Capabilities as a mediator linking resources and the international performance of entrepreneurial firms in an emerging economy." *J Int Bus Stud* 41(3): 419-436.
47. Makino, S. e A. Delios (1996). "Local Knowledge Transfer and Performance: Implications for Alliance Formation in Asia." *Journal of International Business Studies* 27(5): 905-927.
48. March, J. G. (1991). "Exploration and Exploitation in Organizational Learning." *Organization Science* 2(1): 71-87.
49. Menon, A., S. Bharadwaj e R. Howell (1996). "The quality and effectiveness of marketing strategy: Effects of functional and dysfunctional conflict in intraorganizational relationships." *Journal of the Academy of Marketing Science* 24(4): 299-313.
50. Nachum, L. (2004). "Geographic and Industrial Diversification of Developing Country Firms*." *Journal of Management Studies* 41(2): 273-294.
51. Pangarkar, N. (2008). "Internationalization and performance of small- and medium-sized enterprises." *Journal of World Business* 43(4): 475-485.
52. Penrose, E. (1959). *The theory of the growth of the firm*. London, Basil Blackwell.
53. Petersen, B., T. Pedersen e M. A. Lyles (2008). "Closing knowledge gaps in foreign markets." *Journal of international business studies* 39(7): 1097-1113.
54. Ruigrok, W. e H. Wagner (2003). "Internationalization and Performance: An Organizational Learning Perspective." *MIR: Management International Review* 43(1): 63-83.
55. Saarenketo, S., K. Puumalainen, K. Kyläheiko e O. Kuivalainen (2008). "Linking knowledge and internationalization in small and medium-sized enterprises in the ICT sector." *Technovation* 28(9): 591-601.
56. Sandberg, S. (2013). "Emerging market entry node pattern and experiential knowledge of small and medium-sized enterprises." *International Marketing Review* 30(2): 106-129.
57. Sandberg, S. (2014). "Experiential knowledge antecedents of the SME network node configuration in emerging market business networks." *International Business Review* 23(1): 20-29.
58. Siddharthan, N. S. e S. Lall (1982). "The recent growth of the largest us multinationals*." *Oxford Bulletin of Economics and Statistics* 44(1): 1-13.
59. Tallman, S. e J. Li (1996). "Effects of international diversity and product diversity on the performance of multinational firms." *Academy of Management Journal* 39(1): 179-196.
60. Thomas, D. E. e L. Eden (2004). "What is the Shape of the Multinationality-Performance Relationship?" *Multinational Business Review* 12(1): 89-110.
61. Vermeulen, F. e H. Barkema (2002). "Pace, rhythm, and scope: process dependence in building a profitable multinational corporation." *Strategic Management Journal* 23(7): 637-653.
62. Vernon, R. (1979). "The product cycle hypothesis in a new international environment." *Oxford Bulletin of Economics & Statistics* 41(4): 255-267.

63. Villar, C., J. Alegre e J. Pla-Barber (2014). "Exploring the role of knowledge management practices on exports: A dynamic capabilities view." *International Business Review* 23(1): 38-44.
64. Yeoh, P.-L. (2004). "International learning: antecedents and performance implications among newly internationalizing companies in an exporting context." *International Marketing Review* 21(4/5): 511-535.
65. Yeoh, P.-L. (2014). "Internationalization and Performance Outcomes of Entrepreneurial Family SMEs: The Role of Outside CEOs, Technology Sourcing, and Innovation." *Thunderbird International Business Review* 56(1): 77-96.
66. Zahra, S. A., R. D. Ireland e M. A. Hitt (2000). "International expansion by new venture firms: international diversity, mode of market entry, technological learning, and performance." *Academy of Management Journal* 43(5): 925-950.

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COMPARATIVE ANALYSIS OF MATURITY LEVEL ASSESMENT OF E-PUBLIC SERVICES IN THE REPUBLIC OF MACEDONIA BY BUSINESS PROCESS INTEROPERABILITY METHODOLOGY

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ABSTRACT

The level of e-government development influences the business and social environment. Evaluation of the level of development of the e-government is not a straightforward task from methodological viewpoint. Different methodologies that are evaluating the level of sophistication of electronic public services will be explained and several maturity models will be discussed based on the holistic approach or on the “whole-of-government” approach. Lately the focus is changing from defining and measuring the quality of basic services to so called assessment of quality provided to “life events” by the method of backward-chaining by modelling the steps to solve problems that cut across organizational boundaries. This consistent approach is known as BPI (business process interoperability). The aim of this method is to copy business process approach to governmental agencies in order to improve their ability to respond to requirements for cross-agency collaboration. BPI roadmap is a high-level methodology that can help in the implementation of business process interoperability. An assessment of a governmental agency’s maturity is an assessment of its interoperability readiness (Rosemann and de Bruin, 2005). The level of maturity can be assessed by ranking of the five criteria - *strategy, governance, process, people and technology* (according AGIMO, 2007). Agencies will necessarily take very different approaches towards business process interoperability, depending on their level of maturity and their organisational requirements. Explained methodology will be applied on selected e-government solutions in the Republic of Macedonia. The analysis will be focused on key enabler service (electronic public procurement) and other e-public services that are more advanced in the country (e-cadastre, enrolment in higher education, etc.). The ePP is the most advanced concerning maturity level measured by BPI due to strategic focus. This is in accordance with the fact that this service is the most advanced in other countries as well. The aim of the analysis is to explain the reasons of different levels of maturity of the selected services and to elaborate the influence of the differences on the performance and the level of satisfaction.

KEY WORDS: e-Government, Maturity Model, Business Process, e-Public Services, Republic of Macedonia.

1. INTRODUCTION

Public administration reform can support macroeconomic benefits through reductions in public spending, deficits and debts, reductions in time and monetary costs to citizens and businesses for doing business (increases in government productivity) and good governance (transparency and accountability). Besides to the direct benefits of improved productivity of the economy, if productivity improvement in the public sector is brought about by a change in technology (use of ICT – Information and Communication Technologies) to digitalize processes, this could have positive impact on business sector output. These changes in technology could lead to an increase in demand for certain inputs (or intermediate goods) purchased by government from the private sector, increasing private sector output (Cosseddu, Felli, Cozzolino, 2012).

Digitalization in the context of public administration is known under the term e-Government that emerged in the late 1990s, but the history of computing in government can be traced back to the beginnings of computer history. For example, Fountain’s definition: “... a government that is organized increasingly in terms of virtual agencies, cross agency and public–private networks whose structure and capacity depends on the internet and web” (Fountain calls this phenomenon “Digital Government” or “Virtual State”) is still applicable (Fountain, 2001).

E-Government is usually defined as a continuous process of using ICT to serve constituents and improve their interaction with the state. E-Government more radically can be seen as an innovation because it redefines and improves transaction processing via an IT platform (Esteves, Joseph, 2008). However, there is impossible to expect a uniquely definable e-Government. E-Government can be defined as special case of ICT-enabled business process change (Scholl, 2003). At the offset of the first wave of e-Government policy steps reviews some of the definitions and find similarities mentioning three goals: more efficient government, better services to citizens, and improved democratic processes (Grönlund, 2002). Nowadays, these goals still remain, but the rhetoric about improved democratic processes was played down a bit in practice and in definitions. Moreover, technological standards such as openness, usability, customization and transparency for public portals and interoperability between systems in agencies on different levels are a must for the

implementation of e- Government projects. In the Table 1, an attempt to present some of most representative strategies and definitions of E-Government is outlined.

E-Government defines an area, the public sector, as well as the institutions, people, and processes which operate within this area. It is obviously not only about services or technology; it is about reinventing the way in which governments interact with citizens, governmental agencies, businesses, employees, and other stakeholders (Lofstedt, 2005). E-Government is about change and on the last instance e-Government becomes government.

Although e-Government history is relatively short, the practices are developing in fast pace together with underlying theories. Therefore, defining and assessing maturity level of e-Government (on the supply side more often) is justified. The concept of maturity denotes the state of a given level

in a continuous process. The main goal of the paper is to make a condensed overview of the measurements of the level of e-Government, maturity levels according different authors and to apply one of the models on chosen e-public services in the Republic of Macedonia. The results will be commented, compared and conclusions and recommendations proposed.

2. E-GOVERNMENT MATURITY AND MEASUREMENTS

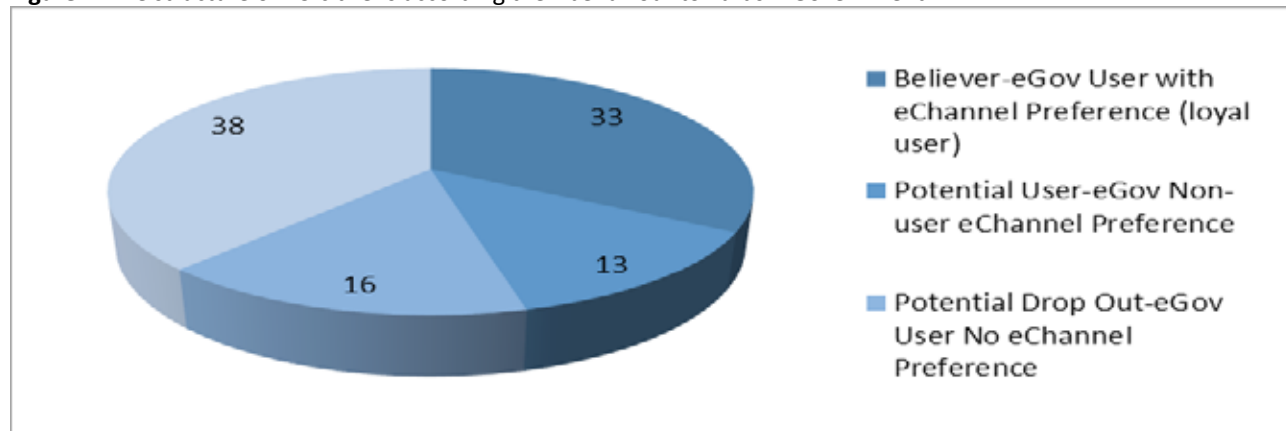
The discussion about how is e-Government progressing in any country is actually focused on several problems. Firstly, the question is how to define measurement system - meaning what to measure and how to measure. Secondly, benchmarking is useful. Finally, there are methods for assessing maturity levels of e-Government.

E-Government benchmarking is mainly based on surveys carried out at international, supranational and national levels. In the report EGDI (E-Government Development Index) is calculated for countries as a construct of three sub-indexes – Online Service Index, Telecommunication Infrastructure Index and Human Capital Index for 193 countries (United Nations Department of Economic and Social Affairs, 2014). These three indexes are also constructs of different measurements from the official statistics and some are based on surveys. This index is important because it can suggest trends and depict certain patterns in development. As expected, countries from EU are leaders together with South Korea, Canada and USA. A well-known truth is that the income level of a country is a general indicator of economic capacity, level of development and progress, which thus influences its e-government development. Access to ICT infrastructure and the provision of education, including ICT literacy, are related to the income level of a nation. However, from the data and analysis (coefficient of determination of 0,5834 from the Survey) it is clear that national income per capita is not by no means clear way of guaranteed e-government development (United Nations Department of Economic and Social Affairs, 2014). From the diffusion of data we can conclude that there is perfect pattern of almost linear correlation between GNP per capita and EGDI in the ranges of GNP per capita up to \$ 10 000 and EGDI of 0,55 or in the left lower part of the quadrant. There are many countries that have significantly advanced their e-government despite relatively low national income, just as there are many countries which are lagging behind despite their relatively high income and thereby have good opportunities for future improvement. It is explained in the Report that even in the case of countries with sufficient ICT infrastructures and good human capital it can be tricky to move to the higher stages with transactional and connected services. This is so because they require robust data protection and online payment systems, as well as secure data sharing across government institutions. It is obvious that additional so called “managerial and organizational” factors other than traditional ones are equally important.

From the historical perspective, the measurement systems have started from electronic public services. Until recently, EU measured progress of e-public services (for citizens and businesses -20 in total) by their level of availability on-line (fully or not availability on-line of 20 basic public services) (Capgemini, IDC, Rand Europe, Sogeti and DTi, 2009). In the report of 2010, user experience of service delivery was measured by five dimensions (transparency of service delivery, multichannel service provision, privacy protection, easy-of-use and user satisfaction monitoring) as well (Capgemini, IDC, Rand Europe, Sogeti and DTi, 2011). User experience of portals was measured by usability, user-focused portal design and one-stop-shop approach. These measurements were criticized due to the fact that they are now irrelevant for majority of EU members because most of them reached 100% level of availability online and therefore there is nothing to measure! Then, the analysts proposed so called “empowering users: life events measurement” and focus on common horizontal enablers (or behind the web). The shift in paradigms was proposed by Danleavy and Margetts (2010). As leading researchers, they introduced the term “The second wave of DEG – Digital Era Governance” not implying that the first wave of DEG is over – but arguing that “the importance of key DEG themes has increased –Specifically reintegrating government services, pushing towards holistic delivery to clients and responding to the digitalization wave in public services.” The measurement paradigms are changing from “inside out” view to “outside in” more integrated customer-centric view. The 2012 survey is redesigned to align with EU policy priorities. Insights are provided in three broad areas: a demand-side citizen view of public services, three life-event assessments of customer experiences: (i) starting and early trading of a business (ii) losing and finding a

job (iii) studying (elements that are core to a healthy economy) and assessment of five key technology enablers. The target population was reached via online survey panels. It is very interesting that the analysts decided to present personas that have similar behavior (Figure 1). The approach to analyse several life events is used to send recommendations to EU policy makers.

Figure 1. The structure of EU citizens according their behaviour towards E-Government



Source: Adapted from Capgemini, 2013

A composite index that measures the level of digital economy in EU (Digital Economy and Society Index – DESI consists of five main dimensions (connectivity, human capital, use of internet, integration of digital technology and digital public services) and the fifth term – digital public services, is composed of two different sets of indicators – e-Government and e-Health. The level of e-Government is measured by e-Government users, pre-filled forms, online service completion and open data. This methodological concept is more traditional one which can be expected having in mind that the level of digital economy and society is measured by total set of 33 indicators of which 4 are e-Government measures. It is interesting to mention that the coefficient of variation across member states (CV) for digital public services is the highest among all the dimensions with the values of 39,3 for 2014 and 36,5 for 2015 (Directorate-General for Communications Networks, Content and Technology, 2015). The variations among EU member states concerning different aspects of e-Government are recognized by many researchers and this issue is recommended to be addressed in future policies.

There are two sides on e-Government equation - supply side and demand side. Effective usage can leverage development impacts of e-Government. E-government uptake in EU countries is 46% which is similar as in OECD countries 50% (Capgemini, 2013). Countries' efforts to develop e-Government therefore need to go hand in hand with their efforts to increase demand through usability features such as simplicity and personalisation, usage monitoring and tracking and user feedback and usage promotion. Policy efforts to increase take-up should, however, not aim just to increase usage, but should also focus on obtaining the maximum value of the service.

Changes inside government are omnipresent (the advent of social web, cloud computing, apps development etc.) in the context of transformation of the advanced industrial societies towards an online civilization. The concept of "open government" or Government 2.0 is based on three principles of the open government initiative of US government: transparency, participation and collaboration (Chun, Shulman, Sandoval, Hovy, 2010). The required functions of open government can be easily achieved by adopting the Web 2.0 technologies, which promote public participation. Some authors (Linders, 2012) propose systematic analysis based on the overarching categories of "citizen sourcing," "government as a platform," and "do-it-yourself government" applied on USA e-government services envisaging "the possible emergence of a new social contract that empowers the public to play a far more active role in the functioning of their government". The main idea behinds Government 2.0 is participation by citizens. Traditional models of measurements are not applicable. The differences are presented in Table 2.

Table 2. Comparison between Traditional Government vs Government 2.0

Traditional Digital Government	Social Media-based Digital Government (Gov 2.0)
Information provision (information sink) model	Information source (creation) model
Service provision model	Service demand model
Policy enforcement model	Policy making and negotiation model
Agency internal decision making/governance model	Shared governance

Source: Chun, Shulman, Sandoval, Hovy (2010) "Government 2.0: Making Connections between Citizens, data and Government" Information Polity pp.5

Maturity models in evaluation of e-Government have origins in generic maturity models. Maturity models are invented actually to improve organizational performance. The history of e-Government maturity models is short –15 years only (Fath-Allah, Cheikhi, Al-Qutaish, Idri, 2014). There is not standard framework to measure maturity level of public agencies and/or different processes or public services. A complete overview of methodologies can be found in Valdés, Solar, Astudillo, Iribarren, Concha (2011).

E-Government level of maturity or sophistication is a multidimensional problem, sometimes perceived as almost elusive. Firstly, there is a difference in approaches while measuring service quality and maturity models. For example, the quality of electronic public services can be observed from two aspects. The service content quality deals with what service is a user actually receiving from an e-Government website. On the other hand service delivery quality is about how well the user is accessing it. These two dimensions are inseparable. As transactional frequency of a service increases, citizens tend to place greater emphasis on the effectiveness of content functionalities such that the positive impact of service content quality on overall service quality is amplified. The same relationship is observed for service delivery quality when transactional frequency is low (Parasuraman, Berry, Zeithaml, 1988).

User acceptance problem in the context of e-Government is hardly even accessed. We will mention only two. The 'Consumer Acceptance and Use of Information Technology' theory has been extended to include web personalization as a moderator and has been tested in an E-Government context (Krisharaju, Mathew, Sugumaran, 2015). Data collection involved conducting a laboratory experiment with the treatment group receiving personalized web forms for requesting an E-Government service. The analyses show that personalizing the web by self-reference and content relevance has a significant moderator role in influencing the relationship between determinants of intention to use and behavioural intention in certain cases. There is a recent extent to the theory of technology acceptance of consumer and use of technology also known as UTAT2 including web personalization as new dimension (Venkatsh, James, Xin Xu, 2012). This is also valid for evaluating e-Government. The quality of services is assessed on individual level. However, in the last decade we are experiencing so called "one-stop-shop" approach where there is one portal that leads to all services (and/or events). Lately, even portals can be personalized and fully customized.

E-Government maturity models can be divided in two groups - static and dynamic. Static models are developed by governments, consultants and academics to help agencies firstly, to identify and secondly, to improve their level of e-government maturity. An example is the "Canadian e-Government Capacity Check" which consists of a capacity diagnosis set of tools used to assess the capability of public agencies to deliver electronic services to citizens. This tool make evaluation on six criteria: e-Strategy, Organizational Capabilities, Architecture, Value Chain Integration, Risk and Program Management, Performance Management each subdivided in categories (KPMG, 2000).

The maturity models in the second heterogeneous group are dynamic; they suggest chronological stages (phases) that should be achieved step-by-step. The second group of maturity models consists of "older" and "newer" methods. In the traditional ones there are 3-5 stages of development. For example, in the World Bank methodology the stages are as follows 1. Publish, 2. Interact, 3. Transact (Infodev, 2002). Another representative is the model of Layne and Lee with following stages: 1. Catalogue, 2. Transaction, 3. Vertical integration and 4. Horizontal integration (Layne, Lee, 2001).

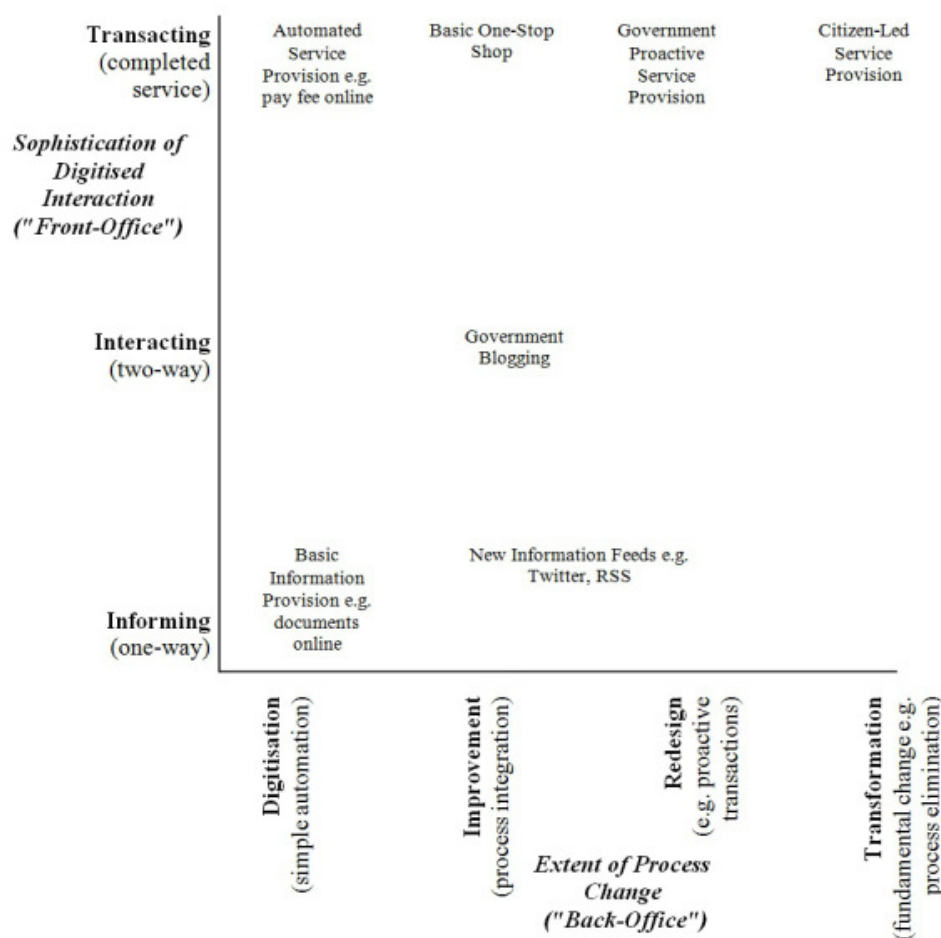
The model of Lee and Kwak (2012) proposes a five stages maturity model. This model focus on open government and the use of social media and Web 2.0 tools and the stages are: 1 "Initial conditions" - static interaction with the citizen, 2) "Data transparency" - feedback from the public on usefulness and data quality, 3) "Open participation" – usage of social media tools to increase open participation and enhanced data privacy and security, 4) "Open collaboration" - interagency collaboration by sharing data and public input, 5) "Ubiquitous engagement". By the time the stage five is achieved, data should be accessed by mobile devices and portals and social media sites should be compatible with various platforms. Data should be vertically and horizontally integrated and data analytics is used for decision making processes.

The main differences between older models and contemporary ones are the inclusion of constituents in decision-making and delivery channel's diversity. For example, one of four criteria for classification of maturity models is stage features (Fath-Allah, Cheikhi, Al-Qutaish, Idri 2014,a). The presence of the following main features is analysed: one-stop-shop, customer centricity, interoperability, personalization, payment and e-participation. Their conclusion is that the model should be holistic and cover all the aspects of e-government e-portals. The same authors analysed three e-Government maturity models and depict their limitations (Fath-Allah, Cheikhi, Al-Qutaish, Idri 2014,b). They proposed new eclectic maturity model MBeGPMM (Measurement-Based E-Government Portals Maturity Model) and included in its features the following ones: quality model and associated measures, best practices, stages, guidelines to identify weaknesses of e-government portals at any maturity stage and set of recommendations to help agencies to move to higher stage of maturity. The proposed maturity stages are four – presence, interaction, transaction, integration. The process is cyclical 1. Identity the maturity stage to measured, 2. Execute survey corresponding to the maturity stage measured, 3. Calculate the quality level of each sub characteristic, 4. Calculate the quality level of

each characteristic, 5. Calculate the quality level of the selected maturity stage, 6. Identify needed best practices and implement them. This model is still not fully validated but its process characteristic and constant checking can prove its usefulness.

The so called “Manchester model” (Heeks, 2015) is challenging and criticizing some aspects of the Layne&Lee model as the most widely referenced one. This model incorporates fully-fledged process view. The author differentiate strictly “Informing” as one-way publication of information and “Interacting” (two-way communication between government and users). The “digitization” (automation of existing processes) and “Improvement” (bringing the processes together via vertical and horizontal integration) are broaden with more fundamental process change aspects via categories of “Redesign” (such as proactive or customised transactions) and “Transformation” (complete reworking of processes such as their elimination or reversing from government- to citizen-led). The third important element is delinking front office interaction with back-office process change. Maturity steps are clearly presented on the Figure 2.

Figure 2. Maturity levels of e-Government –Manchester model



Source: <https://ict4dblog.files.wordpress.com/2015/03/manchester-egov-maturity-model.jpg> (accessed 26.08.2015)

E-Government services are actually made for citizens and businesses. It is well known that unlike the business sector who is in pursuit for customers, the government sector is probably better off without “customers” (citizens and businesses). Therefore, the question of actual usage of e-public services is important in order to justify all that investment (tangible and intangible). One of the aspects of maturity is responsiveness of e-Government systems from a user perspective. According (Andersen, 2011) this is one of the major gaps or issues concerning evaluation of e Government maturity level. In that study, main conclusion is that the responsiveness of the local e-governments (accuracy and completeness) is much better compared to responsiveness on central level, which is interesting conclusion and maybe expected outcome. One recent research focuses on the factors that influence the level of maturity of e-Government. In the study socio-economic, technological and institutional factors critical to e-Government and OSS (Open Source Software) are revealed. Social development and OSS growth were found to be the most important facilitators for e-Government maturity, across countries of all stages of development together with institutional quality, technological openness, freedom in press and the macro-economic environment that have different weights of importance across different country groupings (Lakkaa, 2015).

3. BUSINESS PROCESS INTEROPERABILITY – EXAMPLE OF EVALUATION OF MATURITY OF E-PUBLIC SERVICES IN THE REPUBLIC OF MACEDONIA

In the following part we will discuss the relationship between BPI (Business Process Interoperability) and maturity levels of e-Government applied to different e-public services of the Republic of Macedonia.

How a public organisation react and responds and the type of changes that ensue depend on many factors, including the level of maturity of the organisation's capabilities to interoperate. Interoperability can range from internal functional collaboration and co-ordination through to integration of multiple processes across multiple agencies. An assessment of a public organisation's maturity is mainly an assessment of its interoperability readiness. Interoperability is more than just the flow of information between agencies and the connection of information technology systems. It requires a collective mind-set, an understanding of how each collaborating agency operates and the development of arrangements which effectively manage business processes that cut across organisational boundaries by usage of ICT.

We will present (and apply) Australian maturity model for public organizations, one of the most advanced globally. The Department of Finance and Administration, through the Australian Government Information Management Office (AGIMO) is responsible for applying innovative services of the government. "AGIMO fosters the efficient and effective use of information and communications technology (ICT) by Australian Government departments and agencies. It provides strategic advice, activities and representation relating to the application of ICT to government administration, information and services. This consistent approach is defined as business process interoperability. It aims to improve the ability of agencies to respond to new requirements quickly and effectively by providing a common language and the ability to develop a common understanding of business processes and business requirements. This is particularly important as the need for cross-agency collaboration increases with the drive towards 'connected government'.¹

To be interoperable, an organisation has to be involved in the circular process of ensuring that its systems, processes and people are managed in a way which maximises opportunities for internal and external exchange and re-use of information. The need for business process interoperability is derived from the growing need for collaboration between agencies in the delivery of services, programs or projects and to increase consistency, reduce redundancy, identify opportunities for re-use of proven processes.

The AGIF (Australian Government Interoperability Framework) comprises three components of interoperability: business, information and technical. The BPI Framework contains a series of tools to assist agencies to adopt interoperability, including: a roadmap which provides a sequence of steps to facilitate progression towards interoperability, a capability maturity model which can be used by agencies to identify their current level of business process interoperability maturity and to define a strategy for achieving a desired maturity and a series of case studies to outline initiatives taken by agencies to improve business processes management and interoperability.

Mapping out business processes can assist in better understanding the existing inefficiencies in processes, particularly inefficiencies which exist between agencies. Processes that require the manual coordination and exchange of information between agencies are good candidates for business process interoperability initiatives, not only to improve efficiencies but also the responsiveness of government agencies. While technical problems can provide considerable challenges, people and cultural issues are often more challenging and require more attention and focused effort.

Effective business process interoperability main principles are: 1. Focus on outcomes, 2. Outcomes should be linked with whole of government initiatives, 3. BPI to be user-driven, 4. Identifiable outcomes, 5. Standardised documenting business processes, 6. BPI must be practical, rigorous and flexible, 7. Trust, confidence and security of data, 8. Governance arrangements must be agreed between collaborating agencies and 9. Cultural differences between collaborating agencies must be acknowledged and managed (Australian Government Information Management Office, 2007).

To assist organisations considering or implementing business process interoperability, a number of aids are provided such as Business Process Interoperability Roadmap divided into six stages (Table 3). The roadmap is not a linear process and each step will need to be reviewed or repeated as lessons are learned and goals, objectives and priorities change. Organisations will also naturally mature in their approach to business process interoperability and this will also change the approach.

² Australian Government, Department of Finance and Administration (2007), The Australian Government Business Process Interoperability Framework, Enabling Seamless Service Delivery, pp. 6

Table 3. Business Process Interoperability Roadmap for e-Government

1. Plan	-Identify the relevant drivers or intent for change
	-Establish a functional view of your agencies in relation to other agencies.
	-Determine the capability and readiness of your agency for change.
	-Determine the capability and readiness of collaborating agencies
2. Agree	-Establish and agree arrangements for collaboration
	-Establish and agree appropriate cross-agency management and governance arrangements
	-Agree standards, reference models, modelling tools and standards that will be used to support the collaboration-one particular standard for modelling business processes is BPMN.
3. Discover	-Identify common processes which could be standardised between the participating agencies
4. Map and Model	-Model the 'as is'
	-Determine the 'to be'
5. Implement	-Develop an implementation strategy to move the selected processes from the 'as is' to the 'to be'.
	-Establish performance measures and the means for monitoring and managing them.
	-Engage process owners, users and participants on all proposed changes.
	-Ensure time-frames and impacts are well understood and any concerns are identified early and managed.
6. Monitor and Review	-Use agreed performance measures to monitor progress and to identify areas for ongoing improvement
	-Review the process

Source: Adapted from AGIMO, 2007

Moving to higher levels of business process interoperability maturity requires agencies to move to a functional view of what it is that the agency does in a whole of government context. In many ways, this is the greatest challenge to business process interoperability and requires agencies to break down well established structural perspectives and arrangements. Moving to higher levels of maturity also requires the establishment of effective cross agency governance arrangements, controls and performance measures and viewing people, processes and technology as whole of government resources. For example, process owners will need to have responsibility outside of the organisational role which is not a short-term process.

According to the OECD, common business processes are those business processes that exist in different organisations yet have, in essence, the same goals and outputs, thereby creating the possibility for the arrangements to conduct these business processes to be optimised and delivered in a more efficient and standardised manner (OECD, 2005). The identification of common processes and services within government has the potential to achieve economies of scale, reduce duplication and improve seamless service delivery. Some of the business processes that are relatively common across agencies can be management, grants management, parliamentary workflow and recruitment. Identifying, understanding and acknowledging the commonality of these processes can enable agencies to re-use processes and systems developed elsewhere in government or to engage in collaborative activities with other agencies to standardise practices.

Electronic public procurement is usually one of the most sophisticated services of Government. Electronic public procurement (ePP) usually plays an essential role in the national e-Government programs. One of the several ePP maturity models is e-Government Procurement Observatory Maturity Model (eGPO-MM); that focuses on the legal and institutional arrangements, as well as technical aspects of the portals (Concha et al, 2012). The model comprises

two leverage domains, seven key domain areas, and 25 critical variables, and applies a weighted scoring system that produces quantitative indicators about portal capabilities and allows direct comparisons between them. In addition to providing a clear reference point to allow each agency to determine a roadmap to higher e-procurement maturity, the use of eGPO-MM, according to the authors, resulted in the identification of the joint action areas and fostered knowledge sharing among governments, including identification and dissemination of e-procurement best practices. This work exemplifies two applications of the network concept: the first is the network of buyers (government agencies) and suppliers (businesses) engaged in transparent and “efficient vendor relationships” through the eGP portals (e-Procurement Network), and the second is the network of national-level agencies.

Electronic Public Procurement in the Republic of Macedonia is known as ESPP (Electronic System of Public Procurement). Having in mind that EU has a target that states that all public procurement should be electronically handled after 2016, our country is pursuing the trend. The Bureau for Public Procurement is making constant efforts to increase the percentage of procedures fully electronically. However that percentage is stagnating in the last three years. In 2013, 15% of the published total contract notices are via ESPP (Public Procurement Bureau of RM, 2014). The trend is positive, but still the structure is unsatisfactory. Electronic public auctions, as the final phase of public procurement procedures, are since 2013 electronic (mandatory). There are positive impacts of the e-auctions like price savings (17%) or in total Euro 55 million for 2013 (Public Procurement Bureau of RM, 2014). Larger saving were for procedures with higher value thresholds and for highly standardized goods such as IT and telecommunication services. However, abnormal increase of the prices prior to e-auctions was noticed. Some goods proved to be not suitable for e-auctions. Still, the major disadvantage is the fact that more and more companies choose not to participate in e-auctions when the price is the only criterion. Those firms are oriented to achieving competitive advantage by distinctive qualities and area arguing that in e-auctions sometimes the final price is extremely low. Agency for real estate cadastre of the Republic of Macedonia is progressing in fast pace. At the end of 2012 the Agency managed to develop 100% of the cadastre of real estate on the territory of the Republic. Main breakthrough was the service e-front desk with more than 140 users such as notaries and private geodetic firms, ministries, municipalities etc.

Enrolment in higher education is one of the more developed e-public services for citizens. There are several systems that are used by public and private universities. On the biggest university Ss. Cyril and Methodius the system I-know is used for 4 years and the aim is to achieve full integration of students’ data which is partially achieved. However, the weakness of the system is that it is one of several and the state doesn’t have strategy to propose and establish portal for enrolment in higher education.

The maturity level of the chosen electronic public services in the Republic of Macedonia can be approximately evaluated following the matrix constructed figuratively speaking of two dimensions. The first dimension is actually the criteria to be evaluated: strategy, governance, process, people, and technology. The second dimension is about the levels of the five criteria, which are *siloed-ad hoc*, tactical collaboration, re-use, shared services, service oriented. The maturity levels for all the criteria may not be the same. There are strict distinct criteria for evaluation of every dimension and its level of maturity. Using those criteria the levels of maturity from the BPI viewpoint of three e-public services are presented in Table 4.

Table 4. Maturity levels of chosen public services in the Republic of Macedonia

Strategy	
ePP	After examination of the system of electronic public procurement in the country the conclusion is that there is an official strategy for the period 2014-2018. The strategy is very comprehensive, with formal elements and are parts that are more concrete and certain measures and future policies are noted. That is mainly valid when future priorities for the ESPP is strategized. The level of maturity would be tactical collaboration with some of the following characteristics: collaborative in selected areas, adapt/react to change within 12 months, inconsistent knowledge of changes in customer needs, deliberate strategy driven by IT initiatives- IT leads change, architecture used to identify where fit, point-to-point links.
e-Cadastre	There is a detailed strategy for the period 2013-2016, comprehensive with SWOT analysis and too many details, with budgeting and project details. The level can be tactical collaboration and even re-use because there is a strategic approach towards agency-to-agency interactions.
Enrolment in higher education	There is no concrete strategy for solution on the national level, so the level of maturity is <i>siloed-ad hoc</i> .

Governance/Accountability	
ePP	The chosen level is <i>siloed-ad hoc</i> for ePP with the following characteristics: vertical structure, agency-specific arrangements, no formal or consistent cross-agency performance measurement, coordination a major exercise. It is important to be mentioned that accountability is on respectable level and there are considerable amount of data available.
e-Cadastre	The chosen level is <i>siloed-ad hoc</i> .
Enrolment in higher education	There is now agency or cross agency performance measurement the structure is fully vertical, so the level would be <i>siloed-ad hoc</i> .
Processes and their Fit	
ePP	Maturity is not a discrete measurement and therefore for ePP we would choose for process fit tactical collaboration and some elements of re-use. The main elements of tactical collaboration for processes are aware of business processes and opportunities with potential for collaboration, vertical integration and selected horizontal integration, limited process mapping, reengineering, limited understanding of cross functional and cross agency process needs and dependencies. There are efforts to adopt business process management as the first step towards next level re-use.
e-Cadastre	More than 140 users can use the service e-front desk. However, the possibility as a citizen to ask and receive a service is not viable due to unavailability of e-payment of the taxes for certain services. Therefore, the level is tactical collaboration with elements of re-use.
Enrolment in higher education	The connectedness with other educational institutions (secondary education), and other ministries is lacking although there is limited understanding of cross-functional and cross-agency processes and dependencies so the level can be tactical collaboration.
People	
ePP	Tactical collaboration is the chosen level of maturity for ESPP with the characteristics of shared skills in functional areas, cross functional/ process team (IT led), collaboration on some cross-agency processes, incomplete understanding of needs and value of business process interoperability. It is worth mentioning that due attention have been paid on training and constant upgrading the skills of the public servants in the Bureau for public procurement.
e-Cadastre	There is intention of constant care for the employees their training and upgrading of their skills. Unfortunately, the strategy for development of HR is not updated, and the assessment of the level is good having in mind that there is specification of key performance indicators for every working position. Therefore, the level is more re-use than tactical collaboration.
Enrolment in higher education	The level is <i>siloed-ad hoc</i> with duplication of work and responsibilities.
Technology	
ePP	Technology as an enabler and driver is evaluated as <i>siloed-ad hoc</i> with elements of tactical collaboration. That means that it can be defined by the following characteristics: independent systems, integration only within functions, legacy enterprise system(s), a bottleneck to change, point-to-point integration, IT leads cross functional initiatives.
e-Cadastre	Point-to-point integration is possible and is big step forward, still the level is tactical collaboration.
Enrolment in higher education	There is effort IT to lead cross functional initiatives and there is utilization of architecture to identify collaborative opportunities, so the level is even higher than tactical collaboration.

Source. Constructed following the methodology in The Australian Government Business Process Interoperability Framework (2007) Appendix D pp.73-75

The overall level of maturity of BPI of the electronic system of public procurement in the Republic of Macedonia is between siloed-ad hoc and tactical collaboration and is higher compared e-cadastre and enrolment in higher education. The efforts to change in the direction to BPI are noticeable and the organizational structure is mixed which is the first important step towards more process oriented organization.

4. CONCLUSION

E-Government applications are changing the paradigm of the relationships between public administrations on the one side, and citizens and businesses on the other side. These relationships influence the business environment, competitiveness of the businesses and the national economy, a citizens' satisfaction with government services. There are several methodologies that are evaluating the level of sophistication of electronic public services. The latest trends are evaluating the concept of "e-Government-as-a hole". This comprises the problem of interoperability of business processes. One of the main evaluation techniques can be the measurement of the BPI. Electronic public procurement is key enabler service. Due to the fact, that the processes of public procurement are complex and are crossing agency border, it's obvious that BPI is a must. BPI is actually inevitable in most of the electronic public services.

Public Procurement Bureau of the Republic of Macedonia is constantly making significant efforts to improve the digitalization of the processes. The same can be concluded for e-cadastre. Unfortunately, that cannot be concluded for enrolment in higher education due to the fact that it is less centralised service with mixed ownership structure of the universities. The conclusion is that there are small differences among the level of development (maturity) of the criteria. The conclusion would be that a service cannot be with high maturity in one dimension with lower maturity in other dimensions. This was proven with detailed analysis of three public services in the Republic of Macedonia following the AGIMO BPI methodology. The suggestion is to follow the steps of the maturity road map and BPI in order to improve the services. However, this can be done only if the approach of raising the level of the e-Government is holistic appreciating all elements for success such as cross-agency collaboration and coordination of strategies, plans, measures and actions.

LITERATURE

1. Alhomod et al. (2012), "Best Practices in E government: A review of Some Innovative Models Proposed in Different Countries" *International Journal of Electrical & Computer Sciences*, 12(01), pp.1–6. 7
2. Andersen, K.N., Medaglia, R. Vatrappu, R. Henriksen, H.Z. Gauld, R. (2011) The Forgotten Promise of e-Government Maturity: Assessing Responsiveness in the Digital Public Sector, *Government Information Quarterly*, 28, pp.439-445
3. Australian Government Information Management Office (2006), *Responsive Government- A new Service Agenda, E-Government Strategy*
4. Australian Government, Department of Finance and Administration (2007), *The Australian Government Business Process Interoperability Framework, Enabling Seamless Service Delivery*
5. Capgemini Group for the European Commission 2013 10th Benchmark Measurement of European eGovernment Services, *Digital by Default or by Detour*, 2014
6. Capgemini, Digitizing Public Services in Europe: Putting Ambition into Action, 2011
7. Capgemini, IDC, Rand Europe, Sogeti and DTI for: European Commission, Directorate General for Information Society and Media, *Public Services in Europe: Putting ambition into action 9th Benchmark Measurement*, December 2010
8. Chun, Shulman, Sandoval, Hovy (2010) "Government 2.0: Making Connections between Citizens, data and Government" *Information Polity* pp.5-10
9. Cosseddu, P. Lorenzo E., Felli Cozzolino P. (2012) Structural Reform and Efficiency in Public Administration: Measuring the Productivity Gap. In: Working Papers IPPC5
10. Concha et al. (2012) "E-government procurement observatory, maturity model and early measurements", *Government Information Quarterly* 29, pp.43-50
11. Dunleavy, P and Margetts, H. (2010), "The second wave of digital era governance" *Proceeding of the American Political Science Association Conference*, September 2010, Washington DC, USA
12. Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions (2010) *The European E-government Action Plan 2011-2015 Harnessing ICT to Promote Smart, Sustainable & Innovative Government*
13. *E-Government for Better Government, OECD E-Government Studies 2005*
14. Esteves, Joseph, R. (2008), "A comprehensive framework for the assessment of eGovernment projects", *Government Information Quarterly* Vol.125 no1 pp.118-132
15. European Commission Directorate-General for Communications Networks, Content and Technology DESI 2015 *Digital Economy and Society Index* Methodological note, 2015
16. Fath-Allah et al (2014a) "E-Government Maturity Models: A Comparative Study" *International Journal of Software Engineering & Applications (IUSEA)*, Vol.5, No.3, May 2014

17. Fath-Allah, A. Cheikhi, L. Al-Qutaish, R. Idri, A. (2014b), "Towards a Measurement-Based E-Government Portals Maturity Model" *World Academy of Science, Engineering and Technology International Journal of Social, Education, Economics and Management Engineering* Vol:8, No:9, 2014
18. Fitsilis, P., Anthopoulos, L. Gerogiannis, V.C. (2009), "Assessment Frameworks of E-Government Projects: a Comparison" *PCI 2009 Conference Proceedings*
19. Fountain, J. (2001) "Paradoxes of Public Sector Customer Service", *Governance*, v.14, n.1, pp.55–73
20. Fountain, J. E. (2001) *Building the virtual state: Information technology and institutional change*, Brookings Institution Press, Washington, DC
21. Grönlund, Å. (2002), "Introduction to the special issue on e-democracy in practice: methods, infrastructures and discourse" *e-Service Journal*, 2 (1), pp.3-8
22. Heeks, R.A (2015), Better e-Government Maturity Model, http://www.seed.manchester.ac.uk/medialibrary/IDPM/working_papers/igov/short_papers/igov_sp09.pdf, accessed 26.08.2015)
23. <https://www.whitehouse.gov/digitalgov/about>
24. <http://india.gov.in/e-governance/national-e-governance-plan>
25. <http://www.itu.int/ITU-D/cyb/app/docs/eGovernment%20toolkitFINAL.pdf>
26. InfoDev Centre for Democracy and Technology *The E-Government Handbook for Developing Countries* World Bank 203302
27. infoDev/World Bank, 2009. *e-Government Primer: Donor Annex*, Washington, DC; infoDev/World Bank available at <http://www.infodev.org/publications>
28. Judgev, K. and Thomas, J. (2002) Project management maturity models: The silver bullets of competitive advantage" *Project Management Journal*; Dec 2002; 33, 4, pp.4-114
29. Khoshgoftar, M., Osman, O (2009) "Comparison of Maturity Models", *Computer Science and Information Technology, 2009, Second international Conference of IEEE* 2009, pp.297-301
30. KPMG. (2000). *e-Government Capacity Check Diagnostic Tool*. Retrieved April 17, 2014, from <http://www.tbs-sct.gc.ca/emf-cag/risk-risques/tools-outils-eng.asp>
31. Lakka, S. Stamatib, T. Michalakelisa, C. Anagnostopoulou, D. (2015) Cross-national Analysis of the Relation of e-Government Maturity and OSS Growth, *Technological Forecasting and Social Change*, 99, pp.132-149
32. Layne, K., Lee, J. (2001), Developing fully functional E-government: A four stage model" *Government Information Quarterly*, 18(2), pp.122–136
33. Lee, G. and Kwak, J.H. (2012), "An open government maturity model for social media-based public engagement" *Government Informatics Quarterly* Vol 29, 4 2012, pp.492-503
34. Linders, D. (2012), From e-Government to We-government: Defining a Typology for Citizen Coproduction in the Age of Social Media, *Government Information Quarterly*, vol. 29, issue 4 October 2012, pp.446-454
35. Lofstedt, U. (2005) E-Government - Assessment of Current Research and Some Proposals for Future Directions, *International Journal of Public Information Systems*, Vol 1, 1, pp.39-52
36. Measuring the "productivity gap", CREI Working paper 8/2012
37. Neupane, A. Soar, Vaidya, K. (2014) "An empirical evaluation of the potential of public e-procurement to reduce corruption" *Australasian Journal of Information Systems* Volume 18 Number 2, pp.21-44
38. Parasuraman et al. (1988). "SERVQUAL: A multiple-item scale for measuring customer perceptions of service quality" *Journal of Retailing*, 64 (1), pp.12-40
39. Public Procurement Bureau, Ministry of Finance of the Republic of Macedonia (2014), *Report on the Activities of Public Procurement Bureau in Functioning of Public Procurement System in 2013*
40. Raja, N., Ramana, V., Damodaram, A. (2012), "A Maturity Model Framework for eGov Applications – eGSARMM" *International Conference on EGovernance & Cloud Computing Services (EGov '12) Proceedings* published by International Journal of Computer Applications (IJCA) 2012
41. Scholl, H. J. J. (2003) "E-Government: A Special Case of ICT-Enabled Business Process Change", *Conference Proceedings*, 36th Hawaii International Conference on System Sciences, Hawaii
42. Shareef, M.A., Kumar, V., Kumar, U. Dwivedi, Y.K. (2011) E-government Adoption Model (GAM): Differing Service Maturity Levels, *Government Informatics Quarterly*, vol. 29, issue 1, pp. 17-35
43. United Nations Department of Economic and Social Affairs, *United Nations E-Government Survey 2014 E-Government for the Future We Want*, 2014
44. Valdés, G. et al. (2011) "Conception, development and implementation of an e-Government maturity model in public agencies" *Government Information Quarterly* 28 (2011) pp.176–187
45. Venkatsh et al. (2012) "Consumer Acceptance And Use Of Information Technology: Extending The Unified Theory Of Acceptance And Use Of Technology" *MIS Quarterly* Vol. 36 No. 1 pp. 157-178
46. Vinodh, K. Saji, M., Vijayan, S. (2015) "Web personalization for user acceptance of technology: An empirical investigation of E-government services", *Information System Frontiers*, 1/2015

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HOW TO EVALUATE THE LOCAL IMPACT OF UNIVERSITY

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MÁRIA ROSTÁŠOVÁ

ABSTRACT

The paper aims to analyse the local economic impact of a university. The university by its activity directly and indirectly affects the economy of the city and the country in which it is located. In connection with the quantification of the impact of the university on regional and local economy, the geographical area must be defined. Then the main areas of impact and role of the university are presented. They include the fields of education, science and research, employment, partnership with municipal, local and regional governments and the society at large as well as the functions related to the provision of linkage to external international environment. The paper presents the results on a case study basis.

KEY WORDS: evaluation, local impact, university.

1. INTRODUCTION

Universities play an important role in society. They are considered the driving force of local, regional and national development. This paper analyses the current state of impact of the University of Žilina (hereinafter UNIZA) on the host city in which it is located. The analysis is underpinned by a theoretical definition of the impact of a university on the region, regional economy and regional development. The paper also shows the results of research aimed at the provision of data enabling the compilation of a draft impact assessment of the University of Žilina in selected fields, i.e., the university as an educator, the university as an employer, the university as a research centre, the university as a gateway to the world, the university as a partner of the city, region and the community living in the city and the region where the university is located.

2. THEORETICAL BACKGROUND

At the University of Žilina, the issues at hand were the subject of a project APVV 0101-10 Creative Economy – National and Regional Economic Conditions and Stimuli (KRENAR) and currently they are the subject of a project APVV-14-0512 Universities and Regional Economic Development (UNIREG).

The importance of education in human society is understood in the context of sustainable development, with a growing importance of knowledge economy, which develops mainly through information technologies. Knowledge economy is supposed to be managed by knowledge society, which, according to Ručinská, S. (2009), is educated in a network of educational institutions – at schools of all levels. [1] Education is an economic good, which brings benefits and is connected with certain costs. Pursuant to the Constitution of the Slovak Republic, every person has the right to education. Therefore, it is provided to anyone without distinction and in the same scope. The stipulated minimum education can be defined as a pure public good, satisfying the conditions of indivisibility and non-excludability from consumption (HOTOVČINOVÁ, 2008; BENČO, 2002).

Exclusion from consumption can be effected by means of a selection of students, the offer of a single study programme at different levels etc. In knowledge societies, universities play a number of roles. Through the education they offer, they generate human capital and intellectual wealth. Their importance for regional development is indisputable, since they serve as a source of technology-based regional innovation and growth, thereby strongly contributing to economic development of the area. They are significant generators and disseminators of knowledge. The results of their scientific and research activities are used by the private sector as well as the society at large. (ALI TAHA A TEJ, 2009). It can be concluded that universities have reached a point where they are expected to fulfil their traditional roles (educating and bringing new ideas) as well as exercise other activities closely related to the traditional ones. [2]

It is evident that today, universities do not engage in the basic, traditional tasks only; they fulfil other tasks as well, related to their impact on individual societal subsystems (see Table 1.). [1]

Table 1. Impact of a university as it performs its tasks in societal subsystems

Subsystems	Examples of impact of university
Political	Changes of political structures, growth of civil participation, better organisation of the political process.
Demographic	Impact on the demographic trend of the population, their mobility and structure.
Economic	Impact on the regional product, pensions, labour market and labour mobility.
Environmental	Impact on use of land and natural resources.
Infrastructural	Impact on the real-estate market, transport, health care.
Cultural	Impact on supply of and demand for cultural goods.
Educational	Impact on quality, focus and character of education.
Social	Impact on the quality of life.

Source: Haisch, 2008. p. 18, In: RUČINSKÁ S. et al. Regionálny rozvoj a univerzity. Univerzity a ich miesto v rozvoji regiónu (Regional Development and Universities. Universities and their Place in Regional Development). Košice. 2009. pp. 11-179. ISBN 978-80-7097-790-3. [1]

The strength of the impact of a university is varied. It is influenced by several factors. Many areas of impact (subsystems) may be interconnected. It can be assumed that each activity of the university within the above subsystems is directly or indirectly associated with the economic subsystem. As a summary, the university can be defined as an entity which: provides education; engages in research; systematically arranges new knowledge and offers it to businesses, students and society; plays a social and educational role; is an employer; is a consumer in local or regional economy; is an active player in knowledge economy and regional development; contributes to establishment of regional networks; is a source of innovation; organises events or assists in organising sports, cultural or social events; is a location factor for businesses and individuals; provides expert activities.

By its impact in a certain region or city, the university creates a whole range of relations with various entities. Besides industry, the tertiary sector and the public, it also maintains relations to other universities. The relations between *the university and industry* are based on the need to exchange information and knowledge. The relation to *public administration and local self-government* is understood as the relation to the national, regional government and local self-government. With the *public*, the university maintains relations e.g. by carrying out public lectures, exhibitions, concerts etc. Such flow of knowledge among various entities does exist even without any interference in its development; however, an active intervention yields positive results. Therefore, the following can be counted among the basic forms of relations in the context of a developing knowledge flow: *business incubators; business, research, scientific and technological parks; clusters, spin-off companies; the university also participates in establishment of innovation networks and influences the operation of innovation systems*. In this context, so-called Triple Helix Model is often used, which sees the relationships between industry, academia and public administration as the principal drivers of regional development. [19, 20]

FRITSCH, HENNING, STEIGENBERGER and SLAVTCHEV (2007) defined in detail the possibilities for a transfer of knowledge between regional entities in a dynamic model, in which the university ensures cooperation among businesses, other universities and research institutions and the labour market, helping to create spin-off companies, providing licenses and transfer of human resources.

One of the basic elements of regional development is *economic growth*. Work, capital and technological advancement are among the most important factors that influence economic growth. Land and natural resources may be an important factor of growth but they are not the most important since the growth of a region is not constrained by limited natural resources. Human resources are considered a significant factor because they represent the supply of labour and for the consumers they represent the ultimate demand. Human resources influence the development of production, services and social infrastructure. Technologies, innovation, science and research and also education are the growth factors underlined by the new theory of growth. Besides the above, also geographical location, technical infrastructure, economic activity, financial resources, culture and other factors are considered important. [3]

E. VÝROSTOVÁ (2008) also maintains that universities, being knowledge institutions, should fulfil not only educational and research tasks but should play an important role also in the development of economic, social and cultural environment in a region. [2]

R. BECK, D. ELLIOTT, J. MEISEL and M. WAGNER (1995) of the University of Kentucky characterised in their study the economic impact of an institution (e.g., a university), as the difference between the economic activity in the region contingent upon the existence of the institution in the region and its level in the case that the institution would not exist. This impact can be

measured by the difference in the outflow of economic activity over years by means of factors like wages, cost of living etc., which are easy-to-measure quantities. They are assessed “with” and “without” the existence of a university in the area of research, which constitutes its direct or indirect impact on the geographical area where it is located. [5]

Š. REHÁK, S. RUČINSKÁ (2009) named in their studies three main areas of economic impact of a university on the area where it is located:

- *Direct impact of the university on the region*

It is related to the growth of economic activity of companies, representing investments of businesses (buildings, equipment of schoolrooms and laboratories) from which the university, students or visitors of the region or city buy goods or services (costs of material, energies, services, taxes). Thus, direct impact is tied to the income from increased demand in the region. The university influences the number of students coming from other regions, generating changes in the demand for inputs and labour force. It is the size of the demand that dictates the size of the resulting effect. This effect is a function of the size of the region. Direct impact has a positive side (+), namely growth of tax income of local and regional self-governments, but also a negative side (-), which consists, for instance, in pollution of the environment, growth of competition for other companies, higher expenditures of local governments, for instance in the area of public transport, and the like.

- *Indirect impact*

Spending of employees and students of the university has also an indirect impact on the region through its multiplication effect. It concerns expenditures for the development of other sectors of economy and creation of jobs in the sectors which produce inputs. It includes repeated use of funds within the local economy.

- *Induced impact*

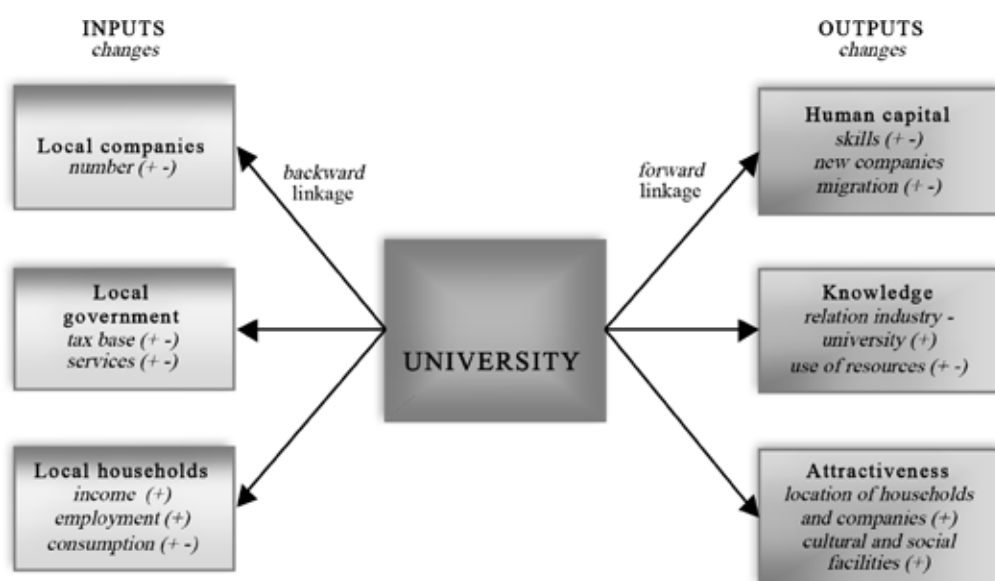
It represents additional impact of the spending of employees and students, manifesting itself in almost all sectors influenced by the existence of the university. However, not all expenditures can be included in the economic impact; only expenditures made as a result of the existence of the university qualify. [1, 3, 4]

These effects can be included among demand-side effects (short-term multiplication effects), which means that the university generates demand for inputs (labour force, goods, services). On the other hand, there are supply-side effects (long-term impact on the economic development of the region) related to outputs of the university, which also contribute to regional development.

GOLDSTEIN, MAIER and LUGER (1995) defined eight different outputs: 1. Creation of human capital, 2. creation of knowledge, 3. transfer of existing know-how, 4. technological innovation, 5. capital investment, 6. regional leadership, 7. knowledge infrastructure production and 8. influence on regional milieu. [6]

A study by D. FELSENSTEIN (1996) distinguishes the impact of the university on the host city according to a set of two basic linkages: „backward linkage“, e.g., expenditures, and „forward linkage“, e.g., knowledge. (Fig. 1)

Figure 2. Impact of university on economic development in a region, expressed as positive (+) and negative (-) changes.



Source: FELSENSTEIN, D. The University in the Metropolitan Area: Impacts and Public Policy Implications. The Editors of Urban Studies. 1996. 0042-0980/96/091565-1 6. p. 1569.

The “backward linkage” represents the areas of impact on local businesses, local self-government and population, i.e., the households in the region. The influence of a university on households is generally positive, manifested as impact on their income or employment. The impact on local self-government is both positive and negative. The existence of a university increases taxes and, therefore, the income of municipal self-government. On the other hand, universities generate demand for services provided by these institutions. Local businesses benefit from increased demand of the university for their goods or services. On the other hand, universities may compete with local businesses on the labour market or the real-estate market.

The “forward linkage” is reflected in the human capital, knowledge and attractiveness of the area where the university is located. The university enhances the level of human capital but only insofar as the university graduates remain in the region after the completion of their studies. The university improves the level of knowledge in the region also through its relationship with industry, as already mentioned. [7]

VÝROSTOVÁ and VÝROST (2007) consider as “backward linkage” the input relationships (short-term multiplication effects), while output relationships (long-term effects) form the “forward linkage”. [2]

KOTT (1987-1988), HAYWOOD (1993) and BERGER and BLACK (1993) introduced in their theory two approaches to the assessment of impact:

- “short-run” impact, represented by the annual contribution of the university to the regional economy;
- “long-run” impact as the contribution to the regional human capital pool.

BLUESTONE (1993) maintains that the primary impact of universities may be measured by the future income of the university graduates who have remained in the area where the university is located. [6]

However, the extent of the impact of a university on regional development also depends on other factors, which we will not deal with in this paper. [18, 19]

3. THE OBJECTIVE OF THE PAPER

As explained at the outset, the objective of this paper is to present to the readers the direct and indirect impact of the University of Žilina on the city and region of Žilina. In order to attain this goal, it was necessary, inter alia, to define the geographical area immediately impacted by the university. Then the areas of impact and role of the university which play the most important part in regional development were presented. They are education, science and research, employment, partnership with local and regional governments and the society at large as well as the functions related to the provision of linkage to external – national or international – environment.

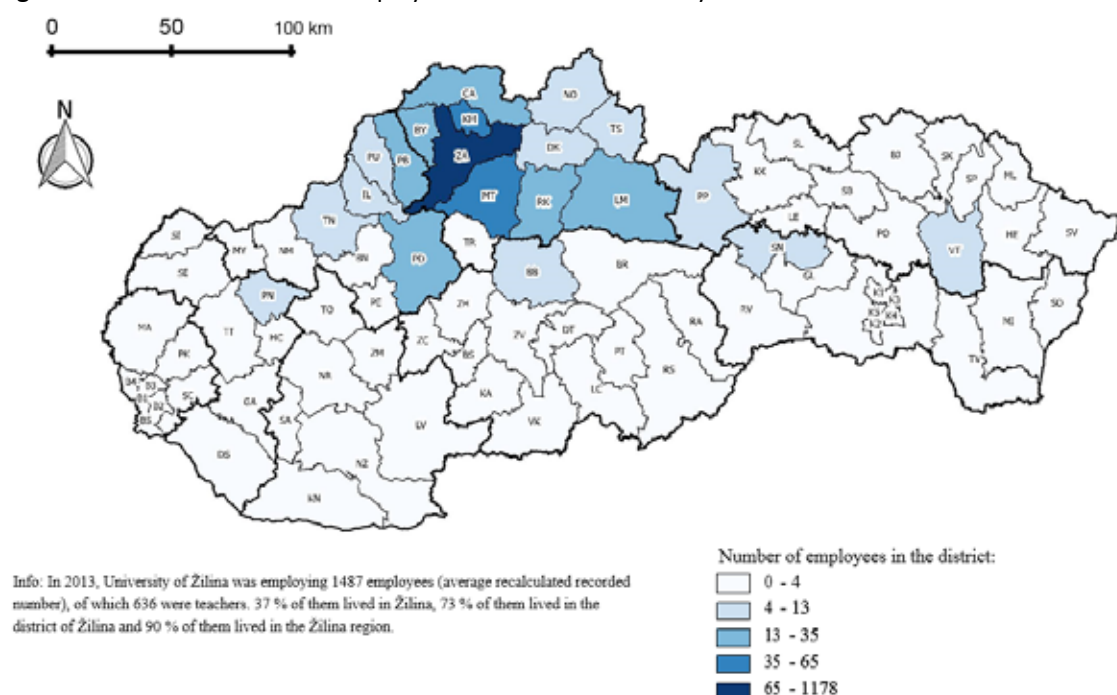
4. DATA AND METHODOLOGY

The measurement of the impact of a university on a region is usually carried out by means of impact assessment studies, surveys, a microeconomic approach based on production functions and on the basis of cross-sectional and quasi-experimental research. As already mentioned, the essence of all the above measurement forms lies in the comparison of actual economic activity “with” and “without” the existence of a university in the given region. The most precise method of measurement of university impact under this approach would be to find out the condition in the region in the case that no university would exist there.

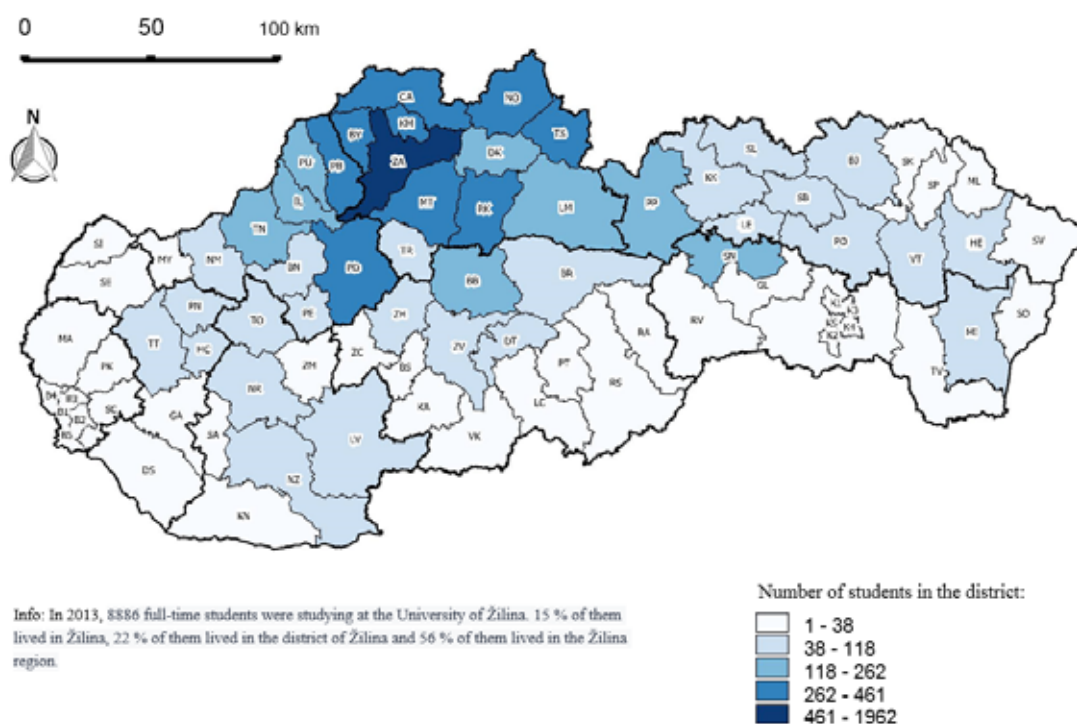
Such a measurement method, however, is not desirable, which is why a number of methods have been developed in theory to help fulfil this goal. In the United States of America (hereinafter USA) they include a method of the American Council on Education, which has become one of the most often used methods for the measurement of university impact on regional development. The method was developed by Caffrey and Isaacs for the American Council on Education in 1971. The method is based on the measurement of all expenditures of the university, its employees, students and visitors of the given region. The sum of these expenditures is considered a contribution to the development of the region, despite the fact that they would exist even if there were no university in the region. It results in an overestimation of the university impact on the region.

All recognised measurement methods of university impact on the region define what is known as a multiplication effect, computed by setting so-called multipliers, which were defined by several authors in their studies, for instance: the Keynesian multiplier, the gross production multiplier, the disposable income multiplier (institutional spending is taken into account), the input – output multipliers etc. They are based on an analysis of not only short-term but also long-term effects related to university outputs.

Besides the actual measurement of the university impact, it was also important to define the exact geographical area of measurement. The extent of the economic impact then, will depend on the extent of the geographical area in which the university is located (Fig. 2, Fig. 3).

Fig. 2. Place of residence of the employees of the Žilina University

Source: [4]

Fig. 3. Full-time students at the Žilina University according to their place of residence (Source: [4])

Source: [4]

On the one hand, the wider is the geographical area, the higher is the proportion of contracts with university suppliers, the higher the expenditures included in the primary economic impact and, therefore, the higher multiplication effect can be attained. On the other hand, however, the wider geographical area implies grater “competition”, meaning that more universities may exist in the region from which the students can choose. This results in lower direct economic impact of the university in the given area. Only those expenditures of students (visitors) should be included in the economic impact which were made because of the existence of the university.

We included in the geographical area suburbs where adult population also lives and makes its regional spending. On the other hand, there can be several universities in such metropolitan areas which students attend. Thus the expenditures have a direct, “short-run” effect. They contribute to strengthening of the region by the presence of human capital, they

increase employment and income and represent a “long-run” economic effect due to the fact that graduates do not have to look for employment elsewhere. [5]

When assessing the impact of UNIZA in the context of examining the spending in the city and/or region of Žilina related to the existence of UNIZA, we had to divide the respondents participating in the survey into the following groups:

- *Non-residents* – they come from and live outside the surveyed region but due to the existence of the university, they make their spending in the region (students). This group is included in the economic impact.
- *Residents* – they come from the surveyed region and if there was no university there, they would not make their spending there. This group is also included in the economic impact.
- *Residents coming from the surveyed region*, but for whom the existence of the university makes no impact on their spending in the region. This group is not included in the economic impact.
- *Non-residents coming from and living outside the surveyed region* – if the surveyed economic activity did not exist, they would make their spending in another competing activity located in another region. This group is also not included in the economic impact. [5]

5. SURVEY RESULTS

5.1 Evaluation of Selected Aspects of Local Economic Impact of the University on the City where it is Located

Given the described scope of the economic impact of UNIZA, only one area of local impact of the university is presented in this paper, namely the UNIZA student spending. It is this segment of stakeholders, the students, who by their stay, study and work in the University City represent one of economically enumerable impacts on the city and region of Žilina. Based on the primary research carried out, the following economic indicators were defined for the local impact of UNIZA on the city and/or region where it is located (Table 2).

Table 2: Local economic impact of UNIZA in the student segment

No	Economic indicator [unit of measurement]	Method of calculation	Categories of full-time students studying at UNIZA				Total
			Perma- nent resident	Daily com- muter	Living on campus	Private accom- modation	
1.	Students' average monthly expenditures [€]	Arithmetic average of actual monthly expenditures of the students – respondents participating in the survey	223	212	238	281	229
2.	Students' average monthly local expenditures [€]	Arithmetic average of actual monthly expenditures of students in the city of Žilina	128	115	167	193	145
3.	Proportion of students' exogenic income [%]	Percentage of income of the students participating in the survey who study at UNIZA but work outside the city of Žilina	5 %	75 %	71 %	68 %	60 %
4.	Average monthly expenditures financed from exogenic sources [€]	Row No. 3 multiplied by row No. 2 and divided by 100	6	86	119	131	91
5.	Share of students' local expenditures in total students' expenditures [%]	Row No. 2 divided by row No. 1 and multiplied by 100	57 %	54 %	70 %	69 %	63 %
6.	Amount of students' additional local average expenditures [€]	Row No. 3 multiplied by row No.1 and divided by 100	11	159	169	191	139

7.	Number of respondents in the survey	Actual number of respondents in the survey	353	656	852	132	1,993
8.	Students who indicated in the survey that if they did not attend UNIZA they would attend a university or would work in another city	Actual percentage of respondents in the survey who said so	61 %	81 %	98 %	86 %	85 %
9.	Recalculated number of students	Number of students in individual categories calculated on the basis of the actual percentage of their representation in the survey in relation to the total number of students (8,334)	1,476	2,744	3,563	552	8,334
10.	Adjusted number of students	Row No.8 multiplied by row No. 9 and divided by 100	900	2,223	3,492	475	7,085
11.	Students' adjusted total monthly expenditures [€]	Row No.4 multiplied by row No. 10	5,400	191,178	415,548	62,225	644,735
12.	Students' adjusted total annual expenditures [€]	Row No.11 multiplied by 10, which represents the number of months when the students live in the university city	54,000	1,911,780	4,155,480	622,250	6,447,350
13.	Students' adjusted local monthly expenditures [€]	Row No.5 multiplied by row No. 11 and divided by 100	3,078	103,236	290,884	42,935	406,183
14.	Students' adjusted local annual expenditures [€]	Row No. 13 multiplied by the number of months when the students live in the university city (10)	30,780	1,032,360	2,908,840	429,350	4,061,830
15.	Total impact						
16.	Students' total monthly expenditures financed from exogenic sources related to the recalculated number of students [€]	Row No.4 multiplied by row No. 9	8,856	235,984	423,997	72,312	758,485
17.	Students' annual expenditures financed from exogenic sources related to the recalculated number of students [€]	Row No.16 multiplied by 10, which represents the number of months when the students live in the university city	88,560	2,359,840	4,239,970	723,120	7,584,850
18.	Local impact						
19.	Students' total monthly expenditures, which form income for entities active and doing business in Žilina, related to the recalculated number of students [€]	Row No. 6 multiplied by row No. 9	16,236	436,296	602,147	105,432	1,158,565
20.	Students' total annual expenditures, which form income for entities active and doing business in Žilina, related to the recalculated number of students [€]	Row No.19 multiplied by 10, which represents the number of months when the students live in the university city	162,360	4,362,960	6,021,470	1,054,320	11,585,650

21.	Gross expenditures						
22.	Students' total monthly expenditures with no impact considered [€]	Row No. 2 multiplied by row No. 9	188,928	315,560	595,021	106,536	1,208,575
23.	Total annual expenditures with no impact considered [€]	Row No. 22 multiplied by 10, which represents the number of months when the students live in the university city	1,889,280	3,155,600	5,950,210	1,065,360	12,085,750

Source: Primary survey carried out within the UNIREG Project.

Exogenic income sources are understood as the income of students studying at UNIZA who are employed in another city. The additional local expenditures are related to this because exogenic income forms part of additional local expenditures available to the students in the city of Žilina.

Table No. 3 presents the structure of the average students' expenditures, showing the impact of the students in different industries in the territory of the city/region of Žilina.

Table 3: Structure of average expenditures of UNIZA students and comparison of average expenditures at UNIZA with one of its faculties – the Faculty of Operation and Economy of Transport and Communication

Average expenditures of UNIZA students	Permanent resident	Daily commuter	Living on campus	Private accommodation	Total																		
Food and non-alcoholic beverages	27.22	21.57	43.30	41.14	33.16																		
Alcoholic beverages and tobacco	12.71	7.50	11.93	11.01	10.59																		
Housing	6.64	2.83	39.86	71.01	23.85																		
Clothes and shoes	17.68	16.96	11.24	15.58	14.55																		
Coffee bars. restaurants	14.27	12.05	15.67	13.41	14.08																		
Education	2.32	1.68	1.78	1.38	1.82																		
Health care	3.47	2.00	1.95	2.33	2.26																		
Housing fees	1.56	0.72	2.69	3.22	1.88																		
Transport	14.42	24.20	16.03	12.55	18.20																		
Post and telecommunication	7.23	5.72	6.07	4.73	6.07																		
Leisure	9.52	8.46	7.16	8.23	8.08																		
Furniture. home fixtures	0.48	0.70	0.35	0.53	0.50																		
Various goods and services	7.49	8.73	6.81	6.30	7.53																		
Other expenses	2.99	2.22	1.87	1.36	2.15																		
Comparison of the development of the average monthly expenditures of students at UNIZA with a selected faculty (PEDAS) during their years of study at UNIZA	<table><caption>Data for Average Expenditures (€)</caption><thead><tr><th>Year and degree of study</th><th>UNIZA</th><th>FPEDAS</th></tr></thead><tbody><tr><td>Year 1 1st degree</td><td>~140</td><td>~160</td></tr><tr><td>Year 2 1st degree</td><td>~140</td><td>~220</td></tr><tr><td>Year 3 1st degree</td><td>~140</td><td>~150</td></tr><tr><td>Year 1 2nd degree</td><td>~140</td><td>~160</td></tr><tr><td>Year 2 2nd degree</td><td>~170</td><td>~170</td></tr></tbody></table>					Year and degree of study	UNIZA	FPEDAS	Year 1 1 st degree	~140	~160	Year 2 1 st degree	~140	~220	Year 3 1 st degree	~140	~150	Year 1 2 nd degree	~140	~160	Year 2 2 nd degree	~170	~170
						Year and degree of study	UNIZA	FPEDAS															
Year 1 1 st degree	~140	~160																					
Year 2 1 st degree	~140	~220																					
Year 3 1 st degree	~140	~150																					
Year 1 2 nd degree	~140	~160																					
Year 2 2 nd degree	~170	~170																					

Source: Primary survey carried out within the UNIREG Project

A similar analysis could be made also for other areas of activity of UNIZA and the impact of its existence on the development of the city and region of Žilina. When these economic indicators are examined on a long-term basis it is possible to determine development trends and draw attention to growing or diminishing local impact of UNIZA on the city and region of Žilina in relation to the number of students attending UNIZA, in a short or long term.

5.2 Proposal for an Assessment Model of the Impact of UNIZA on the Host City and Region of Žilina

On the basis of the acquired knowledge about the impact of UNIZA on the host city and region, the following proposal of indicators was formulated, which include five areas of interest. (Table No. 4).

Table 4: Areas of impact of UNIZA on the host city and region

Areas of impact of the University of Žilina on the host city and region of Žilina	I. The university as an educator
	Indicators: 1 – 12
	II. The university as an employer
	Indicators: 13 - 18
	III. The university as a research centre
	Indicators: 19. - 21.
	IV. The university as a gateway to the world
	Indicators: 22. – 24.
	V. The university as a partner of the city, region and the community living in it
	Indicators: 25. – 26.

Source: [8]

Then examples of individual indicators in the relevant areas may be presented. The tables also state whether the indicator in question has already been monitored at UNIZA or not, or, as the case may be, whether the indicative analysis found that it has been monitored and evaluated also at other universities in the Slovak Republic or abroad.

In area I., the University as an educator (Table No. 5), the students, doctorands and graduates of UNIZA (Slovak as well as foreign) enhance, through their stay, study and work, the economic as well as cultural development of the region, its attractiveness and, last but not least, also employment.

Table 5: Overview of indicators I. The university as an educator

Indicator	Monitored at	
	UNIZA	other
1. Degree of concentration of students in the region and in neighbouring regions	+	
2. Extent of interest of UNIZA students in studying abroad		
3. UNIZA students who are employed while studying, where employment is in the same field as their studies		
4. Interest of foreign students to study at UNIZA		
5. Structure of graduates regarding their employment in the field which they studied	+	
6. Structure of graduates regarding the field in which they are employed, at the start of employment		+
7. Structure of graduates regarding the trend of their career development		+
8. Doctoral graduates who stay at the university after finishing their studies		
9. Extent of satisfaction of participants of lifelong learning at UNIZA with its use in their employment		+
10. Indirect economic impact of UNIZA students' and doctorands' expenditures on the economy of the city/region of Žilina		
11. Value of volunteering students as a direct economic impact on the city of Žilina		+
12. Value of increased economic activity of businesses in Žilina due to working UNIZA students, as a direct economic impact on the city		+

Source: Survey within the UNIREG Project, [8] to [17]

Table 6: Overview of indicators II. The university as an employer

Indicator	Monitored at	
	UNIZA	other
13. The ranking of UNIZA in terms of the number of employees among businesses in the city and region		+
14. Direct support of employment in the city of Žilina expressed as the number of jobs and in EUR	+	
15. Expenditures of UNIZA employees in the city of Žilina and in the region		
16. Concentration of UNIZA employees relative to their place of permanent residence	+	
17. Proportion of women in the total number of UNIZA employees	+	
18. Qualification structure of university teachers at UNIZA	+	

Source: Survey within the UNIREG Project, [8] to [17]

The University of Žilina plays an important employer role in the host city, not only directly with its employees but also indirectly through the spending of UNIZA employees, which is directed towards businesses in the city or region of Žilina.

Table 7: Overview of indicators III. The university as a research centre

Indicator	Monitored at	
	UNIZA	other
19. Assessment of excellency of UNIZA in terms of the success of its scientific and research activity by external institutions	+	
20. Amount of funds received from the results of scientific and research activities at UNIZA	+	+
21. Creation of jobs in the area of research at UNIZA, including jobs in the University Scientific Park and Research Centre	+	

Source: Survey within the UNIREG Project, [8] to [17]

By its scientific and research activity, UNIZA supports the innovation base of the region, its economic growth and employment. On the other hand, the scientific and research activity impacts the university itself. By its participation in a number of national and international projects, by their success and utilisation of the results of research in the business sector, UNIZA improves its ranking among Slovak and international universities in the given field.

Table 8: Overview of indicators IV. The university as a gateway to the world

Indicator	Monitored at	
	UNIZA	other
22. Number of UNIZA students participating in study stays abroad, number of its university teachers and researchers working abroad	+	
23. Number of international students attending all degrees of university education at UNIZA, number of guest university teachers and researchers working at UNIZA	+	+
24. Amount of expenditures of UNIZA visitors (foreign students, foreign university professors, foreign researchers) in the city and region of Žilina		+

Source: Survey within the UNIREG Project, [8] to [17]

By its scientific and research activity, UNIZA supports the innovation base of the region, its economic growth and employment. On the other hand, the scientific and research activity impacts the university itself. By its participation in a number of national and international projects, by their success and utilisation of the results of research in the business sector, UNIZA improves its ranking among Slovak and international universities in the given field.

Table 9: Overview of indicators V. The university as a partner of the city, region and the community living in it

Indicator	Monitored at	
	UNIZA	other
25. Ability of graduates to find jobs in the city and region of Žilina	+	
26. Awareness by the population of the city and region of an improvement in the quality of life in the city and region of Žilina as a result of the existence of the university		+

Source: Survey within the UNIREG Project, [8] to [17]

UNIZA is a partner to the inhabitants of the region and its businesses, not only in the region of Žilina. By this partnership it strives to improve the quality of life in the city and region.

6. CONCLUSION

The University of Žilina plays an indispensable role in the city and region of Žilina. To the public it is mainly visible as the generator of knowledge, educating students as potential employees in the labour market. Thus it enhances not only its own attractiveness but also the attractiveness of the host city. It is active as one of the largest employers in Žilina, currently supporting employment by having created over 1,600 jobs with the perspective of adding another more than 200 jobs in connection with the building of a scientific park and a research centre. It supports employment in the region also indirectly by using services and buying goods which UNIZA needs for its day-to-day operation. Through its successful scientific and research activity, establishment of scientific parks and participation in various projects, it significantly contributes to the innovative development of the region and increases its excellency, which propels it to a European or even global level. International activities of UNIZA, study stays of teachers, students and doctorands, international conferences and other activities and forms of cooperation extend the influence of the university far beyond the home country.

It can be stated that the University of Žilina by its existence and position in the city and region of Žilina contributes significantly to economic, cultural, social and innovative development of the region.

Generally speaking, the area of influence of a university in its host city is extensive and multi-faceted. Foreign universities monitor the economic impact of a university in economic studies on an annual basis and continually bring new perspectives as they assess its influence on regional development.

The subject of universities and regional development currently draws ever growing attention. As mentioned above, the knowledge and findings are considered to be the characteristics of modern economy that play an important role in regional economic growth. The importance of the position of the University of Žilina as an institution which fulfils a number of tasks in its host city is indisputable and indispensable.

LITERATURE

1. RUČINSKÁ, S. a kol. Regionálny rozvoj a univerzity. Univerzity a ich miesto v rozvoji regiónu. Košice. 2009. pp. 11-179. ISBN 978-80-7097-790-3.
2. ALI TAHA A TEJ.: In: VÝROSTOVÁ, E. 2008. Vzťah univerzity a regiónu, v ktorom pôsobí: pohľad na stratégiu univerzít. Košice. ISBN 978-80-5530-084-9. p. 953.
3. VÝROSTOVÁ, E. 2010. Regionálna ekonomika a rozvoj. Bratislava. ISBN 978-80-8078-361-7. pp. 148-206.
4. REHÁK, Š. Hodnotenie vplyvu univerzity na región. Dopadové štúdie. [online]. [cit. 2014-07-10]. Available on the Internet: <http://uniregio.fvs.upjs.sk/pdf/zbornik/Rehak.pdf>.
5. BECK, R., ELLIOTT, D., MEISEL, J. and WAGNER, M. 1995. Economic Impact Studies of Regional Public Colleges and Universities. Center for Business and Economic Research, University of Kentucky. pp. 245-260.
6. GOLDSTEIN, H. A. – MAIER, G. – LUGER, M. I.: The university as an instrument economic and business development: U. S. and European comparisons. 2007. no 1, pp. 22-23.
7. FELSENSTEIN, D. The University in the Metropolitan Area: Impacts and Public Policy Implications. The Editors of Urban Studies. 1996. 0042-0980/96/091565-1 6. p. 1569.)
8. DÁVIDÍKOVÁ, K.: Vplyv univerzít na hostiteľské mesto a región, Diploma Thesis, 28330420152011, Tutor: Rostášová Mária, Žilinská univerzita v Žiline, 2015
9. Oxford Economics: The impact of the University of Birmingham. 2013. [online]. [cit. 2014-07-11]. Available on the Internet: <http://www.birmingham.ac.uk/Documents/university/economic-impact-of-university-of-birmingham-full-report.pdf>

10. REITEROVÁ, I.: Washington – stále zelený stát. America Tours. 2011. [online]. [cit. 2014-07-31]. Available on the Internet: <http://www.novinky.cz/cestovani/amerika/252668-washington-stale-zeleny-stat.html>.
11. Washington Economy. 2009. [online]. [cit. 2014-07-31]. Available on the Internet: http://www.netstate.com/economy/wa_economy.htm
12. Colleges in Washington. 2014. [online]. [cit. 2014-08-07]. Available on the Internet: <http://www.noodle.com/colleges/wa?gclid=CMPLgOHEgMACFaYlwodFFUAog>
13. Executive Report: The Economic and Societal Impact of the University of Washington. 2010. [online]. [cit. 2014-07-14]. Available on the Internet: http://www.washington.edu/externalaffairs/files/2012/10/eir_full_report.pdf.
14. Výročná správa o činnosti ŽU 2013. [online]. [cit. 2015-02-04]. Available on the official website of UNIZA: <https://www.uniza.sk/menu/inc.php?id=17>.
15. Štatistická ročenka – vysoké školy. 2014. [online]. [cit. 2015-02-04]. Available on the Internet: <http://www.uips.sk/prehlady-skol/statisticka-rocenka---vysoke-skoly>
16. Spolupráca univerzít a firiem – príklady dobrej praxe. 27. 01. 2015. [online]. [cit. 2015-02-28]. Available on the web page: <http://inovacie.regionzilina.sk/inovacie/1983/spolupraca-univerzit-a-firiem-priklady-dobrej-praxe/>
17. Vysokoškolači do praxe. Žilinská univerzita v Žiline. 2015. [online]. [cit. 2015-04-07]. Available on the Internet, <http://www.vysokoskolacidopraxe.sk/390-sk/zilinska-univerzita-v-ziline/>.
18. CÍBA, J.: Creative cities - functions and the role of universities in the development of creative cities. [Dissertation thesis]. University of Žilina. Faculty of Operation and Economics of Transport and Communications; Department of Communications. Tutor: ROSTÁŠOVÁ Mária, prof. Ing. PhD.; Degree: Doctor of Philosophy (PhD). Žilina: FPEDAS, ZU, 2015. 146 pages.
19. MADUDOVÁ, E. – PODPEROVÁ, A.: Creativity and innovations in sector of ICT. In: Diagnostika podniku, controlling a logistika: VI. medzinárodná vedecká konferencia : zborník prednášok a príspevkov : 12.-13. apríl 2012, Žilina. - Žilina: Žilinská univerzita, 2012. - ISBN 978-80-554-0502-5. - CD ROM, s. 301-307.
20. ČOREJOVÁ, T. – ROSTÁŠOVÁ, M.: Regional development, innovation and creativity. In: ICABR 2014: proceedings from IX. International conference, October 6 - October 10, 2014 in Talca, Chile. - Brno: Mendel University, 2015. - ISBN 978-80-7509-223-6. - S. 107-120
21. ČOREJOVÁ, T. – BORKOWSKI, S.: Evaluation of satisfaction in BOST method. 1. vyd. - Žilina : Žilinská univerzita, 2013. - 136 s. - ISBN 978-80-554-0837-8

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PERCEIVED SERVICE QUALITY AND PERCEIVED CUSTOMER VALUE IN RETAIL

SANDRA JELČIĆ

ABSTRACT

According to the literature perceived service quality positively influences customer loyalty on the retail market. It is necessary to refer to specific limiting circumstance when considering service quality influence on customer loyalty. Namely, no matter how much service quality influences customer loyalty, they do not always purchase only in the shops that offer the best service quality although they are aware of it. Their purchase can also be based on service value evaluation and evaluation of what they have got in relation to what they have invested in. The afore-mentioned is especially a characteristic of price-sensitive markets. The literature identifies positive influence of perceived service quality on perceived customer value. Both service quality and customer value are multidimensional constructs. Therefore, the purpose of this paper is to research influence of service quality dimensions on customer value dimensions in retail on the market in the Federation of Bosnia and Herzegovina (hypermarkets). The research was conducted at the sample of 861 respondents. The applied sample is quota sample with the following control variables: city, shop, age, and gender. Based on the obtained research results the importance of perceived customer value will come to light pursuant to evaluation of service quality in retail, as well as possibility of using the obtained results to create efficient marketing strategies in retail.

KEY WORDS: perceived service quality, perceived customer value, retail.

1. INTRODUCTION

In attempt to obtain sustainable competitive advantage the companies have decided to use different options to differentiate and develop a base of loyal customers being aware of complex and changed circumstances of business running. Service quality has increasingly become significant source of obtaining sustainable competitive advantage and mean of differentiation. In fact, from marketing viewpoint, a product is all that makes offer of a company on the market, everything that one company sells to satisfy the goals of all participants in exchange. Usually, it is about an offer as a combination of tangibility and intangibility that can occur in variable ratio, depending on type of an activity. In doing so services dominate in some activities while tangible products in other. On the market where everything is teeming with competition, and where some kind of power transfer from service and goods provider to customer occurs, service delivery of exceptional quality becomes a necessity for both service and manufacturing companies, which offer is combination of tangibility and intangibility. Services become necessity for everybody – for all services and goods providers. A product is not acceptable in purely material form, but now it presents combination of goods, services, and intellectual engagement. In time of hypercompetition the customers require superior product quality. Only those companies that are capable to deliver it their services or products can successfully compete at local, regional or global level (Lazibat 2009).

A strategy focused on value delivery concept is a necessary response of the companies on increasing awareness and informedness of the customers, their refined taste, cautiousness, and consciosness about the value of offer (Webster 1994). Competitive advantage of successful service providers and retailers is often explained by logic that service quality contributes value for customers, which increases satisfaction and positive intentions of behaviour ultimately creating loyalty that is manifested in profitability increase (Cronin et al. 2000; Slater and Narver 1994; Webster 1994).

2. SERVICE QUALITY IN RETAIL

Upon literature examination it has been found out that SERVQUAL (Parasuraman et al. 1988) and RSQS (Dabholkar et al. 1996) are the commonest instruments used to measure service quality in retail (Gaur and Agrawal 2006).

The authors have given a review of empirical research where both SERVQUAL (Carman 1990; Finn and Lamb 1991; Guiry Hutchinson and Weitz, 1992; Gaglianoand Hathcote1994; Vazquez, Rodriguez and Ruiz 1995) and RSQS (Boshoff andTerblanche 1997; Mehta, Lalwani and Han, 2000; Siu and Cheung 2001; Kim and Jin 2002; Siu and Chow 2003; Kaul 2005) were used to measure service quality. In doing so they have concluded that neither SERVQUAL nor RSQS present reliable and valid (universally accepted) measure for service quality in retail. Generally, when applying above-mentioned

instruments it is necessary to make adaption taking contextual variations into consideration or to develop alternative instruments. The adaptations would relate to the type of service as well as to the specificities of the environment of a country where the research is conducted. When it comes to retail it would be appropriate to adapt instruments taking the type of retail shop in consideration. Namely, different retail formats offer different sets of services to the customers. Modified instruments can be further tested in different retail formats using cross-cultural samples. It would be the way towards development of new, more reliable, accurate, culturally unlimited, and globally applicable instruments for measurement of service quality in retail. Qualitative researches and extensive literature review are the bases for identification of indicators that will be inserted or omitted from both scales. Neither SERVQUAL nor RSQS should be blindly applied in different services and in different cultures under assumption that all customers behave in the same way. It is necessary to review service quality dimensions in the alternative cultural environments (Meng 2009). Past research attempts to standardise service quality dimensions did not yield fruit. It is necessary to direct the researches on revealing unique dimensions of perceived service quality in different sectors and to identify regularities between the sectors of similar type (Suuroja 2003).

3. CUSTOMER VALUE

It is possible to identify two approaches to conceptualisation of perceived value in the literature. On one hand, perceived value can be understood as a relationship between what has been gained and what has been sacrificed (Zeithaml 1988). However, necessity of perceived value conceptualisation as multidimensional construct is increasingly emphasised. Based on empirical studies Sheth, Newman and Gross (1991) have identified five following dimensions of perceived value: social, emotional, functional, cognitive and conditional. Sweeney and Soutar (2001) have introduced modified model (PERVAL) in which they have suggested decomposition of functional dimension of value in "quality" and "price", and they have suggested elimination of cognitive and conditional elements. PERVAL scale identifies three basic dimension of value, and they are as follows: emotional value (feelings that are generated by a product); social value (usefulness that comes out from product's possibility to enrich customer's social self - concept); and functional value composed of sub-dimensions, price (usefulness that product generates thanks to decrease in perceived long-term and short-term costs), and quality (that relates to product performances). Sweeney and Soutar emphasise that multidimensional feature of perceived value explains customers' selection both statistically and qualitatively better than one-dimensional feature of perceived value - "value for money". Reasons to create one of these scales are based on MacKay's (1999) considerations. He emphasises that attractiveness of products and services are based on combination of rational and emotional factors, and that feelings play role in every purchase decision (but)...only some decisions are completely based on feelings.

4. RESEARCH METHODOLOGY

Data from primary sources are gathered in order to test the set hypotheses. Empirical research has been conducted at the area of the Federation of Bosnia and Herzegovina.

4.1. SAMPLE

The sample consists of 861 respondents who were kindly asked to express intensity of their agreement or disagreement with claims about service quality and customer value of bigger format shops (hypermarkets) in which they purchase consumer products (food and non-food products).

Field research was carried out during February 2013 on the sample of 861 respondents. Applied sample is, according to its characteristics, quota sample with the following control variables: city (Sarajevo, Tuzla and Mostar), shops (Konzum, Bingo, Mercator and Interex), gender and age. Hypermarket selection is based on Strategy of Chain-store Formats in the Federation of Bosnia and Herzegovina given in a study "Development of Trade and Domestic Market in the Federation of Bosnia and Herzegovina" (Group of authors 2010). Konzum, Bingo, Mercator and Interex have been selected among hypermarkets that are listed in the above - mentioned study.

4.2. RESEARCH TOOL (QUESTIONNAIRE)

Questionnaire is used as a research tool. It was developed using relevant scientific literature that was adjusted to chosen research topic. It consists of a set of claims that are related to perceived service quality and perceived customer value with which respondents express intensity of their agreement or disagreement. Likert scale of five and seven intensities

was used in it. Perceived service quality is determined by 19 indicators that are in function of measuring the following: merchandising (5), physical aspects (5), interaction with employees (4) and additional services and benefits (5) based on the work of Dabholkar et al. (1996) and Brady and Cronin (2001) with adaption and own indicators. Subjectivity and multi-dimensionality that are described by various authors (Sheth et al. 1991; Sweeney and Soutar 2001) were acquired in the paper during the process of operationalisation of perceived value.

Perceived value is determined two-dimensionally, as both emotional value (Sweeney and Soutar 2001) and economic value (Sweeney and Soutar 2001). Emotional value is related to feelings generated by purchase and exchange relationship. Economic value is related to a benefit generated by purchase and relationship with a provider in relation to realised costs.

4.3. RESEARCH RESULTS

Cronbach Alpha coefficient was calculated for every scale in order to check the reliability of all measurement scales, and the results are presented in Table 1.

Table 1: Reliability of measurement scales – variables of regression model

	Scales	Number of Claims	Cronbach Alpha
Service quality dimensions	Merchandising	5	0.812
	Physical aspects	5	0.845
	Interaction with employees	4	0.842
	Additional services and benefits	4	0.684
Value	Economic value	4	0.832
	Emotional value	4	0.839

Correlation of individual scales is shown in Table 2.

Table 2: Correlation between observed variables (scales)

	Economic value		Emotional value	
	r	p	r	p
Merchandising	0.709	<0.001	0.793	<0.001
Physical aspects	0.611	<0.001	0.713	<0.001
Interaction with employees	0.496	<0.001	0.560	<0.001
Additional services and benefits	0.567	<0.001	0.622	<0.001

As it can be seen in Table 2 all correlations are significant since they point at real correlation of service quality and economic value dimensions, and service quality and emotional value dimensions. There is the strongest correlation of merchandising variable with both economic and emotional value, while the weakest correlation is with variable interaction with employees. It can be concluded that the strongest variable after merchandising is physical aspects and then additional services and benefits. As it can be seen from the above-presented intensity ranking of relationship with service quality dimension is the same with both economic and emotional value.

The results of multiple regression analysis of influence of service quality dimensions on economic value are shown in Table 3.

Table 3: Influence of service quality dimensions on economic value

	b	Standardised b	p
(Constant)	0.035		0.854
Merchandising	0.624	0.516	<0.001
Physical aspects	0.113	0.105	0.014
Interaction with employees	0.209	0.151	<0.001
Additional services and benefits	0.073	0.063	0.110
F value	251.998		
p	<0.001		
R	0.735		
R²	0.541		
Adjusted R²	0.539		

The results of multiple regression analysis of influence of service quality dimension on emotional value are shown in Table 4.

Table 4: Influence of service quality dimension on emotional value

	b	Standardised b	p
(Constant)	-0.295		0.055
Merchandising	0.649	0.553	<0.001
Physical aspects	0.246	0.237	<0.001
Interaction with employees	0.218	0.162	<0.001
Additional services and benefits	-0.019	-0.017	0.603
F value	473.005		
p	<0.001		
R	0.830		
R²	0.689		
Adjusted R²	0.687		

The results (Tables 3 and 4) show that both set models are statistically significant ($p < 0.001$). In the case of economic value it has been proven that independent variables explain 54.1% of its variations, while emotional values explain 68.9% of variations, which proves that the independent variables determine emotional more than economic value.

Regarding importance of certain independent variables it has been proven that merchandising ($p < 0.001$), physical aspects (0.014), and interaction with employees ($p < 0.001$) significantly influence economic value. The situation is the same with emotional value – it is significantly influenced by merchandising ($p < 0.001$), physical aspects ($p < 0.001$), and interaction with employees ($p < 0.001$).

It has not been proven that additional services and benefits significantly influence both economic ($p = 0.110$) and emotional ($p = 0.603$) value – they are predictors of neither economic nor emotional perceived values.

Merchandising has the strongest influence on economic value, followed by relationship with employees and physical aspects as the last one. Merchandising has the strongest influence on emotional value followed by physical aspects and interaction with employees.

As it has been previously described the same independent variables significantly influence both economic and emotional value. Comparing their regression coefficients it can be perceived that merchandising almost equally influences both economic and emotional value, physical aspects influences more emotional value, while interaction with employees almost equally influences both economic and emotional value.

5. CONCLUSIONS

According to the research results service quality dimensions (merchandising, physical environment and interaction with employees) can be considered as the predictors of perceived customer value. Perceived value is measured by emotional and economic value. Emotional value is related to the feelings generated by purchase process that are, according to research results, determined by service quality dimensions. Economic value is related to benefit gained by purchase process, on perception of achieved and invested, which is also determined by service quality dimensions.

Product range, offer of different brands, sufficient stocks of products that customers ask for, offer of brands of different price range and quality as indicators of latent variable merchandising positively influence on perception of customer value in retail. Furthermore, behaviour, politeness, knowledge, and professionalism of employees and their readiness to react and reply to the customers as indicators of latent variable interaction with employees positively influence service quality in retail. Physical environment is a latent variable measured by the following indicators: tidiness and cleanness of a shop, and ease of movement and finding products. It turned out that physical environment has positive influence on perceived customer value on retail market. It also turned out that additional services and benefits that a shop offers such as sufficient number of parking places for customers, working hours suitable for customers, and possibility for different ways of payment don't have influence on perception of customer value on retail market. It turned out that merchandising has the highest influence on perceived value, and it is followed by physical environment and relationship with employees. Optimal product range, one that is consistent with customers' requirements; successful management of physical aspects to create favourable ambience; and successful internal marketing management that will be successfully manifested on interactive marketing will have influence on favourable perception of customer value on retail market. Merchandising positively influences both dimensions of perceived value in a dominant manner. Therefore, instruments for service quality measurement in product-dominant retail environment should not be overtaken from purely service environment but should necessarily be adapted taking product range in consideration. Cognition that the above-mentioned dimensions of service quality positively influence both perceived value dimensions point at importance of perceived value research as a multidimensional construct.

Literature insight identifies positive influence of service quality on loyalty. However, no matter how much service quality influences customer loyalty they do not always exclusively purchase in the shops offering the best service although they are aware of it. Their purchase can be based on service value estimation of what they have got in relation to what they have invested, and feelings generated during the process of purchase. Therefore, service quality, perceived value and loyalty researches can be considered as significant challenge and contribution in development of marketing. Cognitions about positive influence of service quality dimensions on perceived value are introduction into new researches that should be directed towards shedding light on service quality influence on loyalty, directly and indirectly over perceived value on retail market, and on development of measurement scales of above-mentioned constructs adapted to product-dominant retail environment.

REFERENCES

1. Brady, M.K., Cronin, J.J., Jr. (2001) Some New Thoughts on Conceptualizing Perceived Service Quality: A Hierarchical Approach, *Journal of Marketing*, 65 (July), 34-49.
2. Cronin, J.J., Jr., Brady, M.K., Hult, M. (2000) Assessing the Effects of Quality, Value and Customer Satisfaction on Consumer Behavioural Intention in Service Environment, *Journal of Retailing*, 76(2), 193-218.
3. Dabholkar, P.A., Thorpe, D.I., Renttz, J.O., (1996) A Measure of Service Quality for Retail Stores: Scale Development and Validation, *Journal of the Academy of Marketing Science*, 24(1), 3-16.
4. Gaur, S. S., Agrawal, R. (2006) Service quality measurement in retail store context: A review of advances made using SERVQUAL i RSQS, *The Marketing Review*, 6, 317-330, Westburn Publishers Ltd.
5. Lazibat, T. (2009) *Upravljanje kvalitetom*, Znanstvena knjiga, Zagreb.
6. Meng, J. G., Summey, J. H., Herndon, N. C., Kwong, K. K., (2009) Some retail service quality expectations of Chinese shoppers, *International Journal of Market Research*, 51(6), 773-796.
7. Parasuraman, A., Zeithaml, V., Berry, L., (1988) SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality, *Journal of Retailing*, 64(1), 12-37.
8. Sheth, J.N., Newman, B. i., Gross, B. L. (1991) Why We Buy Whath We Buy: A Theory of Consumptions Values, *Journal of Business Research*, 22, 159-170.
9. Slater, S.F., Narver, J.C. (1994) Market orientation, customer value and superior performance, *Business Horizons*, 37 (2), 22-28.
10. Suuroja, M. (2003) Service quality – Main conceptualizations and critique, Faculty of Economics and Busines Administration, University of Tartu Economics and Business Working Paper No. 2003-23
11. Sweeney, J.C., Soutar, G.N., Johnson, L.W. (1997) Retail Service Quality and Perceived Value: A Comparison of Two Models", *Journal of Retailing and Consumer Services*, 4(1), 39-48.

12. Webster, F. E. Jr. (1994) Defining the New Marketing Concept, *Marketing Management*, 2 (4), 22-31.
13. Zeithaml, V.A. (1988) Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence, *Journal of Marketing*, 52(July), 2-22.

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ORGANIC AND LOCAL FOOD MARKET – ALTERNATIVES OR COOPERATION POSSIBILITY? ¹

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ABSTRACT

The market for local and organic food is still a niche market in Hungary. Both offer consumers an alternative to the anonymous, globalized food supply chain. Yet local food and organic food seem to be overlapping and to some degree competing food concepts. The main focus is to explore the perception of Hungarian consumers towards local and organic food, using results from one research. We chose quantitative research as a method and carried out random interviews on a nationwide representative sample of 1000 respondents. Food of organic origin is considered somewhat important for 4 out of 10 respondents (38.9%), while the majority (59.8%) is neutral towards this aspect of products. At the same time, in the case of local products, origin is partially or wholly important for as much as 72.9% of the interviewees. We found it very important that 92.5% of respondents prefer to buy local foods versus imported foods (if sold at the same price), whereas the number drops to 81.3% in the case of organic foods. Our research reveals that the production and sales of local and organic foods is of very high (strategic) importance in our country as reflected in consumer needs. To that end producers, processors, traders and NGOs – in collaboration – need to create a quality product base, and a sales strategy that needs to be well communicated and reflect special characteristics.

KEY WORDS: Niche market, Globalization, Consumer preferences, Food marketing, Strategy.

1. INTRODUCTION

Emerging interest in environmentally friendly, fresh and healthy food products can be detected nowadays. Local and eco food products seem to meet these consumer needs as a „natural” solution, both offer consumers an alternative to a globalized anonymous food supply chain (HAAS et al., 2013). Furthermore, an increase in interest in community building (both virtually and in real), and besides the central economic development interventions, *raison d'être* of local economic development arise (MEZEI, 2006). Latter factors create the opportunity for independence, as well as for the establishment and maintenance of identity and economy which is based on local resources. In most countries a form of “food nationalism” is expressed, which leads consumers to give preference to products of national or regional origin (OPTEM, 2005).

In principal, similar concept was the basis for the organic farming in developed economies. In the last about twenty-two and five years organic production has undergone a transformation and a significant development in the whole world. Organic products, which were regarded first as “fashion products”, have become a consumer trend. In the Western European and North American countries – serving as a model for Hungary – easily segmentable organic-food consuming groups have formed and organic products have become more regular for human consumption.

The market of organic products is quite small in Hungary. However, based on its development potential it has strategic importance (SZAKÁLY, 2004). According to GFK HUNGÁRIA (2005) lifestyle survey, about 65% of Hungarians consider organic foods the ideal nutriment of future. Researches of GERWIN (1998) and PANYOR (2007) shows that 60% of consumers have bought any kind of organic food in Hungary.

Unfortunately, there is no reliable data in Hungary regarding organic food traffic; participation of sales channels are only estimated. Based on these estimates, the traffic of organic food in Hungary is about 30-35 million Euros. This amounts to less than 1% of national food market traffic. The Hungarian organic food consumption level is even lower, only 0.5-1% of total consumption (CZELLER, 2009; GAUVIRIT & SCHAEER, 2013), however that of Danish and Austrian exceeds 5%, in fact, in the UK, it could reach 20-30% in case of dairy products (GERRARD et al., 2013). Another issue is that Hungary, organic production is export-oriented: the majority (90-95%) of the products (e.g. wheat, corn, sunflower seeds, pumpkin seeds, rye, soybeans, livestock) goes abroad unprocessed. Hungarian organic food scarcely appears in retail; consumers can only buy imported, sometimes lower quality products. The market has problems in both supply and demand: they distribute products that are not needed, and certain desired products are absent.

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Even less information is available on the local food market in Hungary. Organic farming and organic food are terms, which are clearly defined and legally regulated, which is not the case for “local food”. Local food has neither a clear environmental, neither production process nor health related definition, which can be a barrier for marketing (SZABÓ & JUHÁSZ, 2013; HINGLEY et al., 2010). In the 2008 Farm Bill the US Congress states that to be considered as „... locally or regionally produced agricultural food” the total distance has to be less than 400 miles from its origin or it has to be within the State in which it is produced (MARTINEZ et al., 2010). There is no common product assessment system or database, therefore, the estimation on the size of the market is even less accurate (and presumably lower!) than that of eco products.

Based on these trends and effects, our aim was to compare the consumer expectations between local products having niche characteristics and eco products, in order to highlight those marketing tools that would increase their proportion and turnover in retail trade.

2. MATERIALS AND METHODS

2.1. Sampling

In order to achieve the set objective, a nationwide representative questionnaire-based survey was given to 1000 participants in Hungary. Representativeness for regions and types of settlement was ensured by the applied quoted sampling method. The sample pattern met the quotas previously defined by the Hungarian Central Statistical Office (HCSO). On the assigned settlements a random walking method was used to ensure total randomness in selection (MALHOTRA, 2008). In the second step, the interviewed person within one household/family was selected by using the so-called birthday-key. The main point of the method is to select that consumer from the family members who has the appropriate age (18 or older) and whose date of birth (birthday) falls closest to the day of the interview (more simply: whoever had their birthday last). With this method randomness was ensured in the second step as well. Refusal was characteristic; the questions were answered in only 68% of the households.

Since random walking does not ensure the sample is a reflection of the entirety of the population (the number of the female and elderly respondents was higher than the national average), the sample of the people was corrected by multi-dimensional weighing factors (gender and age) (GRAFEN & HAILS, 2002). After these methods were applied, the sample was representative of the structure of the Hungarian population in all the four aspects (region, type of settlement, gender and age).

2.2. Analysis of the data

The assessment of the data was based on various mathematical-statistical methods (frequency, mean, standard deviation, chi-squared test, one-way analysis of variance) fitting to the topic of the research. The missing values were replaced by a sample mean in each case.

3. RESULTS AND DISCUSSION

3.1. Importance of the origin of local and organic foods

The first question touched upon the origin of the products: is it important for the consumer to know whether the desired product is organic, local or Hungarian?

Organic origin is considered somewhat important for 4 out of 10 respondent (38.9%), while the majority (59.8%) is neutral towards this aspect of products. At the same time, in the case of local products, origin is partially or wholly important for as much as 72.9% of the interviewees. It is worth noting that 62.9% of those who prefer ecologically farmed food products also consider local origin important. Yet, 48.1% of those who favour locally produced goods do not consider organic origin important at all ($p=0.000$).

Similar results were observed by others too: according to the findings of COSTANIGRO et al. (2011) attitudes associated with “local food products” are stronger than that of “ecological food products”. The results of HAAS et al. (2013) also point to the conclusion that despite their divergent distribution channels, branding, pricing and labelling, organic and local food products are rivals on the American market. Otherwise, some Austrian results are quite promising: according to a survey conducted in Lower Austria, it is exactly this kind of duality that can turn an enterprise into a successful business (MILESTAD et al., 2010).

In Table 1 we organize consumer attitude towards importance of local produced foods according to level of education.

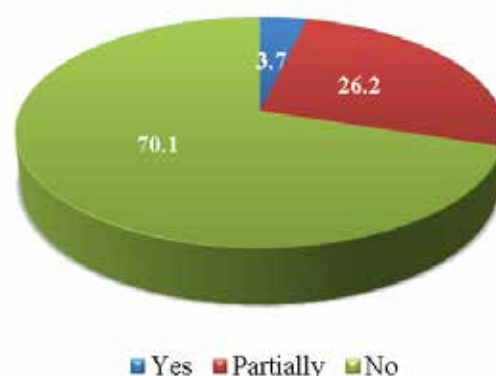
Table 1. Importance of local produced foods depending on education level of respondents

Answer categories	Elementary school		Vocational training		Highschool graduation		Higher degree	
	Head	%	Head	%	Head	%	Head	%
Partially	50	34.2	130	41.5	137	37.7	78	43.8
Yes	59	40.4	81	25.9	131	36.1	63	35.4
No	36	24.7	100	31.9	95	26.2	37	20.8
Don't know	1	0.7	2	0.6	0	0.0	0	0.0

Locally produced foodstuffs were valued most by tertiary education graduates. 79.2% of them indicated that the local origin of foodstuffs plays a major or minor role in their decision making. Approximately one third of skilled labourers replied that production location is an unimportant aspect of foodstuffs ($p=0.016$).

In our research, we also asked our respondents to rate how much they care for choosing organic products when buying food (Figure 1).

Figure 1: Willingness of respondents to actually buy organic food products, % (n=1000)



3.7% of the interviewees paid attention to put organic food products into their cart, and 10% insisted that organic origin is important for them. Consequently, somewhat more than one fourth of the respondents is only planning or would only like to buy the desired products, but due to certain obstacles they withdraw from doing so. Those, who replied with “yes” to organic products are predominantly women (36.0%), tertiary education graduates (39.9%), white-collar workers (41.9%), or have above average income (45.7% and 30.8%). The majority replied with “no” to this question too. The results shown on the above two figures indicate that in addition to the actual buyers, many other respondents consider organic origin an important factor.

To understand the underlying causes, we asked those who replied with “no” to specify the obstacles preventing them from buying organic products. The causes thus obtained are summarized in Figure 2.

The main cause of refusal is the relatively high price; two-third of the surveyed individuals cited this as an obstacle (63.3%). By summing the results associated with the different factors signalling scepticism, we obtain 79.5%, i.e., the most serious obstacle is the doubt of surveyed individuals about the authenticity and the alleged benefits of organic products. The third argument according to which it is hard to identify the products—problematic for one fourth of the consumers (27.5%)—might be most easily treated with communication tools. This also draws attention to the problem that distinguishing verified organic food products from normal goods is hard—even these days. Although there are local and EU regulations, consumers can hardly distance the designated “bio-” prefix of foods from that of biotechnological products. What is more, the Hungarian slang term for synthetic cannabinoids “biofű” might also give rise to dangerous associations among the lay consumers. As regards the background variables, the lack of scepticism towards and trust in the health benefits of organic product are correlated with one’s level of education: lowly-educated respondents (up to primary school) and tertiary education graduates are the less sceptic ($p=0.000$) and the most trustful ($p=0.026$).

Figure 2: Causes for refusing organic products, % (n=701)

* More than one option was possible.

The next question dealt with those factors that have the largest impact on one's organic food purchase (Table 2). The respondents had to rate the impact of each individual factor on their purchase using a 1-to-5 interval scale (1—it has the smallest impact on me, ..., 5—it has the greatest impact on me).

Table 2. The impact of the listed factors on purchasing decisions

Name	n	Mean	Std. dev.
Price of the product	402	4.04	1.411
Constant quality of the product	399	4.01	1.429
Health protective effect of the product	402	3.97	1.384
Tastes associated with the product	404	3.78	1.435
Origin of the product (local, import)	391	3.77	1.393
The whole family loves it	396	3.71	1.447
Label ensuring quality	392	3.66	1.472
Appearance of the product, its aesthetic	400	3.64	1.397
Label ensuring ecological origin	402	3.54	1.466
Habit	401	3.27	1.383
Brand of the product	397	3.10	1.409
Handy, practical packaging	397	3.06	1.377
Name of the production firm	397	3.03	1.440
I can get it anywhere	391	2.82	1.404
Promotedness of the product	396	2.44	1.378

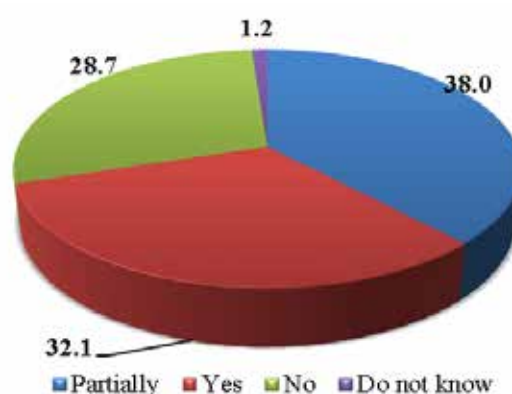
Our first observation is that as much as 40% of the respondent can be treated as somewhat competent in purchasing ecological food products. The 10% surplus compared to those who pay close attention to their purchases points to a significant latent demand; the purchasing decisions of this layer are subconsciously influenced by the ecological origin of products. Further, it is apparent that none of the listed factors achieved overwhelmingly high or low score, which means that the adjustment of individual factors will not have significant market impact. "Price"—also featured as a purchase obstacles—is the most influential factor on shopping decision, but the advantageous "constant quality" and "health benefit" factors are just following it. Based on the survey, the factors which have the smallest impact on shopping decisions are the degree of promotion, the accessibility of products and the name of the production firm.

The cause of this phenomenon might be that compared to regular products, consumers perceive organic ones as special, which do not land in their carts due to advertisements; while as regards the point of purchase, they demand that it must signal trust. This might be related to the branding of the production firms, since there are not any widespread organic brands in Hungary, and none of the firms aim at emphasizing their own name. The labelling of ecological products is only at the middle of the listing, which explicitly refers to the lack of information, and as a result it valorizes those aspects which aid identification (without taking the anomalies identified as the causes of refusal into account).

3.2. Sales channels of organic and local foods

The accounts of HAAS et al. (2013) posit that locally produced foodstuffs are primarily distributed via short food supply chains (SFSCs), i. e., farm shops, farmers' markets and local convenience stores. On the contrary, the largest proportion of organic food products in North America is available in super- and hypermarkets as well as discount stores. In Hungary, markets are the most important sources of locally produced foodstuffs (SZABÓ & JUHÁSZ, 2013), but such products are also available in certain grocery stores in urban areas and through vending machines. Since unipolar profile building is not common, in our study we surveyed the related opinions. Figure 3 summarizes the attitudes of participants towards the importance of having local stores specialized for organic foodstuffs.

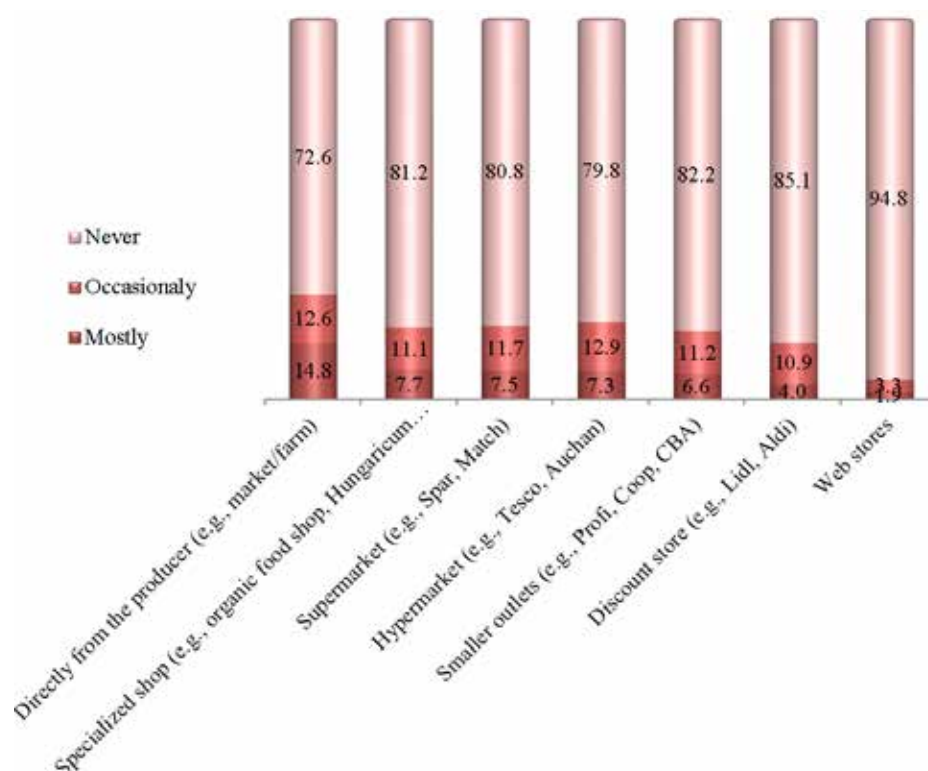
Figure 3: The willingness to buy local foods at a store specializing in only local products, % (N=1000)



70.1% of respondents find important or partially important to buy local foods at a store specializing in only local products. This rate is comparable to the response for importance, only a slight difference could be observed. According to the result of these two questions there is a significant demand for a store where only local products purchased.

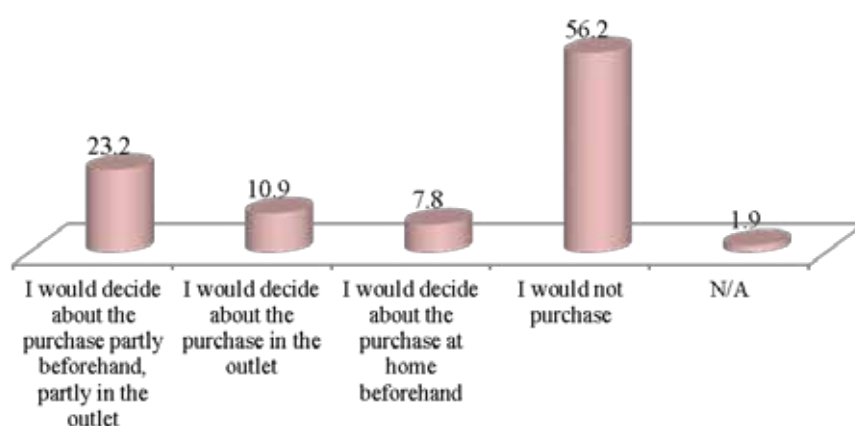
According to previous researches besides the relatively high price of organic products, availability is also a significant obstacle in distribution: every other customer face difficulties when it comes to finding distributors of locally produced foodstuffs (HODGSON, 2012), or when they have to distinguish local and non-local products or have to find the unusual sales locations (HAAS et al., 2013). Our results indicate that the communication of information is markedly important, as 94.4% of those who favour locally produced goods are planning to buy these products in the near vicinity of their homes.

Our next question was about the point of purchase. The interviewees were asked to mark for each listed channel whether they mostly, occasionally or never buy ecological foods products there (Figure 4).

Figure 4: Frequency of choosing different outlet types for purchasing organic foods, % (n=1000)

Since organic foods have a sort of “trust product” character, it is not surprising that the largest portion of respondents usually buy these directly from the producers. For the consumers/customers it is hard to verify each criteria of organic food products—e.g. that they are free of plant-protecting agents, pesticides or hormones—thus trust for the producers is valorized. After the producers, the various specialist shops follow, which were also shown to be popular in earlier studies (HAMM et al., 2002; SCHAAK, 2013, ZAGATA, 2012). The different super and hypermarkets and smaller outlets were almost equally popular, which refers to the increasing accessibility of organic products. In the recent years, organic foods began to appear on the shelves of different discount stores in Hungary, 14.9% of the respondents maintained that they buy products from these outlets with some frequency. Purchasing from web stores is the least favored option; the operators of such outlets should expect orders for specialties and for earlier tested products.

The next question in line aimed to investigate the location where ones’ purchasing decisions are made (Figure 5).

Figure 5: Place of making purchasing decisions about organic food products, % (n=1000)

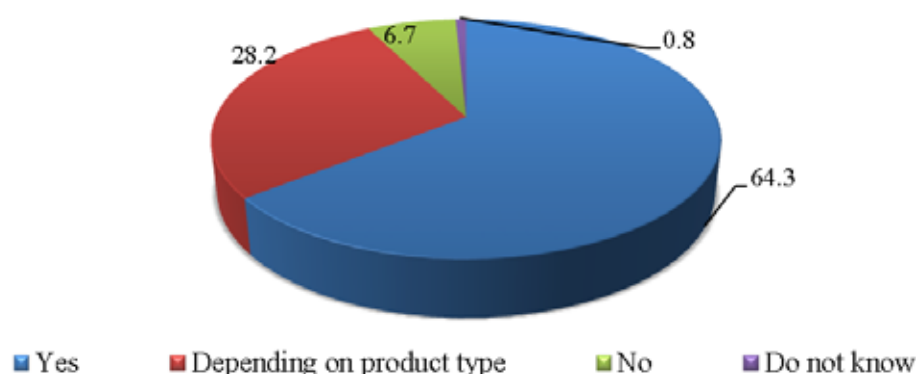
Those who buy organic food products, predominantly decide about their purchase in the outlets, which highlights the importance of in-store advertising in the case of these products. Packaging, placement, shelf facing and the various POP/ POS tools might have a profound impact on sales. The opinion of HEMPFLING (2004) seems to reinforce our observation: “I don’t like it when organic products are hidden in one of the corners. If this happens, I feel that I’m sorted out, and I withdraw from buying anything.” In case of direct sale, the appearance of the product (freshness and attractive packaging), the possibility to test it (taste it) and the recommendation of the producer might be useful.

3.3. Judgement of pricing for locally produced and organic foods

According to researchers, consumers are willing to pay premium prices for local and organically grown foods (GREBITUS, LUSK & NAYGA, 2013; YUE & TONG, 2009). In the case of „organic“ or „eco“ labelling that means on average a 20% to 30% mark up, while the pricing for local products varies according to place and product category (SZENTE, 2009; HAAS et al., 2013).. Women are particularly willing to pay higher prices (GRACIA, DE MAGISTRIS & NAYGA, 2012). The main reasons that consumers pay higher prices include: freshness and supporting the local economy, in the case of local products, and in that of organic foods, rather, the lack of chemical additives and general health benefits (SZENTE, 2009; GREBITUS, LUSK & NAYGA, 2013).

During our research we asked consumers about suitable pricing for both types of product. Figure 6 shows that in the case of two equally priced similar products consumers would be inclined to buy the locally produced product versus an import of unknown origin.

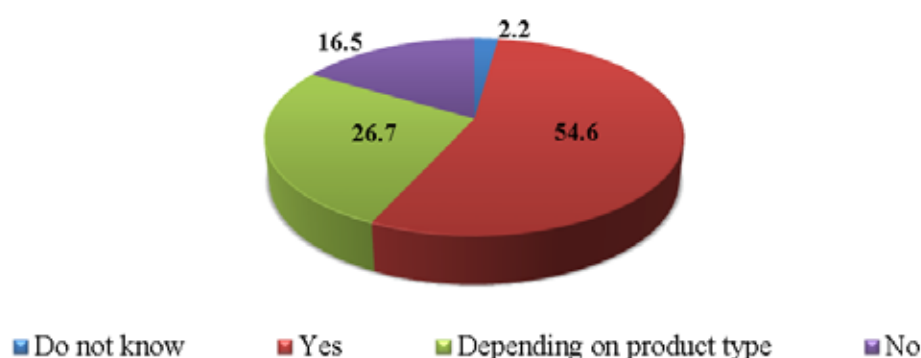
Fig.6: Willingness to buy locally produced foods compared to the same characteristics of other source foods, if the price is the same, % (N=1000)



64.3% of respondents are absolutely sure that in the case of equally priced similar products they would prefer to purchase the locally sourced one compared to ones of other origin. Of the remaining respondents, close to thirty percent of those surveyed tend to waiver depending on product type, and just 6.7 percent answered „No“ or were undecided, how could be even cosmopolitan consumer or expect price differences according to origin.

Figure 7 shows consumer opinion regarding organic vs. similarly priced conventional foods.

Figure 7: Willingness to buy organic foods compared to foods with same characteristics and price

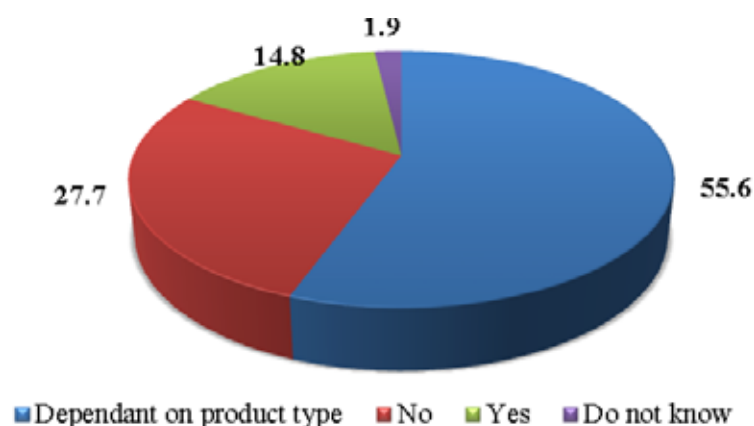


The case of organic foods paints a similar picture: 54.6% of respondents would choose organic products over standard ones if the prices were the same. A quarter of respondents would only choose organic goods for certain products (26.0%). 20% wouldn't buy organic even if the prices were the same as other foods.

We determined that local products are more attractive at parity pricing compared to organic goods, which could stem from the strength of scepticism surrounding organic products, as demonstrated by Figure 2.

Figure 8 shows that in the case of two products of similar characteristics consumers would sometimes choose the local product, even if it was more expensive than an imported one.

Figure 8: Willingness to buy locally produced foods compared to the same characteristics of other origin foods, if price of local product is higher, % (N=1000)



15% of respondents would be willing to spend more for a local product even if it was more expensive than an imported one, but that figure jumps to 55.6% in the case of certain products. This last figure is of special interest, as it indicates that there are certain product categories that consumers prefer to buy locally and, therefore, they are willing to spend more. It is of utmost importance that these products be available on the market consistently. Consumer insecurity is increased when local products are actually more expensive than imported ones. Comparatively, the category nearly doubles in size when we include the respondents that would pay more in specific cases. These connections demonstrate the importance of pricing on consumers' shopping practices.

In Table 3 we organize consumer attitude towards higher priced food according to level of education.

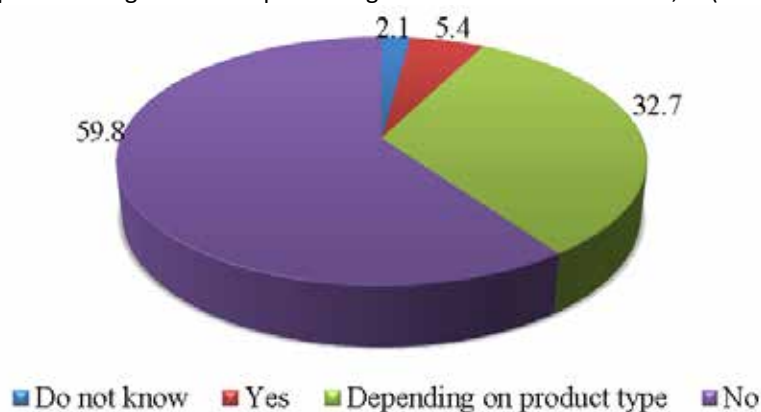
Table 3. Willingness to purchase locally produced, more expensive local foods compared to other origin depending on educational level of respondents (N=1000)

Answer categories	Elementary school		Vocational training		Highschool graduation		Higher degree	
	Head	%	Head	%	Head	%	Head	%
Yes	21	14.4	38	12.1	50	13.8	39	21.9
Depending on product type	71	48.6	166	53.0	217	59.8	102	57.3
No	48	32.9	103	32.9	91	25.1	35	19.7
Do not know	6	4.1	6	1.9	5	1.4	2	1.1

The results show that nearly a fifth of those with higher degrees would be willing to pay more for local goods. Of those with Elementary education about one-third would not buy more expensive local goods in the place of cheaper imported ones.

Figure 9 shows consumer willingness to spend more on organic products compared to standard products.

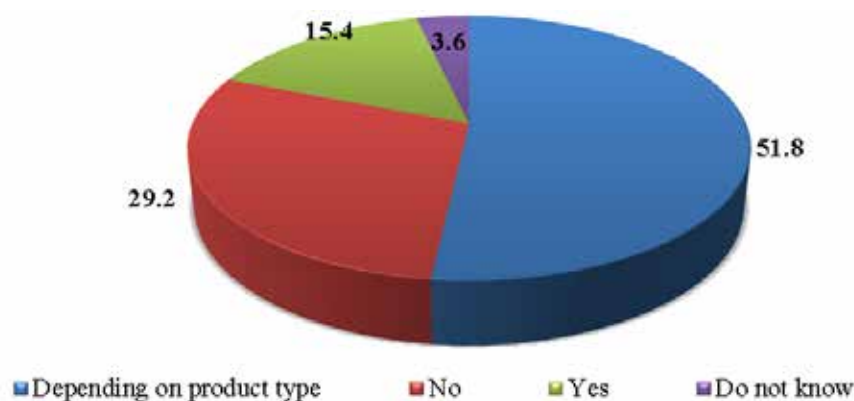
Figure 9: Willingness to purchase organic food if price is higher than conventional food, % (N=1000)



Here we find significant differences compared to the purchase of locally produced foods. Only a third of respondents would be willing to spend more on organic foods compared to locally produced ones, and only a tenth of those, who would purchase conventional products at similar price. Here we see the same phenomena, that certain products are worth more, making consumers happier to open their pocketbooks. From the point of view of market possibilities it is essential to identify these particular products! The number of those answering „no” was nearly tripled (59.8%), and compared to the results of the similarly priced products the „organic” scepticism is increasing.

We also surveyed whether it may help to distinguish between local organic products if they carried a certificate of origin. First we show the results of customer opinion regarding whether they would purchase a more expensive local product over an import if the local product carried a certificate of origin (Figure 10).

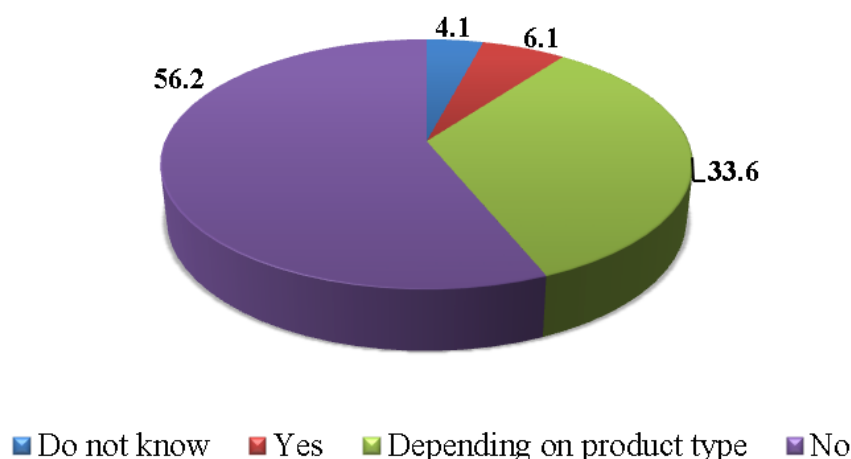
Figure 10: Willingness to purchase locally produced, more expensive local foods compared to those of other origin, if local food is marked with origin certification,% (N=1000)



Compared to the previous results there is perhaps a slight influence detected in cases where products display a certificate of origin, still the certificate must somewhat decrease consumer insecurity. However, based on the results, the inclusion of a certificate does not have much demonstrable effect.

We also tested whether the inclusion of an authenticity guarantee would increase consumer opinion of organic foods compared to those of other origins (Figure 11).

Figure 11: Willingness to purchase organic foods compared to those of other origin, if authenticity mark is use, % (N=1000)



There is not enough perceived increase in the value of organic products once they are labelled with a certificate of authenticity to warrant its use. All this indicates that certificates of origin or authenticity do not particularly influence consumers to pay more for a product.

4. CONCLUSIONS AND RECOMMENDATIONS

Our research reveals that the production and sales of local and organic foods is of very high (strategic) importance in our country as reflected in consumer needs. Currently, both market show niche market characteristics, however the proportion of responsive consumers is significant. To increase market potential producers, processors, traders and NGOs – in collaboration – need to create a quality product base, as well as alternative sales channels, and prices should approach consumer expectations. To do so, effective marketing communication tools are essential.

It is clear that locally produced and organic foodstuffs are competitors on the market and their target audience share common sociodemographic features (mostly female audience, mostly tertiary education graduates, white collar workers, above average income). While planning the marketing-mix for locally produced foodstuffs, increased attention should be assigned for the comprehensive and simplified distribution. To familiarize consumers with the relative high price, they should be informed about the transportation costs and the reliability of products. The obstacles posed by high prices and general scepticism towards organic foodstuffs should be demolished by raising awareness in consumers. To win the sympathy of consumers and possible future buyers, the communication of products should emphasize the higher quality embodied in the higher price, and people should be familiarized with the production circumstances. It also worth considering to co-join local specialties with the organic phrase, which might help consumers accepting the extra price, what is more, it might be the easiest way to win the trust of sceptics.

LITERATURE

1. Costanigro, M., McFadden, D. T., Kroll, S., Nurse, G. (2011.): An in-store valuation of local and organic apples: the role of social desirability. *Agribusiness*, 27, pp. 465–477.
2. Czeller, G. (2009.) Az ökológiai gazdálkodás helyzete a Dél-Dunántúli régióban. *Környezet és egészség fórum*. Kaposvári Egyetem, Kaposvár
3. Gauvrit, L. Schaer, B. (2013.) A glimpse on organic markets in Eastern Europe. Presentation on Biofach Nürnberg.
4. GfK Hungária (2005.) Consumers of Central- and Eastern Europe. <http://hvg.hu/gazdasag.hazai/20051116genkezelt/page3.aspx> (accessed 12.01.2011.)
5. Gerwin, D. (1998.) Characteristics of the market for organic products. Organic market review: Observations and experiences from the Czech Republic, Hungary and Poland. *Phare research* 3.
6. Gerrard, C., Janssen, M., Smith, L., Hamm, U., Padel, S. (2013.) UK consumer reactions to organic certification logos. *British Food Journal*, 115(5), pp. 727 – 742.
7. Gracia, A., de Magistris, T., Nayga, R.T. (2012.) Importance of Social Influence in Consumers' Willingness to Pay for Local Food: Are There Gender Differences? *Agribusiness*, 28(3), pp.361–371.
8. Grafen, A., Hails, R. (2002.) *Modern statistics for the life sciences*. USA, Oxford University Press, pp. 1-368.
9. Grebitus, C., Lusk, J.L., Nayga, R.M. (2013.) Effect of distance of transportation on willingness to pay for food. *Ecological Economics*, 88, pp. 67–75.
10. Haas, R., Sterns, J., Meixner, O., Nyob, D-I., Traar V. (2013.) Do US Consumers' Perceive Local and Organic Food Differently? An Analysis Based on Means-End Chain Analysis and Word Association. *Int. J. Food System Dynamics*, 4(3), pp. 214-226.
11. Hamm, U., Gronefeld, F., Halpin, D. (2002.) Analysis of the European market for organic food. *OMIaRD*, Wales, 2002, pp. 1-135.
12. Hempfling, G. (2004.) Mit gezielten Massnahmen den Absatz erhöhen. (Increase sales with targeted measures) *Ökologie&Landbau*, 32(3), pp. 33-35.
13. Hingley, M., Boone, J., and Haley, S. (2010.) Local Food Marketing as a Development Opportunity for Small UK Agri-Food Businesses. *International Journal on Food System Dynamics*, 3, pp. 194–203.
14. Hodgson, K. (2012.) Planning for Food Access and community-based Food Systems: A National Scan and Evaluation of Local Comprehensive and Sustainability Plans. American Planning Association, www.planning.org/research/foodaccess/pdf/foodaccessreport.pdf, (accessed 17.01.2014.)
15. Malhotra, N.K. (2008.) *(Marketing Research) Hungary*: Academic Publisher
16. Martinez, S., Hand, M. S., Da Pra, M., Pollack, S., Ralston, K., Smith, T., Vogel, S., Clark, S., Tauer, L., Lohr, L., Low, S. A., Newman, C. (2010). Local Food Systems: Concepts, Impacts, and Issues. *Economic Research*
17. Mezei, C. (2006.) A helyi gazdaságfejlesztés fogalmi meghatározása. *Tér és Társadalom*, 20(4), pp. 86-95.
18. Milestad, R., Bartel-Kratochvil, R.; Leitner, H.; Axmann, P. (2010.) Being close: The quality of social relationships in a local organic cereal and bread network in Lower Austria. *Journal of Rural Studies*, 26, pp. 228–240.
19. Panyor, Á. (2007.) The possibilities to increase consumption of special foods in the mirror of questionnaires. Budapest: Budapesti Corvinus Egyetem, 2007, pp. 1-112.
20. Opten (2005.) The European consumers' attitudes regarding product labelling. Qualitative Study, European Commission, 2005, pp. 1–108.
21. Schaack, D. (2013.) News about the organic market in Germany 2012. Presentation on BiofachNürnberg

22. Szabó, D., Juhász, A. (2013.) Piacok jellemzői fogyasztói és termelői szemmel. Agárgazdasági Kutató Intézet, Budapest, 2013, pp. 5-142.
23. Szakály, S. (2004.) Consumption dilemmas and strategies in food-development. Élelmiszer, táplálkozás és marketing, 1 (1-2), pp. 15-24.
24. Sente, V. (2009.) A bizalom megítélése az ökoélelmiszerek piacán. Élelmiszer, táplálkozás és marketing, 6(1-2), pp. 59-63.
25. Yue, C.; Tong, C. (2009.) Organic or Local? Investigating Consumer Preference for Fresh Produce Using a Choice Experiment with Real Economic Incentives. Hortscience, 44(2), pp. 366–371.
26. Zagata, L. (2012.) Consumers' beliefs and behavioural intentions towards organic food. Evidence from the Czech Republic. Appetite, 59, pp. 81-89.

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PROGRAM „CROATIA 365“ IN A FUNCTION OF STRONGER MARKET POSITIONING OF THE CONTINENTAL PART OF CROATIA ON FOREIGN TOURISM MARKETS

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ABSTRACT

The pilot project of the program “Croatia 365” was started by The Ministry of Tourism in September 2014, with the primary objective of a better use of resources during the pre- and postseason and showing Croatia not only as „a sun and sea“ tourist destination, but also as a destination with tourism opportunities throughout the year.

The pilot project, which was undertaken in the postseason in 2014 and had a total value of 4.8 million HRK, included 22 destinations, of which 7 continental, with the main activities carried out through offline and online advertising in key tourism markets and through web subpages of the Croatian Tourist Board with content based on 6 key tourism products.

Taking into the consideration that all of the continental PPS destinations except Plitvička jezera, according to Regulations on the periods of season, preseason, postseason and afterseason in tourist municipalities and cities (NN 92/09, NN 146/13, NN 35/14), have been classified in the category of the cities and municipalities where the main tourist season lasts the whole year, the goal of carried out primary research was to determine the actual effects produced by the undertaken measures in the framework of the project “Croatia 365” in 6 continental Croatian PPS destinations, as well as to examine whether the eventual increase in tourism traffic in these destinations during the period from 1 October 2014 to 31 March 2015 had been result of the activities of PPS destination management or of the activities that had been undertaken at the level of individual tourist municipalities and cities networked in the PPS destinations.

Primary research was carried out in the form of a questionnaire among the directors of tourist boards in tourist municipalities and cities networked in the PPS continental Croatian destinations where tourist season lasts the whole year. The results were analyzed in the paper.

KEYWORDS: Croatia 365; PPS destination; Continental Croatia; Networking; Pre- and postseason; Tourism traffic

1. INTRODUCTION

While the term „a tourist city“ means “a place visited by many tourists and visitors on day trips and, with equipment that allows the reception and stay of tourists”, a tourist destination (lat.destinatio - destination) includes „the wider area of the tourist city which borders functionally wider to the line on which stops the influence of a unique tourist product whose core tourist destination makes“ (Australian Government, Department of the Environment and Heritage, 2006, 68).

In the tourist destination visitors remain temporarily in order to participate in the interaction and the tourism related attractiveness, while passengers must not be observed in the manner established by the administrative division of a given area. That destination can be part of a particular administrative area, or include all the administrative area or even exceed its limit (Pike, 2008, 26).

Most of the empirical studies do not burden the definition of tourist destinations, but merely deals with the sites where there is the traffic of visitors or where it might take place. In this context, these sites are analyzed and measured in terms of the degree of attractiveness, guest satisfaction, the success of managing the flow of guests and management of destinations, but most often, however, in the context of the possibility of taking a good position in the tourism market (Hitrec, T., 1995, 43 -51). So a tourist destination may be smaller or larger spatial unit, all depending on how the certain area is perceived by tourist demand.

In addition to enough attractive power, equipment for the arrival and stay of tourists in tourist destinations is also very important. Destination area must have an offer that will meet the demands of visitors, generally very heterogeneous in terms of age, ethnicity, social and professional status and another (Travis, A. S., 1989). A tourist destination has several components such as attractiveness, special service activities, access, availability, activities and supplementary service activities (Djuric, M., Djuric, M., 2010, 890). It is no longer considered „a package of tourist services and content“ (Hu, Y., Ritchie, JRB., 1993, 25-34), but a whole made by a variety of tourist offer and different travel experiences (Buhalis, D., 97).

As all previous definitions show that tourist destinations should include a comprehensive tourism product, the concept of destination varies from case to case, so, the term „destination“ sometimes means just a specific tourist site or zone, but sometimes the region, country, group of countries or even a continent.

However, all tourist destinations have to put in the focus of their thinking service users whose needs and desires should be met, but also they need to monitor the activities of competitors, as well as external factors in the environment. In all these cases, effective marketing activities would have to do the core of a successful strategic management of tourist destinations, including public and as well private sector, with the aim of creating integrated tourism products at the destination by which the destination will be adequately positioned on markets.

In terms of increasing globalization tourists are becoming more demanding, while their needs for experiences have been growing, so we need to create more complex tourist products and manage them well. This largely involves intensive co-operation of all actors involved in the creation of tourism products, primarily public and private sector, because only through synchronized and coordinated activities, tourist destinations will be able to consolidate its position and increase their share in certain tourist markets.

Therefore, the role of management of tourist destinations is primarily to create a balance between profitable business in the tourism industry, competitive position in the market, an attractive environment, the positive experience of visitors and satisfied local population that supports the development of tourism (Pike, S., Destination Marketing, 113), provided that the destination management organization needs to become a leader of destination development strategy (Magas, D., 2010, 1047).

2. THE PROGRAM “CROATIA 365”

When talking about the Croatian tourism, it is evident that one of the characteristic features of the tourism demand is time concentration (Ruzic, D., 2007, 99), and a pronounced seasonality. The statistics data show that in 2014 from a total of 66.5 million realized nights, in July and August were recorded them almost 62% (Ministry of Tourism, 2015, 20). Seasonality of tourism in Croatia is primarily caused by geographical features, in particular climatic factors, without neglecting any influence of other factors such as consistent trend in the use of vacations from certain European countries from which there is a largest generation of the tourist demand for the Croatian tourism; changes in trends in the behavior of the tourist consumers; influences of travel agents to select the destination and type of travel; economic growth in major tourist source markets; transformation of mass tourism market to the specific forms of tourism; specialization of the tourist offer, etc. (Čavlek, N. et al., 2010, 145).

Seasonality in tourist traffic flowing has resulted in many problems such as uneven implementation of economic and other effects; distortion of the image on the economic potentials of tourism; underestimation and misunderstanding of the importance of tourism in the financial and institutional support for its development; excessive use of individual tourism resources excessively evaluated over several months of the tourist season, etc. (idem, 146), which could be reduced by the even distribution of tourist traffic by months.

The pilot project of the Ministry of Tourism „Croatia 365“ has launched in September 2014, precisely with the primary aim of better use of resources during the pre- and postseason and of showing Croatia not just as „a sun and sea“ destination, but also as a destination with tourism opportunities throughout the year.

Through projects such as the project above mentioned, the state influences the raising standards and improves quality of life; educates population; develops rural areas through infrastructure and getting medical care; develops a middle class; strengthens local cultural values and customs (Bramwell, B., Rawding, L., 1996, 201-221), and puts tourism in overall economic growth and the inflow of foreign direct investment, as well as stabilizes the balance of payments relations and national labor market power (Loncaric, B., 2012, 156).

Plan of pre- and postseason (PPS Plan) of Croatian tourism as a component of the marketing plan for Croatian tourism for 2014- 2020 is carried out in two phases, the first from 2014 to 2016, focusing on the increase of arrivals in June and September, and the other from 2017 to 2020, dedicated to the May and October, in order to increase Croatian guests bases. To this purpose, three strategies focused on the expansion of the Croatian proposal values and offers in this period (Croatian National Tourist Board, 2014, 167) were proposed, with the decisive role of tourist boards in developing PPS concept, which should be capable of acting on the principle of destination management organizations (DMOs), and of stimulating and integrating the interests of different subjects in the tourist value chain in the destination (Croatian National Tourist Board, 2014, 76).

In the pilot project “Croatia 365“, which was organized in the postseason in 2014 and with a total value of 4.8 million, were included 22 destinations, of which 7 continental, with the main activities carried out through offline and online advertising in key tourism markets, and through a web site of the Croatian National Tourist Board with the content based on 6 key tourism products.

3. THE RESULTS OF PRIMARY RESEARCH

As all of continental PPS destinations except the PPS destination „Plitvička jezera“, according to the Regulations on the periods of season, preseason, postseason and afterseason in tourist municipalities and cities (NN 92/09, NN 146/13, NN 35/14), are classified in the category of the cities or municipalities where the main tourist season lasts the whole year, the primary goal of the research, conducted during the second half of July and early August 2015, was to establish the actual effects of measures undertaken within the project “Croatia 365” in the continental Croatian PPS destinations and to explore if possible increase in tourist traffic in those destinations during the period from 1 October 2014 to 31 March 2015 was a result of actions of the PPS destination management or of activities that have been undertaken at the level of individual tourist municipalities and cities networked in the PPS destinations.

The survey was conducted via a web survey, the answers to the questions were given by the representatives from six continental PPS destination (Daruvar-Bjelovar-Garešnica; Plitvička jezera; Srijem and Slavonija; Wine Tour of Slavonia and Baranja; Green Riviera; Green Heart of Croatia), while the representatives of the Tourist Board of Varazdin at which is the seat of PPS destination “Upper Medijmurje-Varazdin” refused to participate in the study. The research results are presented in the sequel.

Analysing responses to survey questions it was found that all of continental PPS destinations that participated in the pilot project “365 Croatian” stated the eno-gastronomy as one of the two possible key tourism products, according to the rules for the establishment and activities of destination PPS clubs, and that in all specified destinations western and central European tourist markets had the status of key markets.

Onwards, the largest number of members in the area, as many as 220 from 16 cities and municipalities and from the Region of Baranja, are registered in the PPS destination “Wine tour of Slavonia and Baranja”, followed by the PPS destination “Srijem and Slavonia” with 103 networked members from the area of Vinkovci, Vukovar and Ilok; then PPS destination “Green Heart of Croatia” with 69 members from the area of Karlovac, Ozalj and Ribnik and PPS destination “Daruvar- Bjelovar-Garešnica” with 62 members from the area of Daruvar, Bjelovar and Garesnica.

Interesting are also the data related to the number of meetings held by the bodies of PPS clubs. In the largest PPS destination “Wine tour of Slavonia and Baranja”, with the seat at the Tourist Office of Đakovo, during the time of the pilot project, there was no meeting of any body, as well as in the PPS destination “Plitvička jezera” which has the seat at the Tourist Office „Plitvička jezera“. The largest number of meetings of the Coordination Committee as the governing body of PPS clubs, 5 of them, were held in the PPS destination “Green Riviera” with the seat at the Tourist Board of Gornja i Donja Stubica; 4 meetings of the Coordination Committee were held in the PPS destination “Daruvar- Bjelovar-Garešnica” with the seat at the Tourist Board of Daruvar; 3 meetings in the PPS destination “Green Heart of Croatia” with the seat at the Tourist Board of Karlovac and one meeting in the PPS destination “Srijem and Slavonia” with the seat at the Tourist Board of Vinkovci.

Meetings of production teams as bodies with the base task to develop and improve destinations tourist offer were held in the PPS destination “Green Riviera” (Figure 5); “The Green Heart of Croatia” (4 meetings) and “Daruvar-Bjelovar-Garešnica” (2 meetings), while destination forums of PPS club members, which, according to the rules for the establishment and operation of destination PPS club members, have the main tasks to accept reports on the activities of the PPS club bodies and to discuss issues related to the development and improvement of the destinations offer, in time of the duration of the pilot project, were not held in any of the PPS destination.

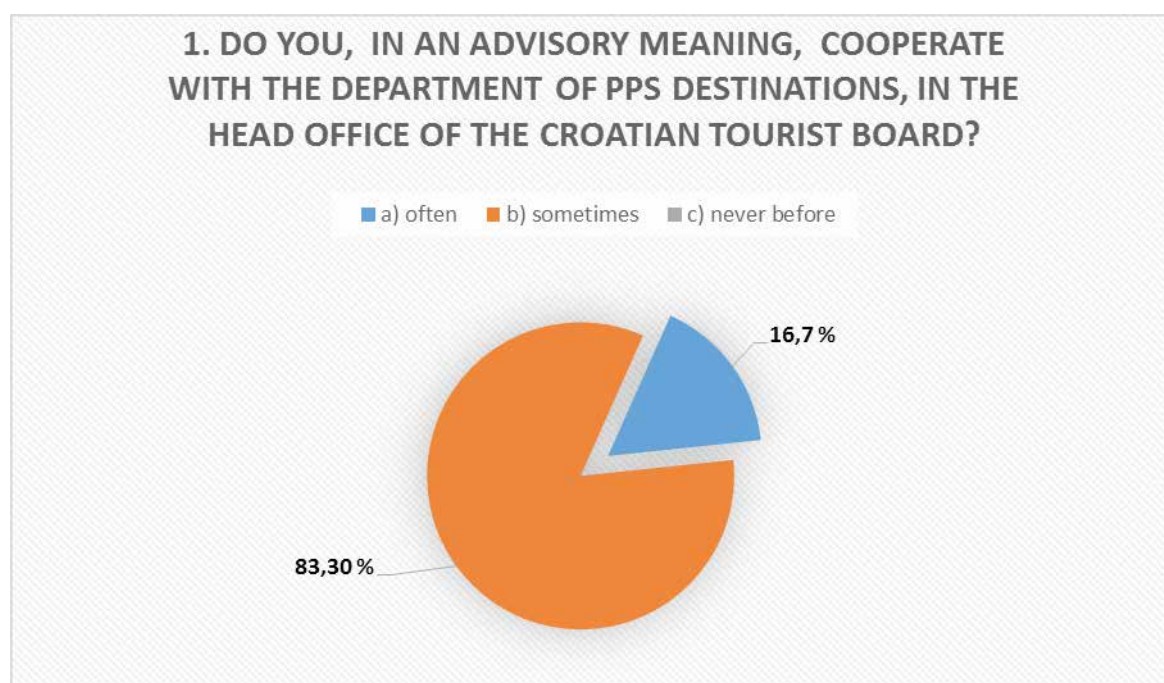
All PPS destinations, executing the regular activities, prepared texts and pictures of tourist potentials of the PPS destinations for the web site of the Croatian National Tourist Board, while most of them, in cooperation with this institution, organized study trips and/or reception of journalists and travel agencies and informed the public about the work and activities of the PPS clubs. Half of the respondents made the websites of the PPS destinations; conducted offline and online advertising of the PPS destinations, and organized a special presentation abroad. The PPS destinations “Wine tour of Slavonia and Baranja” and “Srijem and Slavonia” made PPS tags and provided technical assistance to the private sector on the occasion of their candidacy for the co-financing of projects by the Croatian National Tourist Board and/or the Ministry of Tourism, while the PPS destination “Wine tour Slavonia and Baranja, as well as the PPS destination “Green Heart of Croatia”, created joint promotional materials and/or souvenirs. The PPS destination “Srijem and Slavonia”, again with the PPS destination “Green Heart of Croatia”, organized a special presentations outside the area of the PPS destination, in the country. Organization of events in time of the duration of the pilot project was task of the PPS destination “Daruvar-Bjelovar-Garešnica”, as well as the PPS destination “Wine tour of Slavonia and Baranja,” which, as only one and as part of the regular activities, carried out activities dealing with market research. Activities relating to the organization of educational workshops and performances at national and/or international fairs have not been carried out by any of the PPS destination.

When it comes to sources of financing activities, all PPS destination as one of the sources of activities financing stated the funds of the networked tourist boards, and the cities and municipalities - signatories of the agreement on cooperation in the project of the PPS concept "Croatia 365"; half of those financed activities from direct revenue of the Tourist Board at which is the seat of the PPS destination, while to the implementation of activities of the PPS destinations "The Green Riviera" and „The Green Heart of Croatia“ was given the support provided from the members of the PPS clubs, as well as the Croatian Tourist Board. None of the surveyed PPS destinations as the source from which activities have been financed stated resources of Croatian ministries or donors.

When it comes to cooperation with the Department of the PPS destinations in the Head office, research revealed that 83.3% of the continental PPS destinations sometimes contacted the competent department (Figure 1), whereas, when it comes to the success of the project "Croatia 365" in the field of the PPS particular destination, half of the respondents gave the project a grade "good"; 33.3% of them an "insufficient", while one PPS destination graded cooperation with the Croatian Tourist Board with the mark "insufficient" (Figure 2).

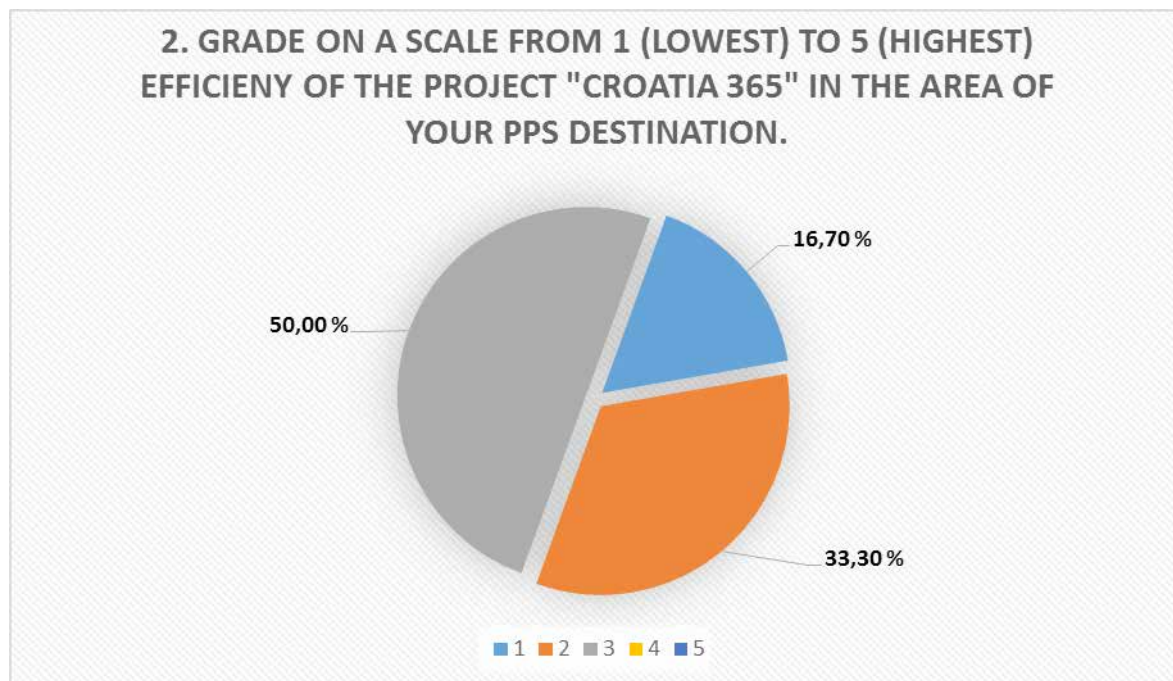
Regarding tourist traffic in the area of the PPS destination in time of the duration of the pilot project, the results of the study showed that at the area of two (33.3%) PPS destinations, during the period from 1 October to 31 December 2014, there was an increase in tourist traffic to 7.0% (Figure 3), but not as a result of the activities that had been undertaken in the framework of the project "Croatia 365" (Figure 4), while the increase in tourist traffic in the period from 1 January to 31 March 2015, to 5%, was recorded in 3 (50%) PPS destinations (Figure 5), with only one (16.7%) PPS destination considering that the number of overnight stays in the area of destination was partly a result of activities undertaken in the framework of the project "Croatia 365" (Figure 6). Half of the respondents (50.0%) assessed the support of the Croatian Tourist Board to project implementation in the area of the individual PPS destinations with a grade "good", two PPS destinations (33.3%) with a grade „sufficient“, and one (16.7%) with a grade "insufficient" (Figure 7.) The concept of the project "Croatia 365" according to which destinations in the continental Croatia where, in accordance with applicable legislation, the tourist season lasts all year round, also take part, was assessed with a grade „sufficient“ by half of respondents; two destinations (33.3 %) evaluated the concept as "insufficient", and one (16.7%) as "excellent" (Figure 8).

Figure 1. Advisory cooperation with the department for the pps destinations in the head office of the croatian tourist board



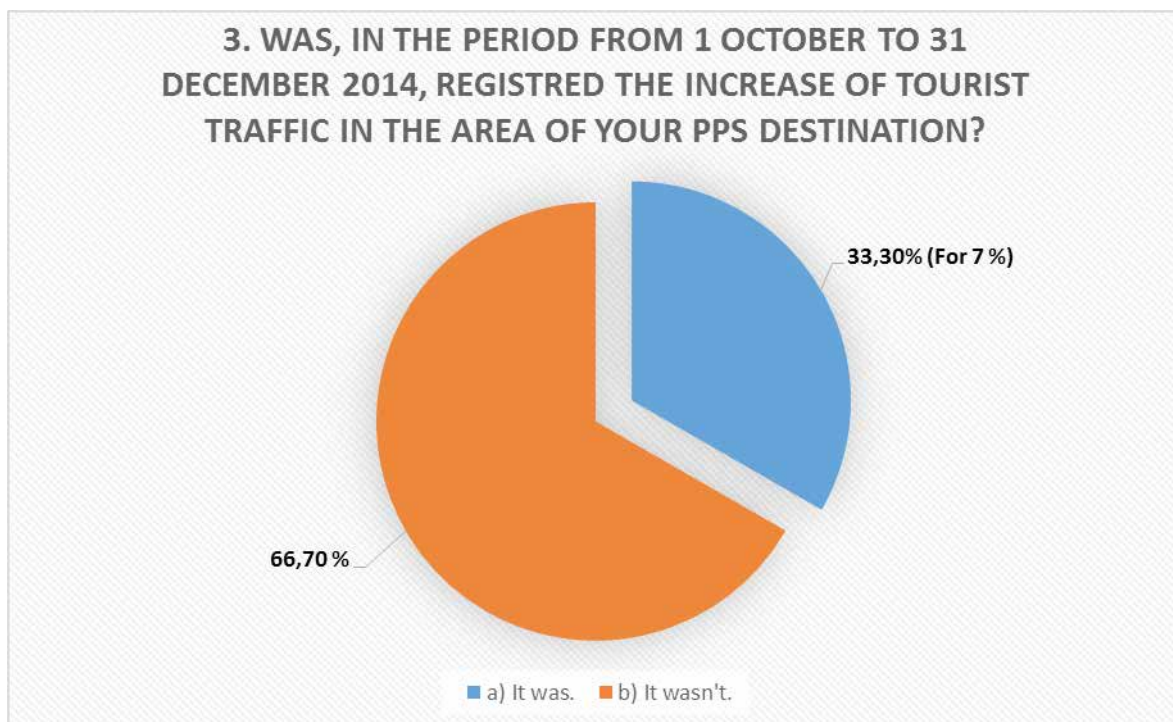
Source: Self conducted research, Slavonski Brod, July and August 2015

Figure 2. Efficiency of the project "Croatia 365" in the PPS destinations



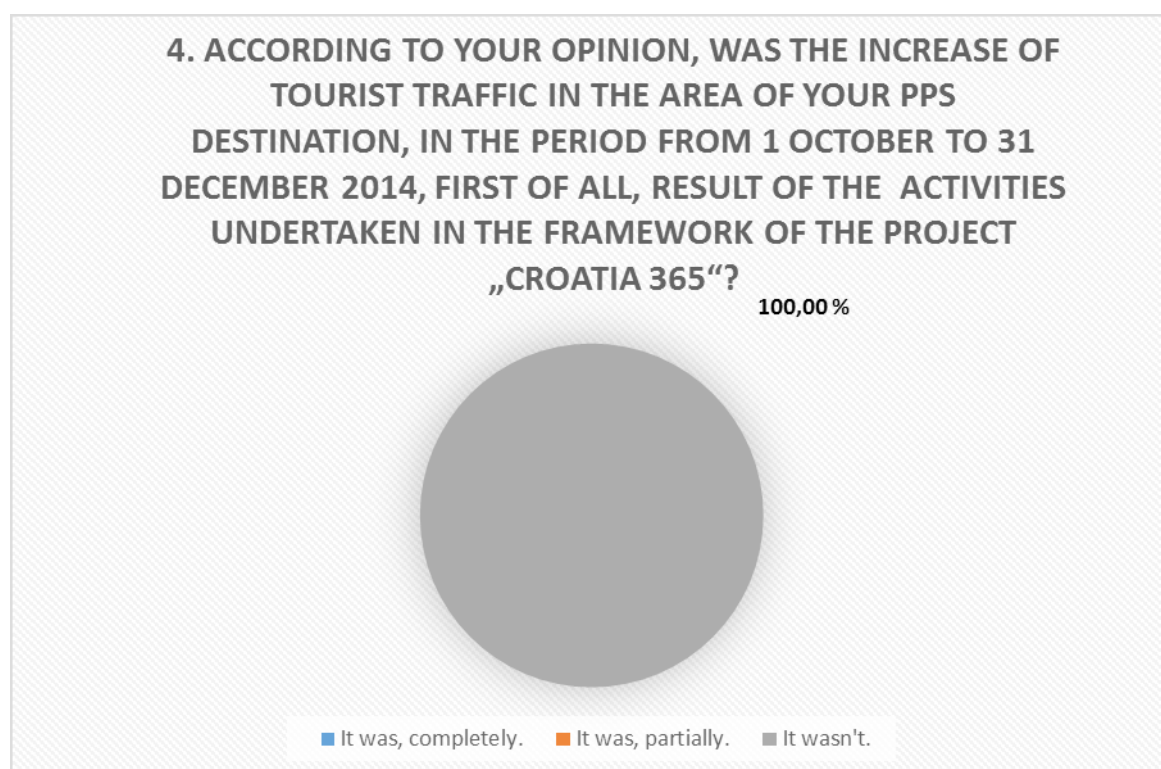
Source: Self conducted research, Slavonski Brod, July and August 2015

Figure 3. Tourist traffic in the area of the PPS destinations in the period from 1 october to 31 december 2014



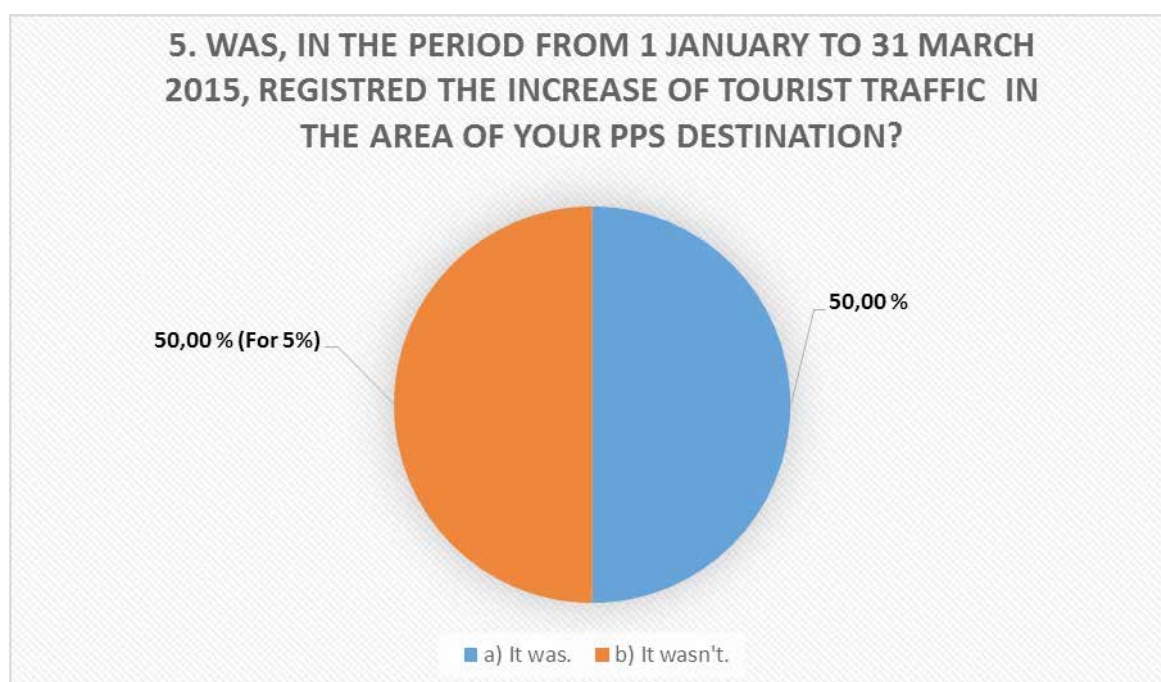
Source: Self conducted research, Slavonski Brod, July and August 2015

Figure 4. The results of activities within the project "Croatia 365" in the PPS destinations in the period from 1 october to 31 december 2014



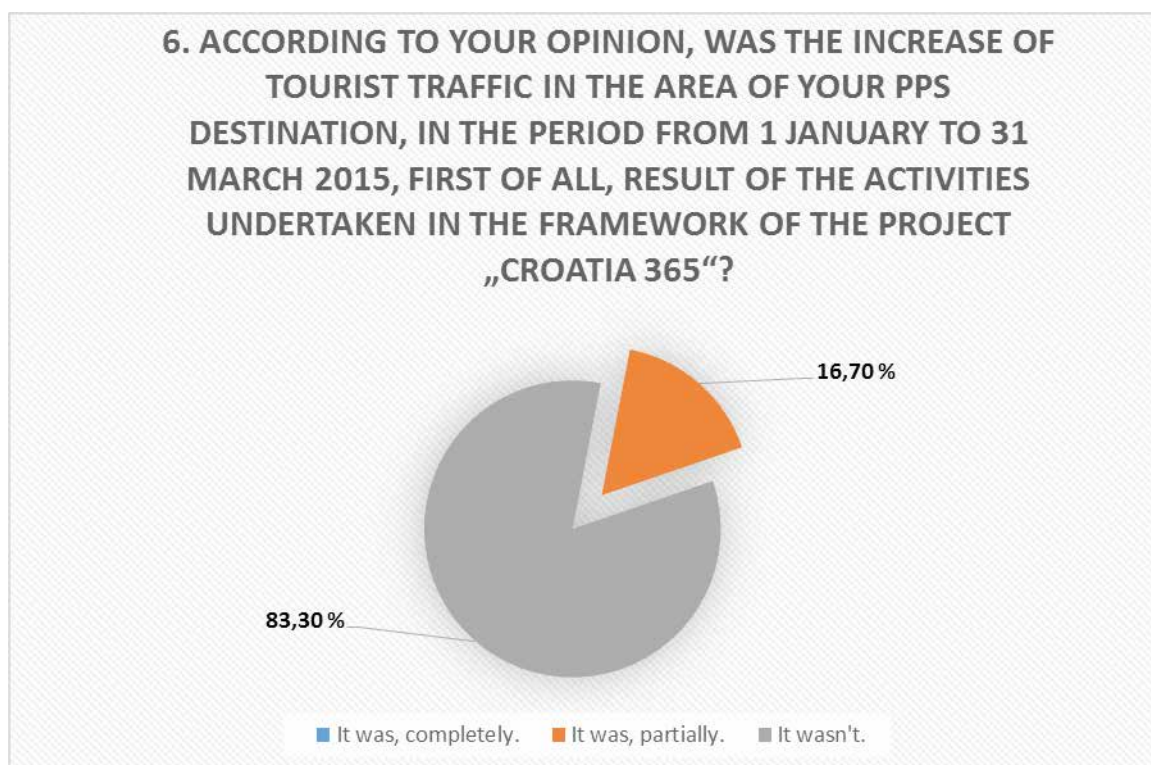
Source: Self conducted research, Slavonski Brod, July and August 2015

Figure 5. TOURIST TRAFFIC IN THE AREA OF THE PPS DESTINATIONS IN THE PERIOD FROM 1 JANUARY TO 31 MARCH 2015



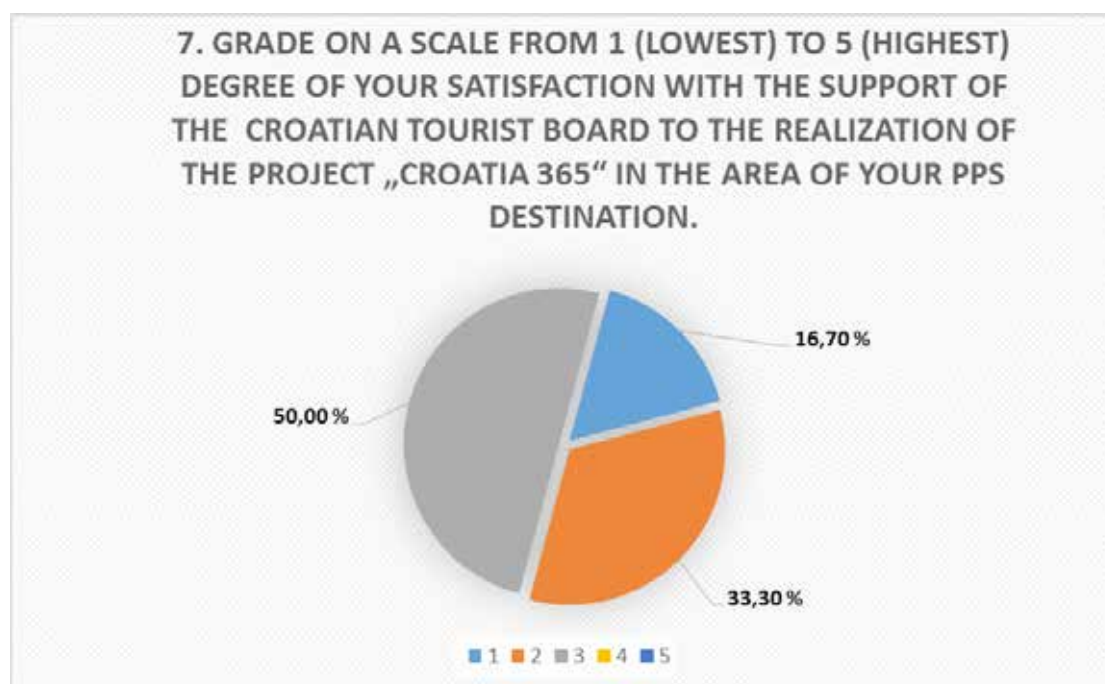
Source: Self conducted research, Slavonski Brod, July and August 2015

Figure 6. The results of activities within the project „Croatia 365“ in the PPS destinations in the period from 1 January to 31 March 2015



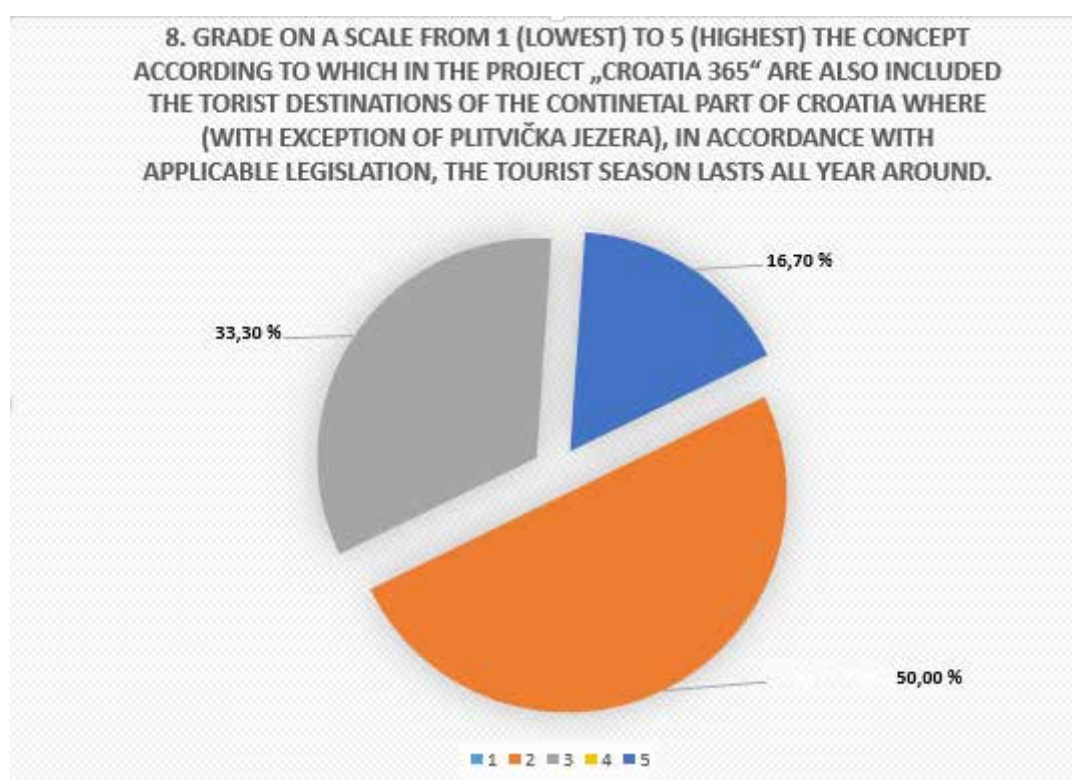
Source: Self conducted research, Slavonski Brod, July and August 2015

Figure 7. Support of the Croatian tourist board to implementation of the project "Croatia 365" in the PPS destinations



Source: Self conducted research, Slavonski Brod, July and August 2015

Figure 8. Application of the concept "Croatia 365" in the PPS destinations of the continental Croatia



Source: Self conducted research, Slavonski Brod, July and August 2015

4. CONCLUSION

To make tourism development planning in certain tourist destinations more effective, at the national level it is necessary to provide adequate legal and institutional frameworks, but, in any case, the tourist destination development should be based on partnership and cooperation between public and private sector, without neglecting local people opinion.

Unfortunately, in Croatia there are not many examples of long-term, consistent, multi-sector partnerships for mutual development based on the cooperation of local authorities, associations, non governmental organizations and others, especially business stakeholders. Therefore, the commitment of the competent Ministry of Tourism and the Croatian Tourist Board for the implementation of PPS concept "Croatia 365", in the networked tourist destinations in the area of the coastal and continental Croatia, can be evaluated as the extremely positive initiative.

What is at stake is whether Croatia created an adequate legal and institutional frameworks for the effective operation of the PPS destinations, especially those inland, which are, in terms of tourism, largely undeveloped. Although the Strategy for the Development of Tourism in 2020 as a development principle refers to the partnership, and the creation of conducive and transparent institutional framework tailored to measure companies (Ministry of Tourism, 2013, 28-29), while in the Strategic Marketing Plan for Croatian Tourism for the period from 2014 to 2020 PPS strategies have been discussed in details (Croatian National Tourist Board, 2014, 167-192), neither in the currently valid Law on Tourism Boards and Promotion of Croatian Tourism (NN 152/08), nor in the new Draft from June 2015, there are no provisions relating to the PPS concept and method of its application.

For the implementation of a plan to increase tourist traffic in the period of pre- and postseason, the Croatian Tourist Board, through the Work program and financial plan for 2015, planned funds in the amount of 6,680,000.00 HRK, with the largest share (41.92%) of funds intended for offline and online advertising that had started in the fall of 2014. Data from the conducted primary research shows that the majority of representatives of the continental PPS destinations which were included in a pilot project, and those in whose areas there has been an increase in tourist traffic during the 2014 postseason and preseason 2015, shares the view that the activities undertaken within the PPS concept did not give specific results, and that they did not aim at increasing tourist traffic in certain continental areas.

Disturbing is also the fact that none of the surveyed continental PPS destination, to the concept of "Croatia 365", when it comes to applying the same on its territory, has given a rate higher than "good", and that in any of the by research covered PPS destinations, for the duration of the pilot project, destination forums, which should have a key role in the development and improvement of supply PPS destination, have been held.

This, and other issues like that why PPS concept, at least when it comes to the continental Croatia, is not coordinated with the provisions of the applicable Rules on the periods of season, preseason, postseason and afterseason in tourist municipalities and cities (NN 92/09, NN 146/ 13; NN 35/14), according to which in most of the continental Croatia tourist season lasts all year round, it will be necessary to resolve in due course from the level the Ministry of Tourism and the Croatian Tourist Board, with the aim of greater efficiency of the PPS concept and with the recommendation to the relevant institutions, primarily the Ministry of Tourism and the Croatian Tourist Board, to support the PPS projects, which have been carried out in the areas of Croatia where tourism is undeveloped, more intensively, what is in accordance with the data obtained from the conducted research.

REFERENCES

1. Bramwell, B.; Rawding, L. (1996.) Tourism Marketing of Industrial Cities. *Annals of Tourism Research*, 23 (1), pp. 201- 221. (References from Journals)
2. Buhalis, D. (2000.) Marketing the competitive destination of the future. *Tourism Management*, 21 (1), pp. 97 – 116. (References from Journals)
3. Čavlek, N. et al. (2010.) Prilog novim odrednicama turističke politike u Hrvatskoj. *Acta Turistica*, 22 (2), pp. 137- 160. (References from Journals)
4. Djurica, M.; Djurica, N. (2010.) Tourism Destination Marketing Management (Ed.): Tourism and Hospitality Management Industry 2010, New Trend in Tourism and Hospitality Management, Full Papers Proceeding, Faculty of Tourism and Hospitality Management, Opatija 2010, pp. 890-901. (References from proceedings and books)
5. Hrvatska turistička zajednica (2014.) Godišnji Program rada i financijski plan za 2015., Zagreb. (References from Other Literature)
6. Hrvatska turistička zajednica (2014.) Strateški marketinški plan hrvatskog turizma za razdoblje 2014.- 2020., Zagreb. (References from Other Literature)
7. Hu, Y., Ritchie, J.R.B. (1993.) Measuring destination attractiveness: A contextual approach. *Journal of Travel Research*, 32 (3), pp. 25-34. (References from Journals)
8. Lončarić, B. (2012.) Marketing u turizmu Slavonije i Baranje. Doktorska disertacija, Ekonomski fakultet u Osijeku, Osijek. (References from Other Literature)
9. Magaš, D. (2010.) Why The Destination Management Organization? (Ed.): Tourism and Hospitality Management Industry 2010, New Trend in Tourism and Hospitality Management, Full Papers Proceeding,, Faculty of Tourism and Hospitality Management Opatija, 2010, pp. 1041-1047. (References from proceedings and books)
10. Ministarstvo turizma (2009., 2013., 2014.) Pravilnik o razdobljima glavne sezone, predsezone, posezone i izvansezone u turističkim općinama i gradovima, Zagreb. (References from Other Literature)
11. Ministarstvo turizma (2015.) Nacrt prijedloga zakona o turističkim zajednicama i promicanju hrvatskog turizma, Zagreb. (References from Other Literature)
12. Ministarstvo turizma (2013.) Strategija razvoja turizma RH do 2020., Zagreb. (References from Other Literature)
13. Ministarstvo turizma (2015.) Turizam u brojkama 2014., Zagreb. (References from Other Literature)
14. Ružić, D. (2007.) Marketing u turističkom ugostiteljstvu, Ekonomski fakultet u Osijeku, Osijek. (References from proceedings and books)
15. Zakon o turističkim zajednicama i promicanju hrvatskog turizma (2008.) N.N. 152/08, Zagreb. (References from Other Literature)

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FREQUENCY DOMAIN CAUSALITY ANALYSIS OF INTERACTIONS BETWEEN FINANCIAL MARKETS OF TURKEY

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ABSTRACT

In this paper, we examined the dynamic interactions between financial markets of Turkey by using frequency domain causality analysis, proposed by Breitung and Candelon (2006) for the weekly Turkish data from 2003 to 2015. The results show that there are spillovers from stock market returns to interest rate and EURO both in the mid-and long-terms, and short-and medium-terms to U.S. Dollar; but, from U.S. Dollar to stock market returns in the short-term. In the long-run, EURO exchange rate Granger cause to interest rate; but, interest rate Granger cause to EURO exchange rate in the short-run. On other hand, there is no evidence of spillovers from EURO and interest rate to stock market returns. Based on these results, we can conclude that there is certain degree of interdependence and volatility spillovers among the financial markets of Turkey, which has serious policy implications.

KEY WORDS: Frequency domain causality, traditional Granger causality, volatility spillovers.

1. INTRODUCTION

Following 2001 crises, Turkey has been considered as one of the leading emerging financial markets on which international investors and financial market professionals have focused their attention and has become investment icon in the global financial markets, since Turkey has provided attractive investment opportunities to foreign investors. In this development, as mentioned in Phylaktis and Ravazzola (2005), the main factors have been the recent emergence of new capital markets, the liberalization of foreign capital controls and the adoption of more flexible exchange rate regimes and these factors also increased the interest of academics, policy makers and professional investors in studying the interactions between the exchange rates, interest rates and stock prices. On the other hand, even though the abolition of foreign capital controls in emerging economies, especially in Turkey, has opened the possibility of international investment and portfolio diversification, it is also true that the adoption of floating exchange rate regimes by these countries in the late 1980s and early 1990s has increased the volatility of foreign exchange markets and the risk associated with such investments. Moreover, according to Phylaktis and Ravazzola (2005), the choice of currency denomination has added an important dimension to the overall portfolio decision. Therefore, as Rahman and Uddin (2009) pointed out, the association between stock prices and exchange rates has become crucial for the academicians, practitioners and policy makers, since they both play crucial roles in influencing the development of a country's economy and the relationships between stock prices and foreign exchange rates have frequently been utilized in predicting the future trends for each other by fundamentalist investors. Understanding the relationship between exchange rates and stock prices is important from the point of view of policy makers, and the investment community in this changing global environment. Currency is quite often included as an asset in the portfolio held by mutual funds, hedge funds and other professionally managed portfolios, and knowledge of the relationship between exchange rates and stock prices may enable the manager to manage risk efficiently. Furthermore, in the globally intertwined economy, in which there are little or few barriers to the flow of capital, has created investment opportunities for multinational corporations in developing and transition countries. This has, in turn created a need to understand the link between exchange rates and stock prices to hedge the portfolio risk (Kutty, 2010).

To understand properly the nature and the direction of the causation between these two important variables, first we have to understand theoretical explanations of the relations between two. There are two alternative explanations of the relation between exchange rates and stock prices. These are the traditional and portfolio approaches. According to the traditional approach, a depreciation of the domestic currency makes local firms more competitive, leading to an increase in their exports and therefore corporate profits resulting in higher stock prices in the short run. As mentioned by Kutty (2010), the transmission mechanism according to traditional approach is the competitiveness of the firm's exports, resulting in changes in the value of the firm's assets and liabilities culminating in higher profits and reflecting its stock prices. This implies a positive correlation between exchange rates and stock prices. Therefore, based on the traditional approach, one can easily conclude that changes in exchange rate lead changes in stock prices. Portfolio balance approaches stress on the role of capital account transaction (movements in the foreign capital- inflows and outflows of foreign capital). According to the portfolio approach, an increase in stock prices, which would attract capital flows from foreign investors which may cause an increase in the demand for a country's currency, induces investors to

demand more domestic assets and thereby causes an appreciation in the domestic currency, implying that stock prices lead exchange rates and they are negatively related. Also, as is indicated Kutty (2010), a decline in the stock prices will result in decline in corporate wealth leading to the decrease in the country's wealth. As a result, one may expect fall in the demand for money and monetary authorities reduce the interest rates to alleviate this situation. When interest rates are relatively lower than the rest of the world, capital may flow out of the country to take advantage of higher interest rates in other part of the world resulting in currency depreciation. Thus, according to this approach, lower stock prices may lead to currency depreciation.

The empirically many economists have suggested a significant relationship between exchange rates and stock prices, but the results have been quite mixed for the sign and causal direction between exchange rates and stock prices. The studies of Aggarwal (1981), Giovannini and Jorion (1987), Solnik (1987) and Smith (1992) indicate that there is significant positive relationship between exchange rates and stock prices. On the other hand, the results of the studies of Soenen and Hennigar (1988), Muhammad and Rasheed (2002), Bhattacharya and Mukherjee (2003), Rahman and Uddin (2009) provided evidences of negative relationship between exchange rates and stock prices. The studies of Bahmani-Oskooee and Sohrabian (1992), Kumar (2010), Andreou et al. (2013) and Mozumder et al. (2015) established bidirectional relationship, whereas that of Abdalla and Murinde (1997), Kanas (2000), Mishra (2004), Morales (2008), Fedorova and Saleem (2010), Walid et al. (2011), Alagidede et al. (2011) and Bonga and Hoveni (2013) indicate unidirectional relationship. Finally, the studies of Ong and Izan (1999) and Nieh and Lee (2001) conclude that there is no empirical association between exchange rates and stock prices.

As Alam and Uddin (2009) indicated, stock exchange and interest rate should be considered as two crucial factors of economic growth of a country. The impacts of interest rate on stock exchange provide important implications for monetary policy, risk management practices, financial security valuation and government policy towards financial markets. As indicated by Wongbangpo and Sharma (2002), the interest rate volatility is one of the critical factor for the asset pricing, since interest rate is used as a discount rate to compute the present values of asset prices. Thus, we can expect an inverse relationship between interest rates and stock prices. Also, as is pointed out by Mok (1993) and Ma and Kao (1990), there is an inverse causality running from interest rates to stock prices, because a rise in the interest rate reduces the present value of future dividend's income, which should depress stock prices. Conversely, low interest rates result in a lower opportunity cost of borrowing. Also measured as the opportunity cost, a rise in the nominal interest rate will affect investors' decisions on asset holdings, causing switch their capital from share market to bank. In other words, a rise in interest rates will have an inverse effect on stock prices from the perspective of asset portfolio allocation. Also, an increase in interest rates can cause a decrease in corporate profitability, since an increase in interest rates can lead to a recession which cause a decline in future corporate profitability and rise the financing costs. As mentioned by Wongbangpo and Sharma (2002), the higher interest rates have a potential to create discouraging effects on mergers, acquisitions and buyouts. On the other hand, it is a well-known fact that low interest rates lead to lower in opportunity cost of borrowing, stimulating investments and economic activities which could increase stock price. According to studies of Harasty and Roulet (2000), Wong et al. (2005) there is long-run relationship between interest rates and stock prices. The studies of Campbell (1987), Shanken (1990), Arrango et al. (2002), Zordan (2005), Uddin and Alam (2007) and Alam and Uddin (2009) indicated an inverse relation between interest rates and stock prices. The results of the study of Hashemzadeh and Taylor (1988) provide some evidence of causality running from interest rate to stock prices in U.S. financial markets. But, Mukherjee and Naka (1995)'s findings indicate a positive relationship between stock price and interest rate on demand deposit in Japan.

As Choi and Park (2008) mentioned, according to traditional wisdom, high interest rates are essential in stabilizing the foreign exchange market in the middle of a currency crisis and in achieving reversal of currency undervaluation after a currency crisis. In the short-run, higher interest rates reduce capital outflows by raising the cost of currency speculation and induce capital inflows by making domestic assets more attractive. In the long-run, they improve current account balance by reducing domestic absorption. For this reason, tight monetary policy constituted an essential part of the IMF rescue package for Turkey and Asian countries together with financial and corporate restructuring.

According to Hacker et al. (2012), one would expect a negative or positive relationship between exchange and interest rates. A rise in a country's interest rate can cause a portfolio reallocations leading to appreciation of the country's currency, since the country's interest bearing assets became more attractive. As the country's interest bearing assets become more and more attractive, investors will react to purchasing more of those assets which result in appreciation of that country's currency as has been the case for Turkey since 2002 mostly. As pointed out in Hamrita and Trifi (2011), according to the parity conditions, the interest rates and the exchange prices should be related with a negative coefficient. On the other hand, as mentioned in Ma and Kao (1990) and Hacker et al. (2012), positive relation between exchange rate and interest rate can be justified by Fisher hypothesis. According to Fisher hypothesis, *ceteris paribus*, a rise in a country's nominal interest rate should be matched by a rise in the expected percent change in the exchange rate. Also, it is well known that a higher exchange rate will help to improve the country's trade balance. Along with sticky-prices in the short-run, this rise in exchange rate will cause an increase interest because of rising aggregate demand resulted in rising exchange rate.

Studies of Ghosh and Phillips (1998), Kaminsky and Schmukler (1998), Goldfajn and Baig (2002) were unable to find significant negative correlation between interest rates and exchange rates except for some subsample periods. On the other hand, Dekle et al. (2002), using weekly data for Korea, Malaysia and Thailand, found that interest rates Granger-caused exchange rates during the crisis period. Park et al. (1999) also find that nominal exchange rates and interest rates Granger-caused each other during the crisis period of September 1997–September 1998 in Korea. Chinn and Meredith (2004) document for the G-7 countries that a positive relationship between interest rates and exchange rates was observable when using long-maturity data but the opposite occurred when using short maturity data. Choi and Park (2008) assessed the causal relationship between interest rates and exchange rates during the Asian crisis period.

A large body of literature examines the relationship between stock prices, interest rates and foreign exchange rates in developed as well as developing countries. However, there is no settled opinion with regard to the relationship between these variables. Especially, controversy exists among economists and policy makers as to whether which financial variable Granger cause the other or vice versa. This controversy makes the study of dynamic interactions between financial markets of Turkey interesting and challenging. Moreover, none of the numerous other papers related to the link between stock prices, interest rates and exchange rates has yet attempted to disentangle short-, medium- and long-run effects in a joint approach. In this paper we analyse the link between Turkish financial markets closely by using the frequency domain Granger causality approach developed by Breitung and Candelon (2006). This testing procedure allows new insights because tests are performed for particular frequencies. Hence, it is possible to see directly whether the link results from long-run trends, business cycles or short-run dynamics. The rest of the paper is organized as follows. Section 2 explains the methodology and data used in the study. Section 3 presents the results of the study and section four concludes.

2. METHODOLOGY AND DATA

According to Ajmi et al. (2014), the traditional approach for testing Granger causality compares the prediction errors obtained by a model that relates Y to past and current values of both X and Y . This approach is naturally attractive because the test is simply asked to determine whether the coefficients of the regression model, associated with past and current values of X , are significant. The bivariate Granger (1969) framework investigates the linear Granger causality between two processes X and Y , and involves estimating a p -order linear vector autoregressive model, VAR(p), as follows:

$$\begin{bmatrix} X_t \\ Y_t \end{bmatrix} = \begin{bmatrix} \alpha_1 \\ \alpha_2 \end{bmatrix} + \begin{bmatrix} \phi_{1,1} & \phi_{1,2} \\ \phi_{2,1} & \phi_{2,2} \end{bmatrix} \begin{bmatrix} X_{t-1} \\ Y_{t-1} \end{bmatrix} + \dots + \begin{bmatrix} \phi_{1,p} & \phi_{1,p} \\ \phi_{2,1,p} & \phi_{2,2,p} \end{bmatrix} \begin{bmatrix} X_{t-p} \\ Y_{t-p} \end{bmatrix} + \begin{bmatrix} \varepsilon_{1t} \\ \varepsilon_{2t} \end{bmatrix} \quad (1)$$

where $\varepsilon_t = (\varepsilon_{1t}, \varepsilon_{2t})'$ is a vector of white noise processes with a non-singular covariance matrix Σ_ε .

By carrying out either an F-test (restricted versus unrestricted) or Wald-type test, one can find alternative causal relations between X and Y . But, as is indicated in Kratschell and Schmidth (2012), since the all these Granger causality tests in most cases are based on one period ahead predictions, it is not well suited to distinguish short and long run effects. Also, as explained in Joseph et al. (2015), the conventional Granger causality tests measure precedence and information content, but do not indicate causality in its conventional sense. Importantly, the extent and the direction of causality differ between frequency bands (Granger and Lin, 1995), which conventional Granger causality tests are unable to diagnose. Moreover, according to (Lemmens et al., 2008), The traditional approach to Granger causality tacitly ignores the possibility that the strength and/or direction of the Granger causality, (if any) can vary over different frequencies. Because of these reasons, as is suggested in Ding et al., (2006), to get a more precise picture of the short, medium and long run Granger causality, a frequency domain Granger causality test should be used.

According to Croux and Reusens (2013), the concept of Granger causality in the frequency domain was originally proposed by Granger in 1969. Subsequently, Geweke (1982) proposed a measure for this Granger causality in the frequency domain. He argued that argue that in most empirical relevant cases it is possible to perform the causality test at different frequencies without loss of explanatory power, which means that his measure of causality ($M_{Y \rightarrow X}$) can be decomposed as follows (Kratschell and Schmidth, 2012, p. 9):

$$(M_{Y \rightarrow X}) = \frac{1}{\pi} \int_0^\pi f_{Y \rightarrow X}(\omega) d\omega \quad (2)$$

Several test procedures for Granger causality at a given frequency have been developed for this Geweke measure. Geweke (1982) proposed a Wald-test that imposes linear restrictions on the coefficient parameters. This test procedure was further elaborated by Breitung and Candelon (2006). Yao and Hosoya (2000) have developed an alternative Wald-

type test which is based on non-linear restrictions on the VAR parameters. Finally, Seth (2010) discusses tests based on bootstrap and permutation resampling techniques. In this paper, we use the test procedure of Breitung and Candelon (2006). Breitung and Candelon (2006) procedure provides an elegant interpretation of the frequency-domain Granger causality as a decomposition of the total spectral interdependence between the two series (based on the bivariate spectral density matrix, and directly related to the coherence) into a sum of “instantaneous”, “feed forward” and “feedback” causality terms. Also as mentioned in Nachane and Dubey (2013), Breitung and Candelon (2006) suggested a simple but effective method of frequency-wise testing for causation for systems involving nonstationary variables and possible cointegration. The method relies on the well-known result (see Toda and Yamamoto, 1995; Dolado and Lütkepohl, 1996) that the Wald test of restrictions in the presence of nonstationary variables has a standard asymptotic distribution in an over-parametrized VAR model. Breitung and Candelon (2006) approach can be explained as follows.

A finite-order vector autoregressive (VAR) representation of the two time series, X_t and Y_t , is the following form:

$$\Theta(L) \begin{pmatrix} X_t \\ Y_t \end{pmatrix} = \begin{pmatrix} \Theta_{11}(L) & \Theta_{12}(L) \\ \Theta_{21}(L) & \Theta_{22}(L) \end{pmatrix} \begin{pmatrix} X_t \\ Y_t \end{pmatrix} = \begin{pmatrix} \varepsilon_{1t} \\ \varepsilon_{2t} \end{pmatrix} \quad (3)$$

where $\Theta(L) = 1 - \Theta_1 L - \Theta_2 L^2 - \dots - \Theta_p L^p$ is a lag polynomial with $L^j X_t = X_{t-j}$ and $L^j Y_t = Y_{t-j}$. It is assumed that the error vector $\varepsilon_t = (\varepsilon_{1t} \ \varepsilon_{2t})'$ is assumed to be multivariate white noise with $E(\varepsilon_t) = 0$ and $E(\varepsilon_t \varepsilon_t') = \Sigma$, where Σ is positive definite and symmetric.

When G a lower triangular matrix and G' is an upper triangular matrix of the Cholesky decomposition, $G'G = \Sigma^{-1}$ such that $G\varepsilon_t = \eta_t$ and $E(\eta_t \eta_t') = I$. Based on this Cholesky decomposition, we can write the MA representation of system as follow:

$$\begin{pmatrix} X_t \\ Y_t \end{pmatrix} = \begin{pmatrix} \psi_{11}(L) & \psi_{12}(L) \\ \psi_{21}(L) & \psi_{22}(L) \end{pmatrix} \begin{pmatrix} \eta_{1t} \\ \eta_{2t} \end{pmatrix} \quad (4)$$

where $v(L) = \Theta(L)^{-1}G^{-1}$ and $(\eta_{1t} \ \eta_{2t})' = G(\varepsilon_{1t} \ \varepsilon_{2t})'$, so that $\text{cov}(\eta_{1t}, \eta_{2t}) = 0$ and $\text{var}(\eta_{1t}) = \text{var}(\eta_{2t}) = 1$. When we use the Fourier transformation to system, following spectral density of X_t , which has the two parts, will be obtained:

$$f_X(\omega) = \frac{1}{\pi} \left\{ |\psi_{11}(e^{-i\omega})|^2 + |\psi_{12}(e^{-i\omega})|^2 \right\} \quad (5)$$

According to Kratschell and Schmidth (2012), the first component in equation (5) is called the “intrinsic” term, which is driven past shocks in X_t and the second element is called the “causal” term ($\psi_{12}(e^{-i\omega})$) of the spectrum, which contains the predictive power of the variable Y_t and is used by Breitung and Candelon (2006) to construct their frequency domain Granger causality test. To determine the predictive power of Y_t at each frequency by comparing the predictive component of the spectrum with the intrinsic component at that frequency. Thus, we can say that Y_t does not “Granger cause” X_t at frequency if the predictive component of the spectrum of X_t at frequency is zero. This leads to the measure of causality suggested by Geweke (1982) and Hosoya (1991) and expressed as:

$$M_{Y \rightarrow X}(\omega) = \log \left[\frac{2\pi f_X(\omega)}{|\psi_{12}(e^{-i\omega})|^2} \right] \quad (6)$$

$$= \log \left[1 + \frac{|\psi_{12}(e^{-i\omega})|^2}{|\psi_{11}(e^{-i\omega})|^2} \right] \quad (7)$$

If $\psi_{12}(e^{-i\omega}) = 0$ then, $M_{Y \rightarrow X}(\omega)$ will be zero and we will conclude that Y does not Granger cause X at frequency ω . Therefore, the equation of should be considered as a condition for no Granger causality at frequency ω .

The null hypothesis for testing the Y does not Granger cause X within the a bivariate framework based on Geweke measure is expressed as follow:

$$H_0: M_{Y \rightarrow X}(\omega) = 0 \quad (8)$$

Following Breitung and Candelon (2006), to test null hypothesis of Y does not Granger cause X at frequency ω , we will simplify the above condition to a set of linear restrictions on the coefficients of the first component of the VAR model in equation (3):

$$X_t = \Theta_{11,1} X_{t-1} + \dots + \Theta_{11,p} X_{t-p} + \Theta_{12,1} Y_{t-1} + \dots + \Theta_{12,p} Y_{t-p} + \varepsilon_{1t} \quad (9)$$

where $\Theta_{11,j}$ and $\Theta_{12,j}$ are the coefficients of the lag polynomials $\Theta_{11}(L)$ and $\Theta_{12}(L)$. As stated in Croux and Reusens (2013), the necessary and sufficient set of conditions for no Granger causality at frequency ω is given by following equations:

$$\sum_{j=1}^p \Theta_{12,j} \cos(j\omega) = 0 \quad (10)$$

$$\sum_{j=1}^p \Theta_{12,j} \sin(j\omega) = 0 \quad (11)$$

The null hypothesis of no Granger Causality at frequency ω can be tested by using a standard F-test on a set of coefficients of equations (10) and (11). This test resulting F-statistic is approximately distributed as $F(2, T-2p)$ for $\omega \in (0, \pi)$ where 2 is the number of restrictions and T is the number of observations used to estimate the VAR model of order p. The null hypothesis in this test, which corresponds to the null hypothesis tested by Geweke, $M_{Y \rightarrow X}(\omega) = 0$, is

$$H_0: R(\omega) \Theta_{12}(L) = 0 \quad (12)$$

with

$$R(\omega) = \begin{bmatrix} \cos(\omega) & \cos(2\omega) & \dots & \cos(p\omega) \\ \sin(\omega) & \sin(2\omega) & \dots & \sin(p\omega) \end{bmatrix} \quad (13)$$

According to Kratschell and Schmidh (2012), a important step in this testing procedure is to determine the lag order of the VAR, since it determines the dynamic structure of the model. Also, to analyse the frequency domain Granger causality test within cointegrating framework, we need to replace X_t by ΔX_t in equation (9) leaving the right hand side of the equation unchanged¹. As mentioned in Tiwari (2012), in cointegrated systems the definition of causality at frequency zero should be considered as equivalent to the concept of “long-run causality”. On the other hand, in stationary framework there won’t be any long-run relationship between the time series.

In order to investigate the dynamic interactions between financial markets of Turkey, we use the weekly data for interest rates (IR), exchange rates (ER) and stock prices (SP), which are retrieved from DataStream, covering the sample period from 2003-2015. The end-of-week stock index used in this study is ISE-30 indice (ISE). The exchange rates data are end-of-period nominal exchange rates, expressed in Turkish Lira per U.S. Dollar and EURO, and interest rate is the interbank interest rate.

¹ see Breitung and Candelon, 2006, for more detailed discussion on this and also for the case when one variable is I(1) and other is I(0)).

3. EMPIRICAL RESULTS

As a starting point of our empirical analysis, we try to determine the direction of causal relationships between interest rates, exchange rates and stock prices, using VAR Granger causality tests performed as Wald tests. Table 1 reports the results of both conventional and frequency domain Granger causality tests.

Table 1: Conventional and frequency domain Granger causality test results

	Conventional	Frequency-domain					
		Long Term		Medium Term		Short term	
EURO -> SP	0.7231	1.198	1.192	2.977	2.151	0.885	1.059
SP -> EURO	0.0226**	6,15*	6,13*	2,70	6,64*	4,27	3,56
IR -> SP	0.8817	0.209	0.208	0.113	0.510	0.806	1.118
SP -> IR	0.0460**	9.471*	9.471*	6.288**	1.342	0.593	1.704
U.S. Dollar -> SP	0.3251	1,06	1,08	1,22	0,79	7,61*	0,88
SP -> U.S. Dollar	0.0373**	2,87	2,81	0,99	7,95*	3,71	6,11*
EURO -> IR	0.1757	9.80*	9.80*	2.75	0.27	0.10	1.90
IR -> EURO	0.0965***	2.88	2.89	3.77	0.44	8.20**	4.69
U.S. Dollar -> EURO		No significant model					
EURO -> U.S. Dollar		No significant model					
U.S. Dollar -> IR		No significant model					
IR -> U.S. Dollar		No significant model.					

Based on the results of traditional Granger causality tests in Table 1, stock prices Granger cause both EURO and U.S. Dollar exchange rates and interest rates. Also, interest rates Granger cause EURO exchange rate. But the results do not indicate any causality running from exchange rates to stock prices, interest rates to stock prices, and EURO exchange rates to interest rates. Therefore, it is fair to conclude that the results mostly provides evidence of supporting the portfolio balance approach, as oppose to traditional approach.

Classical Granger tests results that we discussed above do not provide clear evidence whether the co-movement is due to short-run fluctuations or longer cycles. In other words, according to Ciner (2011), this test procedure produces a single, one-shot statistic regarding predictability and implicitly ignore the possibility that causal dynamics could show variation across different frequencies. To derive further insights into the possible causes of the co-movement, we perform the frequency domain Granger causality test of Breitung and Candelon (2006), the results are also presented in Table 1, to disentangle short- and long-run effects².

Table 1 reports the test statistics, for some frequencies, ω , (which are expressed as a fraction of π) in the interval $(0, \pi)$. The frequency, ω , can be translated into a cycle or periodicity of T weeks by $T = 2\pi/\omega$, where T is the length of the period (in this study represents week). High frequencies correspond to short periods and vice versa.

The results of frequency domain Granger causality tests, presented in Table 1, support the results of traditional Granger causality test. However, frequency domain analysis provides much clearer and more accurate details of the directions and strengths of causalities between exchange rates, interest rates and stock prices in different frequencies, which have never been given before. Therefore, by decomposing the causality into different frequencies, we will have a much deeper understanding of causal relationships between financial markets of Turkey.

For example, traditional Granger causality test results indicate that stock prices Granger cause both EURO and U.S. Dollar

² We begin the empirical work by testing the series for unit roots using the ADF and KPSS tests. The results, not reported but available upon request. The order of the VAR model is selected according to the AIC criterion. Next, the assumption of white noise of the error vector in the VAR Eq. (1) is verified: heteroscedasticity is tested by an ARCH-LM test and serial correlation is tested by a Portmanteau test. The assumption of white noise error terms is not rejected. We didn't present the results of the models that suffers from some econometrics problems, such as autocorrelation and heteroskedasticity.

exchange rates. Frequency domain Granger causality tests results support these results and also indicate that stock prices cause EURO exchange rate both in medium-and long-terms and U.S. Dollar in both short-and medium-terms. First, we see that stock prices have significant causal effects on EURO exchange rates at both medium (frequency $\omega > 2.00$ (4 weeks) and long-terms (frequency $\omega < 0.05$ (125 weeks)). These findings suggest that stock prices have connections with EURO exchange rates at different frequencies. Also, stock prices Granger cause U.S. Dollar at frequencies greater than 1.39, which correspond to short-and medium terms ($1 < \omega < 1.5$ (4 and 6 weeks)). On the other hand, U.S. Dollar Granger cause stock prices only in the short-run; that is, in high frequencies. Thus, considering the EURO exchange rates, the results mostly support the predictions of portfolio balance approach during the sample period.

Second, the stock prices Granger causes interest rates at low level of frequencies implying that there exists medium-and long-term causality running from stock prices to interest rates; but no causality from interest rates to stock prices at any frequencies. These findings don't support the generally accepted notion for the causality running from interest rate to stock price. Also, this finding provides some evidence to some critics claims the conventional wisdom of interest rate causality on stock price.

Third, there is a bidirectional causality between EURO exchange rates and interest rates. EURO exchange rates Granger cause interest rates at low frequencies ($\omega < 0.05$ that is in long-run; but, interest rates Granger cause EURO exchange rates in the short-run ($\omega > 2.00$ (3 weeks)). Finally, the results do not indicate any causalities running from EURO to stock prices and interest rates to stock prices at any frequencies.

4. CONCLUSION

In this study, we investigate the dynamic linkages between the foreign exchange, stock and money markets in Turkey. The results of the study show that there are spillovers from stock market returns to interest rates and EURO exchange rate both in the mid-and long-run, to U.S. Dollar both in short-and medium-runs and from U.S. Dollar to stock market returns in the short-run. Thus, for regarding the EURO exchange rate, the results mostly support the portfolio balance view of the relationships between exchange rates and stock prices. But, for regarding U.S. Dollar exchange rate, the results are mixed. Also, we got some evidence of Granger causality running from EURO exchange rate to interest rates in the long-run and from interest rates to EURO exchange rate in the short-run. On other hand, there is no evidence of spillovers from EURO exchange rate and interest rates to stock market returns. Based on these results, we can conclude that there is certain degree of interdependence and volatility spillovers among the financial markets of Turkey, which has a serious policy implications.

First of all, the results indicate that stock prices in Turkey can be used to predict movements of the EURO exchange rate both in medium- and long-runs and that of U.S. Dollar exchange rate in short-and medium-runs. Further, the U.S. Dollar exchange rate can be used to predict the movements of stock prices at short-run. Therefore, the participants of foreign exchange market can devise strategies to gain from foreign exchange transaction using stock prices to predict the movements of the EURO exchange rate both in medium- and long-runs. However, the participants of the stock market can devise strategies to make gains using the U.S. Dollar exchange rate to predict stock prices only in the short-run. Moreover, Turkey can pursue policies to strengthen financial market transparency and accountability in the country that can prevent volatility in the stock prices as well as the erratic movement of the currency value in the foreign exchange market. Further, the above results provide mixed evidence for the validity of the traditional approach or portfolio approach in relation to the relationship between exchange rates and stock prices in Turkey.

This paper investigated the short-, medium-and long-run causal relationship between interest rates and exchange rates to provide some evidence to see if the high interest rate policy was appropriate for stabilizing foreign exchange rates. Based on the findings of study, we may conclude that tight monetary policy and subsequent rise in interest rates were not effective in stabilizing exchange rates in medium- and long-runs; but, it could be used to stabilize the EURO exchange rates only in the short-run. Taking this conclusion together with the high economic cost associated with keeping interest rates high for an extended time period, one may rightfully question the appropriateness of tight monetary policy during the financial markets turmoils, especially in exchange rates markets. Therefore, policy makers of the Turkish economy should be cautious in using interest rates to stabilize exchange rates markets, especially U.S. Dollar exchange rates market, since it has only short term implication on EURO exchange rates market.

Unlike to the generally accepted notion for the causality running from interest rate to stock price, the results of study indicate that there is a unidirectional causality running from stock prices to interest rates both in medium-and long-runs in Turkey. This could result from the fact that the booming stock market and phenomenal over-subscription of new issues might have impounded pressure on liquidity and thus caused interest rate movements. Also, we know that most of the investors of stock market of Turkey is consist of foreign investors. Therefore, for Turkey, controlling the interest rates will not be great benefit of country's stock exchange through demand pull way of more investors in share market, and supply

push way of more extensional investment of companies. Also, to increase the interest of the foreign investors investing into stock market, first thing the authorities should do is to stabilize the foreign exchange rate markets of Turkey.

So, based on the results of frequency domain causality tests, it is fair to conclude that stock market in Turkey is leading the both money and exchange rate markets. Thus, stock market in Turkey is not efficiently incorporated much of the interest rate and exchange rate information in its price changes at closing stock market index

REFERENCES

1. Abdalla, I.S., Murinde, V. (1997). Exchange rate and stock price interactions in emerging financial markets: Evidence on India, Korea, Pakistan and Philippines. *Applied Financial Economics*, 7(1), pp. 25-35.
2. Aggarwal, R. (1981). Exchange rates and stock prices: A study of the US capital markets under floating exchange rates. *Akron Business and Economic Review*, pp. 12, 7-12.
3. Ajmi, A.N., Hammoudeh, S., Nguyen, D.K., Sarafrazi, S. (2014). How strong are the causal relationships between Islamic stock markets and conventional financial systems? Evidence from linear and nonlinear tests. *Journal of International Financial Markets, Institutions and Money*, 28, pp. 213-227.
4. Akinboade, O.A., Braimoh, L. A. (2010). International tourism and economic development in South Africa: A Granger causality test. *International Journal of Tourism Research*, 12(2), pp. 149-163.
5. Alagidedea, P., Panagiotidis T., Zhang, X. (2011). Causal relationship between stock prices and exchange rates. *The Journal of International Trade & Economic Development*, 20(1), pp. 67-86.
6. Alam, M., Uddin, G.S. (2009). Relationship between interest rate and stock price: Empirical evidence from developed and developing countries. *International Journal of Business and Management*, 4(3), pp. 43-51.
7. Andreou, E., Matsi, M., Savvides, A. (2013). Stock and foreign exchange market linkages in emerging economies. *Journal of International Financial Markets, Institutions & Money*, 27, pp. 248-268.
8. Arango, L.E., Gonzalez, A., Posada, C.E. (2002). Returns and interest rate: A nonlinear relationship in the Bogota Stock Market. *Applied Financial Economics*, 12(11), pp. 835-842.
9. Belloumi, M. (2010). The relationship between tourism receipts, real effective exchange rate and economic growth in Tunisia. *International Journal of Tourism Research*, 12(5), pp. 550-560.
10. Bonga-Bonga, L., Hoveni, J. (2013). Volatility spillovers between the equity market and foreign exchange market in South Africa in the 1995-2010 period. *South African Journal of Economics*, 81(2), pp. 260-274.
11. Breitung, J., Candelon, B. (2006). Testing for short- and long-run causality: A frequency domain approach, *Journal of Econometrics*, 132(2), pp. 363-379.
12. Campbell, J.Y. (1987). Stock returns and the term structure. *Journal of Financial Economics*, 18(2), pp. 373-399.
13. Chinn, M.D., Meredith, G. (2004). Monetary policy and long-horizon uncovered interest rate parity. *IMF Staff Papers*, 51(3), pp. 409-430.
14. Choi, I., Park. (2008). Causal relation between interest and exchange rates in the Asian currency crisis. *Japan and the World Economy*, 20(3), pp. 435-452.
15. Ciner, C. (2011). Eurocurrency interest rate linkages: A frequency domain analysis. *International Review of Economics & Finance*, 20(4), pp. 498-505.
16. Croux, C., Reusens, P. (2013). Do stock prices contain predictive power for the future economic activity? A Granger causality analysis in the frequency domain. *Journal of Macroeconomics*, 35, pp. 93-103.
17. Dekle, R., Hsiao, C., Wang, S. (2002). High interest rates and exchange rate stabilization in Korea, Malaysia, and Thailand: An empirical investigation of the traditional and revisionist views. *Review of International Economics*, 10(1), pp. 64-78.
18. Ding, M., Chen, Y., Bessler, S.L. (2006). Granger causality: Basic theory and application to neuroscience, Schelter, B., Winterhalder M., Timmer, J. (eds.) *Handbook of Time Series Analysis*. Wiley: pp. 437-460.
19. Dolado, J.J., Lütkepohl, H. (1996). Making Wald tests work for cointegrated VAR systems. *Econometric Reviews*, 15(4), pp. 369-386.
20. Dritsakis, N. (2004). Tourism as a long-run economic growth factor: an empirical investigation for Greece using causality analysis. *Tourism Economics*, 10(3), pp. 305-316.
21. Fedorova, E., Saleem, K. (2010). Volatility spillovers between stock and currency markets: Evidence from emerging Eastern Europe. *Czech Journal of Economics and Finance*, 60(6), pp. 519-533.
22. Geweke, J. (1982). Inference and causality in economic time series models. University of Wisconsin Social Systems Research Institute.
23. Ghosh, A.R., Phillips, S. (1998). Inflation, disinflation, and growth. IMF Working Paper, May, No. 98/68.
24. Giovannini, A., Jorion, P. (1987). Interest rates and risk premia in the stock market and in the foreign exchange market. *Journal of International Money and Finance*, 6(1), pp. 107-123.
25. Goldfajn, T., Baig, I. (2002). Monetary policy in the aftermath of currency crises: The case of Asia. *Review of International Economics*, 10(1), pp. 92-112.
26. Granger, C.W.J. (1969). Investigating causal relations by econometric models and cross-spectral methods. *Econometrica: Journal of the*

Econometric Society, 37(3), pp. 424-438.

27. Granger, C.W.J., Lin, J. (1995). Causality in the long Run, *Econometric Theory*, 11(3), pp. 530-536.
28. Hacker, R.S., Kim, H., Månsson, K. (2012). The relationship between exchange rates and interest rate differentials: A wavelet approach. *The World Economy*, 35(9), pp. 1162-1185.
29. Hamrita, M.E., Trifi, A. (2011). The relationship between interest rate, exchange rate and stock price: A wavelet analysis. *International Journal of Economics and Financial Issues*, 1(4), pp. 220-228.
30. Harasty, H., Roulet, J. (2000). Modeling stock market returns. *Journal of Portfolio Management*, 26(2), pp. 33-46.
31. Hashemzadeh, N., Taylor, P. (1988). Stock prices, money supply, and interest rates: The question of causality, *Applied Economics*, 20(12), pp. 1603-1611.
32. Hosoya, Y. (2001). Elimination of third series effect and defining partial measures of causality. *Journal of Time Series Analysis*, 22(5), pp. 537-554.
33. Joseph, A., Suresh, K.G., Garima, S. (2015). Is the causal nexus between agricultural commodity futures and spot prices asymmetric? Evidence from India. *Theoretical Economics Letters*, 5, pp. 285-295.
34. Kanas, A. (2000). Volatility spillovers between stock returns and exchange rate changes: International evidence. *Journal of Business Finance & Accounting*, Volume 27(3-4), pp. 447-467.
35. Kaminsky, G., Schumukler, S. (1998). The relationship between interest rates and exchange rates in six Asian countries. World Bank, Washington, D.C.
36. Kratschell, K., Schmidt, T. (2012). Long-run trends and short-run fluctuations - what establishes the correlation between oil and food prices? *Ruhr Economic Papers* 357, pp. 1-21.
37. Kumar, M. (2010). Causal relationship between stock price and exchange rate: Evidence from India. *International Journal of Economic Policy in emerging Economies*, 3(1), pp. 85-101.
38. Kuttly, G. (2010). The relationship between exchange rates and stock prices: the case of Mexico. *North American Journal of Finance and Banking Research*, 4(4), pp. 1-12.
39. Lemmens, A., Croux, C., Dekimpe, M.G. (2008). Measuring and testing granger causality over the spectrum: an application to European production expectation surveys. *International Journal of Forecasting*, 24, pp. 414-431.
40. Ma, C.K., Kao, G.W. (1990). On exchange rate changes and stock price reactions. *Journal of Business Finance and Accounting*, 17(3), pp. 441-449.
41. Mishra, K.A. (2004). Stock market and foreign exchange market in India: Are they related?. *South Asia Economic Journal*, 5(2), pp. 209-232.
42. Mok, H.M.K. (1993). Causality of interest rate, exchange rate and stock prices at stock market open and close in Hong Kong. *Asia Pacific Journal of Management*, 10(2), pp. 123-143.
43. Mukherjee, T.K., Naka, A. (1995). Dynamic relations between macroeconomic variables and the Japanese stock market: an application of a vector error correction model. *The Journal of Financial Research*, 18(2), pp. 223-237.
44. Morales, L.N. (2008). Volatility spillovers between equity and currency markets: Evidence from major Latin American countries. *Cuadernos De Economia*, 45, pp. 185-215.
45. Mozumder, N., Vita, G., Kyaw, K.S., Larkin, C. (2015). Volatility spillover between stock prices and exchange rates: New evidence across the recent financial crisis period. *Economic Issues*, 20(1), pp. 43-64.
46. Nachane, D., Dubey, A.K. (2013). Trend and cyclical decoupling: new estimates based on spectral causality tests and wavelet correlations, *Applied Economics*, 45(31), pp. 4419-4428.
47. Nieh, C., Lee, C. (2001). Dynamic relationship between stock prices and exchange rates for G-7 countries. *The Quarterly Review of Economics and Finance*, 41, pp. 477-790.
48. Ong, L.L., Izan, H.Y. (1999). Stock and currencies: Are they related?. *Applied Financial Economics*, 9(5), pp. 523-532.
49. Park, Y C., Wang, Y., Chung, C.S. (1999). Exchange rate policies in Korea: Has exchange rate volatility increased after the crisis?. KIEP Working Paper, 99-33.
50. Phylaktis, K., Ravazzolo, F. (2005). Stock prices and exchange rate dynamics. *Journal of International Money and Finance*, 24(7), pp. 1031-1053.
51. Rahman L., Uddin J. (2009). Dynamic relationship between stock prices and exchange rates: Evidence from three South Asian vountries. *International Business Research*, 2(2), pp. 167-174.
52. Seth, A.K. (2010). A MATLAB toolbox for Granger causal connectivity analysis, *Journal of Neuroscience Methods*, 186, pp. 262-273.
53. Shanken, J. (1990). Intertemporal asset pricing: An empirical investigation, *Journal of Econometrics* 45(1-2), pp. 99-120.
54. Smith, C. (1992). Stock Market and the exchange Rate: A multi-country approach. *Journal of Macroeconomics*, 14(4), pp. 607-629.
55. Solnik, B. (1987). Using financial prices to test exchange rate models: A note. *Journal of Finance*, 42(1), pp. 141-49.
56. Soenen, L.A., Hennigar, E.S. (1988). An analysis of exchange rates and stock prices: The US experience between 1980 and 1986'. *Akron Business and Economic Review*, 19(4), pp. 71-76.
57. Tiwari, A.K. (2012). An empirical investigation of causality between producers' price and consumers' price indices in Australia in frequency domain. *Economic Modelling*, 29(5), pp. 1571-1578.
58. Toda, H.Y., Yamamoto, T. (1995). Statistical inference in vector autoregressions with possibly integrated processes. *Journal of Econometrics*, 66(1-2), pp. 225-250.
59. Uddin, M.G.S., Alam, M.M. (2007). The impacts of interest rate on stock market: Empirical evidence from Dhaka Stock Exchange. *South Asian*

Journal of Management and Sciences, 1(2), pp. 123-132.

60. Walid, C., Chaker, A., Masood, O., Fry, J. (2011). Stock market volatility and exchange rates in emerging countries: A Markov-state switching approach. *Emerging Markets Review*, 12(3), pp. 272–292.
61. Wong, W., Khan, H., Du, J. (2005). Money, interest rate, and stock prices: New evidence from Singapore and the United States. U21Global Working Paper No. 007.
62. Wongbangpo, P., Sharma, S.C. (2002). Stock market and macroeconomic fundamental dynamic interactions: ASEAN-5 countries. *Journal of Asian Economics*, 13(1), pp. 27-51.
63. Yao, F., Hosoya, Y. (2000). Inference on one-way effect and evidence in Japanese macroeconomic data. *Journal of Econometrics*, 98(2), pp. 225–255.
64. Zordan, D.J. (2005). Stock prices, interest rates, Investment Survival. *Econometrica USA*, Illinois.

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ORGANIZATIONAL STRUCTURES – INTERFACE MANAGEMENT

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SABINE GRIMM

ABSTRACT

In today's complex business environment modern communication tools as well as innovative organizational structures become more important than ever before. Small and medium sized enterprises as well as big corporations throughout all manufacturing branches face the same problem: they have to restructure and optimize their interface communication between different departments. Especially divisions that do not have direct connections on the first sight – such as procurement and marketing – have room for process improvement.

Research has shown that interfaces in complex corporate structures are often a vulnerability that leads to high transaction costs, a delay or even distortion of information and as a consequence also to employee dissatisfaction. Departments often see other divisions as disruptive (for example procurement tries to cut costs) or not cooperative (do not want to accept additional work) – there are motivational and coordination issues. Understanding for other departments largely lack as well as an internal multidisciplinary approach.

The main focus of this work is to analyse and show different managerial approaches how to successfully integrate processes that enhance joint collaboration between departments. Providing the circumstances to exchange the experiences and ideas from different disciplines and internal divisions can cut costs, improve quality and ensure security. The result of the work described in this paper are the different measurements, clustered in the 7S Framework, that give a holistic approach for interface improvement intervention. The measures are classified in hard and soft factors.

KEY WORDS: Interface Management, Organizational Structures, Marketing, Procurement, Strategic Management.

1. INTRODUCTION

Within interface management the phrase “the right hand does not know what the left hand is doing” describes the main problem organisations phase in regard to the cooperation and communication of their different departments and functional areas. For managers it is quite obvious that the overall company impression is built throughout all departments and tasks, but surprisingly many employees just look at their tasks, their results and are not empathic with other departments and employees.

The main goal of this article is to get an overview of all different methods and strategies that exist in literature that try to improve interface management and joint processes. There are several approaches within secondary data that show one specific method within one specific business field or for one specific problem statement. What is largely missing is an overall sustainable managerial approach how to improve a company's interface management to support efficiency as well as quality and reduce costs. To reach this goal the authors conducted a detailed literature analysis as well as to classify all gathered measures into an already existent model – the 7-S Framework.

2. LITERATUR REVIEW

The next chapter describes the two main areas in this article. First of all interface management is defined and put into the context of this work. Next, the 7-S Framework is explained as it is the theoretical basis for systemizing the different measures.

2.1. Interface Management

Interfaces are transfer points within an organization between departments or functions (Universität Erlangen, 2015). Interface management describes the processes of good „communication and action across and within the various organizational interfaces“ (Reighton, 2004). A good and solid communication within members of an organisation is inevitable in order to process information smoothly.

Interface Management is often used between departments to manage projects. It “includes the activities of defining, controlling, and communicating the information needed to enable unrelated objects. [...] Therefore, the practice of interface management begins at design and continues through operations and maintenance” (Mitre, 2013).

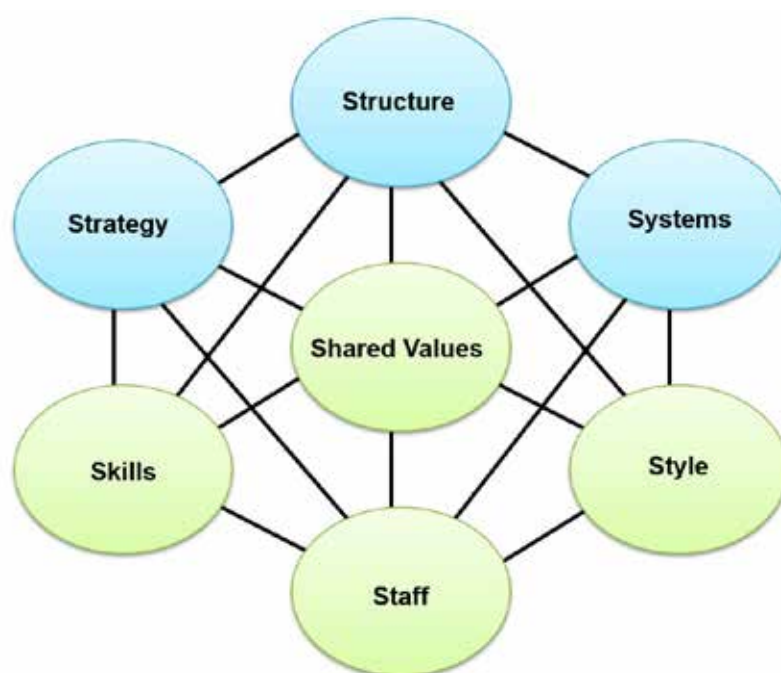
Interface Management can be divided into three approaches: Firstly, to coordinate interfaces, in order to reduce problems within the interface; secondly, the integration of internal and external processes and last, but not least to reduce interfaces within an organisation (Universität Erlangen, 2015). Important to know for any interface management plan is how to communicate. „Individuals must know what information to communicate, how to communicate this information, and when to communicate it” (Maloney, n.d.).

2.2. 7-S MODEL

Tom Peters and Robert Waterman, two consultants working at the McKinsey consulting firm, developed the 7S-Model in the early 80's. It is a model for analysing organisations and their effectiveness. The name comes from the seven factors that the two defined as important in the context of organizational development. These factors are: strategy, skills, shared values, structure, systems, staff and style. These factors are “interrelated and have to be considered jointly” (Talwar, 2006, p. 210 as cited in Singh, 2013, p. 41). The seven elements are categorised into hard and soft factors, meaning that the hard factors are feasible and the soft factors being hardly feasible (Hanafizadeh and Ravasan, 2011, p. 25). Peters and Waterman considered structure, system and strategy to be the three hard factors and shared values, skills, staff and style to be the soft factors. The individual elements can be defined as follows:

Strategy is “the action a company plans in response to changes in its external environment” (Hanafizadeh and Ravasan, 2011, p. 25). *Structure* is said to be the basis of specialization and co-ordination, which are primarily influenced by strategy, the size and diversity of the individual organization. *Systems* describe the “formal and informal procedures” (Hanafizadeh and Ravasan, 2011, p. 25), which support the structure and strategy.

Figure 1: 7-S Framework



Source: Waterman, Peters, and Phillips, 1980, pp. 14-26

Style consists of two components, firstly the organizational culture and secondly, the management style. Organizational culture is the features that influence organizational life such as values, beliefs and norms. Management style describes the actions of a manager in contrast to what they just say; what the company spends money for and where their focus lies on. *Staff* is defined as the people on the one hand and the human resource management process on the other hand,

necessary “to develop managers, socialisation processes” (Hanafizadeh and Ravasan, 2011, p. 25). *Skills* are described as the company’s distinct competences. Last, but not least, *shared value* is interpreted as the guiding concept or the fundamental idea, which guides the company into a certain direction. As Peters said: “Deal with all seven or accept the consequence – less than effective implementation of a project or program” (Peters, 2011, p. 7).

The 7s-model is being used to “improve the level of success of organisations” (Palatková, n.d., p. 46).

3. INTERFACE MANAGEMENT STRATEGIES

There have always been some researchers and authors that were interested in interface management and its impacts. In the following chapter the research methodology used within this paper is described and the research results are presented.

3.1. RESEARCH METHODOLOGY

The research is conducted through secondary data analysis. This type of methodology means that the authors analyse an existing datasets that have been collected by other researchers (Stewart and Kamins, 1993, pp. 17-32). The authors analysed all different articles and books that dealt with interface management and the organizational structures within companies. As extensive empirical research in this field is missing so far a classification of the involved measures is a first important step and builds the basis for further research.

3.2. RESEARCH RESULTS

Strategy

One important measure regarding strategy is that the HR department explains new employees the overall guiding principles of the company. Therefore, it is crucial that employees working in the human resource department are well-informed about actual strategic decisions of the managerial board and single departments. Often employees from single departments are involved in the recruitment process which reduces interface problems (Knijff, 2015).

Structure

Many results showed that through recent changes in organizational structures the requirements for employees in regard to their interfaces got more complex than ever before. They have to manage many internal and external parties and projects are getting more complex and global. One possible solution is a detailed interface management process that involves a smooth flow of communication. It is very important that all involved employees are well trained on the process and that the steps are clearly defined throughout all process stages (Caglar and Connolly, 2007).

Systems

The area “systems” within the 7-S Framework describes which circumstances or framework have to build within a company. There is one approach that states that process oriented quality management (PQM) is a possible solution to interface problems. This method tries to change only process oriented work flows or only functional workflows into one holistic approach that includes every employee of an organisation. Nevertheless, there are some important roles within PQM as there have to be some employees that promote the processes, especially in the beginning. In the end PQM strives in developing process norms that combine functional and process oriented workflows (Käfer and Wagner, 2013, pp. 1-11).

Style

For the style factor it is very important that all departments have a joint communication. There are several research results that show the need for departments to create a culture together. Knijff (2015) explains that the HR department and the PR department should intensify their interface contact and communication. Another crucial factor for the company culture is to obtain flat hierarchies

Staff

There are some general approaches of how the staff should be qualified and which characteristics they should have. For good interface management there is a need of communicative, team-oriented and empathic employees that do not lose overviews (Führungskraft heute, n.d.).

Furthermore, one can implement job rotation which means that single employees change their jobs within the company for a fixed period of time. It is not the only advantage that there will be new ideas and out-of-the-box-thinking but also understanding for difficulties that the colleague has to face (Führungskräfte heute, n.d.).

Skills

Also characteristic skills that a company is best at can influence interface management. On the one hand, employees and division that are very important for the company need to be trained well in interface management. It is important that other departments are not forgotten. On the other hand, companies can employ specific skills, for example with an interface manager who takes special care of interface management (Führungskräfte heute, n.d.).

Shared values

There are some underestimated instruments that improve interface management within a company and can be easily implemented or extended. A staff magazine or newsletter is one of them. Departments can communicate throughout this magazine with all other employees, it can motivate departments and employees and decrease misunderstandings between working divisions (Knijff, 2015).

4. DISCUSSION AND CONCLUSION

The secondary research of this paper has shown that there are different measures that can be systemized through the 7-S Framework. These measures can improve sustainable and efficient interface management in companies.

It is important to take into consideration that only a holistic approach, implemented within all divisions will lead to long-term improvements that will cut costs and increase quality and efficiency of a company.

The next step in this research process will be a qualitative research design through expert interviews to empirically justify which of those measures are mostly applied in practice. Furthermore the chosen design should enable the researcher to define in which way those measures support interface management optimization (defining the outcome).

LITERATURE

1. Caglar, J. and Connolly, M. (2007). Interface Management – Effective information exchange through improved communication. Retrieved 30.09.2015 from https://library.e.abb.com/public/c32d6db6c42d08d18525733b00149957/1163%20Interface%20paper_low.pdf.
2. Hanafizadeh, P. and Ravasan, A. Z. (2011). A McKinsey 7S Model-Based Framework for ERP Readiness Assessment. International Journal of Enterprise Information Systems, 7(4), 23-6.
3. Führungskraft heute (n.d.). Förderung der abteilungsübergreifenden Zusammenarbeit. Retrieved 30.09.2015 from <https://www.forum-verlag.com/prod/dfh0210.pdf>.
4. Käfer, R. and Wagner, K. (2013). PQM - Prozessorientiertes Qualitätsmanagement - Leitfaden zur Umsetzung der ISO 9001. München: Carl Hanser Verlag.
5. Knijff, M. (2015). Entscheidende Schnittstelle. Retrieved 30.09.2015 from http://www.information-factory.com/fileadmin/page_content/News/personalSchweiz_April_022015.pdf.
6. Maloney, K. (2015). Interface Management Communication and coordination of interfaces. Retrieved 30.09.2015 from <http://www.coreworx.com/news-events/press-releases/interface-management-communication-and-coordination-of-interfaces/>.
7. Mitre (2013). Interface Management. Retrieved 30.09.2015 from <http://www.mitre.org/publications/systems-engineering-guide/se-lifecycle-building-blocks/systems-integration/interface-management>.
8. Palatková, M. (n.d.). The 7-S-McKinsey Model: an Implementation Tool of a Destination Marketing Strategy in the Czech Republic. Global Management Journal, 44-54.
9. Peters, T. (2011). McKinsey 7-S Model. It continues to benefit leaders. Leadership Excellence

10. Reighton, P.C. (2004). Project Management Organizational Structures and Standards. Retrieved 30.09.2015 from <http://home.cogeco.ca/~pcreighton/PMWEB/Module%2004.htm>
11. Singh, A. (2013). A Study of Role of McKinsey's 7S Framework in Achieving Organizational Excellence. Organization Development Journal.
12. Stewart, D. and Kamins, M. (1993) Secondary Research: Information Sources and Methods (Applied Social Research Methods Series, Vol. 4). Newbury Park, CA: Sage Publications, Inc.
13. Talwar, P. (2006). Human Resource Management. Mehra Offset Press
14. Universität Erlangen (2015). Schnittstellen und Schnittstellenmanagement [Interfaces and Interface Management]. Retrieved 30.09.2015 from <http://www.economics.phil.uni-erlangen.de/lehre/bwl-archiv/lehrbuch/kap3/schnitt/schnitt.PDF>

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ORGANIZATIONAL DEVELOPMENT IN THE BUSINESS STRATEGY

TAMÁS KOZÁK

ABSTRACT

One of the biggest dilemmas of the organizational development experts is how to define the determinants determining the structure of an enterprise, and how these influential factors impact on company hierarchy. The main topic of this paper is to show how the company strategy and operational environment determine the organizational development philosophies, and to describe a strategy formulation method to find the best structure.

Based on diagnoses described by these analysis it is proposed an optimal structure with determination of development organizational design elements. For example the responsibility and power systems define a cooperation between the organizational units (e.g.: employees, divisions), and in the same time the control mechanisms and report methods influence the complexity of the hierarchy in order to achieve the strategic business goals.

The conclusion is there are basically for organizational development philosophies that determine the ideas of development for the hierarchy, the systems, the processes and the management: the integration efforts and the need for differentiation. This paper gives a methodological guide to help selecting the best organizational development strategy considering all organization assessment factors.

The presented organizational development can be applied in business life as well as in education

KEY WORDS: Strategy, Organization, SWOT, Assessment, Structure.

1. THE BUSINESS STRATEGY

1.1. The strategy formulation

Organizational development never should happen for its own sake, it always serves the achievement of a more complex, "higher" strategic goal. The strategic goals of the company to derive the directions of development determine the tasks related to the organizational components. Figure 1 shows the generally accepted elements of strategy creation. The other elements of implementation (for example, the development and execution of the sale strategy) or the control over the realization of the strategic goals belong to strategy management.

Figure 1: The Place of Organizational Development in Business Strategy.



Source: Own edition

The focus of our examination is not only the strategy creation, so I emphasize only those topics that are relevant to the creation of organizational development strategy. The clues are the widely accepted steps of strategy creation can give to company development experts.

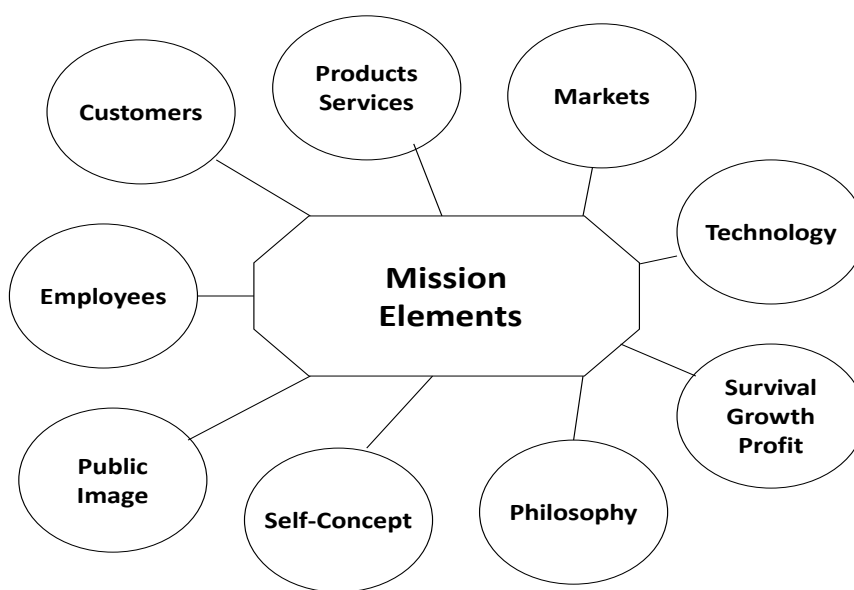
1.2. Mission, Vision, Values

The announcements of an enterprise's long term goals and ambitions, and the commitments related thereof, rarely include direct guidance, but a consistent strategy management can give useful hints and indications.

The vision marks what path the enterprise would like to walk on, or what status it wants to achieve. This also means a kind of business positioning, because it gives information about the most important goals, and the concepts of a product or service portfolio.

In the mission statement the enterprise look for an answer on what resources and competencies make a difference between the competitors. Based on the mission it can be identified more factual strategic resources and competencies ensuring competitive advantages in the medium term. It worth considering some questions that partly determine the organizational development strategy, for example who our customers are, what innovation activities are, what financial efficiency promised the owners.

Figure 2: Mission Elements Affecting on Organizational Development.



Ch 2 -4

Source: David, Fred R. (2011): Strategic Management, Prentice Hall, p 53

By defining the customer segment is determined the structure of the supply chain, and so the partnerships of the company. The innovation strategy indicates an important direction for company knowledge development. The main financial goals influence the tasks that should be completed for a better efficacy and productivity. Of course, the mission elements shown in Figure 2 have various weights in the company strategy. For example, customer relationships, market development goals, internal resources and technology (the bolded ones) have a direct effect. In the paragraphs about strategic goals below it is shown examples of the roles of these factors.

The bigger companies show the values presenting the credo and dedication beyond business and financial goals. If reflected in everyday activities, these values are a source for the company culture. For example, the commitment to environmental protection is such a value.

1.3. External and Internal Audit

During an external and internal audit the well-known SWOT elements can be used to analysis that are directly influencing the operation of the company. The audit is looking for answers to questions that help to compile a "company diagnosis".

During the analysis of the environment being evaluated the market factors by considering the opportunities and risks. For this end, it is used the Porter's Five Forces model (Johnson et.al. 2008, p 59). According to Porter's model the

competitiveness of a company is determined by five factors (the five forces): the new entrants, the threat of substitute products, the buyer power, the supplier power, and the competitive rivalry (Porter, 2006, p 31). By this approach we search an answer to the question: What are the factors that primarily determine the competitiveness of the enterprise? Remember, this examination is a status review that can give us a starting point for compiling an organizational development strategy. Let's see some examples for what effects and relationships is needed to examine primarily.

Essentially, in the supplier and customer relationships it may be interesting that who is dominant, and what kind of dominancy they practice. The quality of partnership may bring an opportunity of creating or strengthening the strategic cooperation. However, the threat ensued from a disadvantageous position holds market risk, and the strategic answers given to a situation like this may result in organizational changes. The changes in lateral relationships raise similar questions. The opportunities for cooperation with the competitors will be discussed below, in the part about the strategic goals—during the audit being examined the competitive and market position of the enterprise. New entrants and substitute products generally have an indirect effect on organizational development, so the examination of these factors is reasonable only in some unique cases.

The audit of so-called internal factors consists of the examination of company resources and competencies regarding in what measure are these strengths or weaknesses? Literature traditionally mark strategic resources with a list of workforce, capital and assets (Turner, 2009, p 84), but for organizations I consider the examination of accumulated knowledge and company culture more important. This two factors being enough, and their quality defines the success of any organizational change. The knowledge, as a competitive factor, means basically the possession and the capability to attain this knowledge listed below:

- *market information* means a knowledge of the competitors and their products,
- the knowledge of *our own products and services* is needed for the proper market positioning,
- the knowledge of the *supply chain* is needed for the maintenance of the competitive value-creating process, and for the improvement of the efficacy of this process,
- the *management knowledge* consists of the capabilities for strategic management, and the operative governance of the company.

In an organizational development project the measure of support from the employees and the management, and the handling of conflicts resulted from the changes are critical factors. In this phase considered such elements of the *company culture* into focus that belongs to the really critical areas of strategy management. Quinn's model (Quinn, 1988, p 48) gives us a good approach for this. According to this model, it is worth to measure the market orientation of the company, e.g.: how much the management considers the customer expectations, and what roles do the service standards and how the sales play in performance-incitement? If in a market-oriented enterprise the company culture serves to maintain and improve competitiveness, it can be observed the signs of a macho-like culture. In spite of this, in a clan-type company culture the solidarity is stronger, team operation and collective responsibility are more supported than individual results. Another aspect of the audit of the company culture is the "complexity" of the organization structure, and the consequences of this complexity. For a complex internal hierarchy, strong control and standardization give security to the operation. If the company operates with a looser organization structure, the support of creativity and innovation, and the quality approach are emphasized.

I stress that it is worth examining the elements of external and internal audit which gives us information for the organizational development strategy, so this does not replace the SWOT analysis being a part of strategy creation. So, during the audit being identified the opportunities and threats derived from the relevant market factors, and the company's strengths and weaknesses.

1.4. Long-Term Goals, Strategies

In the company's goal hierarchy middle and long term strategic goals always have priority. In this context organizational development is a tactical element. The realization of business and strategic goals is served by strategic action plans that need organizational development in order to be executed. Here is an overview of what kind of business and financial strategies can be taken into account (David, 2011, p136):

- (i) The so-called *integration strategies* define tasks about the change in communication with competitors and partners participating in the supply chain. For example, the strengthening of the security of the delivery or the broadening of the sales channel may justify the purchase of a supplier or a customer, or the relationship with a competitor may shift toward some project-based cooperation. The nature of these strategies requires aggressive company behavior, because they are always proactive.
- (ii) The *intensive or organic strategies* are focusing on the strengthening of resources and competencies. For example, an improvement in the quality of customer relationships may bring up the possibility of having the customers spend more on the company from their supply budget. This includes the development of new products, thus the widening and modernization of the product (service) portfolio, or the expansion into a new market segment, sale area. Basically, the company banks upon its own, existing values and capacity, so this strategy is regarded as conservative, although if a product-developing innovation brings radical changes in positioning by the product's life cycle, or the sales channel requires significantly newer customer relationships, then it is qualified as a competitive strategy.
- (iii) *Diversification strategies* come with the broadening of the product (service) portfolio. This may mean product development for the already existing profile, or even the building of an entirely new product range (unrelated diversification). Diversification strategies are squarely competitive, because it takes the company into a new market with new product structure and altered competition.
- (iv) The *defensive strategies* basically serve the improvement of the company's financial status. For example, by reducing costs, closing shops or selling assets the company can consolidate its economy, reduce its operational costs, and liquidate departments of lower efficiency. By stronger control, the defensive characteristic leads to stronger integration.

It can be seen that each strategic goal can be answered by the means of organizational development, but the question is: Which strategy does serve the achievement of middle- and long-term business goals the best? It is important to mention that the determination of the strategic direction belongs to business strategy creation, so it is a part of the general strategy management, and the requirements made on the organization are determined by the company goals defined here.

2. ORGANIZATIONAL ASSESSMENT

2.1. Organization Goals

Strategy types described in the previous part presume different organizational development goals. Before categorizing them, let's take a look at how these goals may be summarized (Mullins, 2010, p551):

- (i) improved productivity and operation efficiency,
- (ii) stronger control,
- (iii) improved accountability, more efficient measure of performance,
- (iv) stronger cooperation between organizations and employees,
- (v) improved flexibility and adaptability,
- (vi) improved social and employee satisfaction.

Depending on company strategy, each of these factors has different weight, and the preparedness of the companies is also different, regarding in what measure they can meet these expectations. This is important, because being appointed the tasks of organizational development by these considerations. For each type of strategy can be determined a desired "SWOT mix" and the consequent strategic actions, in which each factor is weighted individually, and the evaluation of the organization's audit is compared to this.

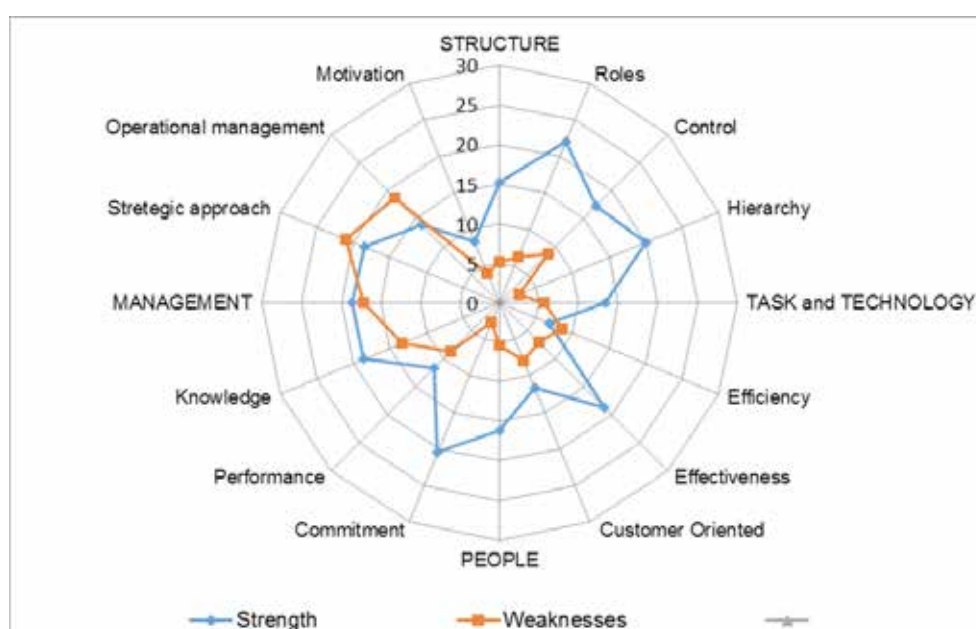
First of all, I outline what organizational development options would come from the business strategy. The so-called TOWS matrix (Wehrich, 1982, Long Range Planning 15, no. 2) gives a good base for the determination of the possible directions of development. By starting from the well-known SWOT matrix (strengths, weaknesses, opportunities, threats) can be determined the directions of actions that shows the direction of organizational development:

- (i) What strengths we can lean on to use the opportunities (SO strategy). For example, see if there is enough management capacity for the integration of a strategic supplier. Actions like this serve the realization of an aggressive strategy.

- (ii) What weaknesses we should consider in organizational development to use more market opportunities (WO strategy). For example, to open a sales channel we need more sellers. These kind of development is needed to strengthen the competitiveness.
- (iii) What strengths we can lean on to evade or moderate the unfavorable effects of market threats (ST strategy). For example, the drop of market share caused by substitute products can be moderated by price reduction and marketing actions, if we have enough resources for that. Actions like these are close to the more conservative strategies.
- (iv) What weaknesses we should consider in organizational development to evade or moderate the unfavorable effects of market threats (WT strategy). For example, the failing of competitiveness can be stopped by outsourcing certain costly functions that do not belong to the core of activities. Stronger control and supporting financial focus means defensive strategy.

This approach tries to give organizational answers to the external challenges. A possible result of the organizational audit is shown in Figure 3. In this example, the values of the radar diagram show the weighted values of the strengths and weaknesses of each organizational factor. The question may arise how could be got similarly high values for the strengths and weaknesses in the same category. It can be used different considerations to evaluate the factors. For example, in strategic approach the future orientation may be a strong point, while the management's little knowledge of the market may be a weakness.

Figure 3: The Results of the Organizational Audit



Source: Own edition

So considering, that the company's strategy goals as are given. The result of the audit helps us to identify the areas in which either can be leant on the already existing resources and capabilities, or needed to create a plan for further development. The evaluation result of each category can be quantified by the following method:

Each aspect of the organization's evaluation is weighted by its importance considering the realization of the business strategy. The summation of the weights is the same, 100 in the case of the external and the internal factors alike. The SWOT factors get values of 1, 2, 3 and 4, depending on our judgment on company's preparedness and competitiveness. The evaluation of the factors is following this rule: 1 = "the organizational competitiveness of the company is weak", 2 = "the organizational competitiveness of the company is average", 3 = "the organizational competitiveness of the company is above average", 4 = "the organizational competitiveness of the company is excellent".

The radar diagram shows the average values for the evaluation results in each category.

Example: Among the factors of the organizational roles the delegation of competencies significantly influences the efficiency of the company, thus this gets a relative weight of 10 (or 10%).

Table 1: Example of SWOT Values Quantification

Aspects of Evaluation	Category	Relative Weight	Value	Weighted Value
Responsibilities are clear	Roles	5	4	20
Competencies are delegated properly	Roles	10	4	40
Responsibilities and competencies are in balance	Roles	5	4	20
Decision-making roles are clear	Roles	2	4	8

Source: Own edition

The average of the weighted values is: 22. On the whole, this example shows that the regulation of the company roles is moderately strong, so it can be leaned on it in a strategic program (Table 1).

3. SUMMARY

Organizational development experts often face the dilemma of how to define the development directions that take the business goals of the company into account, and determine both the company's organizational structure and the factors influencing these all. During strategy creation the organizational development comes to the front only if the strategic goals require a change in the organizational elements in order to improve efficiency and reduce transaction costs, and consequently strengthen the competitiveness.

A business organization can be defined and described well by the stakeholder expectations that are in accordance with the strategic goals defining the credo of the enterprise. The mission and vision of the enterprise sets a long-term direction for the operation if there are enough resources, knowledge and experience to adapt to the external changes. In strategy management the enterprise is examined as a resource and competency "producing" and using organization. The competitive advantages making both the long-term sustainable adaptation to the environment and the achievement of the related general goals defined in the mission, it can be derived from the efficient use of assets and competency elements as well as from the efficiency of the operation. Viewed from this aspect, the enterprises are "survival machines" that need a higher level of stability to be competitive. The higher level of stability can be achieved by improving the learning ability, thus strengthening the adaptability, and "accumulating" the resources and competencies required for development sustainable in the long run. This paper gives a methodological guide to the organizational development strategy to be created by considering all these factors.

LITERATURE

1. David, Fred R. (2011): Strategic Management, Prentice Hall, p 136.
2. Johnson G. et.al. (2008): Explore Corporate Strategy, Pearson, p 59
3. Mullins L. J.: Management & Organisational Behaviour, Pentice Hall, p 551.
4. Quinn R.E (1988), Beyond Rational Management, Jossey-Bass; San Francisco. p 48.
5. Porter, M. E: (2006): Versenystratégia, Akadémia Kiadó, Budapest, p 31.
6. Turner J. R. (2009): The Handbook Of Project-Based Management, McGraw-Hill p 84.
7. Weihrich H, (1982): "The TOWS Matrix: A Tool for Situational Analysis," Long Range Planning 15, no. 2

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IMPLEMENTATION OF DIRECT MARKETING BY THE LEADING COMPANIES ON CROATIAN MARKET

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ABSTRACT

Today, modern marketing increasingly involves the use of direct marketing techniques, form of marketing that is oriented on personal, individual approach to customers. Direct marketing, with its long history, has matured today in an entirely new and complex science that requires extensive knowledge and experience of marketing experts, all with the aim of developing a deeper and long-term relationship with customers. The first companies that have started to implement direct marketing were those using direct mail, catalog sales and telemarketing. Today, companies for the purpose of direct marketing, use new technologies and new communication channels, such as the internet and mobile devices, which increases the importance of direct marketing, so today direct marketing is becoming the fastest growing form of marketing.

This paper provides the theoretical review of direct marketing and its techniques, both traditional and new ones. The paper also shows results of empirical research conducted by leading companies in the Croatian market. The results will give a better insight into the current situation when direct marketing techniques are taken into consideration.

KEYWORDS: direct marketing, interactivity, traditional direct marketing techniques, new direct marketing techniques.

1. INTRODUCTION

Today for the purpose of marketing management companies can choose between two basic approaches for communication with their customers - mass or direct communication, and increasingly they tend to choose direct one. One of the reasons may be personalized communication with well-known customers (Bose and Chen, 2009, p. 1) which is based on data collected about their needs, preferences and shopping habits (Wong et al., 2005, p. 57). Direct communication can actually help companies to create long-term and loyal relationships with carefully selected customers in order to achieve immediate reaction (Kotler et al., 2006, p. 829).

As we already mentioned, today for the purposes of direct marketing companies use older, traditional direct marketing approaches, and with the development of technology, direct marketing started using internet and mobile devices for the purpose of its activities. Therefore, direct marketing today, thanks to all its approaches or techniques became new and comprehensive business model that is changing the way companies think about building relationships with their customers (Kotler et al., 2006, p. 830).

2. DIRECT MARKETING

The concept of direct marketing can be defined in a number of ways but according to the official definition of the Direct Marketing Association (DMA), direct marketing is an "interactive system of marketing which uses one or more advertising media to effect a measurable response and/or transaction at any location" (taken from Previšić and Ozretić Došen, 2004, p. 250). Regardless of the existence of different definitions, the common characteristics of direct marketing are (Stone and Jacobs, 2001, p. 5; Dobrinić et al., 2005, p. 2; Ng, 2005, p. 629; Scovotti and Spiller, 2008, p. 199):

- interactivity - communication one-to-one, ie. two-way communication between companies and its' customers,
- one or more advertising media - direct marketing activities are not limited to the choice of one media but highlight the synergy between them (direct mail, catalogs, telephone, television, internet) in order to achieve better business results,
- measurable response - the possibility of quantifying the actual sales is considered a basic element of direct marketing,
- transactions in any location - using all available media, contact with customers can be achieved from anywhere - phone / mobile device, kiosk, post office, at home, at the store, etc., and
- customer's order - direct order from the customer based on one-on-one communication in order to create a specific long-term and trusting relationship with customers.

Most companies that use direct marketing want the same thing as their customers, and that is a well designed and honest marketing offer that is geared towards customers who will appreciate it and respond to it. Direct marketing focuses on the individual who is interested in company's offer, because it is too expensive for them to practice direct marketing that is oriented on customers who wouldn't respond to it. Some of direct marketing advantages that company can perform, and that are often mentioned in the literature are (Dolnicar and Jordan, 2007, p. 124; Hruschka, 2010, p. 239; Kotler et al., 2006, p. 831):

- the possibility of targeting specific customers,
- powerful tool for building relationships with customers - using direct marketing and database marketing, companies can target small groups or individual customers, adapt to offer to their needs, and personalize communication,
- great potential for creating customer loyalty through personalized offer and dialogue,
- the possibility of timing supply to reach customers at the right moment - depending on the interest of customers in order to stimulate their reaction,
- easier testing of alternative media and messages,
- access to customers that a company can't contact otherwise (via other channels)
- access to global markets that might otherwise be unavailable,
- inexpensive, fast and effective way to conquer the markets.

Based on the above, it can be recognized that the direct marketing today is a new branch of marketing and one of the most dynamic areas of modern marketing (Scovotti and Spiller, 2008, p. 188), which during its development changed its techniques, approaches or tools of action. These tools (direct sales, direct mail, catalog marketing, telemarketing, the Internet, mobile devices, etc.) are used to improve the dialogue and exchange of information between businesses and its' customers (Dolnicar and Jordan, 2007, p. 124). In the next section we will explain the basic direct marketing approaches, traditional and new ones.

2.1 Direct marketing approaches

The literature mentions direct marketing forms, techniques, approaches and it refers to the direct marketing channels ie. the media that transmit messages direct from companies to customers. Whether it is the traditional (direct sales, direct mail, catalogs, telephone, television) or new direct marketing approach (internet, mobile phone, etc.), its' goal is to ensure the sale and promotion of the product, and directly communicate with customers. By selecting a specific direct marketing approach companies can select a mode of direct communication with its' customers (Wong et al., 2005, p. 57). All these channels are being created and developed every day and all in order to affect the purchase decision of the individual (Ng, 2005, p. 629.).

2.1.1 Direct sales

Direct marketing has its roots in direct sales. Although direct sales is the oldest selling technique, its role is growing every day (Liao et al., 2011, p. 6059). Direct sales includes presentations and product demonstrations to customers in their homes, according to pre-planned sales visit (Dobrinić et al. 2005, p.53). The direct sales approach is associated with well-trained staff, which must determine the needs of customers and find all possible solutions to persuade customers to buy what they offer. Although the primary objective of direct sales is to sell a product / service, companies also require from their staff to create long-term relationships that will be profitable both for the company and for customers. In doing so, direct selling is defined as "interpersonal communication process in which the seller discovers and meets the customer's needs in order to achieve mutual long-term benefits for both sides" (according to Weitz et al., 2004, taken from Tomasevic Lišanin, 2010, p. 21). Although today a large number of companies use direct sales in combination with other direct marketing approaches, direct sales may be a separate, even only tool that a company can rely on during sale and promotion.

2.1.2 Direct mail

“Direct mail involves sending offers, notification, reminders, or a similar letter to a person at a given address.” (Kotler et al., 2006, p. 838). Therefore, direct mail is most commonly seen as written and addressed promotional message that is sent by mail to the address of customer. Direct mail is a form of push method of sales, and the essence of direct mail is that the potential customers are being contacted directly through various media (items of correspondence, catalogs, inserts in newspapers and magazines, fax, email, etc.), which are used to describe the product. The objectives of such messages are categorized as cognitive (data transmission, brand awareness), affective (image building) and acting (the achievement of sales and search for information) objectives (Gazquez-Abad et al., 2011, p. 168).

The main objective of direct mail is to encourage customers to take action and increase sales through direct contact with the individuals. It is therefore suitable for direct mail to communicate directly with customers because it allows a high degree of precision in the selection of the target market, the message can be personalized, flexible, and allows easy measurement of results (Kotler et al., 2006, p. 838). Although traditionally direct mail was used to sell products and services, recently it is used to improve relations between companies and customers, and to make these relations more efficient for both sides (Gazquez-Abad et al., 2011, p. 166).

2.1.3 Catalog Marketing

Catalog marketing had an explosive start, and it is considered that the concept of direct marketing started when first catalog was introduced in 1872 (Dobrinić et al., 2005, p. 82). Advantages of this direct marketing approach were recognized by a large number of companies. In catalog they could introduce a wide range of products by lower prices, which customers could buy from their home. But today its' growth is not that intense, although with the development of the Internet and interactive television new forms of catalog marketing arise and today this direct marketing approach can be revived again.

The companies that offer and sell their products exclusively by catalog, every day seek for something completely different and special. So they add to the catalog a variety of information, pictures, quality standards, colors, open phone line, they send gifts to customers or deliver some new forms of catalogs such as video catalogs (Dobrinić et al., 2005, p. 84). With the development of technology some new forms of catalogs were introduced to avoid physical, printed catalogs and also to preserve the environment, so new catalogs can be on CDs and DVDs. Also some companies use online catalogs, 3D catalogs or augmented reality catalogs published on company's web site which contributed to the increased popularity and catalog purchases, by giving customers the ability to fully control the time, manner and place of purchase.

2.1.4 Telemarketing

Telephone marketing or telemarketing involves the use of the phone for direct sale to customers. This is a channel in which the sales process takes place over the phone while fulfilling two main purposes, sale and provision of services. It should be noted that with personal selling, telemarketing is characterized as a direct marketing approach with the highest level of personality. Sellers through this channel may be persons in charge of technical support (providing technical information and answer the questions of customers), administrative support to external vendors or persons who are responsible for maintaining contacts with the smaller, individual customers (Manning and Reece, 2008, p. 43). Therefore, companies use telemarketing to create and define opportunities for sale, to do their market research, test the market, build the database, arrange meetings or maintain relationships with customers (Kotler et al., 2006, p. 837). But the telemarketing can also be used to receive orders from customers based on advertising in the media (television, direct mail, catalog), and also to receive inquiries and customers complaints.

Telemarketing is often used in integration with other media, where it serves as a feedback when the recipient receives an offer. This is a quick, easy and relatively inexpensive way to establish communication between businesses and customers. The implementation of this direct marketing approach to existing marketing system is relatively simple, and highly efficient.

2.1.5 Direct e-mail

E-mail has emerged as an important marketing tool in the online environment. It is considered to be the most successful and most frequently used form of communication technology, which with its characteristics (such as simplicity, speed,

interactivity, measurability, the fact that the message sent by mail free of charge, etc.) (Dobrinić, 2011, p. 300.; Moeck and Volkamer, 2013, p. 41) has the potential to increase the performance of the company but also to improve the brand image (Chang et al., 2013, p. 317).

E-mail communication is used for many years, starting from 1971, when the first e-mail message was sent, and today because of its features increasingly replaces traditional, physical communication (Moeck and Volkamer, 2013, p. 41). Unlike traditional direct mail, for which the distribution of postal network is necessary, e-mail is a form of direct communication without intermediaries and also the most common used form of companies' communication with the customers via the Internet. The reason for that can be the fact that e-mail is the cheapest and most effective means of presenting offers and information about products and services, with the rate of reaction between 5 and 10% (Kotler et al, 2006, p. 154). With the help of e-mail company can encourage potential and existing customers to engage in two-way communication. However, it should be noted that in this case the company must develop a database with all necessary data. However, to avoid the opposite effect, companies must be aware that e-mail can cause dissatisfaction of customers who receive too many unsolicited e-mail (spam).

2.1.6 Social networks

Social networks are considered to be the largest discovery in the 21st century, and they are defined as "places for meeting, creating and communication" (Mučalo and Sop, 2008, p. 53). They are recognized as a new direct marketing approach that allows users with common interests to exchange information and provide mutual support online. Thus, the main goal of social networks is networking of users and providing a sense of belonging to a certain community (Vazdar, 2007). Networking enables users to share information, experiences, desires, attitudes, needs, images, music, and anything else that interests them as individuals. Such communities have not gone unnoticed by the companies because they can attract customers based on their demographic, psychographic, geographic and other characteristics. Using social networks for marketing purposes can bring numerous advantages for companies, such as: an increase of sales, a positive "word-of-mouth", effective market segmentation, increase of traffic to their own sites, strengthening the brand, better advertising performance, higher return on investment, etc. (Porter, 2004). Social networks can be an effective medium that facilitates the sharing of information and the creation of trust in the digital marketplace, and also effective medium for building relationships with customers, as well as in carrying out market research (Spaulding, 2010, p. 43; Lu et al., 2010, p. 347).

2.1.7 Messages of mobile marketing

When it comes to mobile marketing, the most commonly mentioned service is SMS (Short Messaging Service) – messages of mobile marketing, which allow users of mobile devices to send and receive text messages up to 160 characters (MMA 2009). SMS is the most popular and most widely used mobile service used for interpersonal communication (Carroll et al., 2007, p. 81). Like e-mail, SMS is a personalized advertising medium (Muk, 2007. p. 179) which is, because of its characteristics considered as a direct marketing approach. It is important to note that SMS messages can be separate advertising medium, but are mainly used in addition to other, traditional media such as TV, radio, newspapers, direct mail and outdoor advertising, which gives companies better business results.

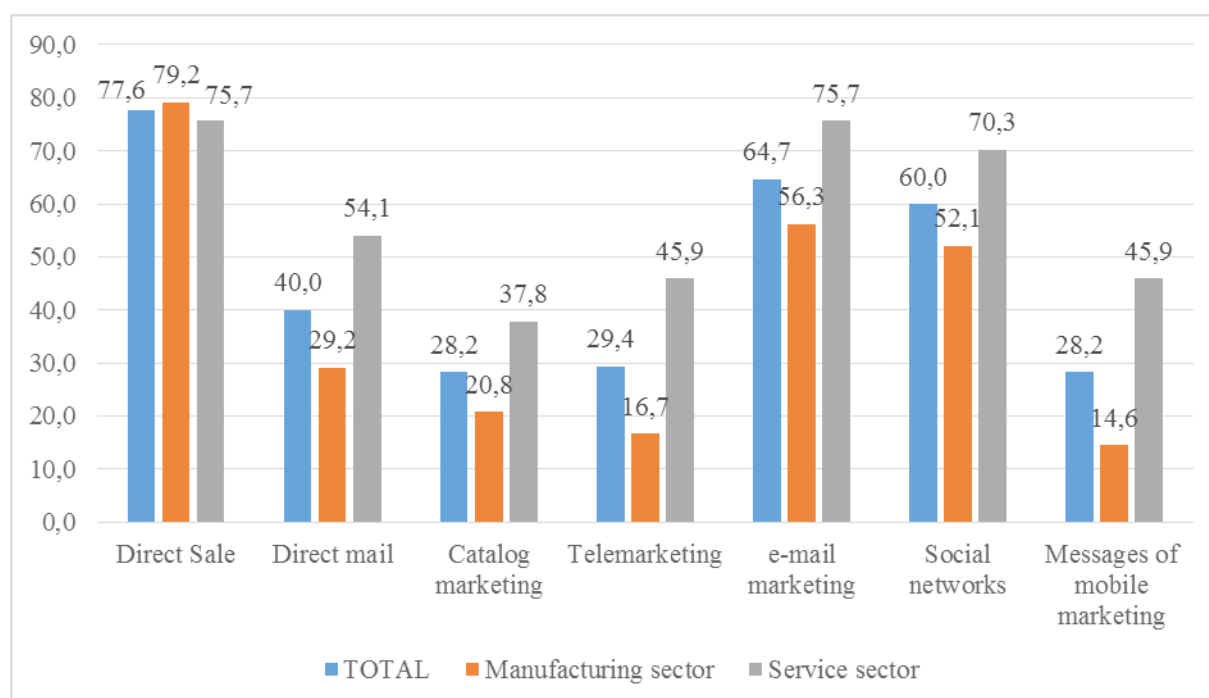
Although the importance of messages of mobile marketing today decreases due to the appearance of various free applications available for mobile devices, which offer the option of sending alternative message, the role of SMS marketing communications has remained extremely important. Some of the reasons may be: high range, highly targeted customers, personal messages, low cost and high efficiency (Maneesoonthorn and Fortin, 2006, p. 68).

3. THE USE OF DIRECT MARKETING BY THE COMPANIES ON THE CROATIAN MARKET

For the purpose of writing this paper quantitative descriptive study by examining top-level managers of leading companies on the Croatian market was carried out. The survey instrument was a questionnaire. The survey was conducted through e-mail in the period from early June to the end of July 2014. 400 questionnaires were sent and 192 managers of leading companies in the Croatian market answered the questionnaire, but only 85 of top-level managers have fully responded to all the questions (which makes a return of 21.25%). Based on their responses, statistical analysis was conducted. For the analysis of empirical data statistical package IBM SPSS Statistics 21 was used. In this section we will point out some of the results.

When asked to indicate which direct marketing approach company in which they work uses, noting that they could choose more than one answer, according to results the majority of companies (77.6% of them) use direct sale which is the oldest form of direct marketing. It is surprising that even 64.7% of companies use e-mail as a direct way of communicating with customers, and 60% of leading companies on Croatian market use social networks. It should be noted that when using direct sales, the most commonly used forms of direct marketing, there is a big difference between sectors, while the difference is much higher when using direct mail marketing (29.2% of the manufacturing sector companies and 54.1% of the service sector companies), telemarketing (16.7% of the manufacturing sector companies and 45.9% of the service sector companies), direct e-mail (56.3% of the manufacturing sector companies and 75.7% of the service sector companies), social networks (52.1% of the manufacturing sector companies and 70.3% of the service sector companies) and mobile marketing message. These results on the one hand are not surprising if we take into account their area of operation. It is interesting that all three of the new direct marketing approaches (e-mail, social networks and messages of mobile marketing) have been used more by the service sector. However, the biggest difference between sectors is when using messages of mobile marketing, which only 14.6% of manufacturing sector companies use, while even 45.9% of the service sector companies use mobile messages as a form of communication with customers.

Figure 1. Use of direct marketing approaches by the leading companies on the Croatian market



Source: Authors

When asked to allocate direct marketing approach that they consider to be the most effective to achieve satisfied/loyal customers (Table 1) it is interesting that the largest number of managers (55.3%) believe that the most effective approach is direct sales, at the second place they highlighted social networks with 10.6%. Among sectors there are no significant differences, except when we compare results associated with using catalog marketing. 10.4% of managers of leading companies in the manufacturing sector consider catalog marketing as the most effective direct marketing approach to achieve satisfied and loyal customers, while only 2.7% of managers of leading companies in the service sector saw catalog marketing as the most effective one. On the other hand, 16.2% of managers of leading companies in the service sector consider social networks as the most effective direct marketing approach in comparison to 6.3% of managers of leading companies in the manufacturing sector. At the same time, service sector companies use social networks more (70.3%) than the manufacturing sector companies (52.1%) do.

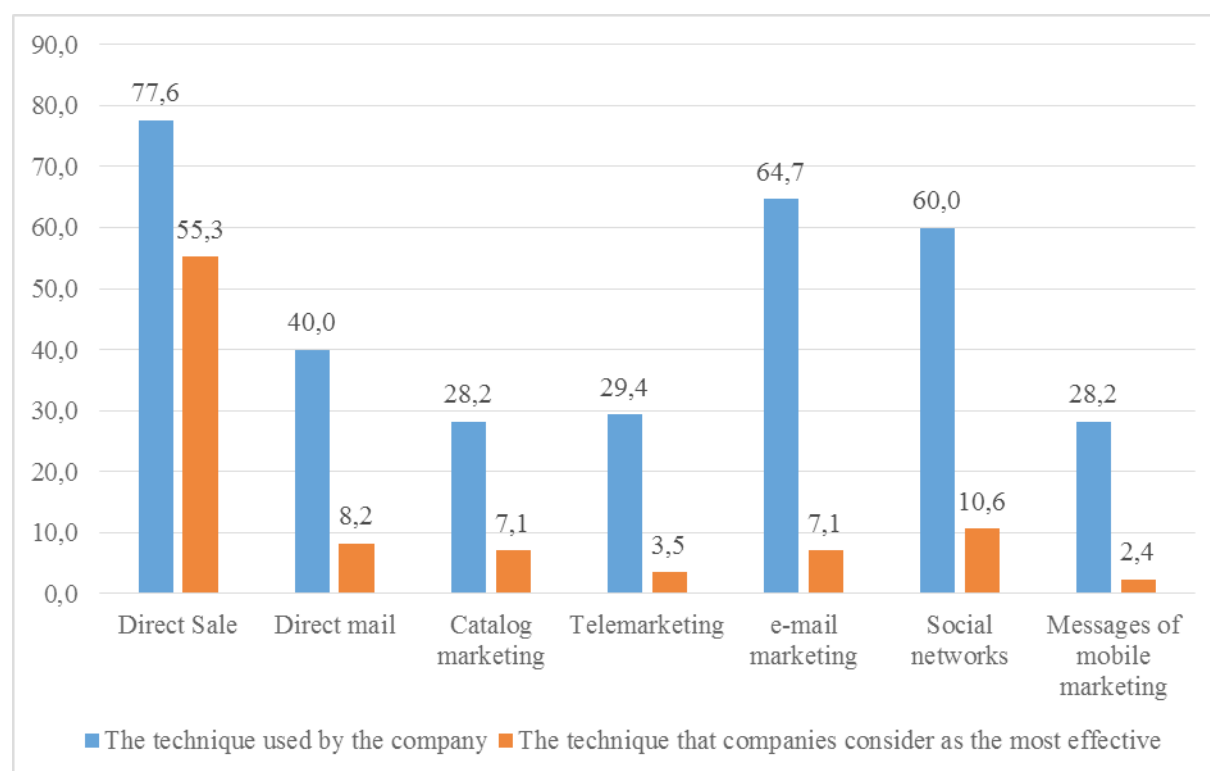
Table 1. The most effective approach to direct marketing

Direct marketing approaches		TOTAL	SECTOR	
			Manufacturing sector	Service sector
Direct Sale		55,3	58,3	51,4
Direct mail		8,2	8,3	8,1
Catalog marketing		7,1	10,4	2,7
Telemarketing		3,5	2,1	5,4
e-mail marketing		7,1	8,3	5,4
Social networks		10,6	6,3	16,2
Messages of mobile marketing		2,4	2,1	2,7
Other		2,4	2,1	2,7
None of the above		3,5	2,1	5,4
Total	Total respondents (N)	85	48	37
	The share of respondents (%)	100,0	56,5	43,5

Source: Authors

We can see interesting results when we compare the results of using direct marketing approach with those that managers of leading companies on the Croatian market choose as the most efficient approach to create satisfied and loyal customers (Figure 2). Although 29.4% of companies use telemarketing, only 3.5% of managers consider it is the most effective one to create satisfied and loyal customers. Similarly, direct e-mail is used by 64.7% of the companies, but only 7.1% of managers noted this approach as the most effective one to create satisfied and loyal customers. Among other direct marketing approaches, according to results, there is no big difference among sectors. Results for social networks and mobile marketing messages, as detected new to direct marketing approaches are not surprising if we take into account that mobile marketing messages use a small number of companies.

Figure 2. Comparison of the results - Usage of direct marketing approaches with the efficiency to create satisfied and loyal customers



Source: Authors

4. CONCLUSION

This paper discusses the turbulent and increasingly studied area of direct marketing that enables direct or interactive communication between businesses and customers. While direct communication can include personalization or customization of all offers (where both parties, customers and companies are involved in the creation of the desired product or service) in order to create satisfied customers with whom the company later can maintain long-term and loyal relationships

In order to achieve direct communication with its customers companies can use different direct marketing approaches. Throughout history direct sales, direct mail, catalog marketing, telemarketing as four basic, traditional forms of direct marketing that are most important for the company have occurred, and thereby the most commonly used. Each of them has its advantages and disadvantages, and they are in a greater or lesser extent still used today. However, technological developments have emerged new ways or new direct marketing approaches (e-mail, social networks and messages of mobile marketing), which are gaining in importance every day, perhaps even more than the traditional ones which can be seen from the results of research conducted on leading companies on the Croatian market.

LITERATURE

1. Bose, I., Chen, X. (2009) 'Quantitative models for direct marketing: A review from systems perspective', *European Journal of Operational Research*, 195, 1.–16.
2. Carroll, A., Barnes, S.J., Scornavacca, E., Fletcher, K. (2007) 'Consumer perceptions and attitudes towards SMS advertising: recent evidence from New Zealand', *International Journal of Advertising*, 26(1), 79.–98.
3. Chang, H.H., Rizal, H., Amin, H. (2013) 'The determinants of consumer behavior towards email advertisement', *Internet Research*, 23(3), 316.–337.
4. Dobrinić, D. (Ed.) (2011) *Marketing i baze podataka*, Fakultet organizacije i informatike Varaždin i CRODMA: Varaždin.
5. Dobrinić, D., Dvorski, S., Hutinski, Ž., Vrčec, N. (2005) *Izravni marketing*, TIVA-Tiskara Varaždin: Varaždin.
6. Dolnicar, S., Jordan, Y. (2007) 'A market-oriented approach to responsibly managing information privacy concerns in direct marketing', *Journal of Advertising*, 36(2), 123.–149.
7. Gázquez-Abad, J.C., De Cannière, M.H., Martínez-López, F.J. (2011) 'Dynamics of Customer Response to Promotional and Relational Direct Mailings from an Apparel Retailer: The Moderating Role of Relationships Strenght', *Journal of Retailing*, 87(2), 166.–181.
8. Kotler, P., Wong, V., Saunders, J., Armstrong, G. (2006) *Osnove marketinga*, Mate: Zagreb.
9. Liao, S., Chen, Y., Hsieh, H. (2011) 'Mining customer knowledge for direct selling and marketing', *Expert Systems with Applications*, 38(5), 6059.–6069.
10. Lu, Y., Zhao, L., Wang, B. (2010) 'From virtual community members to C2C e-commerce buyers: Trust in virtual communities and its effect on consumers' purchase intention', *Electronic Commerce Research and Applications*, 9(4), 346.–360.
11. Maneesoonthorn, C., Fortin, D. (2006) 'Texting Behaviour and Attitudes Toward Permission-based Mobile Advertising', *International Journal of Mobile Marketing*, 1(1), 66.–72.
12. Manning, G.L., Reece, B.L. (2008) *Suvremena prodaja, stvaranje vrijednosti za kupca*, Mate: Zagreb.
13. MMA (2009) Mobile Marketing Association: Mobile Advertising Overview, Denver [online], available: <http://mmaglobal.com/mobileadoverview.pdf> [accessed 22 Oct 2011].
14. Mučalo, M., Šop, S. (2008) 'Nova publika novih medija', *Informatologija*, 41(1).
15. Muk, A. (2007) 'Consumers' intentions to opt in to SMS advertising', *International Journal of Advertising*, 26(2), 177.–198.
16. Ng, I.C.L. (2005) 'Does direct marketing need to have a direction', *Marketing Intelligence & Planning*, 23(7), 628.–635.
17. Porter, C.E. (2004) 'A Typology of Virtual Communities: A Multi-Disciplinary Foundation for Future Research', *Journal of Computer-Mediated Communication*, 10(1).
18. Previšić, J., Ozretić Došen, V. (Eds.) (2004) *Marketing*, Adverta: Zagreb.
19. Scovotti, C., Spiller, L.D. (2008) 'Revisiting the conceptual definition of direct marketing: perspectives from practitioners and scholars', *The Marketing Management Journal*, 16(2), 188.–202.
20. Stone, B., Jacobs, R. (2001) *Successful Direct Marketing Methods*, VII. Edition. ed, McGraw-Hill: New York.
21. Tomašević Lišanin, T. (2010) *Profesionalna prodaja i pregovaranje*, HUPUP: Zagreb.
22. Wong, K.W., Zhou, S., Yang, Q., Yeung, J.M.S. (2005) 'Mining Customer Value: From Association Rules to Direct Marketing', *Data Mining and Knowledge Discovery*, 11(1), 57.–79.

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SECURITY PROBLEMS AND PRIVACY CONCERNS IN INTERNET MARKETING

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ABSTRACT

When talking about marketing activities, especially internet marketing, one of the most important questions that arises is the question of privacy of user data. This paper gives an introduction to internet marketing in general and emphasizes the importance of privacy of user data in internet marketing. If one takes into consideration that the definition of privacy is the ability of individuals to control information about themselves, the way in which the data will be collected and how much data will be collected about them, possible security threats can be determined. The paper gives a description of those threats on the Internet, and methods of threat detection and protection. Confidentiality, integrity and availability as basic security concepts are described, as well as the most common threats on the Internet.

KEY WORDS: internet marketing, security, privacy, data

1. INTRODUCTION

Innovation, especially in the field of new technologies development, have had a major impact on the development of modern marketing. Often, the traditional media are no longer enough to retain existing consumers and attract new ones and especially to maintain competitive advantage. Consequently, completely new forms of marketing communications have developed. Two basic characteristics of these new forms of marketing are interactivity and digitalism (Bezjian-Avery et al., 1998; Winer, 2009; Mei et al., 2010). As the new media have developed, over time the new consumers (users) have also been developed. They choose, participate, create, publish, communicate, share, criticize, advise and buy, all as a result that they are computer literate, mobile, active, picky, demanding and merciless (Mučalo and Sop, 2008, p. 55). With the help of the Internet as a phenomenon of modern times, there have been changes in marketing concepts, and thus modern marketing based on a completely new paradigm, in which the consumer becomes the creator of the offer and from the start guides the features of products he wants to buy (Jelčić, 2008, p. 240.).

Internet marketing is, unlike the conventional marketing, defined as "the use of the Internet and other digital technologies to achieve marketing objectives, and not just those promotional" (Chaffey et al., 2006, p. 8). However, other definitions perceive internet marketing from different aspects. So Ngai defines Internet marketing as "the process of creating and maintaining relationships with consumers through online activities in order to facilitate the exchange of ideas, products and services that meet the objectives of the consumer and the retailer" (Ngai, 2003, p. 24). Other definitions say that Internet marketing involves "the use of the Internet as a virtual store where the products are sold directly to consumers" (li et al., 2013, p. 177), or is viewed as a "strategic process of creation, distribution, promotion and price setting for products that are specifically targeted to the customer in a virtual environment" (li et al., 2013, p. 177).

Due to the different aspects of researching Internet marketing and a variety of roles, there are also different forms of Internet marketing:

- e-mail marketing - a form of direct marketing-based on e-mail messages,
- viral marketing - based on the chain expansion (like a virus) of e-mails with marketing messages,
- affiliate marketing - web site with another company products and service ads which makes a profit for each click on the link or ad-driven transaction,
- permission based marketing - marketing which delivers marketing messages to customers who have agreed to receive marketing messages from the company. It is based on the idea that the power to manage the communication with companies and decision-making should be given to the very consumers. Therefore, this is the only form of marketing that is considered ethical,
- social network/social media marketing - relies on various forms of social communities (blogs, forums, social networks, etc.), and
- search engine marketing - provides visibility of company web sites by increasing/directing traffic to the Web site, which includes Search Engine Optimization and paid position, or a Pay-Per-Click or Paid Search Marketing.

The reasons for the growing use of Internet marketing by the companies are the advantages it offers, such as two-way communication between companies and consumers that enables the effective identification, tracking user behavior and reactions, anticipate and meet consumer needs, building long-term relationships with customers, managing relationships with them, measurable effects, rapid adaptation to market conditions and the reduction of operating costs and unbeatable return of investment. It is also good to note that both large and small businesses can afford internet marketing, the advertising space is not limited, access to information is very fast, and that the purchase can be done quickly and from home (Vranešević et al., 2008, Dobrinić, 2011, p. 271, Lin et al., 2004, p. 601.).

With the advent of the Internet, a number of challenges for the company appeared, and one of the big problems is the issue of privacy. In this paper we look at security problems that occur by using Internet marketing in communication with consumers. This form of marketing is a specific reason that consumers demand protection of their data, yet they were willing to share the data with the company in certain conditions.

2. CONCEPT OF PRIVACY IN INTERNET MARKETING

When it comes to marketing activities via the Internet, inevitably a question of legal and ethical correctness concerning the use of consumers' data and privacy of the data arises. Privacy is seen as a level to which the personal data are not publicly known (Rust et al., 2002, p. 456), or the right of every individual to be left alone (Castañeda and Montoro, 2007, p. 119).

If we talk about internet marketing, especially some of its forms, there are significant problems associated with aggressive, sometimes "fuzzy" tactics that companies use, which may disturb and harm consumers. So overuse of internet marketing activities sometimes bothers consumers, especially in the case of spam, using the information published on social networks, monitoring the movements of consumers via mobile devices and the like. But all this can be somewhat acceptable. The problems occur when you violate consumers' privacy, and that is one of the biggest regulatory problems in countries around the world. Therefore, in order to preserve privacy and gain the trust of consumers, companies create rules or policies on the protection of consumer privacy, which are based on Ethics Manual of Direct Marketing Association (Vranešević et al. 2008, p. 215). The privacy policy conditions that consumers are notified when their information is lent, sold or exchanged with others, and that they must respect the requirements of consumers to be excluded (the opt-out list) from the exchange of information with other companies if you do not want to receive mail, telephone calls or other forms of persuasion (Kotler et al., 2006, p. 843). Therefore, it is extremely important for companies engaged in internet marketing to store data and provide data privacy because otherwise, unethical behavior can lead to negative attitudes of consumers, lower reaction rate and the creation of strict legislation.

2.1. Online privacy

Most marketing experts who deal with the new media, have become highly skilled in the collection and analysis of detailed data on consumers. Therefore, the protection of privacy has been actualized by advent of the Internet (Rust et al., 2002; Hinduja, 2004; Ashworth and Free, 2006; Lauer and Deng, 2007; Smith and Shao, 2007; Taylor et al., 2009) and its use for the purpose of internet marketing implementation (Castañeda and Montoro, 2007). Given the high importance of privacy, today there are a number of papers on the subject. The works are mainly focused on the adoption of privacy policies and the consequences if the companies do not comply, on different aspects of regulation policy, as well as research conducted in order to detect the influence of the privacy on the online trust (Castañeda and Montoro, 2007, p. 118; Taylor et al., 2009, p. 207). Privacy problem is further emphasized with the emergence of social networks (Dwyer et al., 2007; Lin and Liu, 2012) and their use for marketing purposes.

One of the most studied areas of privacy is online privacy and its protection, it cannot be bypassed in considering new approaches to direct marketing. In doing so, online privacy is defined as a "concern of internet users related to controlling the collection and subsequent use of data generated about him during his online activities or collected on the Internet" (Castañeda and Montoro, 2007, p. 119). It should be appreciated that, as different dimensions of privacy appear in general, different dimensions of online privacy appear also, concerning the collection and processing of data on internet users, and they are (adapted from Rezgui et al., 2003, p. 42; Taylor et al., 2009, p. 206; Mekovec, 2010, p. 22-23):

- data collection - data on internet user may not, without his knowledge and approval be collected during his activity on the Internet,
- data usage - person on which data are collected should be informed about the purpose of data collection,
- data storage - relates to the issue of whether a specific website stores information gathered about users and how long it can keep and use the saved data,

- disclosure of information - the individual must give permission that the web site may disclose information about him to a third party,
- data security - refers to a variety of mechanisms that can ensure the security of data that the particular web site collected about its users,
- access control - it should be clearly defined who has access to data collected within and outside the company,
- monitoring - refers to the various ways and mechanisms of monitoring the system for collection of user data, and
- changes in privacy policies - changes in privacy policies that particular web site uses (privacy policies should be published and available to users), they cannot be applied retroactively.

Today it is very easy to track web site visitors and their activities through cookies or other tools, which can lead to misuse of information and cause a lot of problems related to privacy (Hinduja, 2004, p. 40; Ashworth and Free, 2006, p. 108). For this reason, many consumers and legislators fear that companies exaggerate and violate the consumer's right to privacy and security (Kotler et al., 2006, p. 155). However, socially responsible companies from the start respond to the concerns of consumers to protect their privacy and give them security. Such companies control their own privacy policies and security and publish it on their websites.

2.2. Privacy protection

With the development of technology the need for a legal framework to protect the privacy of consumers began to emerge, because the technology enables the collection, storage, data processing and data use. It should be borne in mind that the legal framework of privacy protection should protect consumers' personal information against loss, damage, destruction, unauthorized access, unauthorized or accidental value alteration, the illegal use and unauthorized disclosure (Panian, 2003, p. 249).

Panian (2003, p. 248th to 249th) states that privacy is an extremely complex problem that requires companies to write a good privacy policy. The company should consider informing consumers about privacy policy, restrictions on the collection and use of consumer data, choice and consent of the user, the quality of data and access to data and the security of such data. Users should be informed about the nature of the data collected or used, data collection policy, the purpose of any processing of their personal data, the identity of the person who has control over their personal data and processing of their data.

Given that consumers want to keep their privacy to themselves and that companies are well aware of that, they adopt the official privacy policy which is made available to consumers. The official privacy policies are usually published on the company website, in the form of (Blattberg et al., 2008, p. 85):

- Opt-in or opt-out list - where the "opt-in" list means that customers have the possibility to agree that their data are used in various ways in order to receive certain marketing offers (eg. give your e-mail address in order to receive electronic newsletter, noting that the company does not check the validity of these addresses). Today, a double opt-in approach is often used, where companies check the data to avoid the abuse of false information (Previšić, 2011, p. 501.). The "opt-out" list means that the customer can ask for the non-use of his data for marketing purposes. That is, they indicate the procedure by which the user can check out a particular mailing list, usually by clicking on a particular link. Or if it comes to mobile marketing, SMS (Previšić, 2011, p. 501).
- Internal use or use by third parties - companies may use the information only for their own marketing efforts and needs, or can exchange, sell the information to other "partner" companies (third parties), on which consumers must agree.
- The consumer characteristics or information about purchase history - some companies only collect data on the consumers characteristics (such as age, sex, etc.), while others also collect data on purchase history, and increase the number of marketing activities that can be used.

However, although in most cases there is publicized privacy policy, it is sometimes difficult for consumers to interpret them, which can lead to conflicts between businesses and consumers. Although most companies prefer the opt-out list, the problems with these lists exist. This is because most consumers do not read or do not understand well the available privacy policy and are not aware that they have agreed to receive marketing offers from the said company or a third party and have a sense that their privacy is invaded.

3. SECURITY PROBLEMS WITH POSSIBLE SOLUTIONS

All of the previously mentioned concerns show that cyber security is essential for internet marketing. All of the information users leave on different websites, are of interest to hackers who can steal users' identities, credit card information and other data.

With convenience and easy access to information come certain risks. Valuable information could be lost, stolen, damaged, or misused, and the computer systems could be damaged. If data is recorded electronically and is available on networked computers, it is more vulnerable than if the same data is printed on paper and locked in a cabinet. It is possible to steal or modify information without touching a piece of paper or photocopying. It is possible to create new electronic files, run programs, and hide evidence of unauthorized activity (Computer Emergency Response Team, 2012).

The three basic security concepts important for information on the Internet are confidentiality, integrity and availability (Computer Emergency Response Team, 2012):

- Loss of confidentiality - when information is read or copied by unauthorized persons
- Loss of integrity - when the information is changed in unexpected ways (human error or deliberate)
- Loss of availability – when information is deleted or becomes unavailable

3.1. Security threats

The vulnerability is a weakness that people can take advantage of in order to achieve something that is not authorized. When the vulnerability is exploited to jeopardize the safety of the system, or information about these systems, the result is a security incident (Computer Emergency Response Team, 2012). Cyber attacks target specific individuals and organizations to steal data. Advanced cyber attacks succeed because they are carefully planned, methodical, and patient. By the time most organizations realize they've suffered a data breach, they have actually been under attack for a while (Fire eye, 2015).

There are different classifications of security threats in an organization. NIST (2015) classifies cyber threats according to threat agents: attackers, bot-network operators, criminal groups, foreign intelligence services, insiders, phishers, spammers, spyware/malware authors, terrorists and industrial spies. Security threats can also be divided into those caused by malware, social engineering techniques, online scams and denial of service attacks (Computer Emergency Response Team, 2012).

Malicious programs are computer programs whose main goal is to compromise computers. The types of malware are viruses, worms and Trojan horses (Carnet, 2015). The virus is a hidden malicious computer program whose function is intentional jamming and/or change of how the computer works without the permission or knowledge of the user (Tech Terms, 2015). Worms are malicious programs that are very similar to viruses and by some security experts placed under the category of viruses. The main difference is that for worms to spread, the action is not required, but they are placed and hidden in the computer's memory (Pcmag, 2015). Trojan horse are programs that seem useful, but despite that, their mission is to compromise the security of the computer and cause damage. They come via e-mail, via various download services and in many other ways (Webopedia, 2015).

Social engineering is a set of skills with a goal to persuade the user to meet the requirements of the attacker. It is a very efficient method of obtaining unauthorized access to computers. Most often carried out through social networks (Mažar, 2015).

Online scams include (Mažar, 2015) phishing, lottery scams and Nigerian scams. Phishing is the use of fake e-mails and fraudulent web sites to get the users to disclose confidential personal information. Lotto Scam is the notice of winning the lottery (the goal is to get information or direct financial benefit). Nigerian scam is asking for help in the transfer of large sums of money (direct financial benefit).

Some unwanted e-mails are used for advertising countless web sites, companies and organizations. Others serve as a selling point, and sometimes intimidating a person. The forms of spam are spam, spim and hoax (TVZ, 2015). Spam is unsolicited messages received by e-mail, real-time messages, discussion groups, web search engines, blogs and mobile phones ety. Spim is spam received by direct messaging clients. Hoax is a message sent by e-mail in order to deliberately disinform, intimidate or harass the recipient. The sender is trying to convince the recipient that the received message should be forwarded to as many people as it will help someone or make money.

Denial of service attacks. The goal of denial of service attacks is not to gain unauthorized access to machines or data, but rather to prevent legitimate users of the service to use the service. Denial of service attacks can come in many forms. Attackers can flood the network with large amounts of data or deliberately consume low or limited resources. They may also disrupt physical components of the network or manipulate data in transit, including encrypted data (Computer Emergency Response Team, 2012).

There are a number of examples of data breaches. Some of them are (CRN, 2015):

- Kaspersky Lab. The attack was believed to be a nation-state-sponsored attack, whose other victims included events and venues with links to world power meetings, including recent negotiations for an Iran nuclear deal.
- Multi-Bank Cyberheist. A billion-dollar bank cyberheist affecting 100 banks around the world. The breaches infiltrated the banks' networks using tactics such as phishing and gaining access to key resources, including employee account credentials and privileges.
- Harvard University. Breach affected eight schools and administrative offices, though it remains unclear what information was accessed by the hackers. Two Penn State University breaches compromised the information of 18,000 people since the attack started in 2012.
- LastPass. It had been the victim of a cyberattack, compromising email addresses, password reminders, server per user salts and authentication hashes.

3.2. Threat prevention

Because of all the mentioned threats, both organizations and clients need to take measures to ensure the protection of data. In order to prevent the loss of data, organizations can take the following steps for securing their web sites (Sophos, 2015), (Examiner, 2015): choose a dedicated server over a shared server, check the frequency of security updates and speed of patching, don't run scripts that you don't need, stay up to date on server-side changes, know who's modifying your data and when, ensure your data and server's physical security, establish a legal policy on Personally Identifiable Information (PII), implement code sanitizing on any input fields, get your site added to list of monitored websites, scan all outgoing campaign emails, when sending emails to consumers, periodically remind consumers that your company will never ask for personal information, never obtain the social security number from your customers unless absolutely necessary, conduct on-going system audits to prevent IT systems from carrying this high-risk data and to ensure data is protected, security should be a core part of your entire mobile or social channel activities from the idea generation and system inception through the closing phases and beyond.

It is not enough for organizations to take security measures. No amount of measures is enough if consumers do not pay attention to their security. Steps that can be taken by consumers (Cyber Security Threats, 2015), (Methods to ensure Internet security, 2015), (WikiHow, 2015): safety insurance (don't run programs of unknown origin, disable hidden filename extensions, keep all applications, including your operating system, patched, turn off your computer or disconnect from the network when not in use, disable Java, JavaScript, and ActiveX if possible, disable scripting features in email programs, make regular backups of critical data), identity protection (do not use simple passwords, while installing programs or accepting terms, always read the fine print, do not leave your full name, address or phone number online, unless you personally know the person, watch out for online scams), connection protection (always use antivirus program and firewall, when using a public firewall, disable file sharing and network detection, always check information on secure transactions, configure your browser to filter or block inappropriate content) and safe download (download files and programs only from trusted websites, never open e-mail attachment from unverified source).

4. CONCLUSION

The development of new technologies has had a major impact on the development of modern marketing, especially internet marketing. One of the important aspects of internet marketing is privacy and security of users. Information users leave on different websites, are of interest to hackers who can steal users' identities, credit card information and other data. It is not enough for organizations to take security measures. No amount of measures is enough if consumers do not pay attention to their security. This paper gave an introduction to problems of security and privacy in internet marketing. Also the guidelines for companies and consumers for threat prevention have been given. Future work will concentrate on researching how companies and consumers on Croatian market comply with these guidelines.

LITERATURE (alphabetical order)

1. Ashworth, L., Free, C. (2006). 'Marketing Dataveillance and Digital Privacy: Using Theories of Justice to Understand Consumers' Online Privacy Concerns', *Journal of Business Ethics*, 67(2), 107.–123.
2. Bezjian-Avery, A., Calder, B., Iacobucci, D. (1998.) 'New Media Interactive Advertising vs. Traditional Advertising', *Journal of Advertising Research*, 23.–32.
3. Blattberg, R.C., Kim, P., Neslin, S.A. (2008.) *Database Marketing: Analyzing and Managing Customers*, Springer: New York
4. Branko mažar: Internet Security, Department of Computer Security
5. Castaneda, J.A., Montoro, F.J. (2007.) 'The effect of Internet general privacy concern on customer behavior', *Electronic Commerce Research*, 7(2), 117.–141.
6. Chaffey, D., Ellis-Chadwick, F., Mayer, R., Johnston, K. (2006.) *Internet Marketing: Strategy, Implementation and Practice*, 3rd Edition. ed, Pearson Education
7. Computer Emergency Response Team, URL (http://www.cert.org/encyc_article/tocencyc.html), loaded 02.07.2012
8. Croatian Academic and Research Network, Teleconferencing: Security on the Internet, the Croatian Academic and Research Network
9. Cyber Security Threats, URL (<http://websavvy marketers.com/2014/09/cyber-security-threats-digital-wild-west/>), loaded 02.10.2015
10. Dobrinić, D. (Ed.) (2011.) *Marketing i baze podataka*, Fakultet organizacije i informatike Varaždin i CRODMA: Varaždin
11. Dwyer, C., Hiltz, S., Passerini, K. (2007.) 'Trust and Privacy Concern Within Social Networking Sites: A Comparison of Facebook and MySpace', *AMCIS 2007 Proceedings*, available: <http://aisel.aisnet.org/amcis2007/339>.
12. Hinduja, S. (2004.) 'Theory and policy in online privacy', *Knowledge, Technology & Policy*, 17(1), 38.–58
13. How to Be Safe on the Internet, URL (<http://www.wikihow.com/Be-Safe-on-the-Internet>), loaded 02.10.2015
14. Ii, J.K.C., Jourdan, Z., Ingram, W.R. (2013.) 'Internet marketing: a content analysis of the research', *Electronic Markets*, 23(3), 177.–204
15. Jelčić, N. (2008.) 'Internet oglašavanje', *Medijski dijalozi*, 1(1), 239.–246.
16. Kotler, P., Wong, V., Saunders, J., Armstrong, G. (2006.) *Osnove Marketinga*, Mate: Zagreb
17. Lauer, T.W., Deng, X. (2007.) 'Building online trust through privacy practices', *International Journal of Information Security*, 6(5), 323.–331.
18. Lin, S.-W., Liu, Y.-C. (2012.) 'The effects of motivations, trust, and privacy concern in social networking', *Service Business*, 6(4), 411.–424.
19. Lin, T.M.Y., Luarn, P., Lo, P.K.Y. (2004.) 'Internet market segmentation – an exploratory study of critical success factors', *Marketing Intelligence & Planning*, 22(6), 601.–622.
20. Mei, J.S.A., Bansal, N., Pang, A. (2010.) 'New media: a new medium in escalating crises?', *Corporate Communications: An International Journal*, 15(2), 143.–155.
21. Mekovec, R. (2010.) Činitelji korisničke percepcije online privatnosti te njihova povezanost s procjenom kvalitete e-usluge, Doktorska disertacija
22. Methods to ensure Internet security, URL (http://armor2net.com/knowledge/internet_security.htm), loaded 02.10.2015
23. Mučalo, M., Šop, S. (2008.) 'Nova publika novih medija', *Informatologija*, 41(1).
24. National Institute for Standards and Technology, URL (<http://csrc.nist.gov/publications/nistpubs/800-82/SP800-82-final.pdf>), loaded 02.07.2015
25. Ngai, E.W.T. (2003.) 'Internet marketing research (1987-2000): a literature review and classification', 37(1/2), 24.–49.
26. Online and mobile marketing opens more security concerns, URL (<http://www.examiner.com/article/online-and-mobile-marketing-opens-more-security-concerns>), loaded 02.10.2015
27. Panian, Ž. (2003.) Odnosi s klijentima u e-poslovanju, Sinergija: Zagreb
28. Previšić, J. (Ed.) (2011.) *Leksikon marketing*, Ekonomski fakultet Zagreb: Zagreb
29. Rezgui, A., Bouguettaya, A., Eltoweissy, M.Y. (2003.) 'Privacy on the web: facts, challenges, and solutions', *IEEE Security and Privacy*, 1(6), 40.–49.
30. Rust, R.T., Kannan, P.K., Peng, N. (2002.) 'The Customer Economics of Internet Privacy', *Journal of the Academy of Marketing Science*, 30(4), 455.–464.
31. Smith, R., Shao, J. (2007.) 'Privacy and e-commerce: a consumer-centric perspective', *Electronic Commerce Research*, 7(2), 89.–116.
32. Sophos, Best practices top 10: Keep your e-marketing safe from threats
33. Taylor, D.G., Davis, D.F., Jilapalli, R. (2009.) 'Privacy concern and online personalization: The moderating effects of information control and compensation', *Electronic Commerce Research*, 9(3), 203.–223.
34. Tech terms: Virus definition, URL (<http://www.techterms.com/definition/virus>), loaded 02.10.2015
35. The 10 Biggest Data Breaches Of 2015, URL (<http://www.crn.com/slide-shows/security/300077563/the-10-biggest-data-breaches-of-2015-so-far.htm/pgno/0/10>), loaded 02.10.2015
36. The Difference between a Computer Virus, Worm and Trojan horse, URL (<http://www.webopedia.com/DidYouKnow/Internet/2004/virus.asp/>), loaded 02.10.2015
37. URL (<http://sigurnost.tvz.hr/Maliciozni-i-stetni-programi>), loaded 02.10.2015
38. Vranešević, T., Dvorski, S., Dobrinić, D., Staničić, S. (2008.) *Inovativni marketing*, TIVA-Tiskara Varaždin: Varaždin
39. Winer, R.S. (2009.) 'New Communications Approaches in Marketing: Issues and Research Directions', *Journal of Interactive Marketing*, 23, 108.–117.
40. Worm definition, URL (http://www.pcmag.com/encyclopedia_term/0,2542,t%3Dworm&i%3D54874,00.asp), loaded 02.10.2015

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E -BUSINESS CUSTOMER RELATIONSHIP AND PERCEPTION IMPROVEMENT BASED ON PROCESS ORIENTED APPLICATIONS

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ABSTRACT

Effective Customer relationship presupposes proper support through information and communications technology as well as through an effective management system. An effective management system consists of various management tools, which are among others dealing with organizational performance measurement. A performance measurement method called Balanced scorecard has virtually become a synonym for management by performance measurement. Balanced scorecard has been devised as a means of transforming the organizational vision and strategy into a concrete set of activities. In this paper, we consider its application for e-business Customer relationship and perception improvement based on process-oriented applications.

KEY WORDS: E-Business, Customer relationship improvement, Process oriented applications.

1. INTRODUCTION

Basic terms we deal with in this paper are Process Oriented Application (shorter POA), Balanced Scorecard (shorter BSC) based management system and e-business in relation with Customer relationship management. How do these basic three terms interrelate and how can they be implemented in order to contribute to Customer relationship management is presented in the next section of the paper. First, we will define these basic three terms and explain their context of implementation, then we will investigate how they can be put in use for improving Customer relationship management, and finally we discuss their potential contribution.

2. DEFINITION AND CONTEXT OF POA, BSC AND E-BUSINESS FOR CRM

2.1. Definition and context of BSC

Performance measurement is based on three simple steps: first, we have to determine what is important to an organisation; second, we have to gather information about what is important and conclude if we are accomplishing our strategic goals and third, we have to use gathered information to work more efficient in the future (Marr, 2009).

Until the beginning of 1990-ties, performance measurement was mainly focused on financial indicators, based on which the management was making their decisions. Since then a number of performance measurement methods were developed. According to Yadav, Sushil and Sagar (2013) in the years between 1990 and 2011 there was a revolution of performance measurement frameworks and methods development, and with this development the nature of work was changed, including raise of competitiveness, new initiatives for business process improvements, change of organizational roles, change of external needs etc.

Within this revolution, Kaplan and Norton developed Balanced Scorecard (BSC) method (Kaplan Norton, 1992). BSC includes a view of an organisation through four different perspectives: financial, customer, internal processes and innovation and learning.

It provides answers to four basic questions:

- How do we look to shareholders? (financial perspective)
- How do customers see us? (customer perspective)
- What must we excel at? (internal processes perspective)
- Can we continue to improve and create value? (innovation and learning perspective) (Kaplan Norton, 1992)

The further development of this method was extensively covered by various publications (Kaplan and Norton, 1996a, 1996b, 2001, 2004; Niven 2002). According to a research conducted in 2012. BSC is one of most widely adopted performance measurement systems, providing a structured approach for identifying improvement opportunities and threats, and translating companies' strategy in achievable goals, targets and specific tasks. (Striteska, Spickova, 2012)

In order to link performance measurement model of an organization to effective customer relationship model through e-business and POA, a strategic goal which includes improvement of customer relationship management as a future initiative had to be defined. The strategic goal has to be analysed by extended SWOT analysis (Tomičić, Dobrovic, 2006), in order to define goals within the four BSC perspectives. Table 1 shows an example of the analysis of a strategic goal in the customer perspective: C-Establish an effective customer relationship model.

Table 1: Strategic goal: C-Establish an effective customer relationship model (Part 1)

SWOT ELEMENTS							
S1	Management support	W1	Uneducated workforce	O1	Growth of customers expectations for quality products	T1	Market is not ready to pay for quality
S2	Existing information system supports core operational processes	W2	Resistance to change	O2	Growth of customers expectations on <i>shorter process duration</i>	T2	Large scope of changes in customer needs
S3	Implemented TQM	W3	Unmotivated workforce	O3	Large offer of IT solutions	T3	Competition growth
S4	Experienced workforce	W4	Not optimized processes				

Source: Author(s)

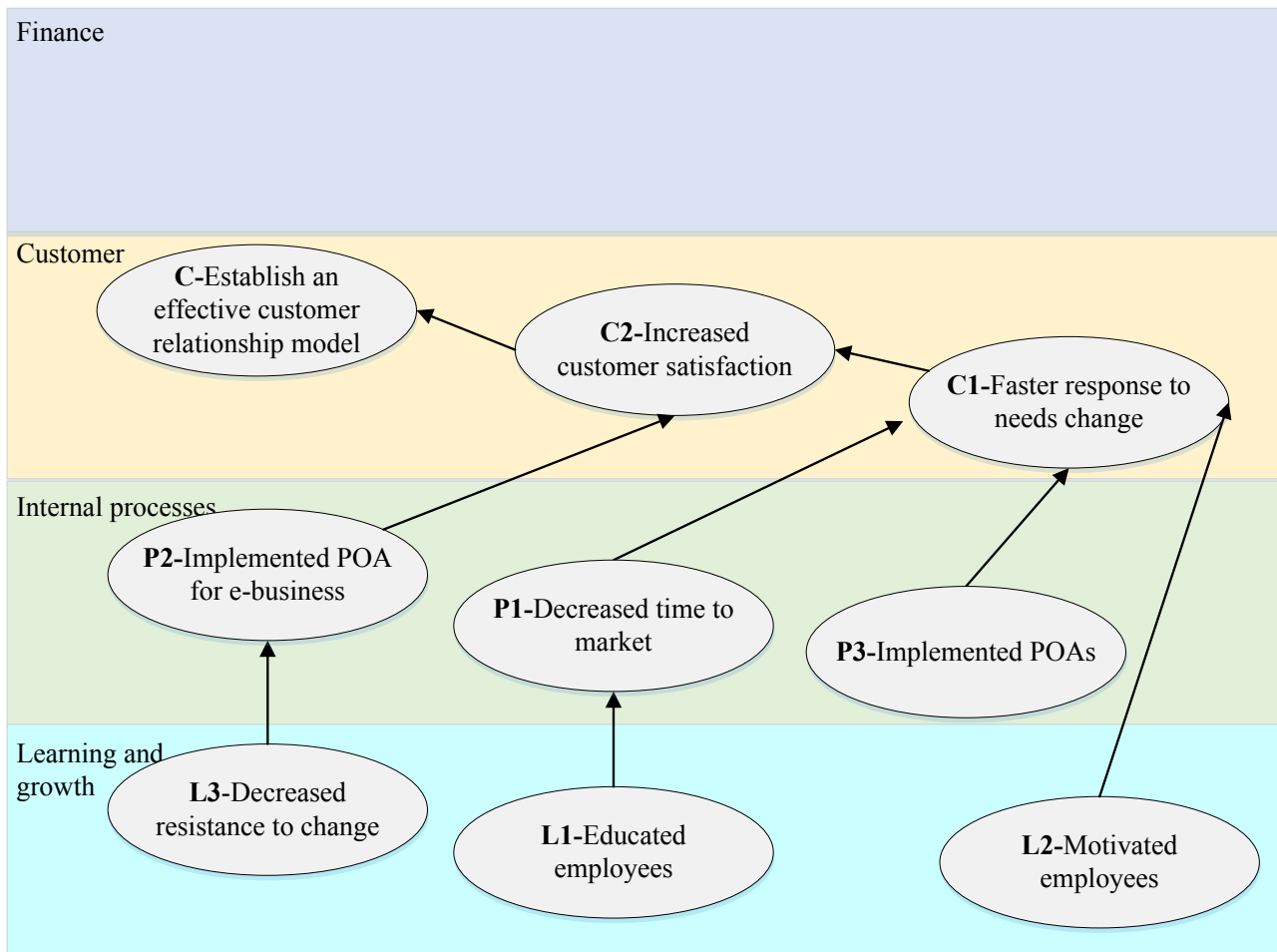
Table 2: strategic goal: C-Establish an effective customer relationship model (Part 2)

STRATEGIES – ACTIVITIES – GOALS – CAUSE and EFFECT CHAIN					
Strategy	Strategy description	Activity	Goal ID	Goal description	Effects
S4 > T3	Use experience of employees for faster product development and production process	Decrease time to market	P1	Decreased time to market (for product development and production process)	C1
S2 > W4, S2 > O3	Upgrade current IS capabilities with POA and optimise processes for better e-business effects	Implement POA for improving e-business effects	P2	Implemented POA for e-business	C2
S3 > T2	Standardise process adjustments to needs changes	Use TQM for faster response to needs changes	C1	Faster response to needs change	C2
S1 > W1,	Organize internal and external education	Educate	L1	Educated employees	P1
S1 > W3	Organize an award system	Motivate	L2	Motivated employees	C1
S4 > W2	Transfer experience acknowledgment to decrease resistance to change	Increase communication in the organisation	L3	Decreased resistance to change	P2
S3 > O2	Track operational throughputs with TQM to manage and intervene on time	Use TQM for promoting quality approach	C2	Increase customer satisfaction (Time and instance throughputs)	C
O2 > T1	Increase awareness of TQM advantages through effective process management	Implement POA for continuous process supervision	P3	Implemented POAs	C1

Source: Author(s)

Identified goals are put in a strategic map of goals, shown on figure 1, and connected through chains of cause and effect relations. Since the defined strategic goal is in the customer perspective, there are no defined goals in the financial perspective in this example, but we can imply that there would be an amount of goals in the financial perspective, whose achievement is related to customer goals, meaning that if this example would be implemented in an real organisation, the management system architect should include more strategic goals.

Figure 1: Strategic map of goals



Source: Author(s)

Educated employees will contribute to faster product development and production process ($L1 > P1$). Decreased resistance to change will induce implementation of POA for e-business ($L3 > P2$). Motivated employees and POAs will result with faster response to needs change ($L2, P3 > C1$). Implemented POA for e-business and faster response to change will increase the satisfaction of customers ($C1, P2 > C2$), and altogether it will result with an effective customer relationship model ($C2 > C$).

In this chapter we have shown how to put BSC method in action, in order to define a performance measurement model. In the next chapter we will concentrate on the definition and context of e-business.

2.2. Definition and context of E-Business

Electronic business or e-business is a sophisticated interaction between business partners, which includes collaboration activities at the level of information systems and business processes. Collaboration includes sharing of business data in such way that processes could be managed and optimized that finally allow management of supply chain (Papazoglou i Ribbers, 2006).

In this manner e-business will help companies to increase the transparency of its' business processes to business partners and make a mapping of processes on both sides as suggested by (Hoyer, 2008). This will finally lead to a successful implementation of e-business that will increase effectiveness of its internal business processes and consequently increase number of customers. As many authors stated (Garicano i Kaplan, 2001; Amit i Zott 2001) e-business implementation would help company to increase:

- process efficiency,
- innovation as a way of creating new potential markets and sales channels,
- the complementarities of products and services provided in one place and finally
- the lock-in effect that would motivate partners to increase the volume of business with a partner with whom they have established an e-business communication channel.

Research shows that e-business implementation with business partners is a slow process from 3-6 years (Koch, 2014) and that e-business in EU in year 2014 is at level of 24%. That means that only 24% of companies use e-business with its partner and that level of that use is in average 24%. In manner of most frequent business documents a document Invoice has a number of e-invoices at 8% for EU in 2014 (Koch, 2014). Similar situation is also recognized in other parts of world.

To increase these slow trends and boost a better implementation, a strategic approach to use of e-business is needed and performance measurement would be necessary. Although, all this is needed to establish a successful customer relationship management with business partners in companies of 21st century, to increase the speed of new implementations of new approaches, to speed up the development of software products. A strategic approach that enables this somewhat 21st century business model emerges from the implications brought by business process modelling and process analysis as base for development of process centric software called process oriented application. This new concept is described in further chapters.

2.3. Definition and context of POA

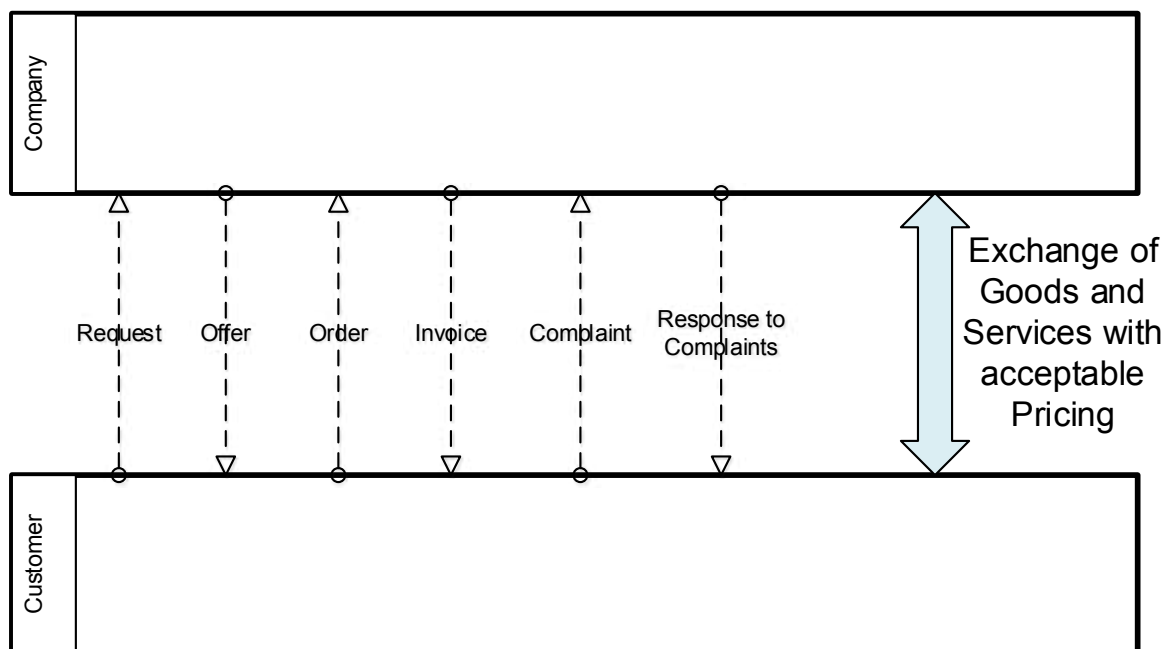
Process oriented applications (shorter POA) are designed and developed with the intention to support process execution by fully automating the workflow of activities or business process model. This full automation of process workflows allows the process owners to concentrate on managing the process outcomes rather than on routing and tracking process instances or communicating with other process participants in order to execute a process instance.

Most important for laying the foundations for process oriented applications is the progress in standardising methods, techniques and approaches for process modelling. Business Process Model and Notation 2.0. (BPMN, 2011) was a milestone for POAs as well as modelling tools that are implementing the notion.

3. IMPLEMENTATION OF POA, BSC AND E-BUSINESS FOR CRM

A simplified context of exchange between Customers and a company that is delivering goods and services is presented in fig 2. It shows a high-level abstraction of a selling process in form of a BPMN orchestration model.

Figure 2: Orchestration model of data exchange between main participants



Source: Author(s)

For the purpose of understanding our point of view regarding the implementation of POA in managing the organizational performance in the e-business era, we start with basic communication flows between two participants: the company which is selling goods or delivering services and the Customer which is buying goods or services.

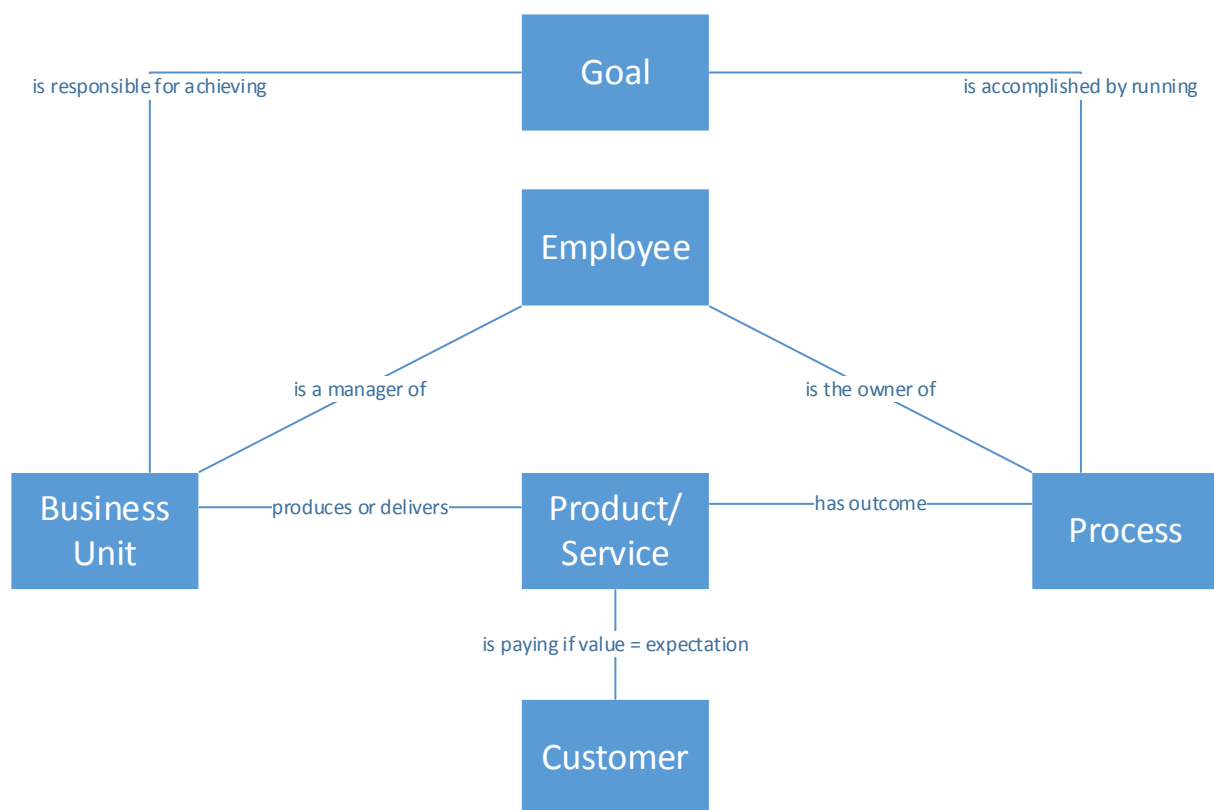
This basic communication flows are:

- Request for offers,
- Offers,
- Orders and Invoices,
- Complaints, and
- Response to Complaints.

Beside these common communication flows which are supported in all information systems by data sets and documents, there is a variety of other data that is important for effective Customer relationship management. These data sets must be identified and derived by questioning and investigating the contribution of operational processes to the achievement of strategic goals.

A more detailed illustration of concepts relevant to balanced score management approach are shown in fig 3. The illustration also shows the interrelations of basic concepts in relevance to the Balanced Scorecard approach in terms of defining a map of strategic goals.

Figure 3: Illustration of managing BSC concepts and their interrelation



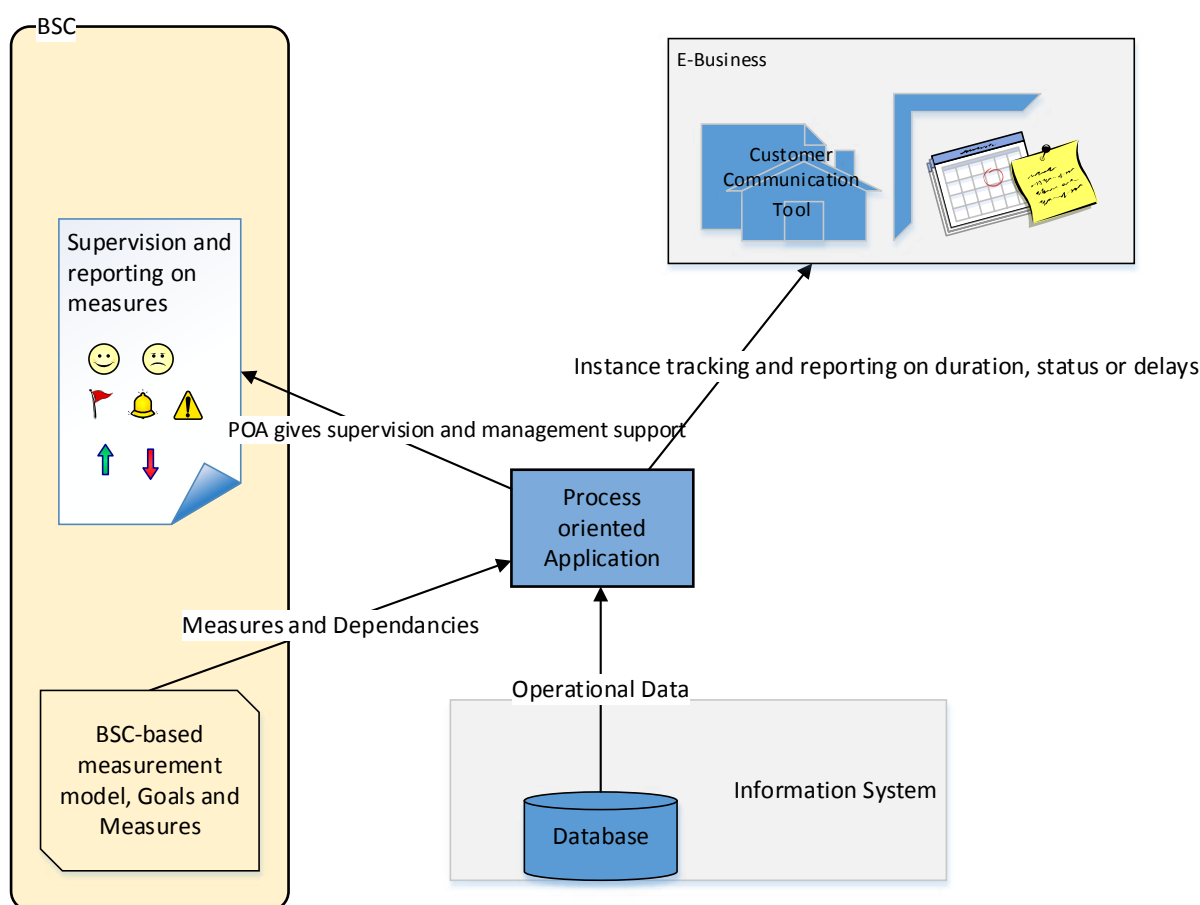
Source: Author(s)

A company structure is compound of several Business units which have employees among which one is appointed as a responsible manager. Each Business unit is responsible for achieving Goals. A goal is being accomplished by running or performing processes. Each process has a process owner, who may or may be not the responsible manager of a business unit. Business unit are designated carriers of resources for producing goods or delivering services, but the same goods and services are also outcomes of running processes.

This double accountability of carriers of responsibility can also lead to no-accountability, and therefore we recognize a chance of implementing clear charge, contribution and liability of involved entities in form of POA.

A more detailed illustration of the relation of BSC, POA and E-business for CRM is shown in fig 4. The illustration shows the implementation context of POA for realizing BSC in order to supervise and report about customer-relevant process parameters.

Figure 4: Implementation context of POA for realizing BSC in order to supervise and report about customer-relevant process parameters



Model in fig. 4 shows the significance of main properties of POAs that are in this case important and which are distinguishing POAs from other applications as following:

- POA automates the process workflow – this means that the end user does not need to care about running different functionalities of an application or to even know which is a proper sequence of activating menu items in an application.
- POA can be implemented as an upgrade on basic legacy information systems – POAs can easily be leaned on existing information systems by gathering data with XML or other appropriate formats, protocols or actions for data marshalling.
- POA can be ran continuously without human intervention for data inputs or running functionalities – just like a back-office service a POA can be used to track and use process throughput parameters continuously in difference to other measuring cycles where a responsible person has to first measure and collect data and then run the algorithm for recalculating derived measurement values.
- POA can be used for reporting, messaging and signalling when flagged values are reached – this property is important for increasingly usage of mobile technologies.

4. POTENTIAL CONTRIBUTION OF POA, BSC AND E-BUSINESS FOR CRM

POA can be implemented in various implementation options. We recognize three main potential contributing aspects of POAs:

1. A tool for continuous supervision and management support. As mentioned in previous chapter, the possibility to report, message and signal mobile process executors when flagged values are reached is an important contribution of POAs especially in mobile process environments. Mobile users with mobile technologies are always up-to-date with measure values, so that they can react in organizationally or even important customer-acceptable timeframe.

2. A tool for testing various “what-if” scenarios. Since all needed data can be gathered in POAs in back-office without human intervention, possible influence and trend changes of leading and lagging indicators and their values can be tested. This enables running “what-in” scenarios and revising adequate actions for resolving gaps and problematic issues, or project and to forecast and predict the way that goals are achieved.
3. A web-based notification tool for customers. Gathering data relevant to the process parameters like process duration, instance tracking (i.e. tracking the processing of customer complaints) and other data, POA can be used for improving customer’s perception of the organization.

Further research in this area should include additional investigation of diversity in POA implementation that will add to the understanding and deploying of POA that can help increase CRM perception by the customer and enable better operational excellence in running business processes.

5. CONCLUSION

Collaboration activities between organization and its Customers must be managed and monitored by using a proper performance management tool realized via information and communication technologies and orchestrated by goals of business processes collaboration and integration. Process oriented applications must be developed in such way that they enable sharing of business data between processes, that they give a proper base for a functional implementation of a performance management system and ease the way of doing business with customer by reducing costs of communication.

LITERATURE

1. Amit, R., Zott, C. (2001.) Value creation in E-business. *Strategic Management Journal*, Vol. 22, pp. 493–520.
2. BPMN: Retrieved 10.11.2015 from <http://www.omg.org/spec/BPMN/2.0/>
3. Garicano, L., Kaplan, S.N. (2001.) The Effects of Business-to-Business E-Commerce on Transaction Costs. *The Journal of Industrial Economics*. Vol. 49(4), pp. 463–485.
4. Havey, M. (2005.) *Essential Business Process Modeling*, O'Reilly Media USA
5. Kaplan R.S., Norton, D.P. (1992) The Balanced Scorecard - Measures That Drive Performance. *Harvard Business Review*, 70(1), pp. 71-79.
6. Kaplan S.R.; Norton P.D. (1996a.) Using the Balanced Scorecard as a Strategic management System. *Harvard Business Review*, January-February, pp.75-85.
7. Kaplan S.R.; Norton, D.P. (1996b.). *The Balanced Scorecard*, Harvard Business School Press USA
8. Kaplan S.R.; Norton, D.P. (2001.) *The Strategy-Focused Organization*, Harvard Business School Press USA
9. Kaplan, R.S.; Norton D.P. (2004.) *Strategy Maps*, Harvard Business School Press USA
10. Koch, B. (2014). *E-Invoicing / E-Billing International Market Overview & Forecast*, Billentis. Retrieved 1.4.2014 from http://www.billentis.com/einvoicing_ebilling_market_overview_2014.pdf
11. Marr, B. (2010.) *Managing and Delivering Performance*, Elsevier USA
12. Niven P.R.. (2002.) *Balanced Scorecard: Step-by-Step*, John Wiley & Sons, Inc. USA
13. Papazoglou, M.P., Ribbers, P. (2006.) *e-Business: Organizational and Technical Foundations*, John Wiley & Sons USA
14. Striteska, M., Spickova, M. (2012.) Review and Comparision of Performance Measurement Systems. *Journal of Organizational Management Studies*, Vol.2012: 13 pages
15. Tomičić, M., Dobrović, Ž. (2006.) Metode oblikovanja strateške mape ciljeva kod izgradnje BSC. *Zbornik radova konferencije CASE 18 Opatija*, pp.13-18.
16. Yadav, N., Sushil, Sagar, M. (2013.) Performance measurement and management frameworks - Research trends of the last two decades. *Business Process Management Journal*, 19(6), pp. 947-970.

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MARKETING VIA E-MAIL

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ABSTRACT

The speed and low cost have contributed to the wide use of e-mail both for sales as for marketing communication. Wide use and frequency of such communication leads to backfill electronic mailboxes of potential customers, which leads to a low rate of opening and reading those messages. The goal of successful marketing campaigns via e-mail is connected with reaching the appropriate scope and the response of the recipient. In achieving this goal it is necessary to customize and personalize communication messages to each customer and the basic prerequisite for that kind of communication is possession of a customer database. Often personalized communication is not carried out due to higher costs and lower reaction of recipient. So, companies compensate that with greater massiveness and transmission frequency.

This paper investigates the attitudes of customers towards the acceptability of e-mail as a form of sales and promotion. Shown results will enable the efficient creation of marketing campaigns via e-mail.

KEYWORDS: e-mail, customers, segmentation, personalization.

1. INTRODUCTION

Direct marketing is an interactive personalized communication with customers using various media, from classic post ("snail" mail) to today's most popular and most used electronic mail. The development of the society driven by the rapid development of information and communication technology requires effective communication media. Today, this is certainly electronic mail that is used in everyday personal and business communication. The classic direct mail and catalogues, which ten years ago were the basic media of direct marketing, today no longer exist, or are used very rarely. Direct mail is replaced by e-mail and catalogues by websites.

Low costs, communication "one on one", high ROI and high efficiency are the benefits that motivate companies to use e-mail in the implementation of electronic marketing. In order to fully exploit these benefits, a strategic and planned approach to the use of the media to communicate with clients is necessary. This approach includes: establishment and maintenance of communication, the acquisition of consumer confidence, and respect for privacy, guarantee of security, building loyalty and faithfulness, and increased lifetime customer value.

In practice, only some of these elements are used, thus not fully exploiting the benefits of electronic mail. The research presented in this paper shows how customers respond to e-mail campaigns, when they accept such communication and when not. The results can help companies to better organize and adapt their email marketing campaigns to the demands of the recipients-potential buyers in the future.

2. JUSTIFICATION AND RESEARCH METHODOLOGY

Indisputable advantages of e-mail as a medium of promotional/sales communication contribute to its massive use [1,2]. E-mail is a cheap medium with the highest return on investment (ROI) [2] which often directs the focus of the campaign towards the quantity of sent messages, not the segmentation and profiling of customers. Well known customer segmentation methods such as RFM method, CHAID and neural network [3,4,] are ignored on the grounds that they are unnecessary. Low sending costs allow for more frequent messaging, which aims to nullify the impact of weaker customers' reactions and the opening of such messages. But, precisely this practice of using higher frequency of sending Hughs [5] considers to be the reason of lower rates of reaction of customers.

Baggott [6] identifies four basic elements that make the e-mail an extraordinary medium: simplicity, low cost, interactivity and the possibility to use (manage) data (Data Driven). The two latter elements annul doubts about the need to segment customers – e-mail recipients, which occurs in practice. The entire range of data can be collected during the e-mail communication – from the basic demographic data to the data that detail the customers' behavior and interests. Ignoring these data and not using them for the purpose of better targeting and thus further increasing of ROI is certainly not a good business move.

Communicating with customers is relatively easy, but attracting their attention definitely isn't [7]. The task of e-mail marketing is precisely to attract attention and cause an adequate response from the message recipient. Achieving this objective causes a paradoxical situation [8] where in an effort to communicate with the largest possible number of targeted potential customers, their possible irritation or violation of their privacy must be taken into account. Successful direct marketing is based on databases that are created and updated during the interactive communication with customers. The method of collection and use of data is regulated by national legislations and it is the legal obligation of all who use these data to use them with special attention.

In the context of consumer protection privacy protection and protection against discrimination is usually mentioned [9] but no less important elements of the potential threat to consumer collection and data processing are de-individualization, loss of autonomy, one-sided information, stigmatization and confrontation with unwanted information [10]. On the territory of the Republic of Croatia, legislation governing the use of e-mail in marketing is the Consumer Protection Act, Electronic Commerce Act, Electronic Communications Act and the Personal Data Protection Act. The laws are harmonized with the EU legislation and their non-adherence is subject to strict sanctions. The Consumer Protection Act considers as inadmissible business practice of persistent and unwanted communication with the consumer by e-mail. Electronic Commerce Act also requires the prior consent and refers to the Electronic Communications Act concerning the realization of consent. Electronic Communications Act seeks to allow sending of free complaint, namely that the recipient is provided with the option to ban further communications [11].

A successful e-mail communication that includes a high response rate, and therefore a high ROI, is achieved through careful planning of campaign aimed at the target audience willing and ready to communicate [8].

How recipients respond to e-mail campaigns, what irritates and annoys them, when they are willing to give out personal information, and when and how they react to promotional/sales messages is the objective of the research in this paper. The desk research analyzed e-mail marketing literature and available previous researches in this area. A questionnaire with 28 questions was submitted by e-mail and 102 responses were collected.

3. USE AND EFFECTIVENESS OF ELECTRONIC MARKETING

The development of information technology and the occurrence of internet are changing the character of approach to the market and the customer as an individual, defined by Kotler and associates [12] as a period of marketing 2.0. The rapid development of information technology, which contributes to increasingly cheaper but more powerful computers with large memory capacities, cheaper and more accessible internet, social networking and free of charge and free use of various programs lead the marketing towards the establishment of very specific customer relationships which are controlled and managed by customer themselves. In this context, we talk about the development of internet marketing as well.

Successful marketing via e-mail includes a successful strategic planning. As a rule, e-mail marketing is an integral part of internet marketing, i.e. online marketing strategy. Chaffey et al. [13] state that the Internet marketing strategy is a marketing channel strategy that defines the objectives of sales/promotional communications through the internet, and tactical achievement of these objectives. Internet marketing oriented to direct interactive communication through websites, social networks and e-mail is part of the marketing strategy of the company and is in function of achieving its strategic objectives.

According to the American Marketing Association (AMA) marketing "is the activity, set of institutions and processes of creation, communication, delivery and exchange of offers that have value for customers, clients, partners and society as a whole" [14]. Systematic recipe [15] for management of marketing processes is the marketing mix. Unstable marketing environment can affect the prediction efficiency of marketing activities and the construction of a systematic framework for monitoring the results of marketing activities is necessary. Nail Burden [16] calls this framework the marketing mix and singles out 12 elements that are essential to the process. McCarthy regroups Borden's elements into the today well-known paradigm 4P [17].

Relationship marketing using the internet becomes a dominant part of the marketing strategy and the marketing paradigm is complemented and adapted to the philosophy of the internet [14] and interactive communication. In this respect, Chaffev et al. [13] discuss the impact of the internet on 7P (4P+People, Process, Physical evidence) while Yazdanifard and Najmaei [15] talk about the new marketing mix formula 4Ps + P2C2 + S3, where in addition to the famous 4P, P2 is the personalization and privacy, C2 is services to the customers and the customers community, and S3 is the site, sales promotion and security.

The development of the internet evolved internet marketing as well, and today we can speak of its third generation [18], which allows the use of different techniques of interactive communication with clients/customers. All can be seen in three groups: web marketing, social networks marketing and e-mail marketing. In this context, e-mail marketing is a direct marketing communication to a group of people via e-mail, which may relate to: sending promotional messages, sales or collecting donations, sending job offers or building loyalty, trust and awareness with potential customers [19].

Profitability and high ROI in e-mail marketing is in direct relation with the desire and the willingness of the recipient to accept such communication and adequately respond to it. Despite a number of advantages, e-mail marketing communication can cause the problem of spam. The most common reasons for the emergence of spam is the generic segmentation [19], which is widely used and that does not include the targeting of customers based on their interests and past behavior. Messages that are of interest to the recipient are the main impetus of their entry (opt in) to the email list [20] and a good response to marketing messages.

Since their first appearance in 1978, [21] unsolicited messages (spam) are the subject of discussions of their legal regulation, which resulted in the adoption of very rigorous national legislations in the field of protection of recipients of unsolicited marketing messages via e-mail. On one hand, strict statutory legislation, and on the other, a high percentage of opting-out from the lists and decreased efficiency of campaign demand the abandonment of the practice of mass non-selected sending of messages. Research by MailChimp [22], a global e-mail service, shows that the segmentation of electronic marketing customers' lists contribute to better opening and replying to messages which is what makes the entire campaign relevant and successful. Results of e-mail campaigns which used segmentation were compared against those that did not use it. The results indicate a 13% higher percentage of opening of messages in a segmented campaign and 52% more clicks on offer in the messages.

Electronic mail nowadays is the most widely used direct marketing medium and its use requires strict observance of the legislation on one side and earning the trust of recipients/customers on the other. Customer trust is difficult to create and very easy to lose. With this in mind, the Direct Marketing Association (DMA) prescribes to its members the code of conduct which includes five principles [23]: putting the customer first, respect for privacy, sincere and honest action, careful handling of customer data, and responsible behavior. Collection of customers' data is a privilege and not a right - this principle dominates in e-mail marketing and its non-compliance is penalized by DMA.

In accordance with the DMA principles, permission marketing comes into the forefront. It is based on building customer loyalty through dialogue, which is jointly controlled by buyers and marketers. Customers are included in the marketing processes to the maximum [24] by encouraging collaboration between marketers and customers. BlueHornet Research [25] shows that the electronic messages related to brands which are usually bought by message recipients are well accepted and 70% of them are opened. Such customer behavior binds that the communication respects their wishes and suggestions to the maximum, especially regarding the content and frequency of sent messages. In the context of permission marketing, there is an opt-down option, where in the sense of collaboration with the recipients, methods and frequency of communication is agreed upon to avoid their permanent leaving of lists through opt-out option. In the report, BlueHornet [25] also states that the high frequency of messaging is the main reason for leaving and deleting from e-mail list while 20% of respondents would definitely remain on the list if offered the option to opt-down and 27% would probably do so.

4. CONSUMER VIEWS OF EMAIL MARKETING

The subject of research in this paper is to complete knowledge regarding the effectiveness of using e-mail as a promotional and sales channel from the recipient's aspect. The questionnaire was distributed through Facebook network and via e-mail. It was filled out by 102 respondents. The most common age group was between 15 and 26 years of age, while high school, college and university degrees were represented in equal percentages. E-mail communication is used by 98% of the respondents, by 63% daily, and by 22% several times a week.

Sales/promotional messages via e-mail are justified and considered as useful by 21% of respondents, as spam they immediately delete and opt-out of the lists by 10% while 27% open them. There are a relatively high 27% of respondents with neutral opinion (neither approve nor consider spam).

High 72% of respondents think that the most interesting in the messages they receive is information on prices and discounts, 14% of them are interested in information about product availability, and 13% of the existence of products/services. With regard to the type of products/services that are considered suitable for purchase via e-mail, the respondents put tourism services and consumer goods in the first place.

41% of respondents are more interested in personalized messages/offers, while 33% are indifferent about this (neither yes nor no). Reasons for greater attention are: feeling of greater importance as a customer, offers in accordance with customer's interests, the greater credibility of the offer, offers referring to previous purchases, a sense of care and the rest. Despite the recognized benefits of personalized offers, 43% of respondents are not inclined to provide information about themselves, 54% decide to do it sometimes but not always, while only 3% are ready to provide information about themselves in order for the offers to be targeted.

55% of respondents are inclined to opt-in and grant permission to receive promotional/sales message tends provided the messages are what they are interested in, 32% do so rarely, and 11% does not give permission and does not opt-in to the list. The

reasons for granting permissions and opting in to the lists are: getting current information and news, interest in the company/products, getting more favorable offers and getting certain benefits.

47% of respondents responded that the offer received by e-mail can induce them to purchase, 24% said that they cannot induce them, while 29% are not sure. The majority of respondents purchase over the internet in different intervals, while 8% of them said they do not buy for the following reasons: habit of buying at the store, uncertainty, lack of trust, questionable data protection, aversion to giving personal information especially credit card numbers, big risk, waiting for the product, lack of information. 55% of respondents found the most interesting e-mail offers doing independent internet searches, 29% by word of mouth and 16% by granting permission only to those companies they know.

5% of respondents had unpleasant experience when buying over the internet, 17% sometimes, while 78% of them had none. Unpleasant experiences were related to: lack of update of web shops and longer delivery time, the goods did not correspond to images, the product has not arrived or the delivery time was too long.

By using the Likert five degree scale, the level of agreement with posed statements were examined where 1 means "strongly disagree" and 5 being "strongly agree". The results are shown below.

	1 %	2 %	3 %	4 %	5 %	I don't know/no answer %
Personalized offer in electronic mail attracts greater attention	8.4	22	30.4	18.6	16.7	3.9
Giving additional information about themselves, customers enable the personalization of the offer in accordance with their interests	2.1	14.7	30.4	24.5	22.4	5.9
Offers that are related to a previous purchase provoke greater interest	7.8	11.8	35.4	23.5	17.6	3.9
Offers that are keeping in with customers' interests attract more attention and response (purchase)	1	13.7	20.6	31.4	26.5	6.8
There is still a small number of people opting to buy via e-mail or the internet	4.9	19.6	20.6	24.5	25.5	4.9
Internet purchase is insecure	14.7	23.5	36.3	16.7	5.9	3.9
There is a great possibility to use personal data for illegal purposes	2.9	19.6	26.5	24.5	24.5	2
Repeating the same offer in short intervals irritates and causes their deletion	1	5.9	16.7	27.4	44.1	4.9
Customers were informed about the possibility of opting out of the lists, i.e. banning sending the e-mail	6.9	23.5	28.4	15.7	16.7	8.8
Large companies ask permission to send e-mail	6.9	20.6	29.4	20.6	15.7	6.8
Immediately after request, companies delete recipients from the mailing lists, i.e. stop sending messages	10.8	24.5	22.5	15.7	4.9	21.6

5. CONCLUSION

Thanks to its advantages, e-mail today is the most common medium of personal and business communication. Speed, availability, low cost and high ROI are the main advantages of using e-mail in the promotional/sales communication. The success of that communication, which is monitored through response and the reaction of customers, depends on the mutual acceptance of such communication. The main goal of e-mail campaigns is to achieve a high response rate and the minimum rate of opting out from the lists. How to avoid irritation of recipients and their opting out from the lists? The answer is in the dialogue, i.e. in the maximum respect for the wishes and interests of recipients/potential customers. Customers request attention, a sense of importance, which is provided by the personalized offer sent to them.

Personalization requires the collection of customer information that customers often are not inclined to give, which leads to the paradoxical situation where customers want the offer to be tailored just for them, but do not want to take part in the creation of such offer. This situation is often used as an alibi for a generic segmentation, i.e. mass mailing of unique messages/offers. Trust is not easy to obtain and is easy to lose. Precisely the development of dialogue and collaboration between companies and customers allows for the development of trust. Permission marketing is a step towards the establishment of such a trust.

Neglecting segmentation is justified by the low cost of sending messages. Weaker recipients' response is compensated with the higher sending frequencies and the creation of personalized offers in an unnecessary expense. In doing so, market saturation and declining level of attention to the messages that arrive without prior permissions are forgotten about. The results of various studies and author's research show that recipients negatively react to a higher frequency of received messages.

Results of author's research show that customers pay more attention to messages (offers) that are personalized and customized, i.e. to offers that are in line with their interests. The paradox when one wants personalized message but does not want to give personal information that could contribute to better personalization is still present but with less and less influence. Trust in online shopping is growing and purchases are more frequent. According to the author's research, only 7.8% of respondents do not buy on the internet at all. Taking into consideration these facts, it is clear that there is virtually no justification for not implementing segmentation and targeted campaigns, that is they become a necessity.

REFERENCES

1. Ellis-Chadwick, F., Doherty, N. F.: *Web advertising: The role of e-mail marketing*, Journal of Business Research 2012, vl 55, pp 843-848
2. Yashraj J., Raka, G.: *Business Intelligence, national email benchmarking report 2013*, Journal of Direct, Dana and Digital marketing Practice, Macmillan publisher ltd, 20014, vol. 16 pp 92-97
3. Verhoef, P.C., et. al: *The commercial use of segmentation and predictive modeling techniques for database marketing in the Netherlands*, Elsevier, Decision Support Systems 34 (2002), pp 471-481
4. Jo-Ting Wei, Shih-Yen Lin, Hsin-Hung Wu: *A review of the application of RFM model*, African Journal of Business Management vol. 4(19), pp 4199-4206, December Special Review, 2010, www.academicjournals.org/AJBM
5. Hughes, A. M.: *Strategic Database Marketing*, McGraw Hill, 2012, p 221
6. Baggott C.: *Email marketing by the numbers*, John Wiley & Sons Inc, Canada, 2007, p. 21
7. Arnold, I.: *E-mail Marketing for Dummies*, Wiley publishing, Inc., indianapolis, 2011, p. 1
8. Westell, S., Wassing, T.: *lawful data processing for Email and SMS marketing*, Business Information Review, 20(3), September 2003, www.segepub.com
9. Custer, B., et al.: *Discrimination and Privacy in the Information Society*, Springer, 2013, p 15
10. Vedder, A. : *KDD: The challenge to individualism*, Ethic and Information Technology 1: 275-281. 1999.
11. Lipovšćak, K.: *Elektronička komunikacija: Kazne za reklamiranje e-poštom*, <http://www.progressive.com.hr/component/content/article/62-kolumne/4422-elektronika-komunikacija-kazna-za-reklamiranje-e-potom.html>, kolovoz, 2015
12. Kotler. P. et al., *Marketing 3.0*, John Wiley & Sons, Inc., New Jersey, 2010. str. 6.
13. Chaffey, D., et al.: *Internet marketing, Strategy, Implementation and Practice*, FT Prentice Hall, 2009, p 201
14. American Marketing Association (AMA), www.ama.org/Pages/default.aspx, kolovoz 2015.
15. Yazdanifard, R., Najmaei, A.: *Anatomy of Internet Marketing Mix; Holistic Paradigm*, 2009 International Conference on Computer and Development, pp 497-501
16. Neil H. Borden: *The Concept of the Marketing Mix*, <http://www.guillaumenicaise.com/wp-content/uploads/2013/10/Borden-1984>
17. Ghai Lee Goi: *A Review of Marketing Mix: 4Ps or More?*, International Journal of Marketing Studies, Vol. 1, no 1, maj 2009.
18. Sweeney, S., MacLellan, A., Dorey, E.: *3G Marketing on the Internet*, 7th, 2006, Canada
19. Zirthang lian Bawn, Rudra pratap Deb Nath: *A Conceptual Model for Effective Email Marketing*, 17/th International Conference on Computer and Information Technology (ICCIT), 2014
20. Fiona Ellis-Chadwick, Neil F. Doherty: *Web advertising: The role of e-mail marketing*, Journal of Business research 65, Elsevier (2012) 843-848
21. Hedley, S.: *A brief history of spam*, Information & Communication Technology Law 15, no 3, 2006, pp 223-238
22. Resources/MailChimp Research – Effect of list Segmentation on Email Marketing Stats, mailchimp.com, Januar, 15 2015
23. Groom, S.: *Legal and Regulatory Update*, Journal of Direct, Data and Digital Marketing Practice (2014) 16, 128-129, www.palgrave-journals.com
24. Godin, S.: *Permission marketing*, Pocket books, 2007
25. Bluhornet report: 2013 Consumer views of email marketing, Digital River, www.bluehornet.com

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MARKETING SYSTEM OF THE COMPETITIVE ADVANTAGE OF MICROENTERPRISES AND CRAFTS

MAJA MAGIĆ

DAMIR DOBRINIĆ

ABSTRACT

The European economy consists mostly of small and medium-sized enterprises which also include crafts (99% of the total number of enterprises) and those SME's generate more than three quarters of jobs. This is the reason that sector of small enterprises is in focus when talking about sustainable economic development, which has all been highlighted by adopting of the Lisbon Strategy in 2010 and a number of other European economic documents. These documents based on the principle of "putting small business first" emphasize the need to strengthen the competitiveness of small enterprises.

Crafts in Croatia employ approximately 16% of the workforce which makes this sector an important part of the total economy. Upbringing and development of the competitiveness of this business sector is becoming "condictio sine qua non" of its successful performance in the domestic and demanding European market. In the context of enhancing the competitiveness the role of appropriate marketing approach is being highlighted. This paper analyzes the current practice of marketing implementation in crafts and micro enterprises and points out the possibility of its efficient use. The results will provide insight into creating of optimal marketing model accustomed to crafts and micro enterprises.

KEYWORDS: craft and micro-enterprises, competitiveness, market, marketing models.

1. INTRODUCTION

Crafts on the territory of the Republic of Croatia, throughout its long and rich tradition, had an important role in the development of the economy and society as a whole [1]. Current economic problems condition further emphasis of the role of entrepreneurship as one of the solutions of stabilization and growth of the entire economy of the EU. In this direction, strategic European documents are made and in accordance with them changes to the national legislation [2], [3], [4], [5], [6]. Those strategies aim at creating the conditions for the revitalization and competitive strengthening of the crafts and micro enterprises. Precisely because of their importance in reducing the unemployment rate which is now emerging as a key issue of national economies [8].

The problems that small businesses face today, such as limited funds, reducing the availability of bank credit, increased competition, changes in customers' buying habits, difficulty in finding qualified labor, tax burdens, etc., require the implementation of more efficient business models [10], [11]. Due to the fact that as much as 99% of the EU economy is SMEs, it is clear that they are the focus of economic policies and legislation that seek to improve their competitive position [6]. Small Business Act, passed by the European Commission in 2008, aims to separately treat small economy (includes crafts), and where possible to exempt it from the EU legislation [6], [12].

Negative trends in the number of crafts and their share in the overall economy (in 2005 - 105,567, in 2013 - 83,714) [6] show that it is necessary to provide the conditions for changing the current situation. Aligning national legislation with European legislation aims to encourage entrepreneurial initiative and create more favorable business environment [13], [14], [15]. A number of European projects enable SMEs to improve and qualify for operations on the competitive European and global market.

Changes in the behavior of customers requesting personalized handmade products/services made from natural materials that meet their specific needs, require the application of adequate marketing models. Marketing planning that involves the maximum utilization of own advantages with an acceptable cost burden, is the essence of these models. The aim of this paper is to examine the existing forms of marketing activities of Croatian crafts and micro enterprises, and to form optimal models of marketing activities in the function of sustainable competitive advantage.

2. JUSTIFICATION AND RESEARCH METHODOLOGY

This paper represents the first stage in the research of the model of competitive business of Croatian crafts and micro enterprises in the complex and competitive domestic and foreign markets. The strategic economic documents aim at bringing small businesses closer to the business standards that exist in the European market [8], [17]. Within these

objectives, besides the internetization and the e-business, strengthening of competitive advantage is prominent as well. Within emphasis of the competitive advantage, marketing as a planned approach to the market is the focus of attention.

In assessing the marketing of small businesses, a mistake is often made by comparing it with the marketing of large enterprises, and is evaluated as a short-term, not planned and not strategic [18]. Restrictions such as: small production, limited market, limited resources (finances, time, marketing knowledge), marketing within sales, etc. affect the application of different marketing approaches [18], [20]. The traditional approach (4P), common in large enterprises, is not adequate for them.

Defensive business policy that, by building departure barriers aims at keeping existing customers, is adapted by small businesses to their specific qualities [19]. The objectives to be achieved by the marketing of large companies are present in micro-enterprises as well but are achieved by using different tools. One of the most common is to create a network of contacts, but networking is often unstructured and random [20].

In order to identify the current problems of realization of marketing objectives of crafts and micro enterprises, a questionnaire was made with 15 questions and was primarily distributed to electronic addresses with the simultaneous publication on the crafts portal. In a smaller part of the survey an interview was carried out at the crafts gathering. 182 questionnaires were collected out of which 59% relates to the crafts and 41% to the micro enterprises. The survey was conducted on the territory of three counties (Varaždin, Međimurje and Krapina Zagorje). The desk research analyzed the available literature and scientific papers with a goal to determine the current position of crafts in the Croatian and global economy and the implementation of marketing strategies.

3. BARRIERS IN BUSINESSES OF CRAFTS AND MICRO ENTREPRENEURS

EU countries have differently defined the small and medium-sized economies and the European Commission has adopted a recommendation on the application of uniform criteria in the definition of the same. These criteria are the number of employees, annual sales volume, average volume of company assets and independence in decision making (control by others must not be greater than 25%) [21], [22]. According to these criteria, micro enterprises are those enterprises that employ fewer than 10 persons and whose annual turnover and/or annual balance in total does not exceed EUR 2 million. The category of micro enterprises includes also crafts, which derives from the definition of the company given by the European Commission. According to this definition, "the company is any entity engaged in an economic activity, regardless of legal form. This includes, in particular, people who are self-employed and family businesses which are engaged in craft or other activities, and partnerships and associations which are regularly involved in economic activity" [22], [23]

The EU's goal is to become the most competitive economy in the world and special efforts are undertaken to strengthen small and medium enterprises. By adjusting the legislation it seeks to enable them to develop and encourage the creation of innovative projects with as little as possible structural barriers. Following the entry into the market, companies are faced with very significant strategic barriers to entry with which existing companies retain their competitiveness [24]. According to OECD [25] strategic barriers include: predatory pricing, capped prices, intentional "re-investment" in capacities, discounts on loyalty, product differentiation and advertising, tying, exclusive distribution agreements for products as well as the accumulation of patents.

In order to identify the most significant barriers with SMEs on the EU territory, the European Commission carries out the research showing that finding new clients is the biggest problem in business, followed by problems of financing, availability of qualified staff, competition and operating costs [26]. Market entry and successful survival in a highly competitive market inevitably requires certain skills that entrepreneurs often do not have. Globalization and rapid technological development brings a number of advantages but also threats if the companies are late in adapting current way of doing business. In strengthening the competitiveness of the EU economy, particularly SME companies, innovation is encouraged, which includes the creation of new products and services through new technologies and adoption of new production processes.

Small businesses, which include crafts and micro enterprises mainly rely and act in market niches which enables them to better contact with customers and to gain knowledge of their specific needs. In this sense, they are in a better position to develop organizational and production processes that will enable more efficient production than in large enterprises. However, in practice there are problems that hinder the implementation process of innovation. Barriers to innovation are the subject of various studies and can be summarized as: financial barriers (problems in raising funds), lack of human resources, lack of knowledge on the implementation of innovation, lack of marketing knowledge, bureaucratic barriers and the protection of intellectual property rights [27]. Lack of marketing knowledge refers to the problem of non-recognition of and failure to meet customer needs, as well as the problem of entering foreign markets.

To minimize the impact of barriers to innovation, the European Union starts funding programs Horizon 2020 and Cosme which rely on previous programs. Horizon 2020 focuses on research and innovation and in its seven-year budget it plans

to set aside EUR 78.8 billion to help small and medium sized enterprises [28], [29]. Cosme is directed towards increasing competitiveness, establishment and growth of SMEs with a seven year budget of EUR 2.2 billion [28], [30].

In mitigation of the impact of barriers, within the adopted Strategy of development of entrepreneurship in the Republic of Croatia for the period 2013 to 2020, Republic of Croatia grants non-refundable funds for the purpose of developing micro-businesses and crafts, strengthening business competitiveness of entrepreneurs and crafts, development of entrepreneur infrastructure and business environment, and education for entrepreneurship and crafts as well as the preservation of traditional arts and crafts [31].

4. MARKETING STRATEGIES OF MICRO ENTREPRENEURSHIP AND CRAFTS

Strategic documents of the EU stress the importance of market orientation in achieving competitive advantages of small and medium-sized enterprises. Market orientation assumes marketing knowledge and marketing strategies for the optimal utilization of the existing material and human resources in order to increase sales and create competitive advantage. Creating competitive advantage is related to the implementation of marketing strategies and marketing planning. Marketing planning in crafts and micro enterprises is usually limited because of time, finances and knowledge which in turn limits their impact on the market and other environment [33]. Intuitive market orientation that is most often carried out by the owner of the company cannot fully replace a planned approach to achieving competitive advantage in the market. Small businesses certainly have knowledge of the production and application of adequate technologies but lack knowledge of marketing processes. Their market research as the basis for the planning, due to high costs, is mostly based on personal contacts and available secondary data [33].

In order to obtain and maintain a competitive advantage in the domestic as well as foreign markets, certain business strategies are required. Porter [34] defines three basic strategies: leadership in costs, differentiation and focus. The goal of small businesses is to keep operating costs to a minimum and thus ensure their competitiveness. Marketing activities in the context of cost reduction are considered superfluous, i.e. are reduced to a necessary level. One of the basic advantages and natural characteristics of crafts and small businesses is the differentiation of products and services, which brings their innovation into the forefront. With their innovation they penetrate certain markets and meet specific needs of customers in that market. The strategy of focusing is based on the definition of specific market segments and niches in which to implement the strategies of differentiation or low cost strategy. A characteristic of this strategy is a good relationship with customers, researching their specific needs, and personalization and customization of products and services.

Often strategies are combined, for example leadership in costs and differentiation [32] where the business enters a particular market with the diverse range of products which can be cheaper to produce. This makes it easier to modify and customize the price policy. In another case, combination of strategy of differentiation and focus is possible where specific market niches are offered products and services that they require. This combination requires direct contact with the local market and the adjustment of supply to customers. Such a relationship certainly contributes to strengthening the reputation of small businesses and gives them a competitive advantage over larger companies [35]. Which one of these strategies will crafts and micro entrepreneurs apply, depends on themselves. It is essential that these strategies are identified and implemented with defined activities (tactics).

5. MARKETING TACTICS OF CRAFTS AND MICRO ENTREPRENEURS

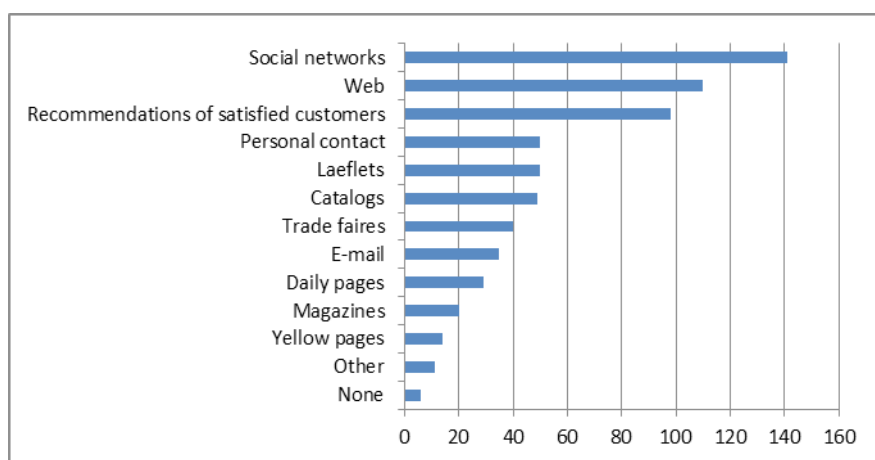
The research covering 182 respondents was aimed to determine the level of awareness of the use of marketing in business and most frequent marketing activities applied by crafts and micro entrepreneurs. The research did not target specific activities so that the production, trade and services were equally represented. According to their definition, micro enterprises can have up to 10 employees. The businesses (43%) with 4-7 employees, and crafts with 1-5 employees (54%) were predominant in the sample.

A very high level of awareness of the use of marketing is illustrated by 90% of responses that the application of marketing activities contributes to better business results, 85% of responses that the application of marketing activities contribute to greater competitiveness and 70% of responses that marketing activities return the investment. 26% of respondents agree with the statement that the implementation of marketing requires substantial financial resources, while 42% do not agree, and 56% do not agree or disagree with it. The result suggests forms of marketing which are applied and are mainly related to the promotion. The European strategic documents emphasize the lack of material and human resources in the implementation of marketing, which is confirmed by the answers of respondents who think (45% of them) that the lack of knowledge and education are the cause of the lack of marketing activities, while 40% of them neither agree nor disagree with this statement. Respondents believe that the time is not a critical factor in the use or non-use of marketing.

Accepting the fact of the necessity of using marketing, and the fact that there is not enough knowledge and time for its implementation, a part of respondents use the services of marketing agencies 32% permanently, and 40% occasionally, and 28% do not use the services of marketing agencies. The umbrella association of crafts and small enterprises provides certain free marketing services to its members, like promotion in the craft publications, joint participation at fairs, organization of training and seminars, regular information and the like. 35% of the respondents do not use these services, 23% of respondents participate at trade fairs, 20% promote themselves in trade newspapers, 17.6% take part in training and seminars, 7.7% accept free promotion within different programs. When asked whether they are satisfied with the services of Chamber of Crafts as a trade organization in terms of assistance in the implementation of marketing activities, 71% of them say that they are satisfied with the services provided by the association.

The fact that the implementation of marketing begins with the use of promotional activities [36] is confirmed in case of small businesses and crafts. Respectable 79% of respondents think that using promotion is necessary, and that it affects business results. Only 3% of respondents do not use any form of promotion of their business, while the remaining respondents emphasize the use of social networks, their own websites and the recommendations of satisfied customers. The primary forms of promotional media are illustrated in graph 1.

Graph 1: Primary forms of promotional



Source: Authors research

When asked why certain forms of promotion are used, various responses were generated, some were more prominent.

a. Promotion through social networks

- „Cheaper form of advertising. Many people see the ad and recommend to others.“
- „Cheap, fast and targeted.“
- „The best performance in relation to investment.“
- „Our target group are young people and they are on Facebook.“

b. Promotion through websites

- „All the information is available on our page.“
- „Cheap form of promotion available to all.“
- „Internet provides access to all customers, older people get a catalogue.“

c. Personal contact

- „Personal communication and presentation gives uniqueness to the buyer!“
- „We deal with services and logically this is our primary form of promotion.“
- „Personal contact shows buyers that they are important to us.“

d. Trade fairs

- „Products are tested and feedback is immediate.“
- „Personal presentation of products “
- „Possibility to test products gives us a special relation with customers, it is our strength and best promotion.“

e. *Promotion through catalogue*

„ Personalized catalogues enable best promotion to customer.“

„ All products are in the catalogue.“

When asked how much they allocate annually for promotion, 48% respondents say that the amount is between HRK 500.00 and 1,500.00, 19% of respondents allocate between 1,500.00 and 3,000.00 and only 2% more than HRK 6,000.00. 22% of respondents did not want to give the answer to this question. Only 9% of respondents said they will increase the amounts for marketing in the following year, while 43% will not do so. 48% of them say that the increase in the amount for marketing is conditioned by the business results and economic situation.

Respondents especially emphasized direct communication as useful. The justification for such communication is confirmed by 72% of respondents.

The aim of the research was to find out whether such original communication is used to collect customers' data based on which further personalized communications will be achieved. Monitoring of customers by collecting data about their behavior (type of goods/services purchased, amounts spent, special interest ...) is carried out by 35% of respondents, partially carried out by 23%, 35% do not carry it out, and 7% plan to do it. Consequently, 39% of respondents create personalized offers to its customers, 35% do not do it, and 26% plan to do so in the future.

6. CONCLUSION

SMEs are taking on the role of the main driving force of the economy and the economy as a whole. Taking this fact into account, the EU adopts strategies the end goal of which is to improve and strengthen small and medium enterprises to operate in a highly competitive European and global markets. Main barriers to achieving this goal have been identified, and their annulment is attempted with the provision of all forms of assistance, through programs of financial support as well as with adaptation of national legislation. Republic of Croatia as a member of the EU is actively involved in providing various forms of assistance to small businesses.

Market activities, and therefore planned strategic marketing approach, have been recognized as important and necessary. Researching marketing orientation of crafts and micro entrepreneurs shows a high awareness of the implementation and enforcement of marketing that is in its parts adapted to their specific features. The dominant activities are related to the promotion which is oriented to the new media. Noticeable is also the orientation on the relationship marketing which emphasizes customer satisfaction as primary in business and in so-called word of mouth promotion. To some extent customer data bases are used, and based on them personalized sales- promotional communications are created. This defines the main forms of marketing activities that require design of certain marketing strategies. Within these strategies, specific areas of interest are web marketing, e-mail marketing, social media marketing and database marketing management. Each of these marketing areas demands a customization to specifics of crafts and micro entrepreneurs. Further researches aim to integrate these specifics in the development of practical models of implementation of marketing in business.

REFERENCES

1. Hrvatska obrtnička komora, Uloga hrvatskog obrtništva kroz povijest, [www. hok.hr](http://www.hok.hr)
2. European Commission: Putting Small Businesses First, 2008 edition, <http://ec.europa.eu/enterprise/policies/sme/>
3. Kesner-Škreb: Lisabonska strategija, Financijska strategija i praksa, 2007., Vol. 31./2007, No 4, pp 411-443
4. Ekonomski institute Zagreb: Analiza razvoja i stanja obrtništva u Republici Hrvatskoj sa smjernicama za pripremu razvojne strategije, 2010, <http://www.eizg.hr/hr-HR/2010-g89.aspx>
5. Kutnjak Goran: Europska unija u funkciji poticanja I razvoja malog i srednjeg poduzetništva, Poslovna izvrsnost Zagreb, god. IV (2010) br. 2, hrcak. srce.hr/file/91228
6. Hrvatska obrtnička komora – strategija razvoja Hrvatske obrtničke komore 2014. – 2020., [www. hok.hr](http://www.hok.hr)
7. Zakon o obrtu, NN 143/13
8. Bistričić, A., Agatić, A., Kuzman, Z.: Značaj poslovanja malih i srednjih poduzeća u gospodarstvu RH i gospodarstva zemalja EU, Pomorstvo, Scientific journal of Maritime Research, 25/1 (2011), str. 145-158
9. Miguel-Romero, M-J, Adame-Sanchez, C.: Viral marketing through e-mail: the link company-consumer, Menagment decizion, Emerald, vol 52 (2013), pp. 1970-1982

10. Buble, M., Kružić, D.: Poduzetništvo – realnost sadašnjosti i izazov budućnosti, *Ekonomski vjesnik*, br. 1/2013, str. 250-263
11. Paige, R.C.: profiles of successful craft micro-retailers, *Jurnal of Developmental Entrepreneurship*, Vol. 14, No. 4 (2009), pp. 393-412
12. Small Business Act for Europe, Commission of the European Communities, Brussels, 25.6.2008, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0394:FIN:EN:PDF>
13. Zakon o obrtu, NN, 143/13
14. Zakon o poticanju razvoja malog gospodarstva, NN, 56/13
15. Zakon o unapređivanju poduzetničke infrastrukture, NN, 93/13
16. Dobrinić, D. (urednik): Marketing i baze podataka, Redak d.o.o., Split 2011.g.
17. Hrvatska agencija za malo gospodarstvo: 55 preporuka za povećanje konkurentnosti Republike Hrvatske, 2004. <http://hamag.hr/dokumenti/Publikacije/55%20preporuka%20za%20povecanje%20konkurentnosti.pdf>
18. Butigan, R., Mahnić, I.: Uloga marketinga odnosa u malim i srednjim poduzećima, *Tržište* br.1/2011., str. 89-104
19. Vranešević, T.: Upravljanje zadovoljstvom klijenata, *Global marketing*, 2000.g., Zagreb, str. 71.
20. Gilmore, A., Carson, D., Grant, K.: SME marketing in practice, *Marketing intelligence & planning*, 19/1 [2001] pp 6-11
21. Commission recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (notified under document number C(2003) 1422) (Text with EEA relevance) (2003/361/EC), *Official Journal of the European Union*
22. Nanić, A.: Mala i srednja poduzeća kao nosilac razvoja privrede EU, URL (hrčak.srce.hr/file/159709), 29.07.2015.
23. Enterprise and industry publications. The new SME definition. User guide and model declaration. European Commission, URL: ec.europa.eu/enterprise/policies/sme/...definition/sme_user_guide
24. Škuflić, L., Turuk, M.: Barijere ulaska malih i srednjih poduzeća u prerađivačku industriju u Hrvatskoj, *Poslovna izvrsnost Zagreb*, god. VII (2013) br. 2
25. OECD (2005) Policy Roundtables: Barriers to Entry
26. European Commission, Directorate-General for Enterprise and Industry; Annual report on European SMEs 2013/2014
27. European Commission; Barriers to Innovation in SMEs: Can the Internationalization of R&D Mitigate Their Effects?, Contributed paper for the 2007 conference on corporate R&D (concord), 2007
28. COSME Programme for the Competitiveness of enterprises and SMEs, http://ec.europa.eu/growth/smes/cosme/index_en.htm (15.07.2015.)
29. COSME program – novi program Europske unije za poticanje konkurentnosti malih i srednjih poduzeća u razdoblju 2014. – 2020., <http://www.minpo.hr/default.aspx?id=520> (15.07.2015.)
30. Obzor2020 (Horizon2020) - Novi program Europske unije za poticanje istraživanja i inovacija, <http://www.minpo.hr/default.aspx?id=520> (15.07.2015.)
31. Vlada RH; Poduzetnički impuls 2014. MINPO, 2014.
32. Rosalind C. Paige: Profiles of successful craft micro-retailers, *Jurnal of Developmental Entrepreneurship*, vol. 14, No. 4 (2009), World Scientific
33. Gao Xia: Research about Product Innovation of SME Based on Market orientation, MSIE, 2011, International Conference on IET conference Publications, pages 130-134
34. Porter, M.: Competitive Advantage, Creating and Sustaining Superior Performance, New York, 1985, The Free press
35. R. C. Kean, S. Niemeyer and N. J. Miller, *Journal of Small Business Management* 34(1), 13 (1996). <http://www.worldscientific.com/doi/ref/10.1142/S1084946709001326>
36. Dobrinić, D.: Osnove marketinga, Redak, Split 2010.g., str. 244.

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GOVERNMENT SIZE AND ITS IMPACT ON AIR POLLUTION¹

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ABSTRACT

Government's role is to provide public goods and to correct negative environmental externalities. This work analysis the government size and its impact on the provision of public goods in environmental perspective. In theory, the connection among the size of the government, expressed in government fiscal spending, and environmental quality, expressed in environmental quality indicators, is negative or unclear. Main results is that this relationship is negative, meaning that larger government size tends has statistically significant and negative effect on the selected air pollution. More government fiscal spending generates more air contamination and reduces the environmental quality. The composition of governmental fiscal expenditures also plays an important role in empirical analysis. Further, the impact of government size also vary depending on environmental indicators analysed. The work covers 28 EU Member States, measured between 1995 and 2014.

KEY WORDS: Fiscal spending, government, EU, environmental quality, public goods.

1. INTRODUCTION

The size of the government has been consistently increasing since 1960. According to Tanzi and Schuknecht (2000), who analysed public expenditures for 17 most economically developed countries, government public expenditures grew by 22 % among 1937 and 1960. In the next two decades, from 1960 to 1980, the average government increased its size by more than 50 %. However, in the last three decades the ascent of average size of the government spending has slowed down, and in the 1996 was just a few percent higher than in 1980. During the last global financial crisis, 2007-2012, several governments expanded and revised fiscal spending in order to stimulate growth and increase GDP, other countries have experienced financial crunch by reducing their government spending.

The size of the government may increase for several reasons. It may be caused in the case of widespread externalities that can be a result of the absence of markets or market failure, or from differences in the elasticity of demand between private and government goods. A significant reason for increasing the size of the government also found in the literature is a change in preferences of voters and general public over time in favour of public goods and services (Bernauer and Koubi, 2006; Mueller, 2003; Sobel, 2001).

The role of the government is to provide pure public goods and act as a corrector of negative externalities, including environmental externalities. Similarly, more research and development and of diffusion technology through expenditures on public goods may result to the development and use of cleaner technologies under certain conditions. Expenditures on public goods provisions may also induce an income effect where increased income increases the population's demand for cleaner environment and more environmental regulation, which in turn could reduce pollution (López et al. 2011). Thus public goods provision may have an effect on the increases of government size. Pure environmental public goods are clean air, clean water, biodiversity, non-polluted soil, and other environmental goods.

A large body of literature has empirically studied the relationship between governmental size and economic growth, unemployment or life satisfaction (e.g. Bjørnskov et al. 2005; Alfonso and Jalles, 2011; Bergh and Henrekson, 2011). Nevertheless, there are just few studies that empirically investigate the effect of governmental size and provision of public goods. The reason for this might be due to the fact that there is little agreement on what constitutes a public good, and due to lack of available quantitative data.

In this paper we study the relationship between the size of the government and the provision of one public good in particular, i.e. environmental quality. The environmental quality was selected since it is, by and large, a pure public good. In particular, we have selected SO_x emissions in 28 EU Members over the period 1995-2014, and controlled for other important economic determinants of environmental quality. Main results is that this relationship is negative, meaning that larger government size tends to have statistically significant and negative effect on the selected air quality indicator. More government fiscal spending generates more air contamination and reduces the environmental quality. The composition of governmental fiscal expenditures also plays an important role in empirical analysis.

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2. EMPIRICAL MODEL AND RESULTS

Following the procedure used by Wooldridge (2003) we apply cross-sectional and time series data. We estimate the effect of government spending on pollution levels, i.e. SO_x concentrations. The SO_x variable is selected since it is a reasonably good measure of air pollution. Bernauer and Koubi (2005) also established that most forms of air pollution, e.g. CO_2 , N_2O , NO_x and SO_x , behave quite similarly across countries. Total government expenditures spend are expected to have a negative effect on SO_2 concentrations, but the question is to what degree? Several economy-wide factors that codetermine the level of SO_x concentrations present control variables and are also included in the model. Suppressing time subscripts on variable for simplicity of exposition, the basic empirical specification for the pollution equation model is the following, namely:

$$SO_x = \alpha + \beta_1 tge + \beta_2 gepg + \beta_3 gdpg + \beta_4 gdpl + \beta_5 hexp + \beta_6 pec + \varepsilon \quad (2.1)$$

In (2.1) (SO_x) are SO_2 emission in tonnes per 1.000.000 € GDP, (tge) is total general government expenditures in millions of € per 1.000.000 € GDP, ($gepg$) is government expenditure in public goods in % of total government expenditure, ($gdpg$) is real GDP per capita growth (Constant US\$ 2000), ($gdpl$) is GDP in millions € GDP per square kilometre, ($hexp$) is household final consumption expenditure, etc. (% of GDP), (pec) is Primary energy consumption (Thousand tonnes of oil equivalent (TOE) per 1.000.000 € GDP), and ε is the error term. Table 1 present descriptive statistics of the variables used in the empirical analysis.

Table 1. Descriptive statistics

Variable	Mean	Std. Dev.	N
SOx	3,1073	7,80182	239
tge	4,5809	,68601	239
gepg	1,7636	,42915	239
gdpg	1,7234	,42192	239
gdpl	3,1800	2,39285	239
hexp	3,5680	4,42896	239
pec	25,1793	20,94329	239

Source: Author(s)

Table 2. Pollution estimates using Ordinary Least Squares (OLS)

Variable	Unstandardized Coefficient β	Std. Error	Standardized Coefficients β	t	Sig.
(Constant)	-16,575***	3,331		-4,975	,000
tge	1,324***	,507	,116	2,614	,010
gepg	-2,336*	1,356	-,126	-1,723	,086
gdpg	,317***	,080	,137	3,972	,000
gdpl	,255***	,070	,145	3,627	,000
hexp	,186***	,049	,188	3,802	,000
pec	,321***	,016	,861	20,051	,000

Dependent variable: SO_x emissions (in tonnes)

R Square = 0.78, adjusted R Square = 0.78. ***, **, * denote significance at the levels of 1%, 5%

and 10%, respectively

Source: Author(s)

Empirical results of linear regression model are presented in Table 2. All coefficient of interest are statistically significant at the 1% level (except variable *gepg*) and have the expected sign on air pollution. The results show that total government expenditure have an increasing effect on SO_x emissions (1,324***). This means that bigger governmental size results in more pollution. The overall properties of the regression model are good since adjusted R^2 is 0.78.

Further, the model reveals the composition effect of public expenditures also plays an important role. Reallocation of governmental expenditures from private goods towards public goods reduces pollution (-2,336*). Although, this effect is marginal but still points at the decreasing effect.

We included several control variables in empirical model to cover the effect of economic development of a country, and to see whether total government expenditures really have an effect on SO_x emissions. The effect of real GDP per capita growth (0,317***) and final GDP per square kilometre (0,255***) reveals statistically significant and increasing effect on the amount SO_2 pollution. Household final consumption expenditure (0,186***) and primary energy consumption (,321***) have a positive and statistically significant effect on air pollution. Primarily, other relevant theory-based variables like total foreign direct investment or use of alternative energy were also included in the model. However, their effect were not statistically significant, and in the view of parsimony they are not shown in this final model.

3. CONCLUSIONS

Unpolluted air is vital for human life, and every EU country allocate large amount of public appropriations to helping to decrease and mitigate the effects of pollution and preserve a healthy environment. Using a multivariate regression model for analysing cross-sectional and time series data we estimated the impact of government spending on SO_x emissions. The model is also controlled for numerous economy-wide factors. Empirical results showed that more government fiscal spending generates more air contamination (SO_x) and reduces the environmental quality. The composition of governmental expenditures also plays an important role in empirical analysis. Decreasing the level of public appropriations for private goods and more public appropriations for public goods have a decreasing effect on selected air pollutant.

We showed that the size of the government has a decreasing effect on the provision of a specific public good, namely SO_x emissions. The research results may be helpful for public policy makers when making decision about increasing governmental expenditures with regard to environmental quality. However, cautions could be exercised when interpreting the results, since we did not prove that this association is present also among other public sector provision, or that this results are valid in every particular country in selected sample of EU Member States. Finally, further research should focus on widening the database by increasing the number of countries included beyond the EU borders, and including regional data on environmental quality when they become fully available.

LITERATURE

1. Alfonso, A., Jalles, J.T. (2011). Economic Performance and Government Size. Working paper series
2. NO 1399. European Central Bank, Frankfurt, Germany.
3. Bergh, A., Henrekson M. (2011). Government Size and Growth: A Survey and Interpretation of the Evidence. IFN Working Paper No. 858. Research Institute of Industrial Economics, Stockholm, Sweden.
4. Bernauer, T., Koubi, V. (2006). States as Providers of Public Goods: How Does Government Size Affect Environmental Quality? Center for Comparative and International Studies (CIS), ETH Zurich, Switzerland.
5. Bernauer, T., Koubi, V. (2005) Political Determinants of Environmental Quality. Center for Comparative and International Studies (CIS), ETH Zurich, Switzerland.
6. Bjørnskov C. (et. al.) (2005). The bigger the better? Evidence of the effect of government size on life satisfaction around the world. Working Paper 05/44. Economics Working Paper Series. Eidgenössische Technische Hochschule Zürich, Switzerland.
7. López, R., Galinato, G.I., Islam, A. (2011) Fiscal Spending and the Environment: Theory and Empirics. Journal of Environmental Economics and Management 62(2), pp. 180-198.
8. Mueller, D.C. (2003) Public Choice III. Cambridge University Press, Cambridge, United Kingdom.
9. Sobel, R.S. (2001) The Budget Surplus: A Public Choice Explanation. Working Paper 2001-05, West Virginia University, Morgantown, WV, USA.
10. Tanzi, V., Schuknecht, L. (2000) Public Spending in the 20th Century. Cambridge University Press, Cambridge, United Kingdom.

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HEALTHY (FUNCTIONAL) FOODS IN HUNGARY: DIRECT SELLING STRATEGIES IN THE NETWORK MARKETING INDUSTRY

BERKE SZILÁRD

ABSTRACT

We start with a short introduction about the direct selling companies in Hungary, especially about the wellness industry, primarily about the “healthy food” segment and food supplement segment. We summarize the market facts of 26 network marketing companies which has official distribution center in Hungary. We feature the main functional food products and -product groups and introduce the marketing strategies and -tactics and the customer’s value-building system by direct sellers. The survey shows the preferred benefits in the innovation process of healthy products: these are immune function, anti-ageing, cardiovascular disease, mental health. The most favoured naturally nutrient-rich or medicinally active foods are in Hungary: green tea, mixed fruits, berries, ganoderma lucidum, coffee, mixed vegetables. The customer’s value-building system has 4 levels with special decisions e.g.: compensation plan, recruitment, education system, event marketing.

KEY WORDS: functional foods, direct selling, network marketing, marketing strategy.

1. INTRODUCTION

Before we introduce the market facts in Hungary first collect the results of some previous survey. Our research on defining the product quality started with the work of S. Szakály (SZAKÁLY-UNGER, 1998; SZAKÁLY S., 2001), and his first results based the background of the candidate work of Z. Szakály (SZAKÁLY Z., 1994). This model describes the components of the so called up-to-date quality, and it separates the fundamental and non-fundamental elements. The components *of the up-to-date quality* are shown in Table 1 (SZAKÁLY et al., 1998; BERKE, 2003).

Table 1. The components of up-to-date quality of food

QUALITY		
ELEMENTS	GROUP	ROLE
1. Physical quality e.g. temperature, density etc.	FUNDAMENTAL OR SAFETY QUALITY	BASIS OF LEGAL COMMERCE WARRANTEE FOR SAFETY (FOOD SAFETY)
2. Chemical quality e.g. energy, fat, protein concentration etc.		
3. Microbiological-hygienical quality eg. pathogen microbes etc.		
4. Organoleptical quality e.g. taste, colour, consistency etc.		

Source: Z. SZAKÁLY., 1998 and BERKE, 2003

It can be seen from the table that fundamental quality consists of the physical, chemical, microbiological-hygienical and organoleptical quality of the products. These altogether means the so called safety quality that gives a “guarantee” for the safety of the consumption. However, each item should bear these parameters, because it is the condition for launching them into the food market.

Thus, the producers can not get advantage on their competitors by providing only the fundamental quality. Market advantage can only be achieved with a product that has quality beyond the fundamental quality, and gives to the consumers added value.

Added value can be the usage and nourishment advantages, we call these together the functional quality. These advantages are shown in *Table 2* (SZAKÁLY Z. et al., 1998).

Table 2. The elements of quality beyond the fundamental quality

PARAMETER		
ELEMENTS	GROUP	ROLE
1. Usage advantages: better, more enjoyable taste and flavour; cold spreadability; longer shelf-life etc.	FUNCTIONAL QUALITY	ADVERTISEABILITY BETTER USE
2. Nourishment advantages: reduced energy, fat and cholesterol content; richness in bio-active macro- (Ca, Mg) and micro-elements (Se); controlling Ca:P ratio etc.		CONTROLLING HEALTH

Source: Z. SZAKÁLY, 1998

As we can see usage advantage can be e.g. the spreadable cold butter, chocolate drink free of sedimentation, sour cream free of lumps, or in general the easy opening and reclosing of the packaging of foods. These all are „advantages”, because these characteristics give the products advantage on the market. Let’s just think of the launch and success of recloseable milk cartons or the sliced and vacuum packed salamis. The consumers recognize the usage advantages relatively quickly and it does not need special effort. However, these characteristics can be copied easily, therefore they are less suitable for providing long lasting advantages in the competition (HUSZKA, 2010).

Nourishment advantage can be e.g. the lower energy, fat, salt or cholesterol content; the richness in bio-active macro- (Ca, Mg) and micro-elements (Se); controlling the physiologically optimal Ca:P ratio; richness in alive microbes; etc. To recognize these advantages is more difficult for the consumers, therefore effective marketing tools – such as wide-ranging advertising – is necessary. By handing over the regarding nourishment knowledge to the consumers and giving the products nourishment advantages can result in success in the competition. Excellent examples are the so called **Functional Foods** with unbroken conquest (HUSZKA et al, 2008).

The share in the world market is at least USD 60 billion according to cautious estimations, and this value is increasing by 6-9 percent annually (MENRAD, 2000; SZAKÁLY Z., 2002). KOTILAINEN et. al. (2006) says, that estimates of the global market fall into a range of EUR 30-60 billion. A recent lower-bound estimate indicated a size of EUR 6-20 billion for the EU market. Given available data, there are at least 168 EU companies active in the field of functional foods. The respective market shares of functional food in the total food market are estimated to fall into a range of 1-3 percent. However, the information from all sources indicates consistently that the functional food market is growing and that it is expected to continue to do so for the foreseeable future. (STEIN-RODRÍGUEZ-CEREZO, 2008; KAHL et al., 2012; SAHOTA, 2011; SOMEHAGEN et al., 2013). Their success is due to the **nourishment advantages of the products**, such as the so called bio-active (health protector) substances (SZAKÁLY S., 2001). Their important characteristics are to prevent some diseases and to provide excellent flavour and taste (SZAKÁLY et al., 1997).

How can we define „functional quality” according to the information above? In one of the works of (SZAKÁLY-KELLER, 1995) which deals with the dimensions of quality says that „...if the producers want to achieve competitive advantage, it is only possible with those product features that give the consumers further advantage beyond the fundamental quality. These features and characteristics together are called functional quality”.

S. Szakály **connects the functional quality with Functional Foods**, in the terms that functional foods provide the nourishment advantages mentioned above. The definition is, however, further developed: the word „functional” reflects not only the physiological or nourishment advantages as the classic term says, but the functional foods provide usage advantages as well, beyond their nourishment advantages. Model is shown in the *Table 3*.

Table 3. The elements of functional quality of food and milk products

FUNCTIONAL QUALITY	
GROUP	ELEMENTS
1. Usage value (advantages)	<ul style="list-style-type: none"> • Better, tastier, more refreshing flavour, higher joyment value • No skimming • Higher viscosity, stability and water binding (less sineresis) • Smooth texture when stirring • Good cooking stability • No after-fermentation • Longer shelf life • Long shelf life in spite of the live microbes • Opportunity for widening the range and way of use • Spreadable when cold, no melting on room temperature • No sedimentation in chocolate drink • Similar basic quality at a lower price • Practical packaging
2. Nourishment value (advantages)	<ul style="list-style-type: none"> • Reduced energy, fat, cholesterol, glycan-protein, sugar and cocoa powder content • Improved absorption of nutrients (fat, protein, minerals, vitamins). Improved vitamin C preservation. • Higher concentration of water-soluble vitamins • Lactate, live microbes, bifidogen substances, anti carcinogen, metabolite and bio-active peptides • Slower passage, longer time for saccharose absorption • Fat absorption in corpuscular instead of enzymatic way • Appropriate Ca:P ratio • Enriched in bio-active macro (Ca, Mg) and micro elements (Se), reduced phosphorus content

Source: S. SZAKÁLY, 1995

Nowadays there are many possible definitions for the term „functional food” and there is no global consensus on its meaning (AAFC, 2009; AMERICAN DIETETIC ASSOCIATION, 2009; BECH-LARSEN & GRUNERT, 2003; URALA ET AL., 2003; COLETTA, 1999; NZTE, 2009). This is a short list about the most popular definitions:

As a general definition a food can be said to be “functional” if it contains a food component that affects one or a limited number of specific function(s) in the body, and it has positive effects. The “effect” should be relevant to well-being and health or disease risk reduction. (ROBERFROID, 1999a,b)

Functional foods have also been defined as products that have been modified or enriched with naturally occurring substances with specific physiologically preventative and/or health-enhancing effects. They are not pills or capsules, but part of a normal food pattern (POULSEN, 1999). Similar appellations are: *healthy food – designer food – pharmafood – nutraceutical*.

In the next table (Table 4.) we can see that it has a difference between natural and planned functional foods. In this study we choose nearly alone the natural foods from the sortiment of the observed companies.

Table 4. Differences between natural and functional foods

NATURAL	
Non-altered (or natural) products	Foods naturally containing increased content of nutrients or components
PLANNED	
Fortified products	Increasing/reducing the content of existing nutrients
Enriched products	Adding new nutrients or components not normally found in a particular food
Altered products	a food in which one, or several components, have been modified, replaced or enhanced to improve its health properties

Source: AAFC, 2009; SPENCE, 2006; DIPLOCK, 1999; SZAKÁLY S.-KELLER, 1995

2. MATERIAL AND METHOD

We used some secondary data sources like WFSDA and we made an own analysis from the selected databases and -documents. After this method we complemented the analysis with our primary experiences to make this whole study.

This “territory” is out of scientific research, because few people doing this business type (network marketing, MLM) on professional level and work in a scientific research area at the same time.

To conduct the research we collected all wellness mlm companies in Hungary, which companies has official subsidiary in this country in period 2009-2013. To create a collection we visited all forums on the internet, we used the Top 100 list of Direct Selling News Magazine (EMMERT, 2012), the collection of the HASZON magazine (MEHLHOFFER-KOLOZSI, 2009), and the MLM Companies in Hungary 2013 issue (profiMLM Magazin, 2013). We analyzed all official websites of the selected companies (both English and Hungarian edition), and made a research to gather the missing values (e.g. the components and the nourishment advantages of the main products).

The next table (*Table 5.*) presents the list of the selected companies.

Table 5. The biggest MLM (network marketing or direct selling) companies in Hungary, which has natural functional foods in their portfolio (we don't analyzed supplements!)

Company	Market activity from:	Company	Market activity from:
Amway*	1991	Gano Excel	2007
Wellnet	1991	Life Care	2009
Sunrider*	1993	Winalite	2009
Ökonet (Biocom)	1996	DXN	2009
Forever Living	1997	Xocai	2009
Tiens*	2000	Bionx	2010
Flavin	2001	Biyovis/Bionet	2010
Naturlife*	2002	Organic Mission	2010
Flavon Group*	2005	Organo Gold	2011
Morinda (TNoni)	2005	Monavie	2011
NuSkin*	2005	Fitomed	2012
Herbalife*	2005	Serenigy	2012
Vemma	2006	Xango	2012

* = HDSA member **Bold** = Hungarian company.

Sources: Own figures, based on: MEHLHOFFER-KOLOZSI (2009), profiMLM Magazin (2013), WFSDA, 2012

In the portfolio of these companies we can found natural functional foods. All companies distributes food supplements too (eg.: capsule, granulate or powder, or concentrated drinks), but we don't analyzed this product lines. In year 2011 Bionix collapsed, in year 2012 Organic Mission collapsed too, but we used all the information of these firms, because we analyzed a fixed time interval.

3. RESULTS AND DISCUSSION

3.1. The most important scopes in the product development

In the next list it can be seen the order of the main scopes of the medical researchers (European Commission Directorate E – Biotechnologies, Agriculture, Food, 2010).

The main scopes in product development in the world's functional food market are:

1. *Early development and growth*
2. *Immune function*
3. *Gastrointestinal health*
4. *Mental health*
5. *Health and well-being in ageing*
6. *Physical performance*
7. *Obesity*
8. *Cardiovascular disease*
9. *Diabetes mellitus*
10. *Musculoskeletal disease, joints*
11. *Bone health*

In the practice of the direct selling companies worldwide we found a different highlights in the innovation process (Figure 1.). The leaders on the list are: to strengthen human *immune function*, add an *anti-ageing effect* into the products, and finally *reduce cardiovascular disease*. The sources we used **came from the advertisement messages** which based on formal online campaigns and other marketing communication activities (on official websites and in PR-articles in different magazines) (MEHLHOFFER-KOLOZSI (2009), profiMLM Magazin (2013); EMMERT, 2012). These messages reflected spectacularly the intention of the company owners.

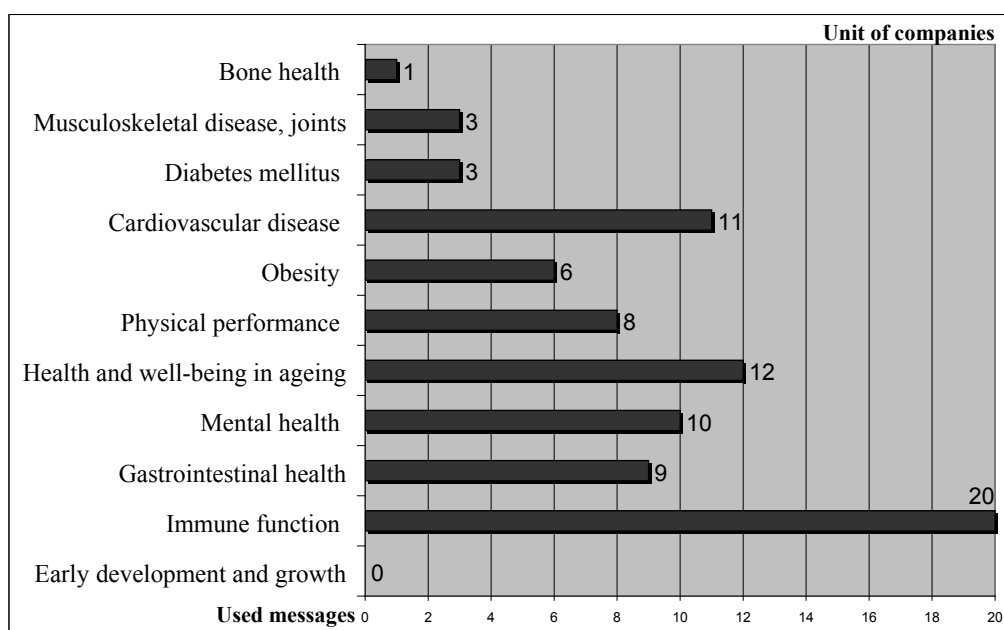


Figure 1. Practice in innovation reflected in the advertisement messages. (n=26)

Source of scopes: European Commission, Directorate E – Biotechnologies, Agriculture, Food – 2010.

SOURCE OF DATA: OWN RESEARCH, 2013-2015

3.2. The most promoted foods and -nutraceuticals

Producers could choose from a large offer from naturally nutrient-rich or from medicinally active foods. Some of the visited companies targets the markets with a diversified product group, some of them create a strategy for only one product. Some of the foods are mixed up in a bottle as drinks (as subtraction from the original plants), and some start on the market in primal form ("separated", in natural origin, mostly in high concentration level, but not in the supplement category).

Analyzed the product groups on the Hungarian market we found a following scale of preferences (Figure 2.).

Almost a half of the firms used green tea in the portfolio. Preferred line is the "fruits line" in each case mixed up in a bottle. Besides popular products are berries and ganoderma lucidum. Ganoderma is a mushroom premix, mixed up with coffee and launch on the market as instant coffee as semi-enriched functional food. Semi-enriched because coffee beans and ganoderma mushroom both are natural functional foods, but producers makes preparation process to reach the drinkable variant.

In the past years upraised products were berries (especially acai and goji berry) and ganoderma coffee. The consumer's demand is very stable by aloe vera gel and greens (alkalized drinks).

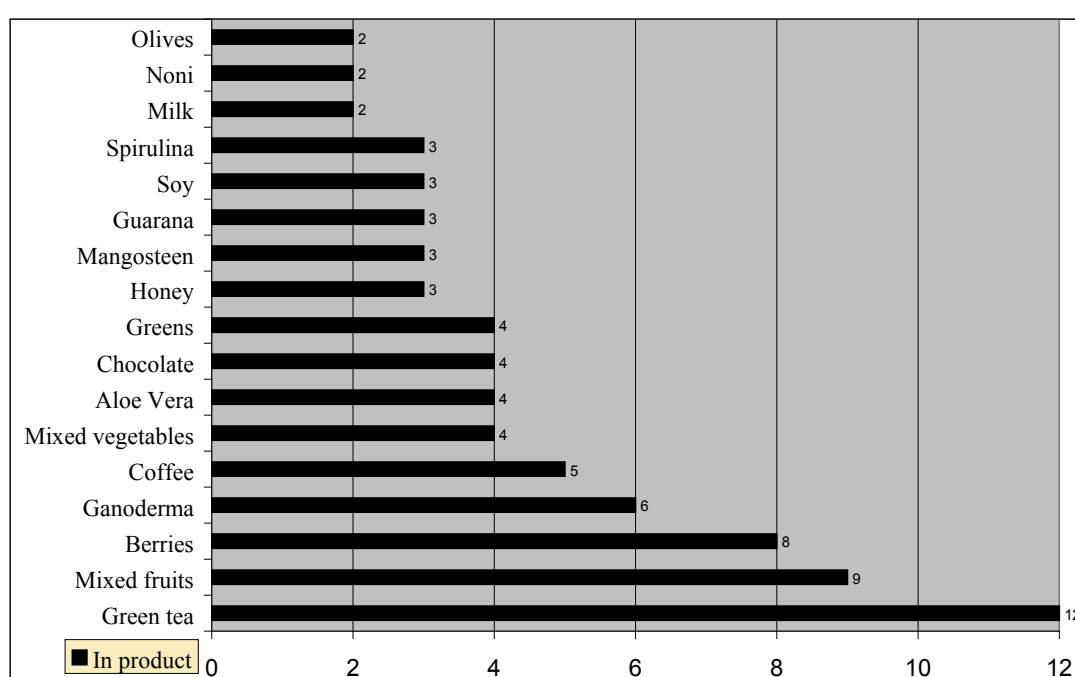


Figure 2. Promoted naturally nutrient-rich or from medicinally active foods on the Hungarian direct selling market (in the natural functional food segment).

SOURCE: OWN RESEARCH (N=26), 2013-2015

In this part of our study we introduce what can be found behind the products and product groups: **nutraceuticals**. A nutraceutical may be a naturally nutrient-rich or medicinally active food, such as garlic or soy, or berries, or it may be a specific component of a food, such as the omega-3 fish oil that can be derived from salmon and other cold-water fish. Following these definitions, both functional food and food supplements could be considered nutraceuticals – as long as they can be derived from natural sources.

Table 6. The well promoted nutraceuticals inside natural functional foods (*Hungary, 2013*)

Ingredients	
Flavanol	Saponines
Anthocyanin	Lignins
Sterin	Sterols
Hydroxycytric acid	Anthraquinones
Tripertens	Vitamin C
Adenosine	Palatinose
Iridoids	Superoxide dismutase enzyme
Antioxidants	Xanthones
Beta glucan	Catechins
Prebiotics	Thocopherol
Fructo-oligosaccharids	Polyphenols
Polyols	Resveratrol
Carbohydrates	Exempt Deuterium
Lecithin	Fibers
Gluthathione	Essential fatty acids
Alpha-linolenic acid	Chlorophyll
Calcium	

SOURCE: OWN RESEARCH (N=26), 2013

We introduce a comparison between two studies: we analyzed 52 products in our examination and made a research with the promoted nutraceuticals. The firms advertised these promoted ingredients in different magazines and -websites. Some brand has in the advertisements two or more nutraceuticals as ingredient.

Other scientific study collected 504 product from classic retail and introduced the most preferred nutraceuticals. We can see the differences in the *Table 7*.

Table 7. Promoted nutraceuticals in order of preferences: differences between direct selling and classic retail

Nutraceuticals in classic retails	Market share* %	Nutraceuticals in direct selling	Market share* %
Bacteria cultures (mostly probiotics)	44,9	Flavonoids	15,4
Saccharides (mostly prebiotics)	20,3	Vitamins	13,4
Plant extracts	13,8	Polysaccharides (mostly prebiotics)	11,5
Terpenes (eg.: Carotenoids)	10,6	Caffeine	11,5
Miscellaneous (eg.: Vitamins)	9,6	"Antioxidants"	11,5
Fibres	9,1	Minerals	9,6
Phenols (eg.: Flavonoids)	8,6	Organic germanicum	7,7
Peptides	7,8	Carotenoids	5,8
Lipids	6,0	<i>Others</i> : Amino acids, Omega 3-6 fatty acids, Protein, Terpenes.	5,8

SOURCE: OWN RESEARCH (N=26), 2013 AND STEIN-RODRÍGUEZ-CEREZO, 2008

Market share = How many product contains this nutraceutical (based on advertisements in the media and on the product labels). Value could be more than 100%, because some products contains more nutraceuticals.

It can be seen from the data the biggest difference: direct sellers highlights the “**antioxidants**” especially flavonoids and different vitamins, producers who deliver to the classic retails enhance **pro- and prebiotics**.

3.3. The brands on the market

There are many brands and sub-brands on the market. We summarized them in the *Table 8*. Some of them are fortified and enriched products (see the definitions in *Table 4.*). More than 50 percent of the producers using so called *merchant branded* products. It is an “umbrella” branding strategy, with some well known advantages. The portfolios would be grow in the near future, especially in drinks-, hot drinks-, energy drinks- and in shake product segment.

Table 8. Brand portfolio by the direct selling companies on the natural and planned functional food market (*in order by the foundation's date of the companies*)

Company	Brands and „merchant branded” products	Company	Brands and „merchant branded” products
Amway*	Positrim slice and drink, olive oil, tea, coffee	Gano Excel	Coffee, tea, chocolate
Wellnet	Coffee	Life Care	Meal Balance sweets, -biscuits, -muesli, Magic Energy coffee, Strong Ganoderma Coffee
Sunrider*	Calli tea, Fortune Delight, Vitalite, Sunbar, Vitashake	Winalite	Wincafe Vital and Wincafe Refresh
Ökonet (Biocom)	Tea, Creations Garden Liquid Multi drink	DXN	Coffee, cocoa drink, tea, throat mint pills, coffee pills, cordypine drink
Forever Living	Drink, FAB energy drink	Xocai	Chocolate, drink (shake)
Tiens*	Tea	Bionx	Max Out energy drink
Flavin	Drink, coffee, oil, chocolate, tea	Biyovis/Bionet	„Dragon`s Pearl” tea
Naturlife*	Flavan muesli and tea	Organic Mission	Just Goji drink, „Supra” drinks, shake
Flavon Group*	Flavon Max Jam	Organo Gold	Coffee, tea
Morinda (T. Noni)	Tea, Tahitian Noni drink	Monavie	Monavie, Active, Kosher drink, Emv energy drink
NuSkin*	Pharmanex Jvi drink	Fitomed	Fitovit, Plantagol, „Vidító” syrup
Herbalife*	Chocolate, Soup Mix, Protein Bar snack	Serenigy	Coffee, tea, chocolate
Vemma	Drink	Xango	Reserva Juice, Xantho, Alevia drink

* = HDSA member **Bold** = Hungarian company

SOURCE: OWN RESEARCH (N=26), 2013

4. CLASSIC AND SPECIFIC MANAGEMENT TOOLS TO CREATE VALUE FOR THE CONSUMERS

4.1. Making a value: the system of the management tools

It is worth mentioning that the main aim is using a management system **to create a value** to the consumers. Direct selling companies using classic management tools to build a concrete market strategy but they are using industry-specific toolkits beside this. It can be separate four levels in the management system by our concept. So how create companies greater value to the consumers? Direct sellers using the following system (Figure 3.).

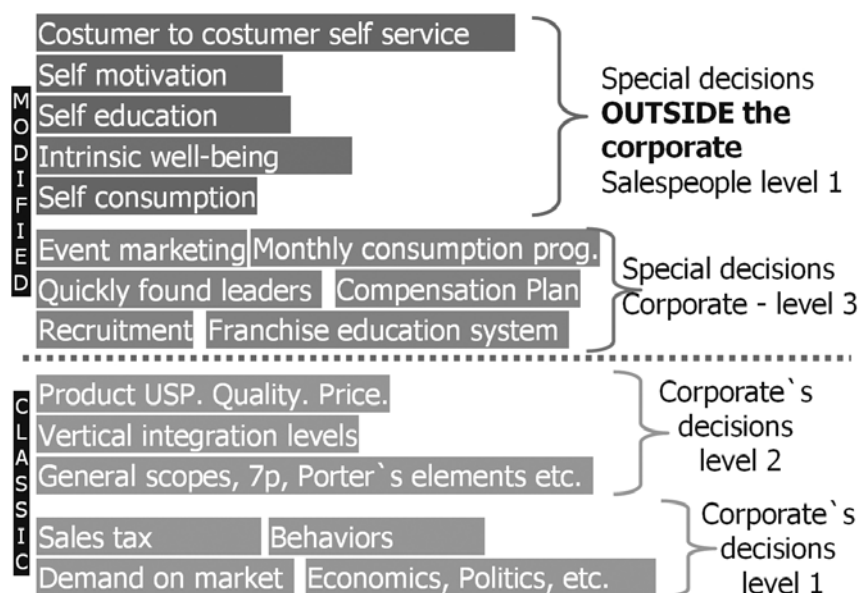


Figure 3. The value makers: classic and specific tools in management

SOURCE: OWN RESEARCH (N=26), 2013-2015

The “decisions level” 1 and 2 contains classic factors such as environment, demand, politics, and these factors observed with e.g. SWOT analysis or PESTEL model. After this step the management build a strategy guide to enter the selected market and using the McCarthy’s 4P or the Porter Value Chain model or something else. There are classic tools and some of this have to modify by direct sellers. Namely in the network marketing business a few factors has greater importance such as e.g. event marketing, to find leaders quickly, to make fast recruitment in the first 1-3 years after the beginning, and to create a well reproducible (or well copyable by member to member) education system. Furthermore leaders **has got a big potential problem in this industry**: all consumers have to be members, because it is a locked club system with registration process. And the supreme marketingcommunication solution or tool is the member. It is direct selling, so products have to propose by members themselves - when the member undertake this opportunity. The club members offers the products using their relationships and builds or destroys the brand value. The best salespeople have to be well motivated, have to consume regularly the main products, and have to improve oneself. It is important to mention that the MLM system breakdown in the targeted countries depends on the members activity and -behavior. The direct selling industry is also characterized by such a hybrid management system in which different characteristics merge with each other. But **the most important factors located outside the decision zone**.

5. CONCLUSION

The mlm companies can not get advantage on their competitors by providing only the fundamental (in the classic retail already well known) quality. Stronger market advantage should be achieved only with a product that has quality beyond the fundamental quality, and gives to the consumers the so called “added value”. Natural and planned functional foods should be the best solution: in direct selling in Europe 17% of the whole sales realized from the wellness industry, but in Hungary this value is 51%.

We found that the producers enhance to strengthen human immune function, put an anti-ageing effect into the products, and reduce cardiovascular disease. “To make a better immune system”: it is the most important message, and the reason is very simple. Other aims are not so important for these companies, because this segment (medicals, medicinal foods)

is hard regulated by laws in Hungary. These products could be not help to make a better health, or could be not reduce diseases says the statute, therefore marketing communication campaigns has only few opportunities.

The direct sellers (and the producers) make a focus on beverages: drinks (fruits, greens, tea and coffee), energy drinks and shakes. Almost a half of the firms use green tea in their portfolio. Preferred line is "fruits line" in each case mixed up in a bottle. Besides popular products are berries and *ganoderma lucidum*. In the past years upraised products were berries (especially acai and goji berry) and *ganoderma* coffee. The biggest difference between classic and direct selling retailers: direct sellers prefer flavonoids and vitamins opposite pro- and prebiotics. In our opinion in the nearest future the situation would be the same.

The information from all sources indicates consistently that the functional food market is growing, although this is a niche market with high risk and needs solid investment from the companies. In this sector the companies build their strategies using the power of the personal networking. Also the keywords are friendship and trust, because the personal recommendation has the highest value in the purchase process.

LITERATURE

1. AAFC (Agriculture and Agri-Food Canada) (2009): Consumer Trends: Functional Foods. Market Analysis Report. AAFC No. 11061E.
2. American Dietetic Association (2009): The Journal of American Dietetic Association, 109 (4) 735-746. pp.
3. Bech-Larsen T., Grunert KG. (2003): The perceived healthiness of functional foods. A conjoint study of Danish, Finnish and American consumers' perception of functional foods. *Appetite*, 2003 40 (1) 9-14. pp.
4. Berke Sz. (2003): A funkcionális minőség összetevőinek fogyasztói megítélése állati eredetű alapélelmiszerekénél. Ph.D. értekezés. Kaposvári Egyetem, Kaposvár, 1-200.
5. Coletta, F.A. (1999): Road map for functional foods: Central challenge and major priorities. *Nutrition Today*, 34, 166-169. pp.
6. Diplock A.T. (1999): Scientific Concepts of Functional Foods in Europe - Consensus Document. *British Journal of Nutrition*, 81 (1) 1-27. pp.
7. Emmert, J.M. (2012): DSN Global 100. The top direct selling companies in the World. http://directsellingnews.com/index.php/view/dsn_global_100_the_top_direct_selling_companies_in_the_world/P6#.U1_OEKLRM_U (Downloaded: 2014. 04.28.)
8. European Commission (2010): Functional foods. FP7 Cooperation – Food. <http://ec.europa.eu/research/research-eu> (Downloaded: 2014. 04.28.)
9. Huszka, P.: Élelmiszer fogyasztási szokások és attitűdök vizsgálata primer piackutatás alkalmazásával. In: Sikos T T (szerk.) Fenntartható fogyasztás és növekedés határai: új trendek a kereskedelemben. 294 p. Komárom; Gödöllő: Selye János Egyetem Gazdasági Kar; Szent István Egyetem Gazdaság- és Társadalomtudományi Kar, 2010. pp. 115-128. (ISBN:9788089234950)
10. Huszka, P., Polereczki, Zs., Szentgróti, E., Bakonyi, E.: Néhány alapvető élelmiszer fogyasztási szokásainak és vásárlási motivációinak vizsgálata a nyugat-dunántúli régióban. *ÉLELMISZER, TÁPLÁLKOZÁS ÉS MARKETING* 5:(1) pp. 47-52. (2008)
11. Kahl J., Załęcka A., Ploeger A., Bügel S., Huber, M. (2012): Functional Food and Organic Food are Competing Rather than Supporting Concepts in Europe. *Agriculture* 2012, 2, 316-324.
12. Kotilainen, L., R. Rajalahti, C. Ragasa and E. Pehu (2006): Health enhancing foods: opportunities for strengthening the sector in developing countries. Agriculture and Rural Development Discussion Paper 30. Washington, DC: World Bank. http://siteresources.worldbank.org/INTARD/Resources/Health_Enhancing_Foods_ARD_DP_30_final.pdf (Downloaded: 2014. 04.28.)
13. Mehlhoffer, T., Kolozsi G. (2009): MLM a nagy üzlet. *Haszon magazin*. 2009, 7 (10) 12-20. pp.
14. Menrad K. (2000): Markt und Marketing von funktionellen Lebensmitteln. *Agrarwirtschaft* 49 (8) 295-302
15. NZTE (New Zealand Trade and Enterprise) (2009): Market Profile for Functional Foods in Japan. 1-10 pp. <https://www.nzte.govt.nz> (Downloaded: 2014. 04.28.)
16. Poulsen, J. (1999): Danish consumers' attitudes towards functional foods. Report 2002. Retrieved July 24, 2009, from the University of Connecticut Web site: <http://ideas.repec.org/p/hhb/aarmap/0062.html> (Downloaded: 2014. 04.28.)
17. profiMLM Magazin (2013): MLM cégek Magyarországon 2013. Magyarország az MLM nagyhatalom. MLM Lapkiadó Kft., ISSN 2061-9804, 1-152. pp., Budapest.
18. Roberfroid, M.B. (1999a): Concepts in functional foods: An European perspective. *Nutrition Today*, 34, 162-165. pp.
19. Roberfroid, M.B. (1999b): What is Beneficial for Health? The Concept of Functional Food. *Food and Chemical Toxicology* 37 (1999) 1039-1041. pp. <http://www.farm.ucl.ac.be/Full-texts-FARM/Roberfroid-1999-2.pdf> (Downloaded: 2014. 04.28.)
20. Sahota, A. (2011): Global Organic Food & Drink Market. <http://www.fibl.org/fileadmin/documents/en/news/2011/sahota-2011-biofach-market.pdf> (Downloaded: 2014. 04.28.)
21. Somehagen, J., Holmes C., Saleh, R. (2013): Functional Food - A study of consumer attitudes towards functional foods in Sweden. Linnaeus University, School of Business and Economics. Bachelor Thesis. 1-66. pp.
22. Spence, J.T. (2006): Challenges related to the composition of functional foods. *Journal of Food Composition and Analysis*, 19, 4-6 pp.

23. Stein, A.J., Rodríguez-Cerezo E. (2008): Functional Food in the European Union. JRC Scientific and Technical Reports. 1-76 pp.
24. Szakály S. (2001): Tejgazdaságtan. Dinasztia Kiadó, Budapest
25. Szakály S., Keller B. (1995): Funkcionális minőség és marketing-stratégia tejtermékeknél. Minőségügy a magyar tejiparban - a II. Országos Tejipari Minőségügyi Konferencia előadásainak teljes anyaga, 32-38
26. Szakály S., Unger A. (1998): Minőségfejlesztés a magyar tejgazdaságban. Magyar Tejgazdasági Kísérleti Intézet. Kézirat.
27. Szakály Z. (1994): Korszerű állati eredetű alapélelmiszerek piacképességének vizsgálata. Kandidátusi értekezés, PATE Kaposvár
28. Szakály Z. (2002): Functional foods. Habilitációs előadás, Kaposvári Egyetem, Állattudományi Kar
29. Szakály Z., Berke Sz., Szakály S., Széles Gy. (1997): Funkcionális élelmiszerek - új piaci trend és kihívás a tejtermékgyártók számára. Vállalati környezet és alkalmazkodás az élelmiszertermelésben - Jubileumi konferencia a GTK megalakulásának 10. évfordulójára. GATE, Gazdaság-és Társadalomtudományi Kar, Gödöllő, 1997.okt. 9-10.
30. Szakály, Z., Berke, Sz., Molnár, Cs., Máthé, A., Széles, Gy. (1998): Functional foods in Hungary - a major opportunity for the dairy industry. 13th International Congress on Agricultural Engineering - Processing - Vol. 6, Rabat, Morocco, 1998, 11-16.
31. Urala, N., Arvola, A., Lähteenmäki, L. (2003): Strength of health-related claims and their perceived advantage. International Journal of Food Science and Technology, 38, 815-826. pp.

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THE ROLE OF VISUAL IDENTITY: CASE STUDY OF A NATIONAL AIRLINE COMPANY

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ABSTRACT

Visual Identity has a strong impact in building the image of a brand. The elements of visual identity, if well created, communicate with the audience in the way that enables emotional bonding. Visual identity of a national airline company is of great importance for its recognition in the market, but at the same time for promoting different values of a country it represents. It is defined as a system of recognizable and consistent visual presentations of a company based on which market recognition is achieved. It manifests itself through all means of marketing communication, inside and outside the company. Creating and designing clearly defined elements of a visual identity precedes shaping the overall identity of the company, its values and ambitions. For all these reasons it is clear that visual identity has an important role in creating an image of a company, encouraging users to create their own emotional images. The combination of visual elements provides a unique identity, and it is precisely this kind of differentiation which can provide great business opportunities. This paper deals with the topic of visual identity, recognition and market positioning of the Croatian national airline company Croatia Airlines. The visual identity of Croatia Airlines, in addition to presenting itself and attracting customers, also has an important role of creating the image of Croatian identity in visitors' minds.

Keywords: visual identity, brand image, design, communication, Croatia Airlines.

INTRODUCTION

There has been much research in the field of national brand identity (Kaneva, 2007), but there is lack of research in national visual identity which is part of brand identity. Peter van Ham (2001) draws on theories of post-modernity to argue that international relations are witnessing the rise of "brand-states." The most recent group of studies come from the field of media and cultural studies (e.g. Aronczyk, 2009; Baker, 2008; Jansen, 2008; Kaneva, 2009; Kaneva & Popescu, 2008; Roy, 2007), along with one in anthropology (Dzenovska, 2005).

Although national identity differs from corporate identity, there are some touchpoints between the two. Carter defined the concept of corporate identity as "the logo or brand image of a company and all other visual manifestations of the identity of a company" (Carter, 1982, p. 5). Growing research has shown that the concept of corporate identity is a strategic issue which includes an awareness of all organisation's stakeholders. This is supported by Olins who defines corporate identity as "... the explicit management of all the ways in which the organisation presents itself through experience and perceptions to all its audiences (Olins, 1995, p. 3).

The corporate identity model developed by Melewar and Jenkins (2002, p.140) breaks down corporate identity into the following areas: communication and visual identity, behaviour, corporate culture and market conditions.

NATIONAL BRAND IDENTITY

Nation-states have historically used various forms of persuasion to advance their political, economic, and cultural agendas (e.g. Bernays, 1955). Nation branding programs can be directed at both domestic and international audiences, and they are often funded with public money. In short, nation branding seeks to reconstitute nations both at the levels of ideology, and of praxis, whereby the meaning and experiential reality of nationhood itself is transformed in ways that are yet to be fully understood (Kaneva, 2011, p.118).

Anholt Nations Brands Index, first published in 2005 and still annually reprinted, by the consultant and scholar Simon Anholt measures worldwide perceptions of nation states using seven dimensions: culture, governance, population, exports, tourism, investments, and immigration (Anholt, 2006).

According to Anholt (2009), most countries and regions communicate with the outside world, and thus create their images in the minds of others, through six basic channels or areas of activity. These are: tourism promotion, exports of products and services, Government policy, how the country or region attracts inward investment and recruits foreign "talent", cultural exchange and cultural activities and the country or region's inhabitants.

The reputations of countries (and, by extension, cities and regions) function rather like the brand images of companies and products, and they are equally crucial to the progress, prosperity and good management of those places. This was the observation which led the author, a decade ago, to coin the term “nation brand”. However, his preferred term, “competitive identity”, better communicates the fact that managing the reputations of places has more to do with national and regional identity and the politics and economics of competitiveness than with branding as it is usually understood in the commercial sector. Places get their brands from public opinion, not from marketers or governments. In a busy and crowded world, most of us do not have time to learn about what other places are really like. We navigate through the complexity of the modern world armed with a few simple clichés, which form the background of our opinions, even if we are not fully aware of this and do not always admit it to ourselves (Anholt, 2009: 206).

Place tone exists in the material, symbolic, and virtual worlds but to have impact in destination reputation management it must be consistently and effectively communicated in all these worlds. Places are trying to engage visitors, residents, and other stakeholders in a stimulating conversation and place reputations must be communicated with a strong, distinctive, and engaging tone of voice in all online and offline interactions with the key target audience (Chapter 10). A place's tone (its ambience, the attitudes of its people, its heritage, and narratives) is inseparable from a destination's sense of place. Yet, communicating this is no simple undertaking and opens up controversial challenges of place authenticity, brand narratives, leadership and authorship, performativity, story-telling, and aesthetics (see Chapters 5–9) (Morgan et al. 2011, 12).

VISUAL IDENTITY AND IMAGE

Visual identity has a strong impact in building the image of a brand. So the approach should be interdisciplinary. Visual identity is more than just a logo, it is a visual expression that can be associated with reputation. According to Van den Bosch et al. (2005) visual identity can be seen through five dimensions: visibility, distinctiveness, authenticity, transparency and consistency. The use of visual identity elements on a variety of carriers increases the organisation's visibility. The logo (alongside other visual cues) communicates not only the existence of an organisation, but also – particularly when the organisation is in the news – can come to symbolise its reputation. (Van den Bosch et al, 2005, 110)

The meaning of a brand is not contained in an organization's logo, or even its products or services, but in the power of the brand image. Design can help build the reputation of a brand through customer touch points – places where the customer sees and experiences the brand. The act of translating a brand and its values into tangible and intangible products, services, spaces and experiences is called brand expression (Best, 2006: 100)

According to Anholt's index, Spain has come within the top ten nations in culture, heritage and tourism (Anholt, 2009). Spain has a long tradition in branding as a tourism destination. Its national image incorporates a specific visual identity for a long time. The famous Spanish painter Joan Miró created Spain's logo in 1985, which still remains today. This fact started a new era in the promotion of Spain because since that moment a unique brand has been used internationally, which meant a big step for Spanish marketing from the central government, overall because it started in the eighties and today is still on top. Miró's logotype has been introduced to every communication element of TURESPAÑA and it has become one of the signs of identity of Spanish tourism, used not only by TURESPAÑA, but also by different promoting entities.

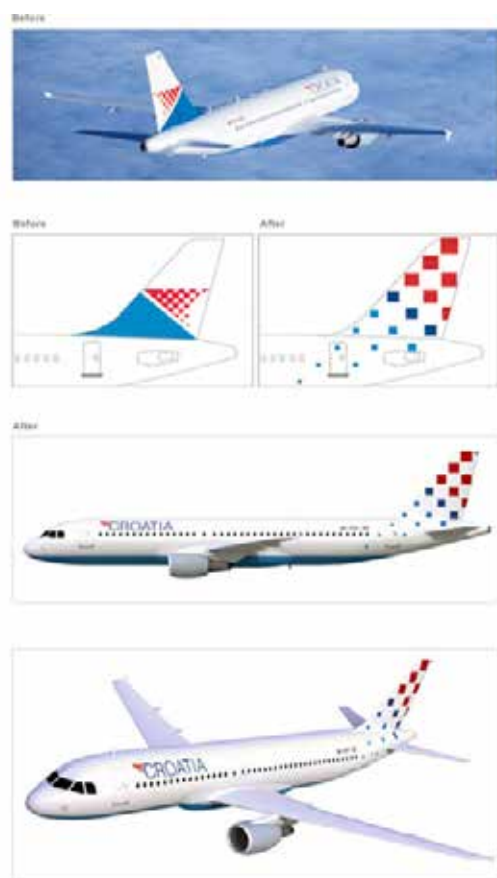
The permanence and success of this image has been possible thanks to a simple draw which represents the art, the colors, the sun, the modernism... in short, a successful combination of symbols making a brand that lasts through the years, although the slogans change. (Plumed Lasarte, 2012, 226)

According to Vranešević, some brand gained more relevance by using their brand logo than their brandname. These examples could be Apple, IBM, Mercedes or BMW (Vranešević, 2007, p.50). How important visual identity is in the context of corporate identity shows the case of British Airways. The corporation attempted at changing its image by repainting its tail fins. British Airways changed their designs from a distinctive and well-known logo to a diverse set of designs trying to appeal to the global market but failed (Melewar and Jenkins, 2002, p.140).

Another example of a national airline company is American Airlines which went through changing its visual identity in 2011. The brand's new look is inspired by the company's heritage and incorporates colors and symbols universally associated with American. A reimagined logo — called the Flight Symbol — evokes the star, “A” and iconic eagle of the airline's past, all brought to life in refreshed shades of red, white and blue. The logo is reinforced by a bold, new livery. With proud stripes and a timeless silver body, the livery expresses American's origins, but also the uplifting spirit of modern America: innovative, proud and open to the world (FutureBrand, 2011).

Croatia Airlines is the Croatian national airline company, established in 1989, two years before creation of the new Croatian independent state. Its visual identity was created in 1991. The company has a corporate designer Ivana Ivanković

from its beginnings. The country name incorporated in the company name was of great importance for the new, only recognized state and its national image. The foundation for symbol design are the elements of Croatian coat of arms, the red and white squares. The inspiration for the form of the symbol was a bird's wing. Even the primary corporate colors are national colours from the flag: red and blue. Croatia Airlines also received the international award ReBrand 100 for the redesign project of planes in 2012.



Picture 1. Croatia Airlines: redesign of visual identity applied to planes in 2012.

Source: corporate website

On-line research conducted between Croatian citizens about visual identity of Croatia Airlines for the purpose of undergraduate student final paper, (during spring 2014) gave 71 responses out of 100 e-mail contacts. For 78,9% of respondents the logo was valued as successful, clear and informative. Most of them have positive associations, they underline recognizability of national identity elements, which are in tune with the philosophy of the company. However, they have doubts about global recognition of the company and its contribution to national identity. The limitation of this research is that it has not concluded foreign passengers to examine their perception of Croatia Airlines visual identity.

To conclude, visual identity is an important part in creating an image. A country image can be interpreted as a function of many country associations with varying characteristics. The combination of characteristics of diversified associations will determine how extendable they are. Brand associations should be *strong, positive, and unique (Keller 1993), but also important, abstract, and holistic*.

REFERENCES

1. Anholt, Simon (2009). Brands and Branding, Chapter 15, Branding places and nations, The Economist
2. Aronczyk, M. (2009). How to do things with brands: Uses of national identity. Canadian Journal of Communication, 34(2), 291–296.
3. Baker, C. (2008). Wild dances and dying wolves: Simulation, essentialization, and national identity at the Eurovision Song Contest. Popular Communication, 6(3), 173–189.
4. Bernays, E. (1955). The engineering of consent. Norman, OK: University of Oklahoma Press.
5. Best, K. (2006). Design Management, AvaPublishing.

6. Carter, D.E. (1982), *Designing Corporate Identity Programs for Small Corporations*, Art Direction Company, New York, NY.
7. Dzenovska, D. (2005). Remaking the nation of Latvia: Anthropological perspectives on nation branding. *Place Branding and Public Diplomacy*, 1(2), 173–186.
8. FutureBrand (2011). *Reimagining the future of American Airlines - American Airlines Case Study*
9. Jansen, S. C. (2008). Designer nations: Neo-liberal nation branding — Brand Estonia. *Social Identities*, 14(1), 121–142.
10. Kaneva, N. (2009). Critical reflections on nation branding as discourse and practice. the Images of Nations: Strategic Communication, Soft Power and the Media conference, Athens, Greece, February 2009.
11. Kaneva, N., & Popescu, D. (2008). Post-communism and nation branding: Insights from the experiences of Romania and Bulgaria. the European Communication Research and Education Association conference, Barcelona, Spain, November 2008.
12. Kaneva, N. (2011). Nation Branding: Toward an Agenda for Critical Research, *International Journal of Communication* 5 , 117–141
13. Keller, K.L. (1993), “Conceptualizing, Measuring and Managing Customer-Based Brand Equity”. *Journal of Marketing*. Vol. 57, pp. 1-22
14. Melewar, T.C.; Bassett, K; Simones, C. (2006). The role of communication and visual identity in modern organisations, *Corporate Communications: An International Journal*, Vol. 11 No. 2, 2006, pp. 138-147
15. Morgan N., Pritchard A., Pride R. (2011). *Destination Brands: Managing Place Reputation*, Elsevier
16. Olins, W. (1995), *The New Guide to Identity*: Wolff Olins, Gower, Aldershot.
17. Plumed Lasarte, M. (2012): The Evolution Of The Image Of Spain As A Tourist Destination, *European Journal of Tourism, Hospitality and Recreation*, Vol. 3, Special Issue - ITC'11, pp. 215-233
18. Roy, I. S. (2007). Worlds apart: Nation-branding on the National Geographic Channel. *Media, Culture & Society*, 29(4), 569–592.
19. Ulldemolins, J. R., Zamorano, M. M. (2014): Spain's nation branding project Marca España and its cultural policy: the economic and political instrumentalization of a homogeneous and simplified cultural image, *International Journal of Cultural Policy*. Published online January 2014
20. Van Ham, P. (2001b). The rise of the brand state: The postmodern politics of image and reputation. *Foreign Affairs*, 8(5), 2–6.
21. Van den Bosch, Annette L.M.; de Jong, Menno D.T., Elving, W.J.L. (2005): How corporate visual identity supports reputation, *Corporate Communications: An International Journal* , Vol. 10 No. 2, pp. 108-116 Emerald Group Publishing Limited, 1356-3289 , DOI 10.1108/13563280510596925
22. Vranešević, T. (2007): *Brand Management*, Accent

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COMPARATIVE ANALYSIS OF AGRICULTURAL PRODUCTION IN NEIGHBORING BUT DIFFICULT TO COMPARE COUNTRIES

KATALIN TÓTH

ABSTRACT

Hungary is situated in temperate zone in the Pannonian Plain with continental volatile climate. Half of Croatia is also located in Pannonian Plain but one third of the areas are coastal (Adriatic) and the remaining areas are mountains (Dinara). Croatia is dominated by three main climates: continental, mountain and coastal climate. This study attempts to compare agricultural production of these two different countries. For the analysis the statistical data were used from statistical offices of Croatia (Croatian Bureau of Statistics) and Hungary (Hungarian Central Statistical Office). Similarities and differences in production are graphically depicted before deduction of the appropriate conclusions.

KEY WORDS: agricultural production, comparative analysis, statistical data.

1. INTRODUCTION

Comparative studies usually induce competition since they rank the paired phenomena. It does not always make sense ranking and it is neither the purpose of this study. Perhaps it is not fair because one of the two countries may have favorable natural conditions than the other.

However, it is important to consider strengths and opportunities in agricultural production for both (Hungary and Croatia) countries for successful cooperation.

The importance of EU agriculture is little compared to the other sections of the national economy since the share of agriculture in GDP is only 1.7%. Nevertheless, agriculture still remains an important sector because – in addition to a number of tasks – the world's growing population needs to be supplied with food.

(http://ec.europa.eu/eurostat/statistics-explained/index.php/National_accounts_and_GDP)

2. MATERIALS AND METHODS

The study is result of secondary researches because is based on data collected by others. A non-exhaustive investigation is directed on comparison of agricultural production (particularly the crop production) in two European countries: Hungary and Croatia.

The theme is based on reports of the Hungarian and Croatian Ministry of Agriculture, but beside it sources of the research were as follows:

- Hungarian Central Statistical Office;
- Croatian Bureau of Statistics;
- European Commission's Directorate-General, Eurostat.

In addition the author has taken the opportunity of the Internet.

The analysis used data of year 2013 (in many cases they are available only), which were illustrated in tables.

The hypothesis was: Hungarian agricultural production both in absolute and specific terms exceeds Croatian production thanks to the favorable endowments.

The hypothesis was tested for products that are grown in both countries; production potentials due to favorable climatic factors were excluded. In Hungary, for example, neither mandarin nor olives grow, so obviously the Croatian production exceeds Hungarian production.

3. RESULTS AND DISCUSSION

3.1. The geographical and climatic conditions of the two countries

Hungary is situated in the Carpathian Basin (Pannonian Plain) with continental climate. „Its climate is very erratic. One of the main reasons for this is the fact that Hungary is situated in between 3 climatic zones: the oceanic climate with less varying temperature and more evenly dispersed precipitation; the continental climate with more extreme temperature and relatively moderate precipitation; also, a Mediterranean effect with dry weather in summer, and wet one in winter. For a shorter or longer period of time any of these types can become prevailing. Due to these reasons great differences can occur in the weather of the country. [...] The other main determinant is orography. As the country is situated in the Carpathian Basin [...] primarily the effect of the Carpathians should be underlined.”

(http://met.hu/en/eghajlat/magyarorszag_eghajlata/altalanos_eghajlati_jellemzes/altalanos_leiras/)

Despite of the variable climate Hungary has great potentials for agricultural production.

Half of Croatia is also located in Pannonian Plain and has good potentials for agricultural production, but one third of the areas are coastal (Adriatic) and the remaining areas are mountains (Dinara) which is rather suitable for tourism. The most important climate modifiers of Croatia are Adriatic and Mediterranean Sea, orography of the Dinar Mountains with their shape, the altitude and position of the prevailing flow, openness northeastern parts of the Pannonian plain, and the diversity of plant cover. Therefore, three main climates: continental, mountain and coastal climate influence Croatia. (<http://klima.hr/klima.php?id=k1>)

According to experts due to global warming extreme weather events are more frequent such as: floods, heat waves and droughts. At the time the effect of significant rise in temperature and lack of precipitation are also challenging. Due to the temperature and humidity rise the distribution area and also the rate of infestation of current pests, diseases and weeds is increasing. These effects in most cases reduce yields differing in degree by regions.

(http://ec.europa.eu/agriculture/publi/fact/climate_change/leaflet_hu.pdf)

Due to the above-reliance the agricultural production has higher risk than the other sections of the economy, and these adverse factors affect production in both countries.

3.2. General data of the countries studied

Table 1 shows the general data of the two countries. It can be observed that the total area of Hungary is nearly twice as large as the territory of Croatia. If we examine the cultivated area the difference is greater because Croatia cultivates a fifth of its territory, but Hungary cultivates more than half of its territory.

Table 1: General data of Croatia and Hungary, 2013

	HUNGARY	CROATIA
Total area (hectares)	9,303,000	5,654,200
Agricultural area (hectares)	5,346,400	1,301,985
GDP (EUR 1000 million)	98	43
GDP per capita (EUR)	9,900	10,200
The ratio of agriculture, hunting, forestry and fishing from GDP (%)	4.8	4.7
Labour in agriculture (%)	4.9	3.2

Source: Eurostat, 2015; Hungarian Central Statistical Office, Croatian Bureau of Statistics, 2015

Hungary produced more products and services than Croatia, its gross domestic product (GDP) was twice as large as Croatian. A more accurate picture shows the GDP per capita which is almost the same in both countries, but the Croatian indicator is slightly higher than Hungarian. The production of agriculture is almost the same of the two countries; and greatly exceeds the EU average (1.7%), in terms of its ratio in GDP. If the data is further analyzed we can see that in Hungary more people work in agriculture than in Croatia.

The real earnings are below national average in both countries. (*Magyarország kormánya, 2015 and Ministarstvo poljoprivrede Republike Hrvatske, 2014*)

Table 2 provides detailed information about the GDP - which is a measure of the economic output of the country. For the comparison of living standards GDP per capita were used and to eliminate the exchange rate fluctuations, GDP per capita were expressed in purchasing power unit (PPS) – instead of using nominal GDP. Data of Austria only serve as a reference for us, it is close to both countries but its economy differs greatly from both countries thus the comparison shows only interesting.

Table 2: GDP of Hungary and Croatia at current market prices

	GDP					GDP per capita		
	(EUR 1 000 million)			(PPS 1 000 million)		(PPS, EU-27 = 100)	(EUR)	
	2002	2012	2013	2002	2012	2002	2012	2013
EU-28	9 984	12 970	13 075	9 984	12 970	100	100	25 700
Croatia	28	44	43	48	67	54	61	10 200
Hungary	70	97	98	127	169	61	67	9 900
Austria	221	307	313	210	279	127	130	37 000

Source: Eurostat (online data from: http://ec.europa.eu/eurostat/statistics-explained/index.php/National_accounts_and_GDP/hu#Adatb.C3.A1zis)

If we look at the data GDP in current prices and PPS also increased significantly compared to 2002 but in recent years, the growth has slowed or disappeared. The GDP per capita in Croatia is 61% of EU average and this data for Hungary is only 6% higher in 2012 (67%). In comparison in Austria the GDP per capita is above EU average (130%). Based on the data of 2013 – in euro – the GDP of both countries is nearly identical (10.000 euro per capita). In Austria the GDP per capita is three times higher compared to both countries.

Contribution of agriculture, hunting, forestry and fishing to GDP in 2013 – according to the Eurostat data – it is 1.7% in average. In Hungary this ratio is 4.8%, while in Croatia 4.7% according to data of 2012.

Observing the other sectors, industrial power is 26% in Hungary and 20.6% in Croatia. However, Croatia takes part in activity of distributive trades, transport, accommodation and food services with 20.7%, while Hungary with 17.6%.

(http://ec.europa.eu/eurostat/statistics-explained/index.php/National_accounts_and_GDP)

3.3. Crop production in figures

After the general information we examined the crop production of countries. First of all it should be noted that those plants were tested which are grown in both countries and are available from statistical data.

Table 3: Production of main crops (1000 tons)

	Cereals	Oilseeds	Sugar beet	Potatoes	Onion	Tomatoes
EU-28	305,728	30,147	109,096	53,871	5,977	27,120
Croatia	3,188	177	1,051	166	23	20
Hungary	13,610	2,017	991	487	44	140

Source: Eurostat, 2015; Hungarian Central Statistical Office; Croatian Bureau of Statistics, 2015

Table 3 shows agricultural production of main crops in EU-28, Croatia and Hungary in thousand tons.

Cereals have the biggest importance in both countries. The dominant plant is corn, wheat follows corn; then barley, rye, oat, triticale come. Both countries are self-supporting from cereals, Croatia is forced to import durum wheat.

Regarding to oil plants in Croatia the soy, in Hungary the sunflower is the dominant oilseed besides them rape has a great importance.

Third indicated plant in Table 3 is sugar beet. In Hungary 64 % of the sown area of sugar beet is located in Transdanubian region near town Kaposvar, because here is the only operating sugar factory of Hungary. The sugar beet is the major export product of Croatia; its importance of foreign trade is extraordinary. In Croatia the cultivation of sugar beet has tradition and processing capacities exist. Nonetheless the sown area is declining year-by-year. The state tries to boost the sown area of sugar beet with subsidies.

Some important plants are: potatoes, onion, tomatoes. Hungary produces more of almost each of them.

Based on the data Table 3 Hungary produced more plants listed in absolute terms than Croatia except of sugar beet which is the major export product of the country.

About effectiveness of production per unit data give exact clear image which are shown in Tables 4-6. We would expect that Hungary – which has greater agricultural potential than Croatia – outperform the Croatian yields. It was not this way.

Table 4: Yields of main crops in Croatia and Hungary (tons per hectare)

	Corn	Wheat	Barley	Sugar beet	Soya	Sunflower seed
Croatia	6.5	4.9	3.7	51.9	2.4	3.2
Hungary	5.4	4.6	4.1	52.7	1.9	2.5

Sources: Hungarian Central Statistical Office, Croatian Bureau of Statistics, 2015

Table 5: Yields of main vegetables in Croatia and Hungary (tons per hectare)

	Potatoes	Tomatoes	Cabbage	Cucumber	Peas	Beans	Lettuce
Croatia	15.9	44.6	21.1	43.9	5	4.2	20
Hungary	21.7	67.3	24	31.7	4.8	7.8	18.7

Sources: Hungarian Central Statistical Office, Croatian Bureau of Statistics, 2015

Table 6: Yields of main fruits in Croatia and Hungary (tons per hectare)

	Apple	Pear	Grape	Cherry	Sour cherry	Peach	Plum
Croatia	22.6	5.4	6.9	4.4	3.6	3.8	6.7
Hungary	16.7	7.9	6.5	3.7	4.7	7	5.6

Sources: Hungarian Central Statistical Office, Croatian Bureau of Statistics, 2015

In case of arable crops (Table 4) and also in case of vegetables (Table 5) and fruits (Table 6) there are many species (corn, wheat, soya, sunflower seed, cucumber, peas, lettuce, apple, grape, cherry, plum) where Croatia performs better.

During the analysis of the fruits it has to be considered that (in addition to the mandarin) apple and plum are the most commonly produced fruits of Croatia therefore it is understandable that the yields turned out better. In Croatia owing to the favorable factors the grape growing is also dominant, wineries has tradition, Croatian wine is competitive on world market. According to the Croatian Ministry Croatia have more possibilities to take advantage of. Hungary however - regardless of bad weather - harvested more fruits and vegetables from smaller area than previous year.

In terms of crops and vegetables there is no special explanation that despite the favorable conditions why there are lower yields in case of a number of plants. The unfavorable factors due to changing weather have impact on agriculture of both countries.

(Magyarország kormánya, 2015 and Ministarstvo poljoprivrede Republike Hrvatske, 2014)

It can be concluded that the hypothesis has been only partly justified. For the plants we examined the amount of the produced crops had more in Hungary than in Croatia. Only the production of sugar beet is greater in Croatia than Hungarian production. But Croatian unit yields are in many cases greater than Hungarian, which raises many questions for Hungarian farmers.

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LITERATURE

Sources used and cited:

Magyarország kormánya (2015.) B/3566. számú jelentés az agrárgazdaság 2013. évi helyzetéről. Budapest, 2015. pp. 63-68., 102.

Ministarstvo poljoprivrede Republike Hrvatske (2014.) Godišnje izvješće o stanju poljoprivrede u 2013. godini. Zeleno izvješće. Zagreb, 2014. pp. 10, 32-41.

Source used, but have not been cited in text:

Mesarovic S. (2014.) Szerbia és Horvátország mezőgazdasága. Agro Napló 18(6), pp. 96-98.

Sources from internet:

1. Hungarian Central Statistical Office: http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_omn001a.html
2. Croatian Bureau of Statistics: <http://www.dzs.hr/default.htm>
3. http://ec.europa.eu/eurostat/statistics-explained/index.php/National_accounts_and_GDP
4. Hungarian Meteorological Service: http://met.hu/en/eghajlat/magyarorszag_eghajlata/altalanos_eghajlati_jellemzes/altalanos_leiras/
5. Meteorological and Hydrological Service of Croatia: <http://klima.hr/klima.php?id=k1>
6. European Commission's Directorate-General, Eurostat: http://ec.europa.eu/eurostat/statistics-explained/index.php/National_accounts_and_GDP
7. http://ec.europa.eu/agriculture/publi/fact/climate_change/leaflet_hu.pdf

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FINANCIAL EDUCATION OF SECONDARY SCHOOL STUDENTS

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ABSTRACT

Many surveys and studies worldwide have shown that the level of financial literacy of the population is low. A significant proportion of population does not have basic financial skills necessary to understand the financial products, mortgage or life insurance nor can handle securities. To eliminate the lack of knowledge and to achieve an adequate level of financial literacy in recent years in the world, a considerable number of initiatives is aimed at increasing financial literacy through targeted training programmes. It is also important to provide basic financial education to young people at secondary schools, to increase awareness of the financial products and services in the expanding market. This article presents an overview of financial education at secondary schools in some countries of Central Europe. It focuses on the level of financial literacy of young people in relation to financial education. The final section shows one form of increasing financial literacy through the short programme of financial education. It shows that even this form of education can increase students' interest in financial matters, students can improve their financial knowledge, skills and competencies, become better informed, make the decisions in the future and become self-confident consumers.

KEY WORDS: Financial education, Financial literacy, Secondary school students, Short programme of financial education.

1. INTRODUCTION

In today's challenging financial environment, young people have to make difficult decisions and very often make them wrong. Many studies have proved the low levels of financial literacy among young people. For example, Lusardi et al. (2010) found that less than one third of young people have basic knowledge about interest rates, inflation and risk diversification. More and more literature focuses on the influence of financial education offered in schools (Walstad et al., 2010 Becchetti and Pisani, 2012). Some studies focus on national programmes (Cole et al., 2012). The study of Brown et al. (2013) points the benefits of the implementation of financial education into the school curriculum in the United States in the field of youth indebtedness. The implementation of financial education into the school curriculum is effective because each student is obliged to pass the education (Hastings et al., 2012). Although it is particularly difficult to assess the effectiveness of financial education, it is evident that financial education increases students' financial knowledge but also their interest in financial matters (Lührmann et al., 2015). Many young people are not able to make the right decisions in the field of finance (Lusardi and Mitchell, 2007). Therefore it is necessary to increase the financial literacy of young people through the particular training. For young people the most important is the attitude to financial decisions related to saving, large cumulative effect of a lifetime (Lusardi et al., 2013). They find that over half of lifetime wealth inequality can be attributed to heterogeneity in financial knowledge in early adulthood. Even Padula and Jappelli (2013) emphasize the effects of the financial literacy on the decision to save the money.

In recent years the concerns have risen about the low level of financial literacy and weak financial education. This issue has also been raised by the International Organisation for Economic Co-operation and Development OECD, which in 2003 launched an inter-governmental project *Financial Education Project* to create a comprehensive system of financial education in OECD countries. Its goal is to increase the level of financial literacy. The results of the project were summarized in the publication *Improving Financial Literacy* (OECD, 2005) with number of recommendations. One of them is the introduction of financial education into the curriculum at primary and secondary schools. OECD in 2008 has also extended its original project with "*International Network on Financial Education*", with the main objective to support the Member States in establishment of national strategies for financial education.

The implementation of financial literacy in the education is left on each country. This issue is implemented into different subjects, such as mathematics, history, economics and geography. In some countries like Iceland, Italy and Spain this issue is taught in a separate subject. In the Czech Republic this education is included in social science subjects and mathematics. The age of children and pupils who come across the financial issues is different in each country. Japan, Italy and the UK are the countries where the basics of financial literacy are taught at the pre-school age 4-5. In many countries, such as Canada, Ireland and Poland, the beginning of financial education is at the age of 13-15. Since the year 2013 in the Czech Republic the beginning of financial education has been shifted from the age of 14 - 15 to the age of 6.

The second part of the article provides an overview of financial education and financial literacy standards for secondary schools in Slovakia and the Czech Republic. The third section provides information on the international OECD study called Programme for International Student Assessment (PISA). In addition, we also present the results of testing the students in PISA 2012. The fourth part presents the short programme of financial education. Finally, the fifth part presents the main ideas and objectives of our further progress in developing financial literacy in Slovakia.

2. OVERVIEW OF FINANCIAL EDUCATION IN SECONDARY EDUCATION

This section provides the overview of financial education in secondary schools in the countries of Central Europe - Slovak Republic and Czech Republic.

2.1. Financial education in the Slovak Republic

In July 2008, following the European Union documents about increasing financial literacy in Slovakia, the Slovak Government approved *The Proposal of the educational strategy in finance and personal financial management*. On the basis of this material, the Slovak government imposed to develop the standards of financial literacy for individual educational levels and implement these standards into all public educational programmes. There has also been developed a model for further education of teachers in the field of financial education. The government has initiated the implementation of a Strategy for financial education in activities of further education. The Minister of Education set up a special advisory body called Interdepartmental expert group. This group has created a proposal of *the National Standards for Financial Literacy Version 1.0*, which the Ministry of Education of the Slovak Republic approved in March 2009. It has also confirmed the implementation of the approval clause in the state education programmes.

In 2013, the Government of the Slovak Republic was introduced a material *Report on the situation in education aimed at the development of financial literacy*. On the basis of this report, the Slovak Government imposed the Ministry of Education in cooperation with the Deputy Prime Minister and Minister of Finance to update the content of National standard of financial literacy as well as to develop a methodology for the implementation and application of financial literacy in school curriculum of primary and secondary schools.

In 2014 the Ministry of Education approved the updated *National Standards for Financial Literacy Version 1.1 (NSFLV)* as the fundamental document for the preparation of methodology for teaching inter-subject topic *the Financial literacy for primary and secondary schools*. This methodology became effective in September 2014.

The National Standards for Financial Literacy Version 1.1 is an open document which presents needed knowledge, skills and experience of students in the financial education and personal financial management. It describes the minimum requirements for competencies in financial literacy of the graduates.

According to the *NSFLV* financial literacy is the ability to use knowledge, skills and experience to effective management of one's own resources, to ensure lifelong financial security and the households.

NSFLV includes the following topics of financial literacy:

1. A person in the sphere of money.
2. The financial responsibility and decision-making.
3. Money security to satisfy the needs for living - work and income.
4. Planning and money management.
5. Loan and debt.
6. Saving and investing.
7. Risk management and insurance.

Each topic is connected to general competence and partial competencies which make up the content standard and describe some knowledge, skills and experience in the area of financial literacy. The competence gradually focuses on the minimum level which should be achieved by each secondary school graduate. Expectations within each partial competence present performance standards and describe the knowledge, skills and experience that graduates should use in everyday financial decisions and activities. The expectations are described in *NFLSV*, mainly in these three levels:

1. *Level 1* - primary education (primary education, first to fourth grade of primary school).
2. *Level 2* - lower secondary education (upper primary education, fifth to ninth grade of primary school, first to fourth grade of 8 - year grammar school, first grade of bilingual schools), lower secondary education and secondary vocational education.
3. *Level 3* - general secondary education or secondary vocational education.

In accordance with *NSFLV*, financial education is a compulsory part of education at primary and secondary schools. Each graduate must be informed about the content at a certain level of education. Within the framework of general and vocational education, financial literacy can be:

- incorporated into individual subjects,
- implemented in block teaching,
- implemented through the course,
- implemented within the thematic days,
- created as a separate subject.

Implementing the financial literacy into the educational process does not primarily expand the curriculum and load students in terms of content. Financial literacy can be developed in all school subjects in general and vocational education. It is a basic implementation of financial literacy in the educational process. The core of financial education at secondary schools is in the subjects of civil education and math.

The financial literacy is included in the education standards "Economic education" in the form of content standards called Rules of personal financial management, Consumer education, Education for entrepreneurship and the World of work. Financial education has an inter-subject characteristics, so it is possible to implement it in the theory of vocational training in theoretical and practical areas in various vocational subjects. The updated *NSFLV* provides the ability to create new subjects or new themes in the curriculum subjects in terms of greater support for the development of financial literacy of students. Practical complementary part of financial education is a set of programmes, projects and activities offered to schools by financial institutions.

2.2. Financial education in the Czech Republic

The Ministry of Finance of the Czech Republic, within the customer care and protection in the financial market deals with issue of financial education. As recommended in the publication *Improving Financial Literacy*, the Ministry of Finance of the Czech Republic in 2007 published the document *Financial Educational Strategy*. Its updated version was published in 2010 under the name *National Strategy for Financial Education*. The aim of the Strategy is to create an integrated system of financial education, which would increase the level of financial literacy in the country. The proposed measures are based on two pillars - initial education (pre - school, primary, secondary, higher education) further education (educational activities aimed at the adult population who are not involved in the initial education).

The document Financial Education System from 2007 follows the mentioned Strategy and aims at primary and secondary schools. The financial literacy standards were defined in this document and focus for three different target groups: pupils of first grade of primary school, pupils of second grade of primary school and students of secondary schools.

The above mentioned financial literacy standards were implemented in the curricular documents of the Czech educational system. Total integration into the framework educational programme for secondary schools and secondary vocational schools was carried out during 2008 and 2009. The standards were implemented in the curricula topics: Man and world of work, Mathematics and its applications. The topic Man and world of work defines the knowledge and skills needed for handling the funds of the market economy, the national economy and the state's role in the economy. This knowledge is acquired by the students of grammar schools and secondary vocational schools. The topic of Mathematics and its applications provides the necessary mathematics tools for students to understand the principles of financial relations and analysis of offered products.

The implementation of the financial standards in the framework of educational programmes becomes compulsory for all schools of the corresponding type and must be properly transferred to their school educational programmes. The

financial literacy standards were implemented into the framework educational programmes in 2013 and are compulsory for school educational curricula from September 2013.

According to the *National Strategy of Financial Education* financial literacy is a set of skills, knowledge, values and attitudes of a citizen to secure himself and his family financially, to be active in the financial market with products and services. Financially literate citizen is aware of the money and price issue and is able to manage responsibly personal/family budget, financial assets and financial liabilities in several life situations.

The specific standards of financial literacy represent the ideal level of financial literacy for different target groups or target state of financial education for different educational levels.

National standards of financial literacy are defined according to the following groups:

- Financial Literacy Standards for pupils of the first grade of primary school, age: 6-10
- Financial Literacy Standards for pupils of the second grade of primary school, age: 11-15
- Financial Literacy Standards for secondary school students, age: 16-19

This standard is compliant with the standards of financial literacy of the adult citizen respecting educational needs of secondary school students.

Financial Literacy Standards for secondary school students include these four areas:

1. Cash – payment, price creation, inflation.
2. Economy of the household - the household budget.
3. Financial products - excess and lack of financial sources, insurance.
4. Consumer rights - regulations to protect consumers, content of contract.

3. PROGRAMME FOR INTERNATIONAL STUDENT ASSESSMENT

Programme for International Student Assessment (PISA) is an international OECD study which focuses on the monitoring the abilities of 15 year old pupils in three areas of functional literacy: mathematics, reading and science. Literacy is seen as the student's ability to use acquired knowledge and skills in real life situations. PISA has been carried out since 2000 in three-year cycles. Each cycle is focused on one area. PISA represents the efforts of participating countries to find out how are the graduating pupils prepared to deal with situations in the future life. Since the compulsory education of pupils in most OECD countries ends at the age of 15 years, the 15 - year-olds are being observed.

The aim of this study is to determine how will the students succeed apart from the curriculum. PISA seeks to assess the students's ability to use the acquired knowledge and skills in real life situations, not only the ability to master the prescribed curriculum. Emphasis is not put on the theoretical knowledge in specific subjects, but on their practical application. PISA does not control the student's knowledge of curriculum prescribed, but how they can use it in real life situations, what have the students learned. The study does not examine the performance of an individual, but the overall state of the educational system of the country.

Students' knowledge and skills are tested. Each test task begins with the stimulus introduced to the student. The stimulus is followed by a number of independent questions. The questions consist of multiple choice or open questions which require student's answers. Questions focus on understanding the concepts, procedures and the ability of a student to use knowledge and skills in different situations. Further information about pupils and schools are collected through questionnaires which are filled in also by the school directors.

3.1. PISA 2012 in the area of financial literacy

Within the international PISA study 2012, whose primary research area was mathematic literacy, the countries could for the first time test the financial literacy. Eighteen countries decided to test the financial literacy of their 15-year-olds. This group consisted of 13 OECD countries: Australia, Belgium (Flemish Community), Czech Republic, Estonia, France, Israel, Italy, New Zealand, Poland, Slovak Republic, Slovenia, Spain, the United States and five so-called partner countries:

Croatia, Colombia, Latvia, the Russian Federation, Shanghai-China. About 29,000 students was tested overall.

PISA defines financial literacy as the knowledge and understanding of financial terminology and risks. Financial literacy can also be described as skills, motivation and confidence in using the knowledge for effective decisions in a range of financial contexts, improving the financial situation of the individual and society and thus enable them to participate in economic affairs. The tasks of financial literacy that students solved, can be divided according to content, cognitive processes and context.

According to the content the PISA divides the tasks into following:

- Money and transactions.
- Planning and managing finances.
- Risk and reward.
- Financial landscape.

According to the cognitive processes of problem solving the PISA divides the tasks into following:

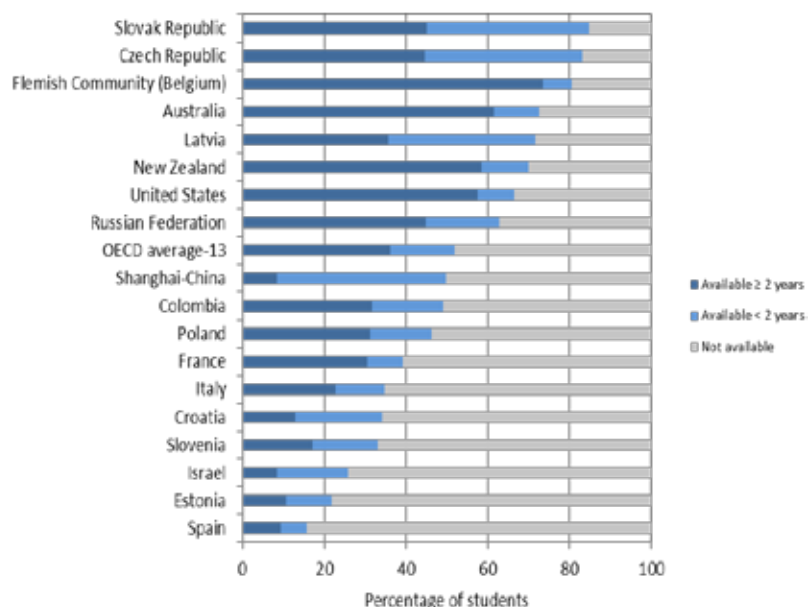
- Identifying financial information.
- Analysing information in a financial context.
- Evaluating financial issues.
- Application of financial knowledge and understanding.

The tasks are structured in the following contexts:

- Education and work
- Home and family
- Individual
- Societal

Figure 1. shows the percentage of students who have or do not have an access to financial education in schools. At the same time it also provides information on how long does such training last.

Figure 1: Availability of financial education: Percentage of students for whom financial education is or is not available



Source: OECD, PISA 2012 Database

There are large differences between the countries. The Slovak Republic and the Czech Republic rank among countries with a relatively high availability of providing financial education to pupils in schools. Even in countries where financial education is available, financial literacy is rarely taught as a separate subject. More often it is integrated into other subjects or it is taught as one single topic during a year. (Table 1.)

Table 1. Integrating financial education into the school curriculum. Percentage of students according to the number of hours the financial education is taught as a separate subject or as a cross-curricular subject in the school

	Financial education taught as	
	a separate subject	a cross-curricular subject
Czech Republic	27,2	79,4
Slovak Republic	19,6	91,2
OECD average - 13	23,5	44,7

Source: OECD, PISA 2012 Database

In all participating countries the pupils are taught financial education mainly by teachers. In Slovakia and the Czech Republic, almost all pupils are taught financial education by teachers, only a certain part of students is taught financial education of students through private or public sector or NGOs (Table 2.).

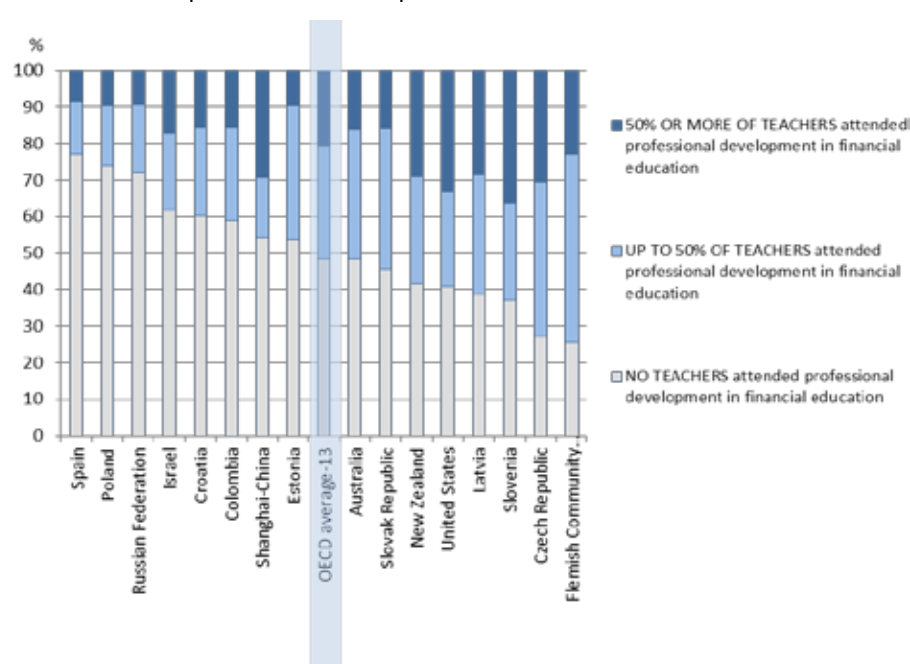
Table 2. Who provides financial education? Percentage of students according to the provider of financial education in the school

	Who provides financial education				
	Teachers	People from the private sector	People from the public sector	People from NGOs	average non-teachers
Czech republic	98,8	19,8	4,6	7,9	10,8
Slovak Republic	98	23,6	4,8	18,8	15,7
OECD average - 13	84,7	19,9	8,5	13,9	14,1

Source: OECD, PISA 2012 Database

In many countries, teachers who teach financial issues do not have the degree in economics. (Figure 2.)

Figure 2: Teachers' professional development in financial education: Percentage of students in schools where teachers attended or not professional development in financial education



Source: OECD, PISA 2012 Database

Although the accessibility of education for pupils in the financial area in the Slovak Republic is similar to the accessibility of this education in the Czech Republic, results and the average score of students are different. Slovak students achieved 470 points in the financial literacy, the Czech pupils 513 points. (Table 3.)

Table 3. Comparing countries' and economies' performance in financial literacy

Mean score	Comparison country/economy
603	Shanghai-China
541	Flemish Community (Belgium)
529	Estonia
526	Australia
520	New Zealand
513	Czech Republic
510	Poland
501	Latvia
492	United States
486	Russian Federation
486	France
485	Slovenia
484	Spain
480	Croatia
476	Israel
470	Slovak Republic
466	Italy
379	Colombia

	Statistically significantly above the OECD average-13
	Not statistically significantly different from the OECD average-13
	Statistically significantly below the OECD average-13

Source: OECD, PISA 2012 Database

4. SHORT PROGRAMME OF FINANCIAL EDUCATION

Many analysis show that even relatively short financial education programmes can significantly increase knowledge and the interest in financial issues. The interest of students is the first step to increase their financial literacy and effective activities concerning finances in the future.

In this section we introduce the short programme of financial education, which is designed for students of secondary schools in Slovakia and can be part of the school curriculum. Every secondary school student is obliged to pass certain level of financial education. Financial literacy, as a separate subject is taught in schools only occasionally. Financial education is mostly realized in other subjects as a separate topic. Even our short programme of financial education can be one form of increasing financial literacy among students.

Our aim is to offer financial education programme, which could be integrated into the teaching process in the subject of mathematics. We tried to add into offered textbooks examples that are close to normal student life. We have prepared methodical aids for teachers to implement financial topics into their teaching process.

Financial education programme focuses on students' interests and knowledge in finances. Content focuses on the following topics: credit and debt, saving and investing, risk management and insurance. Each topic is planned for a 90-minute block. The three units can be taught as a set, but also individually. The teacher can decide which option

to choose. If a teacher chooses to teach each part separately, he can choose any period during the school year. If the parts are taught as a whole, we propose to teach a whole block within the short time, preferably within one week. The programme is suitable for all grades and all types of secondary schools.

After the introductory survey where students fill in a questionnaire the financial education programme continues. It is recommended to complete a follow-up questionnaire by students within one month after the programme. The aim of this questionnaire is to find out whether the programme increased students's knowledge and interest in financial issues. The questionnaire contains questions concerning the students' attitude to finance, and knowledge in finance. The first two are about the student's attitudes to finance and the knowledge about finance. The following questions test the financial knowledge of students. They were taken directly from the content of the programme itself, but have been modified to assess the students's ability to use the financial knowledge.

Financial education is focused on developing skills applied in real life, so they should be closely linked. Our training programme focused on activities which create authentic experience of the financial situation and teach students make responsible decisions. For this purpose we tried to use mainly heuristic methods, staging techniques and problem solving methods.

One of the topics of financial literacy which we pay attention to in our financial education programme is Savings and investments. The overall competence of this topic is the Application of various investment strategies compliant with personal goals.

Overall competence is divided into the following four sub-competencies:

- Discuss support of financial prosperity with savings.
- Explain property appreciation and fulfilling financial goals by investments.
- Evaluate investment alternatives.
- Explain the way of regulation and supervision of financial markets.

We focus on developing sub-competencies of students, we describe positive and negative aspects of savings on short, medium and long-term objectives and explain the difference between saving and investing. We decide when to invest cash for short-term expenses or emergencies. We pay attention to the impact of inflation on revenues. The programme introduces the concept of magic triangle that shows the trade-off between risk, return and liquidity. Students participate in role plays and discuss various saving and investment products which they recommend for a hypothetical person who has a certain financial target. They try to evaluate the financial offer, select the most appropriate one, and explain this decision.

5. CONCLUSION

Numerous studies world-widely show the financial literacy of young people is low. In today's challenging financial environment young people have to make complex financial decisions and the lack of knowledge causes their wrong decisions. In recent years, it is therefore the initiative to raise the level of financial literacy through financial education programmes in schools. Incorporating financial education in school curricula is effective because it is compulsory for each student. Although evaluation of the effectiveness of financial education is difficult, it is shown that financial education increases the student's knowledge not only financially but also their interest in financial issues.

This article presents a short programme of financial education aimed at increasing the students' interest and knowledge in finance. The programme is designed for students of all types of secondary schools and incorporated into curriculum in the Slovak Republic. According to the National Standards for Financial Literacy every secondary school graduate is obliged to attend certain level of financial education. Since the financial literacy is not always taught as a separate subject, financial education is realized mostly within other subjects as a separate topic. Our goal was to offer the financial education programme in the subject of mathematics. We focused on the topics of financial literacy that can be best incorporated in mathematics curriculum. In schools there is still not enough specially prepared teachers for teaching financial literacy. Therefore, we prepared the block of teaching methodological manuals for the teachers to incorporate the financial topics into their teaching. Our aim was to help school teachers in the implementation of National Standards for Financial Literacy.

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LITERATURE

1. Becchetti, L., Pisani, F. (2012.) Financial education on secondary school students: The randomized experiment revisited. Aiccon Working Paper No. 98.
2. Brown, M. (et al.). (2013.) Financial education and the debt behavior of the young. Unpublished manuscript, Federal Reserve Bank of New York.
3. Cole, S., Paulson, A., Shastri, G.K. (2012.) Smart money: The effect of education on financial behavior. Harvard Business School Working Paper No. 09-071.
4. Hastings, J.S., Madrian, B.C., Skimmyhorn, W.L. (2012.) Financial literacy, financial education and economic outcomes. NBER Working Paper No. 18412.
5. Jappelli, T., Padula, M. (2013.) Investment in financial literacy and saving decisions. Journal of Banking and Finance, 37, pp. 2779-2792.
6. Lührmann, M., Serra-Garcia, M., Winter, J. (2015). Teaching teenagers in finance: Does it work? Journal of Banking and Finance, 54, pp. 160-174.
7. Lusardi, A., Mitchell, O.S. (2007.) Financial literacy and retirement preparedness: Evidence and implications for financial education. Business Economics, 42, pp. 35-44.
8. Lusardi, A., Mitchell, O.S., Curto, V. (2010.) Financial literacy among the young. Journal of Consumer Affairs, 44(2), pp. 358-380.
9. Lusardi, A., Michaud, P., Mitchell, O.S. (2013.) Optimal financial knowledge and wealth inequality. NBER Working Paper No. 18669.
10. Lusardi, A., Mitchell, O.S. (2014.) The Economic Importance of Financial Literacy: Theory and Evidence. Journal of Economic Literature, 52(1), pp. 1-40.
11. Ministerstvo financií ČR. (2007.) Strategie finančního vzdělávání. [Online]. [Cited: 12 October 2015]. Available at: http://www.vzdelavani2020.cz/images_obsah/dokumenty/knihovna-koncepci/financni-vzdelavani/strategie_fin-vzdelavani_cr_200710.pdf
12. Ministerstvo financií ČR. (2010.) Národní strategie finančního vzdělávání, [Online]. [Cited: 12 October 2015]. Available at: <http://www.msmt.cz/vzdelavani/zakladni-vzdelavani/narodni-strategie-financniho-vzdelavani-2010>
13. Ministerstvo školstva SR, Ministerstvo financií SR. (2008.) Národný štandard finančnej gramotnosti verzia 1.0. Bratislava. [Online]. [Cited: 12 October 2015]. Available at: www.nucem.sk/sk/filemanager/download/3369/3/narodny-standard-fg
14. Ministerstvo školství, mládeže a tělovýchovy ČR. (2012.) Vzdělávání: systém budování finanční gramotnosti na základních a středních školách. [Online]. [Cited: 12 October 2015]. Available at: <http://www.msmt.cz/vzdelavani/system-budovani-financni-gramotnosti-na-zakladnich-a-strednich-chskolach?highlightWords=systém+budování+finanční>
15. Ministerstvo školstva SR, Ministerstvo financií SR. (2008.) Národný štandard finančnej gramotnosti verzia 1.1, [Online]. [Cited: 12 October 2015]. Available at: <https://www.minedu.sk/data/att/6152.pdf>
16. Ministerstvo školstva SR, Ministerstvo financií SR. (2008.) Návrh stratégie vzdelávania vo finančnej oblasti a manažmentu osobných financií., [Online]. [Cited: 12 October 2015]. Available at: http://www.rokovania.sk/File.aspx/ViewDocumentHtml/Mater-Dokum-22405?prefixFile=m_
17. OECD. (2003.) Financial Education Project: background and implementation. [Online]. [Cited: 12 October 2015]. Available at: <http://www.oecd.org/finance/financial-education/oecdfinancialeducationprojectbackgroundandimplementation.htm>
18. OECD. (2005.) Improving Financial Literacy: Analysis of Issues and Policies. [Online]. [Cited: 12 October 2015]. Available at: <http://www.oecd.org/finance/financial-education/improvingfinancialliteracyanalysisofissuesandpolicies.htm>
19. OECD. (2005.) Improving Financial Literacy: Analysis of Issues and Policies. [Online]. [Cited: 12 October 2015]. Available at: <http://www.oecd.org/daf/fin/financialeducation/improvingfinancialliteracyanalysisofissuesandpolicies.htm>
20. OECD (2008). International Network on Financial Education. [Online]. [Cited: 12 October 2015]. Available at: www.financial-education.org
21. OECD. (2012.) PISA 2012 Results. [Online]. [Cited: 12 October 2015]. Available at: <http://www.oecd.org/pisa/keyfindings/pisa-2012-results.htm>
22. OECD. (2012.) PISA 2012 Assessment and Analytical Framework – Mathematics, Reading, Science and Problem Solving and Financial Literacy. [Online]. [Cited: 12 October 2015]. Available at: http://www.oecd.org/pisa/pisaproducts/PISA%202012%20framework%20e-book_final.pdf
23. Walstad, W., Rebeck, K., MacDonald, R. (2010.) The effects of financial education on the financial knowledge of high school students. Journal of Consumer Affairs, 44, pp. 336-357.

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STRATEGIC ANALYSIS OF THE INDUSTRY OF ROUTINE MAINTENANCE OF PUBLIC ROADS WITHOUT TOLL CHARGE (RMPRWTC) IN THE REPUBLIC OF CROATIA

DINKO STANKOVIĆ MOČAN

ABSTRACT

Routine maintenance is comprised of a set of measures and actions which are performed on the roads, including all the structures and installations, throughout the year, with the purpose of maintaining road traversability, technical integrity and traffic safety.

The aims of this paper is to describe the economic characteristics and to define the boundaries of the industry RMPRWTC in Croatia, to analyze the industry structure using the five forces model, to define forces intensity, and to determine the key factors of success. The model pointed to some deficiencies due to the specificity of the industry, so the intensities of some forces acquired through empirical research deviated from their realistic values. The buyers loyalty expressed through the regulatory framework stands out as the main factor of a company's success.

KEY WORDS: routine roads maintenance, Porter's five forces model, strategic analysis.

1. INTRODUCTION

This intensely regulated and, to the general public, relatively unknown industry is mostly perceived negatively and is associated with the traffic jams during the summer months and falls under public scrutiny with the arrival of winter, when the snow needs to be removed and traffic mobility and safety ensured across the complete road network.

Public roads are public goods and general property of the Republic of Croatia and the road infrastructure is considered as one of the most valuable goods in any society. The road network of national, county and local roads is comprised of around 25.000 km of roads which connect Croatia completely and most of the traffic is conducted on these roads. Simply by using them, many human needs, such as casual trips and transport of goods, can be fulfilled. Zelenika and Pupovac (2000) emphasize the significant influence transport has on all sectors of the economy and the breaking out of the vicious circle of underdevelopment in certain transitional countries. During 2013. there was 54.292.000 passengers and 67.500.000 tons of different goods transported on Croatian roads (National Bureau of Statistic, 2014). The road traffic in Croatia (primarily individual) is also functioning as the backbone of traffic in the service of tourism (Šolman, 2010). In the last twenty years investments in maintenance, reconstruction and modernization of worldwide road network are larger than investments in constructions of new roads. Smaller investments in road maintenance increase the transport cost in road traffic and the net cost for the economy as a whole; every dollar which is not invested in road maintenance surely increases the operational cost of vehicles for 2 to 3 dollars (Radović, Šešlija & Peško, 2013). The road has always been a symbol of life. Therefore, apart from ensuring traffic safety, this industry also supports life itself. With sufficient investment in routine maintenance the future public expenditures are lowered, transport costs are being minimized, and the efficient and sustainable traffic system, which is of extreme importance for the safety of its users, is ensured. An efficient routine maintenance system is one of the primary goals and it has a considerable influence on traffic safety.

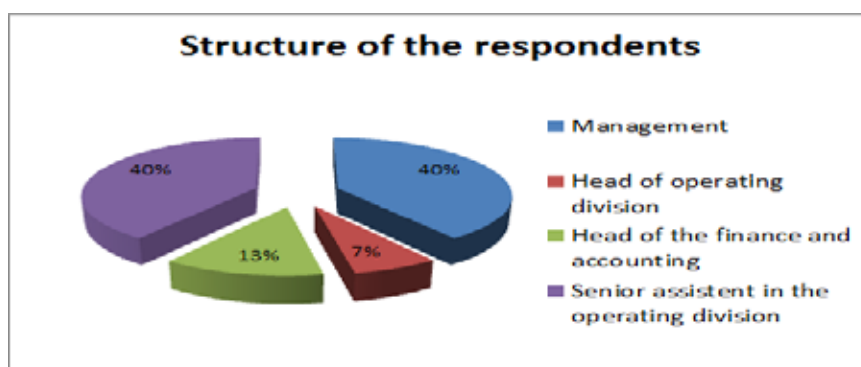
Long term economic recession led to a sharp decline of the industry, especially the construction sector, which was particularly felt by the companies focused on civil engineering, and road and highway construction. According to Butković and Mišić (2014) contribution of the construction industry to the GDP deceased from 7.8% in 2008th to 4.4% in 2013th. Due to the lack of big investments, private as well as public, and the consequential decrease in the volume of construction work, routine maintenance is slowly moving in to focus of attention among the construction industry players.

2. METHODOLOGY

The work methodology is based on secondary and primary research. Within the secondary research facts were gathered from the scientific and professional literature of the Faculty of Economy and the Faculty of Civil Engineering in Zagreb, scientific and newspaper articles, internet databases, legal acts and financial reports from all the competitors in the industry. The primary facts were obtained through a survey relied on the Industruct questionnaire (Pecotich, Hattie &

Low, 1999) adapted for this industry. The research was done in July 2014. The survey was completed by a total of 15 out of 17 respondents (return rate 88.23%).

Picture 1: Structure of the respondents



Source: Author

3. ECONOMIC CHARACTERISTICS AND INDUSTRY BOUNDARIES

3.1. Defining the industry boundaries

Industry definition is a choice of where to draw the line between established competitors and substitute products, between existing firms and potential entrants, and between existing firms and suppliers and buyers (Porter 1998, p. 32). Grant (2010, p. 86) emphasizes that industry definition is not critical for carrying out the analysis using the Porter's model because it includes forces outside the industry in which the competitors are competing. According to Stacey (1997, p. 54), the market is defined by the interaction between groups of consumers and competitors. Consumers have similar demands for goods and services while competitors compete to meet those demands. Similarity of demands and the closeness of competition define industry boundaries.

Public roads maintenance is divided as follows: routine maintenance and major maintenance (rehabilitation and modernization). Routine maintenance is performed all year round and is not used to repair road condition but to stop their deterioration and degradation, while major maintenance is periodical and used to improve road elements in certain places and increase traffic safety.

Use of public roads is charged in the form of an annual fee, while the use of motorway incurs an additional road toll (National gazette, 2013). Even though the Roads Act defines the state roads and motorways as one technical and technological complex, by analyzing the similarity of consumers and the closeness of competition, the maintenance of state, county and local roads has much more in common. Therefore, for the purposes of this paper, state, county and local roads are grouped under one common title - public roads without toll charge - thus defining the industry boundaries.

3.2. Economic characteristics and market structure

There are 17 companies present on the market at the moment in Croatia. This activity is the primary business for 14 of these companies, while the primary business for the remaining 3 is in construction of civil engineering objects, primarily roads. These are mainly small and medium sized companies, mostly privately owned and with a domestic origin of capital which can be seen from tables 1 to 4.

Table 1: Company size by employees

Companies sorted by number of employees	2009		2010		2011		2012		2013	
	Number of companies	Percentage	Number of companies	Percentage	Number of companies	Percentage	Number of companies	Percentage	Number of companies	Percentage
Small ≤ 49 employees										
Medium > 50 ≤ 249 employees	11	64,71%	13	76,47%	13	76,47%	13	76,47%	13	76,47%
Large > 250 employees	6	35,29%	4	23,53%	4	23,53%	4	23,53%	4	23,53%
TOTAL	17	100%	17	100%	17	100%	17	100%	17	100%

Source: Author

Companies sorted by income	2009		2010		2011		2012		2013	
	Number of companies	Percentage	Number of companies	Percentage	Number of companies	Percentage	Number of companies	Percentage	Number of companies	Percentage
Small ≤ 65.000,000 kn	8	47,06%	9	52,94%	7	41,18%	5	29,41%	6	35,29%
Medium ≤ 260.000,000 kn	9	52,94%	8	47,06%	10	58,82%	12	70,59%	11	64,71%
Large > 260.000,000 kn										
TOTAL	17	100%	17	100%	17	100%	17	100%	17	100%

Source: Author

Companies sorted by assets	2009		2010		2011		2012		2013	
	Number of companies	Percentage	Number of companies	Percentage	Number of companies	Percentage	Number of companies	Percentage	Number of companies	Percentage
Small ≤ 32.500,000 kn	2	11,76%	3	17,65%	2	11,76%	2	11,76%	2	11,76%
Medium ≤ 130.000,000 kn	15	88,24%	14	82,35%	15	88,24%	15	88,24%	15	88,24%
Large > 130.000,000 kn										
TOTAL	17	100%	17	100%	17	100%	17	100%	17	100%

Source: Author

Table 4: Ownership structure and origin of capital:

Ownership structure	No. of companies	Percentage	Origin of capital	No. of companies	Percentage
100 % private	4	18,75%	100 % domestic	15	87,50%
>50% private	9	56,25%	>50% foreign	1	6,25%
>50% state/county	4	25,00%	100% foreign	1	6,25%
TOTAL	17	100,00%	TOTAL	17	100,00%

Source: Author

The companies are geographically located to cover the entire Croatian area and mostly operate on the territory of one to two counties. The export potential is low and limited to companies whose maintenance area is bordering neighboring countries. The export potential is mostly related to construction services and manufacturing and sales of stone aggregates and bitumen mixes.

The RMPRWTC market is "worth" between 714.130.260.13 and 788.952.473.00 kuna annually. The number of employees in the observed five year period has decreased from 3395 to 3053 employees, while the total productivity and the productivity of routine maintenance, measured by the income per employee, has increased by 22.93 % and 16.33 % respectively. Average net salary has increased from 4.995.00 to 5.126.00 kuna in the same period.

Table 5: Industry of RMPRWTC in Croatia 2009 – 2013

Industry of RMPRWTC	2009	2010	2011	2012	2013
Number of companies	17	17	17	17	17
Total income	1.194.581.938,18	1.121.154.991,53	1.218.772.974,00	1.306.478.950,00	1.320.606.385,80
% growth in relation to 2009		-6,15%	2,03%	9,37%	10,55%
Routine maintenance income	714.130.260,13	751.617.786,43	755.862.166,68	788.952.473,00	747.082.935,44
% growth in relation to 2009		5,25%	5,84%	10,48%	4,61%
Number of employees	3395	3297	3247	3083	3053
% growth in relation to 2009		-2,89%	-4,36%	-9,19%	-10,07%
Total income per employee	351.865,08	340.053,08	375.353,55	423.768,72	432.560,23
% growth in relation to 2009		-3,36%	6,68%	20,44%	22,93%
Rout. maint. income per employee	210.347,65	227.970,21	232.787,86	255.904,14	244.704,53
% growth in relation to 2009		8,38%	10,67%	21,66%	16,33%
Average annual net salary	4.995	4.729	4.799	4.973	5.126
% growth in relation to 2009		-5,31%	-3,92%	-0,43%	2,63%

Source: Author

It is visible from table no. 6 that there are no dominant companies on this oligopolistic market and that the bigger market shares go to the companies which are active in larger urban areas or maintain roads in several counties. The analysis of industry concentration shows that the Herfindal-Hirshman index in the observed period is less than 1000, which shows that the industry is fragmented. It should be noted that there are several cooption strategic alliances in existence which drastically change industry structure. The largest is between fourteen companies (Ceste Bjelovar, Dubrovnik ceste, Istarske ceste, Ceste Karlovac, Lika ceste, Ceste Rijeka, Ceste Sisak, PZC Slavonski Brod, Županijske ceste Split, Ceste Šibenik, PZC Varaždin, Ceste Zadarske županije, Županijske ceste Zagrebačke županije) which operates nationwide.

Smaller strategic alliances are present in maintenance of county and local roads in the Brodsko-Posavska (PZC Slavonski Brod and Cestar) Međimurska (Tegra i Pavlic-Asfalt-Beton), and from 2014¹ also in Osječko-Baranjska and Vukovarsko-Srijemska counties (Cesting and Cestar).

Table 6: Market shares and Herfindahl-Hirshman index

COMPANY	MARKET SHARE	SQUARED MARKET SHARE	MARKET SHARE	SQUARED MARKET SHARE	MARKET SHARE	SQUARED MARKET SHARE	MARKET SHARE	SQUARED MARKET SHARE	MARKET SHARE	SQUARED MARKET SHARE	MARKET SHARE	SQUARED MARKET SHARE
	2009.		2010.		2011.		2012.		2013.		2009. - 2013.	
CESTE d.d. BJELOVAR	8,62	74,35	9,48	89,88	11,30	127,69	9,42	88,66	9,85	97,07	9,31	86,68
DUBROVNIK CESTE d.d.	3,08	9,46	3,51	12,35	3,65	13,30	3,88	15,04	4,58	21,00	3,86	14,90
ISTARSKE CESTE d.o.o.	6,28	39,49	6,45	41,66	6,35	40,28	6,44	41,52	6,32	39,94	6,35	40,32
CESTE KARLOVAC d.d.	4,68	21,87	4,62	21,36	4,42	19,53	4,98	24,80	4,77	22,78	4,82	23,23
LIKA CESTE d.o.o.	5,56	30,92	6,10	37,22	5,37	28,88	5,86	34,37	5,56	30,89	5,67	32,15
CESTING d.o.o.	9,69	93,93	10,07	101,31	10,41	108,44	11,38	129,52	11,13	123,98	10,76	115,78
CESTE RIJEKA d.o.o.	7,91	62,52	8,63	74,56	7,27	52,88	8,20	67,31	7,73	59,70	7,95	63,20
CESTE SISAK d.o.o.	5,65	31,91	6,80	46,23	6,54	42,72	6,77	45,88	5,07	25,73	5,85	34,22
CESTE d.d. i PZC d.o.o. SLAVONSKI BROD	5,82	33,83	2,80	7,82	1,39	1,93	1,73	2,99	1,97	3,87	3,11	9,67
ŽUPANIJSKE CESTE SPLIT d.o.o.	8,96	80,32	8,93	79,83	9,42	88,71	9,56	91,32	9,77	95,53	9,44	89,11
CESTE ŠIBENIK d.o.o.	3,06	9,39	3,21	10,30	3,28	10,73	3,58	12,79	3,55	12,62	3,41	11,63
PZC VARAŽDIN d.d.	8,54	72,99	9,24	85,35	9,71	94,31	8,36	69,88	7,65	58,52	8,18	66,91
CESTE ZADARSKE ŽUPANIJE d.o.o.	7,04	49,50	6,53	42,66	7,46	55,69	7,85	61,57	8,20	67,30	7,71	59,44
ŽUPANIJSKE CESTE ZAGREBAČKE ŽUPANIJE d.o.o.	12,76	162,82	11,38	129,61	11,21	125,71	9,87	97,33	11,59	134,27	11,36	129,05
TEGRA d.o.o.	0,68	0,46	0,65	0,42	0,64	0,41	0,62	0,38	0,65	0,42	0,65	0,42
PAVLIC-ASFALT-BETON d.o.o.	0,68	0,46	0,65	0,42	0,64	0,41	0,62	0,38	0,65	0,42	0,65	0,42
CESTAR d.o.o.	0,99	0,98	0,94	0,88	0,93	0,87	0,89	0,80	0,94	0,89	0,94	0,88
	HHI 2009	775,20	HHI 2010	781,86	HHI 2011	812,51	HHI 2012	784,54	HHI 2013	794,94	HHI 2009 - 2013	778,03

Source: Author

4. COMPETITIVE FORCES ANALYSIS

The five competitive forces model is developed by Michael E. Porter in the second half of the 20th century. It is used to assess the attractiveness of the business the company is in, or aims to enter, and helps with the strategic analysis of direct and potential competition (Tipurić, 2014, p. 173). It relates a company to its environment and the key aspect of the companies environment is the industry or industries in which it is competing (Teece; Pisano; Shuen, 1997). It is derived from structural approach to strategy and the SCP paradigm. Despite a large number of short term influences concerning the profitability and the attractiveness of the industry, this model's hypothesis is that in the longer period it mostly depends on the structure itself and the influence of other factors: 1. the intensity of the competition between the companies in the observed industry, 2. threat of potential competitors – new entrants, 3. threat of substitutes, 4. buyer's bargaining power and 5. suppliers bargaining power (Porter, 2008). If the companies are more efficient than the competitive forces, and are more successful in offering their product and attracting the buyers, they achieve a competitive advantage (Buble et al. 2005, p. 144). Level of actions and interactions of these forces defines the industry profitability and the differences in the profitability among industries. Lesser profitability is characteristic for industries with unstable and undefined structure where suppliers, buyers and substitute products are in a better position, and also if there is a significant threat of new companies appearing on the market. The profitability is higher among industries with a stable competitive structure, an unfavorable position of suppliers, buyers and alternative industries, and also with a smaller threat of new competitor appearance (Tipurić, 2014, p. 172).

Porter's five forces model has been criticized on two basis, theoretical foundations and empirical weaknesses (Grant, 2010, p. 96). Grant (2010, p. 97) also stresses out the importance of complements to most products arguing that it should be taken into account as a sixth force to the model. Vining, Shapiro & Borges, (2003) emphasize that government policy has more influence on firm profit than other competitive forces and that should be also added into the model as a sixth force. Porter's model is static and ignores time, (Andriotis, 2004, Thurlby, 1998), so dimension of time dynamics should be brought into the model to get a clear insight in the existence and nature of past, present and future interaction between firm and its industry environment (Dulčić, Gnjidić & Alfirević, 2012). Another criticized aspect of the model is not considering collaborative interrelationship between firm and industry determinants through strategic alliances, joint-ventures, etc. (Dyer & Singh, 1998).

4.1 Rivalry among existing competitors

The rivalry among competitors is usually the most intense force in the model. Its increase leads to battles for the acquisition of a bigger market share, which manifests its self in lower prices of products and services and decrease in the profit potential of the industry.

Porter (2008) points out that rivalry can cause an increase in average profitability and industry growth if every competitor services the needs of a different segment with a different approach to the market (price, brand services).

Competitors are mostly companies of similar size, offering mutually undifferentiated products and services, and depended heavily on the industry which is itself of a seasonal nature. Since there is no dominant company, one would expect to see a market-share battle. But that scenario hasn't unfolded because most of the companies, except (Tegra, Pavlic- Asfalt - Beton and Cestar), are joined in a strategic alliance on a state roads level, and some of them also on a county and local roads level (PZC Sl. Brod and Cestar, Tegra and Pavlic-Asfalt-Beton). The majority of the companies share a common history where they used to be a part of a public company and used to occupy the same territory and maintain the same roads they do now. Apart from the common history and the strategic alliance, the awareness of a great possibility of retaliation is a reason why the existing competitors are not attacking. Growth of just one of the competitors would cause a chain reaction which would destroy the profit potential of the industry. Each company has invested large sums in specialized machinery which has created big exit barriers and made hard the possibility of exiting the industry.

All these factors influence the preservation of the "status quo".

4.2 Buyers' bargaining power

The buyers try to use their bargaining power to achieve lower prices, better payment conditions, higher quality for the same prices, and doing so they lower the long term profit potential of the industry by transferring it towards themselves (Porter, 1979). According to Grant (2010, p. 76), buyers' purchasing power depends on his price sensitivity and the relative bargaining power. The buyers, who are also the regulators of this market, own shares in most companies in ranges from 10% to a 100% and significantly affect the market by enforcing their standards and demands. The probability of further downstream vertical integration by the buyers is not high, and the costs of changing the suppliers are not small.

4.3 Threat of new entrants

Aspirants are companies that enter a market and lower the market shares of existing competitors and thus increase the pressure on the prices and cause battles which lower the industry's profitability. Political factors and legal regulations are the most significant entrance barrier to the industry.

The current tendering process (state roads as a whole, and county roads and local roads in their counties) and terms which road authorities impart ensure an advantage to the existing competitors. Simultaneous maintenance of state, county and local roads is partially ensuring the economy of scale for the existing companies and sets large entrance barriers in front of any potential new entrants. Given that road authorities don't have a fixed schedule for contracting work, new entrants in any area would cause a significant reaction from the existing companies in other areas, which would primarily result in lower prices.

Seasonal nature of the business and great peak load for specific equipment (April, May and June) followed by sudden drops (July and August) and great need for manual labor which is not specific for construction companies working in road construction, also pose an additional barrier for new entrants. By differentiating their products and especially by maintaining road traversability and safety in winter conditions, the existing companies have achieved a high level of recognizability of their services. Buyer's costs of changing a supplier are not small, but they could be disastrous if new entrants prove incapable of fulfilling their buyer's demands with satisfying quality. The existing companies have favorable locations which give them competitive advantage and, utilizing their strategic alliance, they own a distribution channel which covers the entire Croatian territory. Slow and limited industrial growth is another obstacle to new entrants.

4.4 Suppliers bargaining power

The fourth Porter's force which affects the long term profitability of the industry is the suppliers' bargaining power. The suppliers are trying to use their bargaining power to achieve higher prices and better payment conditions. By inspecting the concentration of the suppliers in the industry of RMPRWTC, we do not find any dominant companies which would have a significant influence on the profitability, except at those competitors that do not manufacture bitumen mixes. These companies are limited to local suppliers due to bitumen mixes technology and transport costs, and in some cases local manufacturers of bitumen mixes have monopolies, which lower the profitability of the companies' dealings. Companies that find themselves in financial problems are exposed to an additional impact by the suppliers and the uncertainty of fulfilling their financial obligations forces them to pay in advance or find additional means of financial assurance. There is a large choice of alternatives for all the suppliers' products so they are not considered industry's strategic products, with the exception of the aforementioned bitumen mixes.

4.5 Threat of substitutes

A substitute is any product or service which satisfies the same function as the product of another industry. Here a substitute is foremost referred to as a notion of service, but the substitute can be observed from a level of alternative materials used in RMPRWTC, as well as the manner of contracting and calculating works. Major road maintenance in manner of service lightens the work load of long term RMPRWTC, especially work on pavement and road equipment maintenance, so the increase in funding in major maintenance has a direct and significant influence on long term profitability of the industry of RMPRWTC. By using modern materials such as plastics for the manufacturing of horizontal traffic signalization (hot and cold process), bitumen mixes with polymer modified bitumen increase the quality and, in the long term, decrease the need for maintenance. Due to higher costs they are not widely used so their impact is moderate. Current contracts are unit price contracts. Implementation of performance contracts would increase the profitability of companies with better management. At this moment a significant portion of works of RMPRWTC cannot be contracted based on the result, performance contracts are a weak factor.

5. RESULTS OF EMPIRICAL RESEARCH

5.1. Rivalry among existing competitors

Table 7: Industrial rivalry

No.	CLAIM	n	Answer distribution					Arithmetic mean	Standard deviation
			I strongly disagree	I disagree	I neither agree nor disagree	I agree	I fully agree		
			1	2	3	4	5		
1	INDUSTRIAL RIVALRY							3,40	
1	Our company is competing with a large number of other companies	15	0 0,00%	3 20,00%	2 13,33%	8 53,33%	2 13,33%	3,60 100,00%	0,99
2	The terms that best describe the competition in our industry are : fierce, angry, belligerent.	15	0 0,00%	1 6,67%	8 53,33%	4 26,67%	2 13,33%	3,47 100,00%	
3	In our industry the competitive actions of one company have considerable influence on the rest of the companies and trigger counter moves and retaliation.	15	1 6,67%	5 33,33%	2 13,33%	7 46,67%	0 0,00%	3,00 100,00%	1,07
4	In our industry companies own resources which they can use to permanently undertake heavy competitive action and countermeasures towards their rivals	15	0 0,00%	3 20,00%	5 33,33%	7 46,67%	0 0,00%	3,27 100,00%	
5	In our industry, advertising wars are common and very intense	15	4 26,67%	11 73,33%				1,73 100,00%	0,46
6	In our industry price competition is highly intense (the competition acts fast and with the same measure against price lowering)	15	0 0,00%	1 6,67%	5 33,33%	8 53,33%	1 6,67%	3,60 100,00%	
7	Lowering the prices and introducing additional discount is a common competitive action in our industry	15	0 0,00%	2 13,33%	2 13,33%	10 66,67%	1 6,67%	3,67 100,00%	0,82
8	In our industry the companies rarely use a non-pricing form of competition as : quality, development of new products, innovations, brand creation, advertising and the like	15	1 6,67%	5 33,33%	4 26,67%	4 26,67%	1 6,67%	2,93 100,00%	
9	Industrial growth is limited and slow	15		1 6,67%	2 13,33%	8 53,33%	4 26,67%	4,00 100,00%	0,85
10	Companies in our industry have a high portion of fixed costs and use significant funds for equipment and facility manufacturing	15	0 0,00%	0 0,00%	4 26,67%	7 46,67%	4 26,67%	4,00 100,00%	
11	Good and services offered by companies in our industry are relatively undifferentiated and they are very similar by their characteristics, prices, design and image	15	0 0,00%	0 0,00%	4 26,67%	9 60,00%	2 13,33%	3,87 100,00%	0,64
12	Competitors with in our industry are very different in regards to their background, cost structure, managerial goals, personalities and the like	15	0 0,00%	4 26,67%	6 40,00%	4 26,67%	1 6,67%	3,13 100,00%	
13	Companies in our industry are intensely competing to keep and or increase their market share	15	0 0,00%	0 0,00%	3 20,00%	10 66,67%	2 13,33%	3,93 100,00%	0,59
14	Significant output impediments such as specific assets, economic dependency on the industry, state and society pressure and emotional attachment to the industry prevent the companies to	15	0 0,00%	1 6,67%	6 40,00%	8 53,33%	0 0,00%	3,40 100,00%	

Source: Author

Empirical research shows that majority of the respondents presume that there are a lot of companies competing in the industry of RMPRWTC. Competition between them is harsh and belligerent according to 40.00% of the respondents while 53.33% are hesitant.

According to respondents, companies are intensively trying to keep and/or increase their market share, but they do not agree that intensive struggle has any impact on retaliation and counter moves by the competitors. The 46.67% of respondents presume that the companies in the industry have significant resources for actions against competition which are usually manifested in lower prices, 33.33% are hesitant and 20.00% do not agree. Advertising wars are not common and intensive so there are no significant funds spent on marketing activities. Price competition is of relatively high intensity. The respondents are reluctant in relation to non-price competition, like quality, product development, innovations, etc. The majority of the respondents presumes that the growth is slow and limited, which is confirmed by analysis of funds spent on RMPRWTC during the last five years. Products in this industry are similar and non-differentiated. The respondents differ in terms of different origin, cost structure, management goals and competitors' characteristics. Companies have high share of fixed costs and extract significant funds for special equipment. The majority of respondents, 53,3% consider economic dependence, specific assets, emotional connection to the industry as main obstacles to their leaving the industry while 40.00% are reluctant. The respondents have marked this force as the strongest, with an average mark of 3.40.

5.2. The buyers' bargaining power

Table 8: Buyers' bargaining power

No.	CLAIM	n	Answer distribution					Arithmetic mean	Standard deviation
			I strongly disagree	I disagree	I neither agree nor disagree	I agree	I fully agree		
			1	2	3	4	5		
II	BUYERS BARGAINING POWER							2,99	
15	In our industry a small number of buyers is involved	15	0 0,00%	4 26,67%	2 13,33%	9 60,00%	0 0,00%	3,33 100,00%	0,90
16	Buyers affiliate to increase their negotiating power	15	2 13,33%	7 46,67%	4 26,67%	2 13,33%	0 0,00%	2,40 100,00%	0,91
17	Buyers are well informed regarding the demand of our products and their prices, and they are familiar even with our cost structure and profitability	15	0 0,00%	2 13,33%	7 46,67%	6 40,00%	0 0,00%	3,27 100,00%	0,70
18	Buyers have the ability and means to integrate in our industry	15	1 6,67%	6 40,00%	5 33,33%	3 20,00%	0 0,00%	2,67 100,00%	0,90
19	Goods and services we sell to the buyers are very similar and replaceable, without differential factors	15	1 6,67%	7 46,67%	0 0,00%	6 40,00%	1 6,67%	2,93 100,00%	1,22
20	Buyers that buy products of our industry can easily and with small costs change their suppliers	15	3 20,00%	6 40,00%	2 13,33%	3 20,00%	1 6,67%	2,53 100,00%	1,25
21	Buyers buy products of our industry from a large number of suppliers	15	0 0,00%	11 73,33%	3 20,00%	1 6,67%	0 0,00%	2,33 100,00%	0,62
22	The intensity of competition among buyers in our industry is very high	15	2 13,33%	7 46,67%	3 20,00%	2 13,33%	1 6,67%	2,53 100,00%	1,13
23	Price of our products is an important factor in buyers cost structure	15	0 0,00%	2 13,33%	1 6,67%	9 60,00%	3 20,00%	3,87 100,00%	0,92
24	The increase in quality in our services does not affect the buyers bargaining power	15	1 6,67%	2 13,33%	3 20,00%	9 60,00%	0 0,00%	3,33 100,00%	0,98
25	In our industry the buyer or groups of buyers are powerful	15	0 0,00%	1 6,67%	4 26,67%	9 60,00%	1 6,67%	3,67 100,00%	0,72

Source: Author

The respondents are aware that there are a small number of buyers in the industry which are well informed about their products, cost structure and prices. The majority of respondents, 46.67% presumes that the buyers have a possibility of upstream vertical integration into the industry while 33.33% are hesitant. A strong disagreement is noticeable in regard to differentiating factors for products and services in this industry. The majority of the respondents (60.00%) think that buyers can replace suppliers with relative ease and low cost. The 26.67% do not agree. There is low competition intensity among buyers who acquire products from small number of suppliers. For the majority of the respondents the price of their product is an important part of buyers' cost structure. The general perception is that buyers in this industry are powerful and that the increase in the quality of products would not diminish the buyers' bargaining power. This force has a medium intensity and is marked with an average of 2.99.

5.3 Threat of new entrants

Table 9: Threats of new entrants

No.	CLAIM	n	Answer distribution					Arithmetic mean	Standard deviation
			I strongly disagree	I disagree	I neither agree nor disagree	I agree	I fully agree		
			1	2	3	4	5		
III	THREATS OF NEW ENTRANTS							2,65	
26	The interest of companies to enter our industry is small	15	2 13,33%	9 60,00%	3 20,00%	1 6,67%	0 0,00%	3,80 100,00%	0,77
27	In our industry new competitors must enter with large capacities risking overcapacities as well as a strong reaction of existing companies	15	1 6,67%	3 20,00%	3 20,00%	7 46,67%	1 6,67%	2,73 100,00%	1,10
28	New competitors find significant barriers when entering the industry	15	0 0,00%	2 13,33%	5 33,33%	8 53,33%	0 0,00%	2,60 100,00%	0,74
29	Newcomers or new competitors in our industry must spend significant funds their brand and gain consumers loyal to the existing companies	15	1 6,67%	3 20,00%	3 20,00%	7 46,67%	1 6,67%	2,73 100,00%	1,10
30	Existing companies in our industry have significant resources which they can use to prevent the entry of new competitors	15	0 0,00%	3 20,00%	4 26,67%	7 46,67%	1 6,67%	2,60 100,00%	0,91
31	State politics and regulations have a significant influence on the companies entering our industry	15	0 0,00%	3 20,00%	3 20,00%	12 80,00%	0 0,00%	2,60 120,00%	0,83
32	With the acceptance to the EU inflow of new competitors is expected	15	0 0,00%	2 13,33%	3 20,00%	9 60,00%	1 6,67%	2,67 100,00%	0,83
33	Companies that act within the industry have a cost advantage over new entrants not related to volume of business activity (know how, access to raw material, client loyalty)	15	0 0,00%	0 0,00%	5 33,33%	9 60,00%	1 6,67%	2,27 100,00%	0,59
34	To enter our industry one needs a significant capital and/or financial resources	15	0 0,00%	0 0,00%	3 20,00%	11 73,33%	1 6,67%	2,13 100,00%	0,52
35	The reaction of the existing companies to the new entrants would be fierce	15	0 0,00%	1 6,67%	3 20,00%	11 73,33%	0 0,00%	2,33 100,00%	0,62

Source: Author

For most respondents the interest in entering the industry is not small. The 53.33% of respondents agree that, in order to enter the industry, aspirants need great production capacities and are likely to encounter significant entry barriers. The 26.67% of respondents think that industry entrance is not capital intensive and 13.33% find no significant entry barriers. Most of the respondents (66.67%) agree that the reaction of existing companies to new ones would be fierce, and that the companies have significant resources to prevent the entrance of new competitors (53.33%). Politics and regulations are an encumbering factor for the new entrants, stated 90% of respondents. The 66.67% of respondents think that the companies working in the industry have cost advantages against the new entrants not related to workload (knowhow, access to raw material, buyers' loyalty) and that entering the EU increases the possibility of new entrants to the industry. The majority of respondents (73.33%) agree that the reaction of existing companies to the entrance of new ones would be fierce and that the aspirants need significant capital and financial resources to enter the industry. With this force, the scoring is in opposition with the rest of the forces. The claim "I fully agree" gained one point and "I fully disagree" gained five points. The respondents rated this force as medium weak with an average score of 2.63.

5.4 Suppliers' bargaining power

Table 10: The bargaining power of suppliers

No.	CLAIM	n	Answer distribution					Arithmetic mean	Standard deviation
			I strongly disagree	I disagree	I neither agree nor disagree	I agree	I fully agree		
			1	2	3	4	5		
IV	Suppliers' bargaining power							3,24	
36	There is a relatively small number of suppliers of inputs (goods, capital, work) in our industry	15	0	4	6	5	0	3,07	0,80
			0,00%	26,67%	40,00%	33,33%	0,00%	100,00%	
37	Input suppliers for our industry ask for and get concessions	15	0	3	9	3	0	3,00	0,65
			0,00%	20,00%	60,00%	20,00%	0,00%	100,00%	
38	Suppliers' in our industry can significantly dictate their conditions and thus increase prices	15	0	2	2	11	0	3,60	0,74
			0,00%	13,33%	13,33%	73,33%	0,00%	100,00%	
39	Replacing suppliers demands additional costs	15	0	4	5	6	0	3,13	0,83
			0,00%	26,67%	33,33%	40,00%	0,00%	100,00%	
40	Suppliers' products are different in their characteristics, price and quality	15	0	0	7	8	0	3,53	0,52
			0,00%	0,00%	46,67%	53,33%	0,00%	100,00%	
41	In our industry suppliers are powerful	15	0	0	9	6	0	3,40	0,51
			0,00%	0,00%	60,00%	40,00%	0,00%	100,00%	
42	Suppliers' products directly influence our industry's product quality	15	0	0	1	12	2	4,07	0,46
			0,00%	0,00%	6,67%	80,00%	13,33%	100,00%	
43	Our industry is not the main buyer of products (suppliers sell their product mainly to other industries)	15	0	4	8	3	0	2,93	0,70
			0,00%	26,67%	53,33%	20,00%	0,00%	100,00%	
44	Companies in our industry are not well acquainted with their suppliers, their market share and cost structures	15	1	5	5	4	0	2,80	0,94
			6,67%	33,33%	33,33%	26,67%	0,00%	100,00%	
45	Suppliers' have a potential for a downstream vertical integration	15	0	4	9	2	0	2,87	0,64
			0,00%	26,67%	60,00%	13,33%	0,00%	100,00%	

Source: Author

The respondents are indecisive when it comes to perceiving the number of suppliers and the cost of their replacement. That is likely connected to dependence on local suppliers and different way of conducting business in certain geographical area. The majority of the respondents (60.00%) are indecisive whether suppliers ask and get favors, while 73.33% presume that suppliers can significantly dictate the terms and thus increase prices and lower the industry's profitability. The disagreement between the respondents is seen in answers regarding costs of supplier replacement, the level of familiarity between companies and suppliers, their market conditions and cost structure, as well as this industry's importance to suppliers which can be attributed to different term in which they conduct business. Suppliers' products have a direct effect on final product quality in this industry. There is a great disagreement regarding suppliers' power, potential for the downstream integration, and the importance of the industry to the supplier. The 40.00% of the respondents presume that the suppliers are powerful, while 26.67% do not agree that they have the potential for downstream vertical integration into the industry. The respondents mark this force as medium in strength with an average mark of 3.24.

5.5. The threat of Substitutes

Table 11: Threat of Substitutes

No.	CLAIM	n	Answer distribution					Arithmetic mean	Standard deviation
			I strongly disagree	I disagree	I neither agree nor disagree	I agree	I fully agree		
			1	2	3	4	5		
V	THREAT OF SUBSTITUTES							2,43	
45	There is a substitute for our industries product/services	15	0	6	7	2	0	2,73	0,70
			0,00%	40,00%	46,67%	13,33%	0,00%	100,00%	
46	Our buyers/clients like to move from our product/service to the substitute	15	1	10	3	1	0,00%	2,27	0,70
			6,67%	66,67%	20,00%	6,67%	0,00%	100,00%	
47	The needs that our industry's products/services satisfy can be easily replaced by other products	15	0	10	4	1	0	2,40	0,63
			0,00%	66,67%	26,67%	6,67%	0,00%	100,00%	
48	Accessibility of alternative products/service significantly limits the profit potential of our industry	15	1	9	4	1	0	2,33	0,72
			6,67%	60,00%	26,67%	6,67%	0,00%	100,00%	
49	Alternative products are generally better quality and offer bigger advantages to consumers than our industry's products	15	3	9	3	0	0	2,00	0,65
			20,00%	60,00%	20,00%	0,00%	0,00%	100,00%	
50	Legal regulations encourage development of alternative products	15	1	5	8	1	0	2,60	0,74
			6,67%	33,33%	53,33%	6,67%	0,00%	100,00%	
51	companies in our industry create alternative products themselves	15	1	9	3	2	0	2,40	0,83
			6,67%	60,00%	20,00%	13,33%	0,00%	100,00%	
52	The price of our industry's products is higher than the alternative products price	15	0	7	6	2	0	2,67	0,72
			0,00%	46,67%	40,00%	13,33%	0,00%	100,00%	

Source: Author

The majority of the respondents are indecisive regarding the substitution to regular road maintenance, while 40.00% presume that the substitute for this kind of enterprise does not exist.

The research shows that buyers do not abandon the industry's products easily and that the buyers' needs are not easily satisfied with other products. The majority presume that the quality of substitute products is lower, but also more expensive and their accessibility does not limit the profit potential of the industry. The 53.33% of the respondents are indecisive whether legal regulations contribute to the development of the substitutes, while 40.00% think that legal regulations do not contribute at all. The majority presumes that the companies in this industry do not develop substitute products. The 46.67% of the respondents presume that product prices in this industry are no higher than substitute prices, while 40.00% hesitate about this postulate. This force was recognized as the weakest in effecting the profitability increase. Its average mark is 2.43.

6. CONCLUSION

Characteristics of construction industry in Croatia, as worldwide, are high sensitivity to economical tendencies and dependence on public investments in civil engineering and infrastructure building. In comparison, industry of RMPRWTC is not exposed to great amplitudes under the impact of outer and inner economical tendencies businesswise. Its decline or growth is less dependent on GDP than other branches of construction industry. Therefore, the appeal of this industry will rise with the deepening of economic crisis and it will decline in the environment of economic growth.

Data analysis of empirical research results shows that respondents find competitive rivalry to be the strongest force with the intensity of 3.40, followed by the suppliers' bargaining power with the intensity of 3.24. These forces can be characterized as medium to high intensity forces which mostly influence negatively on the appeal and long-term profitability of the industry. Ranked third is the buyers' bargaining power with the intensity of 2.99. This is a medium strength force. The weakest forces, according to the respondents, are threats from new entrants with the intensity of 2.65 and the threat from a substitutes with the intensity of 2.43. They are small to medium intensity forces which have a favorable effect on the long-term profitability of the industry.

Due to a highly regulated nature of the industry, where the buyer is also the regulator, and the strategic alliance between existing competitors, Porters model cannot produce realistic intensity of some competitive forces. The respondents have determined that the rivalry among existing competitors represents the strongest competitive force with a long-term negative effect on the profitability of the industry, but the strategic alliance between 14 companies diminishes the intensity of this competitive force, thus brushing it aside. Buyers' bargaining power is marked as a medium intensity force, but the highly regulated nature of this industry, where the buyer is also the regulator, promotes this force to the first place according to intensity and influence on long-term profitability and appeal of the industry.

Therefore, the loyalty of a buyer who also creates the regulatory framework is a key factor of a sustainable advantage of a competitor so companies should invest more in differentiation and quality of their products and services.

LITERATURE

1. Andriotis, K., (2004), Revising Porter's Five Forces Model for Application in the Travel and Tourism Industry, *Tourism today*, 4, 131-145 according to Thurlby, B., (1998), Competitive forces are also subject to change, *Management decision*, 36(1), 19-24.
2. Butković, L. L., Mišić S., (2014), Concentration Of Construction Industry In Croatia For The Period 2004-2013, *Organization, Technology & Management in Construction: An International Journal*, Vol.6 No.1, 994-1003.
3. Dulčić, Ž., Gnjidić, V., Alfirević, N., (2012), From Five Competitive Forces to Five Collaborative Forces: Revised View on Industry Structure-firm Interrelationship, *Procedia- Social and Behavioral Sciences*, 58, 1077-1084.
4. Dyer, J. H., Singh, H., (1998), The relational view: Cooperative strategy and sources of interorganizational competitive advantage, *Academy of Management Review*, 4, 660-679.
5. Grant, M: R., (2010), *Contemporary Strategy Analysis*, 7th edition, John Wiley and sons
6. National Bureau of Statistic, (2014) *Transport i komunikacije u 2013*, Statistical report of the Croatian National Bureau of Statistic
7. National gazette, (2013), *Zakon o cestama*, Zagreb, National gazette, 148, članak 8, 9
8. Pecotich, A., Hattie, J., Low, L. P., (1999), Development of Industuct: A Scale for the Measurement of Perceptions of Industry Structure, *Marketing Letters*, 4, 409-422.
9. Porter, M. E., (1998), *Competitive strategy Techniques for Analyzing Industries and Competitors*, The Free Press
10. Porter, M. E., (1979), How competitive forces shape strategy, *Harvard Business Review*, 57 (2), 137-145.
11. Porter, E. M., (2008), *Konkurentska prednost: Postizanje i održavanje vrhunskog poslovanja*, Zagreb, Masmedia
12. Porter, M. E., (2008), The Five Competitive Forces That Shape Strategy, *Harvard Business Review*, 79-93.
13. Radović N., Šešlija M., Peško I. (2013) Ekspertne projektne analize u procesu gospodarenja održavanjem cesta, *Građevinar*, vol 65 no. 7, 641-652.
14. Stacey, R., D., (1997), *Strateški menadžment i organizacijska dinamika*, Zagreb, Mate
15. Šolman, S., (2010), Uloga cestovnog prometa u turizmu Hrvatske, *Acta turistica nova*, vol4. No.2, 231- 246.
16. Teece, D. J.; Pisano, G.; Shuen, A., (1997), Dynamic capabilities and strategic management. *Strategic Management Journal*, Vol. 18:7, 509-533.
17. Vining, A. R., Shapiro, D.M., Borges, B., (2005), Building the firm's political (lobbying) strategy, *Journal of Public Affairs*, Vol. 5 Issue 2, 150-175.
18. Zelenika, R., Pupovac, D., (2000), Transport - čimbenik proboja začaranog kruga razvitka tranzicijskih zemalja, *Ekonomski pregled*, 51 (9-10), 970-986.

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NEOLIBERALISATION OF LOCAL COMMUNITIES: A CONTENT ANALYSIS OF SELECTED TEXTS FROM ANTIPODE – A RADICAL JOURNAL OF GEOGRAPHY, 2010-2013

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ABSTRACT

The paper represents a study of papers published in *Antipode – A Radical Journal of Geography*, from 2010 to 2013, in which, as to the author's assessments, a highly critical stance towards contemporary neoliberalism exists. Hence *Antipode* publishes "a radical analysis of geographical issues and its intent is to engender the development of a new and better society", a critical stance towards neoliberalism in the papers published is of course expected. However, it is the intent of this paper what kind of critical stance was present in the texts published in *Antipode* in the period of four years. A basic content analysis was used, in order to analyse the discourse that was used to describe, characterize and critically judge the contemporary relationship of neoliberalism towards local communities, especially regarding nature and natural resources. The topics followed in the study were privatization of natural resources and natural monopolies, as well as privatization of nature and nature-based activities in local communities. The focus of the analysis was on the words used to describe neoliberalisation of the aforementioned areas of social life and the context in which those words were used, through the analysis of full citations.

KEY WORDS: neoliberalisation, neoliberalism, *Antipode*, local communities, public space, nature.

1. INTRODUCTION

The paper represents a study of papers published in *Antipode – A Radical Journal of Geography*¹ (further in the text: *Antipode*), from 2010 to 2013, in which, as to the author's assessment, a highly critical stance towards contemporary neoliberalism² exists. Hence *Antipode* publishes "a radical analysis of geographical issues and its intent is to engender the development of a new and better society", a critical stance towards neoliberalism in the published papers is expected. However, it is the intent of this paper what kind of critical stance was present in the texts published in *Antipode* in the period of four years (2010-2013).

We have found similar research (Kurečić, Vusić, Primorac, 2015) that analyzed definitions of neoliberalism in the selected texts from *Antipode* journal and used it as a guidance for our research³.

¹ According to the [AntipodeFoundation.org](http://antipodefoundation.org), which publishes *Antipode – A Radical Journal of Geography*, since August 1969 *Antipode* has published peer-reviewed papers which offer a radical analysis of geographical issues and whose intent is to engender the development of a new and better society.

According to: <http://antipodefoundation.org/about-the-journal-and-foundation/a-radical-journal-of-geography/>.

² Neoliberalism can be defined as:

A project primarily aimed at freeing capital from the constraints imposed by these "embedded liberalisms", and more directly as a process ultimately focused on restoring the class power of economic elites. (Harvey, 2005: 11);

An approach to governing capitalism that emphasizes liberalizing markets and making market competition the basis of economic coordination, social distribution, and personal motivation. It recalls and reworks the 18th and 19th century liberal market ideals of economists such as Adam Smith and David Ricardo. And yet it is new – hence the 'neo' – insofar as it comes after and actively repudiates the interventionist state and redistributive ideals of welfare-state liberalism in the 20th century. (Sparke, 2013: 1);

Neoliberalism is an ideological hegemonic project, selectively rooted in the free market and non-interventionist state philosophy of classical liberalism, and internationally propagated by think tanks and intellectuals like Hayek and Friedman in their assault on "egalitarian liberalism". (Peck and Tickell, 2007);

Neoliberalism is a simple withdrawal of the state from markets and society via trade liberalization, privatization, reduced entitlements, and government deregulation. (Hess, 2011: 1056).

³

- Neoliberalism is based on free markets, free flow of capital, free trade;
- Neoliberalism promotes individualism, atomizing the population;
- Neoliberalism is a type of authoritarianism, a masque behind liberal democracy;
- Neoliberalism is a type of totalitarianism, based on efficiency, and it is non-negotiable;
- Neoliberalism has populist tendencies;
- Neoliberalism treats citizen as a client and customer;
- Neoliberalism establishes competition between every worker on the planet;

2. METHODOLOGY

The paper analyses the critical stance towards neoliberalisation of nature and natural resources, present in the texts published in Antipode, through the basic content analysis. Much of the text revolves around relationships between markets and nature. In order to analyse the discourse that was used to describe and characterize the relationship of neoliberalism towards nature, natural resources, natural monopolies, and local communities, the basic content analysis was used: the research focused on key words and phrases that were identified in most of the texts, and the presence of these key words and the context in which they were used was at the same time the criteria for the selection of the texts that were analysed. The key words used for the analysis were the following: neoliberalism and/or neoliberalisation (i.e. neo-liberalism). The context of the use of the key words was analysed, through the analyses of the sentences and/or full citations in which the key words were used. Key words used in a direct link with the key words were identified and analysed.

3. RESULTS AND DISCUSSION

The main topics that were analysed in the selected texts were the following:

1. Privatization of natural resources and natural monopolies, such as for example the water supply privatization;
2. Privatization of nature, especially nature based activities in the local communities and in the natural habitats;

Privatization of natural resources and natural monopolies

Cocq and McDonald (2010) discussed water privatization in Cuba, pointing out that: "The privatization and commercialization of water has proven to be one of the most controversial policy developments of the past 20 years. Largely associated with the neoliberalisation of the world economy, it comes as a surprise to many that the socialist government of Cuba signed a 25-year contract with a Spanish multinational in 2000 to manage the supply of water in Havana. This paper provides an historical context for water reforms in the country and the first comprehensive study of this little-known contract. Based on key interviews and primary documentation we argue that there are no easy explanations for why the contract was signed, or whether it has achieved its objectives. There are, however, interesting lessons to be learned for public-private partnerships elsewhere in the world, and insights into the changing fabric of socialism in Cuba⁴. (6)

Nash (2013) discussed the neoliberal water governance mechanisms in Durban, South Africa: "I argue that some approaches to "participation" within neoliberal governance systems can, in part, be understood as moments within a protracted process of passive revolution. The argument is traced through eThekweni municipality's Community Participation Programme and the related extension of Free Basic Water (FBW)." (101)

"The adoption of neoliberal economic theory has shaped the way in which basic service delivery occurs in South Africa. In relation to water, this meant a commitment to cost recovery principles, which refers to the objective of recouping the full cost, or as close to the full cost as possible, of providing a service (McDonald, 2002:17). Water, in this context, is understood as a commodity, a private good which is best, and most justly, distributed when bought and sold on the market or, at least, in accordance with market principles (McDonald and Ruiters, 2005:21)." (106)

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- Neoliberalism shifts the balance of power in the society in favor of the bourgeois class;
 - Neoliberalism wants to attenuate or nullify social transfer programs; it promotes an active „recruitment“ of the poor into a flexible labor regime of low-wage employment;
 - Different variations of neoliberalism exist in capitalism: in reality there is one capitalism and different kinds of neoliberalism;
 - Existing kinds of neoliberalism are hybrid and are composite structures; they are path dependent and geographically uneven;
 - "Roll-back" and "roll-out" types of neoliberalism exist as different phases in the development of neoliberalism; the "roll-back" phase precedes the "roll-out" phase;
 - Neoliberalism is the ideological component of the capitalist symbolic;
 - Neoliberalism universalizes capitalist practices and relationships through discursive, institutional, and policy work.
 - There is possibly a self-defeating irony at the core of neoliberalism. Neoliberal intellectuals, set out to lead liberalism out of the political wilderness by making it over into something more mainstream, more conservative, and less afflicted by interest group fragmentation. Yet by demonizing „liberal fundamentalists“ e.g. civil rights groups, advocates of broad social insurance, feminists, trade unionists, neoliberals become part of the problem they set out to solve, thus becoming one more source of self-righteous division, as well as a force for the further fragmentation of policy constituencies. (Kurečić, Vusić, Primorac, 2015: 142)

⁴ "The mobilization of notions of scarcity in the Cuban case is, of course, very different from its use in the context of neoliberalism, where the answer lies in greater production to facilitate the drive for further growth while downplaying the redistributive ethic. In Cuba, the growth imperative is not as strong and is framed within, and thus heavily constrained by, broader and sustained commitments by the state to the redistribution of consumption, investment and wealth." (36)

“The use of market mechanisms to distribute water, in particular the commitments to cost recovery, highlights the continued perceived importance of the exchange or monetary value of water. This history of water, politics and neoliberalism represents the backdrop to the passive revolution.” (107)

Narsiah (2010) discusses the privatization of water services in Cape Town, South Africa, pointing out: “Neoliberalism has percolated through to the local scale, leading to the neoliberalisation of the local state. One of the ways in which this has been articulated is through privatization strategies.” (374)

“In South Africa, and with special reference to the city of Cape Town, the ostensible corporatization of water services is evidence of the “rollout” phase of neoliberalism.” (378)

Carroll (2012) studied neoliberal risk mitigation connected with the Baku-Tbilisi-Ceyhan Pipeline: “Crucially, the article makes clear how the material realities of capital accumulation, propelled by the language of CSR (corporate social responsibility), and imbued with the ideology and practice of “social neoliberalism” (which attempts to extend the logic of the market into social life with the aid of social and environmental impact assessments and consultation processes (Carroll, 2010; Rodan, Hewison and Robison, 2001: 2-3), generate messy outcomes that safeguard the interests of capital while delivering rather precarious outcomes for citizens. These range from the empowering of patrimonial autocracies to fostering intra-village conflict.”⁵ (282-283)

“This social neoliberalism also involved the increasing internment of NGOs and social and environmental “experts” into “development” practice, with organizations such as the World Bank “reaching out” to civil society during the late 1980s and early 1990s (Craig and Porter, 2006: 61; Davis, 2004: 4, 13). In the case of BTC, these two very compatible trends (CSR and social neoliberalism) came together in a highly symbiotic way. Emphases upon transparency, accountability, community consultation and involvement, and environmental and social safeguards were placed at the forefront of the project’s design.” (289)

To be sure, the BTC is far from the only factor encouraging US involvement in Georgia (and the region). However, the pipeline has been a key part of the increasing expansion of Western commercial and strategic interests on the doorstep of a Russia heading in an increasingly ersatz nationalist trajectory. How such a situation could have been averted or “better managed” with the new tools and methods of risk mitigation and social neoliberalism is far from clear. However, the BTC’s role in the increase of supra-regional tensions should be taken into consideration in any assessment of the limitations of contemporary risk mitigation efforts. (297-98)

Miroso and Harris (2012) studied the privatization of water resources: “As expressed by Anand (2007:517): “A human right to water means giving priority to drinking water supply, particularly to those who do not have access to the basic level of service.” (936)

“The increasing privatization of water, combined with a focus on devolved, participatory and commodified water management promoted by entities such as the World Bank and the World Water Council, have been discussed as examples of increasingly “neoliberalized water governance”, part and parcel of the increasing neoliberalization of resources more generally (Bakker, 2005; Goldman, 2007; Harris, 2009)⁶.” (935)

Privatization of nature, especially nature based activities in the local communities and in the natural habitats

Brockington and Duffy (2010) discussed the topic of neoliberalisation of tourism, emphasizing: “Nature-based tourism actually allows capitalism to identify, open and colonize new spaces in nature. However, it does so in variable ways in different contexts. The essay offers an explanation for why and how neoliberalism is shaped by its encounter with existing social and cultural dynamics. Neoliberalism, it seems, does not displace or obliterate existing ways of valuing, owing and approaching nature; instead it mixes with local dynamics to create new dynamics. The essay presents a snapshot of neoliberalism “as it exists” on the ground⁷. (478)

⁵ “The analysis suggests that in many ways the methods of social neoliberalism cannot come close to dealing with some of the most significant repercussions and associated risks of mega-projects in the underdeveloped world.” (298)

⁶ Social movements related to global water issues have had a very strong presence at international meetings, including the 2009 Istanbul World Water Forum. Hundreds of activists from all over the world travelled to the meetings, both to influence the official Forum and to participate in two separate alternative Water Forums that were organized based on different principles from those underlying the official event.¹⁶ Given the diversity of water issues across locales, differences in national and regional contexts, and in legal and policy environments, and so forth, it is relevant to focus attention on the extent to which activists managed to relate to each other. In this sense, the idea and language of the HRW played a central role in discussions and negotiations—in both the official and alternative Water Forums. (Miroso and Harris, 2012: 942)

⁷ “The difficulty with examining the usefulness of a term like “neoliberal conservation” is that neoliberalism, in Peck and Tickell’s, Harvey’s and others’ depictions, is a fundamentally uneven project (Brenner and Theodore 2002; Harvey 2005; Peck and Tickell 2002). It is applied with differential rigor across space, and often in direct conflict with its ideological precepts. Neoliberalism can be hard to identify as such in these circumstances. Nevertheless some neoliberal aspects of contemporary conservation are obvious. Conservation is extensively promulgated by NGOs, and in new hybrid governance

Igoe, Neves and Brockington (2010) discussed about convergence of biodiversity conservation and capitalist expansion: “The inherent exchangeability of parks has become most salient as it is has intersected with the logic of exchangeability so pervasive in global neoliberalism. This is especially visible in mitigation policies, which assume degraded nature and environmental harm can be balanced by pristine nature and environmental protection.” (495)

They have also specifically discussed the topic of networks of conservation: “Networks of conservation, commerce and the state are forged in conditions of fragmented state control that exist in postcolonial contexts. They are effectively bargains to which outsiders, such as conservation NGOs, bring money, expertise and technology, on which officials from impoverished states are highly dependent. These officials in turn bring the legitimacy and power of sovereignty (Mbembe, 2001: 78). Ferguson (2006) has labeled such bargains “the privatization of sovereignty”, and emphasizes that neoliberalism exacerbates and legitimizes this sort of fragmentation.” (496)

MacDonald (2010) discusses the topic about the influence of private sector on restructuring of biodiversity. The author starts with the general remarks about neoliberalism and neoliberalisation of nature: “If we view neoliberalism as a process in which a transnational capitalist class has shaped the state to its own requirements, structural control over new forms of international environmental governance that might challenge those requirements becomes a key component in reducing or eliminating obstacles to capital accumulation.” (533)

“Ironically, the growth of conservation organizations facilitated by neoliberalism in the 1970s and 1980s is partially responsible for their subordination as it developed an infrastructure grounded in short-term, project-based support rather than reliable core funding.” (534)

“In an institutional environment, shaped by neoliberalism, that increasingly accommodates and privileges the interests of business in pursuing an eco-modernist version of sustainable development, access to the resources allocated through that institutional context relies on an organization visibly and legibly aligning its activities, capacities and objectives with the ideological and material interests of the dominant actors within that institutional context (Maragia, 2002).⁸” (535-36)

Brockington and Scholfield (2010) explore the roles of conservation NGOs with respect to capitalism: “We use an analysis of the conservation NGO sector in sub-Saharan Africa to examine the ways in which conservation NGOs are integral to the spread of certain forms of capitalism, and certain forms of conservation, on the continent.” (551)

“Our survey showed that conservation NGOs have kept pace with the global expansion of NGOs that is associated with neoliberalism. Conservation NGOs in sub-Saharan Africa expanded rapidly from the 1980s onwards, and most especially in the 1990s. (...) Conservation NGOs have not just grown in number with time, they have also grown in size and influence. Major new organizations have come into existence, other older players have expanded their work dramatically.” (561-562)

Corson (2010) explored “the formation of a dynamic alliance among members of the US Congress, the US Agency for International Development (USAID), an evolving group of environmental non-governmental organizations (NGOs) and the corporate sector around biodiversity conservation funding.” (576)

Building on the 1980s momentum around neoliberalism and sustainable development, the 1990s marked a turning point in which environmentalism began promoting the commodification of nature. (587)

Neoliberalism of nature—seen in measures such as privatization and regulatory rollback, commodification of nature, and new enclosures (for overviews see Castree, 2008; Heynen et al, 2007). (580)

The advocacy alliance behind USAID environmental programs was transformed from the initial group of environmental activists who protested against neoliberal policies to a collection of USAID grantee organizations with a specific programmatic interest, and who would ultimately endorse neoliberalism. (587)

Holmes (2010) studied conservation as an elite process in the Dominican Republic. At the beginning, the author explains “showing how conservation at a global level is an elite process, driven by a small powerful elite.” (...) In the Dominican Republic, the levels of protection are: “extraordinary and have been achieved by a small network of well-connected individuals, who have been able to shape conservation as they like, while limiting the involvement by the large international conservation NGOs who are considered so dominant throughout Latin America.”⁹ (624)

arrangements of “privatized sovereignty” that appear to be direct products of neoliberal thinking. Conservation strategies can hinge on the deregulation and reregulation of nature based industries and environmental services. This is, plainly and simply, neoliberalism in practice.”

⁸ “Ecological modernization has a rational and material core that does address real problems—the problems that historical modes of biodiversity conservation posed to the continued accumulation of capital. And it is through the dominant position of this class that neoliberalism and ecological modernization have not only acquired a purchase on conservation practice around the world, but have become written into the materiality of biodiversity. The organization of biodiversity conservation has been successfully restructured so that it serves capitalist expansion, just as it once served imperialist and nationalist expansion.” (542)

⁹ Despite this, conservation both globally and in the Dominican Republic is shown to share similar political structures and the same lack of critique of capitalism or its environmental impacts.” (Holmes, 2010: 624)

“NGOs, as part of the transnational conservation elite, can become involved in environmental management in the global South. Governance states literature argues that states compete with NGOs for control of policy. The case of the Dominican Republic provides a useful counterpoint, giving a different perspective to theories of weak Southern states and powerful global NGOs.” (630)

“More importantly, the global and the national elite both share the same non-critique of global and national capitalism. Conservation elites are interesting because they, with their links to corporations and trends in neoliberalism, seem unable or unwilling to engage with the environmental consequences of capitalism. Global scale conservation actors have been heavily criticized in recent years for becoming complicit in the destruction of the environment by large corporations, particularly by refusing to criticize corporations who have provided them with money or board members (Chapin 2004; Dowie 1995; McAfee 1999; Rothkopf 2008).” (642)

Carrier (2010) discusses commodity fetishism and ethical consumption, present in capitalism as a way in which capitalism and conservation intersect: “One of the ways that conservation and capitalism intersect is in ethical consumption, the shaping of purchasing decisions by an evaluation of the moral attributes of objects on offer. It is increasingly important as a way that people think that they can affect the world around them, including protecting the natural environment. This paper describes commodity fetishism in ethical consumption, and the degree to which this fetishism makes it difficult for ethical consumers to be effective both in their evaluation of objects on offer and in influencing the world around them. It looks at three forms of fetishism in ethical consumption: fetishism of objects, fetishism of the purchase and consumption of objects, fetishism of nature.” (672)

“From that perspective, ethical consumption is natural in two ways. Firstly, it reflects the importance of market transactions as a fundamental aspect of people’s lives, what Adam Smith (1976 [1776]:17) famously described as an aspect of human nature, the “propensity to truck, barter, and exchange one thing for another”. Secondly, it reflects the importance of the autonomous individual and of that individual’s freedom.” (673)

Neves (2010) explored making profits on “cetourism”, studying discourses on whaling, cetacean conservation, and whale watching: “In reality most whale watching occurs in places where whale hunting was either never practiced or died out long ago. People thus often make fictional historical claims to whale hunting in order to make whale watching viable for their communities. In cases where whale hunting previously did exist it requires converting skills and technology to whale watching activities, something that local people often recognized and undertook without any external prompting. These transformations are indicative of larger transformations away from material commodities to service-based commodities in the context of global neoliberalism.” (730)

Duffy and Moore (2010) studied the neoliberalisation of nature, through the examples of elephant-back tourism in Thailand and Botswana. First, they have pointed out some general remarks about the neoliberalisation of nature and tourism: “The spectacular growth in the global tourism industry has been one of the core drivers of neoliberalism in the last 20 years. It constitutes one of a number of global processes that allows neoliberal norms and values to travel over time and space (Castree, 2009).”¹⁰ (742)

“Despite claims that alternative tourisms such as ecotourism, responsible tourism and nature-based tourism offer a challenge, our analysis of elephant back safaris demonstrates that they have been central to the expansion and deepening of neoliberalism at a global scale.” (742)

“The tourism industry is one means by which nature is neoliberalised, since it allows neoliberalism to target and open up new frontiers in nature (Castree 2008a: 141; Castree, 2009).

“Neoliberalism, through tourism, reconfigures and redesigns nature for global consumption (West and Carrier, 2004).” (743) “Tourism, as a global industry, is not just reflective of neoliberalism, it drives, expands and deepens it. Tourism has experienced a sustained period of growth; this occurred from the 1970s onwards against a backdrop of global shifts and especially benefited from the expansion of neoliberalism across the world.” (745)

“The elephant-riding industry has targeted and opened up new frontiers in nature (elephants) for colonization by neoliberalism.” (752)

Lansing (2011) studied the carbon’s value in the production of carbon forestry offsets in Costa Rica¹¹: “Castree theorizes

¹⁰ „McCarthy and Prudham argue the connections between neoliberalism, environmental change and environmental politics are deeply, if not inextricably interwoven. In this way neoliberalism can be regarded as an inherently and necessarily environmental project because it changes the relationships between human communities and biophysical nature; neoliberalism and environmentalism have emerged as powerful ideological foundations for social regulation; and finally because environmental concerns are the most powerful source of opposition to neoliberalism (McCarthy and Prudham 2004: 275-277; see also Heynen et al 2007).” (744)

¹¹ “In 2004, a group that included scientists, economists, indigenous leaders, and state bureaucrats began work on an agricultural development

the proliferation of “neoliberal natures” as a global-scale phenomenon, where he seeks to answer the question: “Why are human interactions with the nonhuman world being ‘neoliberalised’ across the globe?” (Castree, 2008a: 131). (733)

“In this paper, I take the commodification of carbon to be a discursive process of development in which specific sites and objects enter into a field of intelligibility in a manner that allows for some ways of understanding them while foreclosing on others. Specifically, this is a process by which value is produced in the spaces of indigenous agriculture through its discursive attachment to carbon. While I broadly agree with the idea that the commodification of carbon can be read as a type of environmental fix, as Castree might suggest (Castree 2008a; see also Bumpus and Liverman 2008), I resist the idea that these spaces have come to be desirable as commodified spaces because of the extension of global-scale capitalist processes to local sites. Instead, I ground my analysis in discursive formations of development, and show how nature’s continued commodification is a process by which specific spaces, natures, and bodies come to be represented in ways that allow for neoliberal projects to emerge as the logical solution to longstanding development problems, with their final form ultimately conditioned by the requirements of capitalist value.” (734)

“For these calculations to have meaning, however, one must assume that the spaces are “managed” by the rational maximizer of neoclassical economics. This can be read as the application of universal economic theories and assumptions to a local context, a practice that has come under scrutiny of a number of critics of neoliberalism and neoclassical economics more generally (eg Peck, 2004; Robertson, 2006). (744)

Hannah (2011) studied bio power, life and left politics: “One thing that has been lost is the underlying biopolitical impulse of twentieth century welfare statism (or “social democracy”), that is, the governmental impulse and injunction to care for the life of a population of human beings. Mika Ojakangas laments that “*the era of bio-political societies is coming to an end*” (Ojakangas, 2005b: 52). This is not a good thing, for “to the extent that globalization takes place without biopolitical considerations of health and happiness of individuals and populations, as it has done until now, it is possible that our entire existence will someday be reduced to bare life, as has already occurred, for instance, in Chechnya and Iraq” (Ojakangas 2005a: 28). (1035)

It is not a great stretch from here to a problematization of the apparent convergence in neoliberal systems of thought between humans-become capital and corporate capital-become-human. Foucault did not take this step in his lecture course. Nevertheless, the return to the German Ordo-Liberalen is interesting because in it Foucault highlights a problem with the general neoliberal “humans as businesses” model, a problem with implications for the question of what to do biopolitically with corporations. The German theorists put forward a neoliberal vision that was in many respects more cautious than the US model. (1045)

“These associations can only be indicative, but it is certainly arguable that neoliberalism, as a form of government which privileges vampiric life over human life, is fundamentally a dangerously erroneous assignment of biopolitical care.” (1046)

4. CONCLUSION

The analysis of texts that have been published in Antipode from 2010 until the end of 2013, has shown that neoliberalism has already permeated the local scale, and has already changed smaller local communities and nature, through the influence on nature-based activities and the privatization of natural resources. The selected texts offer a variety of topics in which the features of neoliberalism’s influence on small communities and nature were described and studied. In all of the analyzed texts a critique towards neoliberalism is present, based on scientific research and a clear radical academic stance.

project among indigenous Bribri and Cabecar smallholders in southeast Costa Rica. This project’s original goal was to revive cacao agroforestry practices by linking the production of agroforestry landscapes with an emerging global commodity—the carbon forestry offset. Specifically, project developers wanted to create a carbon forestry offset under the Clean Development Mechanism (CDM), where indigenous land users would receive a carbon payment for converting their pesticide-intensive plantain fields to more carbon-intensive cacao agroforestry systems. During the course of implementing this project, however, its goals shifted. After project managers completed cost–benefit calculations of various land use practices, they determined that the opportunity costs of switching from plantains to cacao agroforestry were too high for carbon financing to induce this type of change. Instead, their calculations revealed that carbon credits are better positioned to encourage the abandonment of swidden (slash-and-burn) systems of agriculture. In performing these calculations, project managers conceived of recently fallowed land, or *rastrojos*, as agricultural spaces that lack economic value, but which have high levels of carbon sequestration potential. Today, the project’s largest single source of carbon storage now comes from allowing *rastrojos* to revert to secondary forest over a period of twenty years (CATIE, 2006: 80).” (Lansing, 2011: 731-732)

LITERATURE

1. Anand, P. B. (2007.) Right to water and access to water: An assessment. *Journal of International Development*, (19) 511-526.
2. Bakker, K. (2005.) Neoliberalizing nature? Market environmentalism in water supply in England and Wales. *Annals of the Association of American Geographers*, (95) 542-565.
3. Brenner, N., Theodore, N. (2002.) Cities and the geographies of "actually existing neoliberalism". *Antipode*, 34 (3) 349-379.
4. Brockington, D., Duffy, R. (2010.) Capitalism and Conservation: The Production and Reproduction of Biodiversity Conservation. *Antipode*, 42 (3) 469-484.
5. Brockington, D., Scholfield, K. (2010.) The Conservationist Mode of Production and Conservation NGOs in sub-Saharan Africa. *Antipode*, 42 (3) 551-575.
6. Carrier, J. G. (2010.) Protecting the Environment the Natural Way: Ethical Consumption and Commodity Fetishism. *Antipode*, 42 (3) 672-689.
7. Carroll, T. (2010.) Delusions of Development: The World Bank and the post-Washington Consensus in Southeast Asia. Palgrave-MacMillan, London.
8. Carroll, T. (2012.) The Cutting Edge of Accumulation: Neoliberal Risk Mitigation, the
9. Baku-Tbilisi-Ceyhan Pipeline and its Impact. *Antipode*, 44 (2) 281-302.
10. Castree, N. (2008.) Neoliberalising nature: The logics of deregulation and reregulation.
11. *Environment and Planning A*, (40) 131-152.
12. Castree, N. (2009.) Researching neoliberal environmental governance: A reply to Karen
13. Bakker. *Environment and Planning A*, 41 (8) 1788-1794.
14. CATIE (2006.) "Proyecto Fijacion de carbono en sistemas agroforestales con cacao de fincas indigenas entalamanca, Limon, Costa Rica." [Carbon capture project in agroforestry systems with cacao in indigenous farms in Talamanca, Limon, Costa Rica], CATIE, Turrialba.
15. Chapin, M. (2004.) A challenge to conservationists. *World Watch*. Nov/Dec: 17-31.
16. Cocq, K., McDonald, D. A. (2010.) Minding the Undertow: Assessing Water "Privatization" in Cuba. *Antipode*, 42 (1) 6-45.
17. Corson, C. (2010.) Shifting Environmental Governance in a Neoliberal World: US AID for Conservation. *Antipode*, 42 (3) 576-602.
18. Craig, D., Porter, D. (2006.) *Development Beyond Neoliberalism: Governance, Poverty Reduction and Political Economy*. Routledge, New York.
19. Davis, G. (2004.) A History of the Social Development Network in the World Bank,
20. 1973–2002. <http://siteresources.worldbank.org/INTRANETSOCIALDEVELOPMENT/>
21. 214578–1111735201184/20502396/History+of+SD+in+WB.pdf (last accessed
22. 16 September 2010).
23. Dowie, M. (1995.) *Losing Ground: American Environmentalism at the Close of the Twentieth Century*. MIT Press, Boston.
24. Duffy, R., Moore, M. (2010.) Neoliberalising Nature? Elephant-Back Tourism in Thailand and Botswana. *Antipode*, 42 (3) 742-766.
25. Ferguson, J. (2006.) *Global Shadows: Africa in the Neoliberal World Order*. University of California Press, Berkeley.
26. Goldman, M. (2007.) How "Water for All!" policy became hegemonic: The power of the World Bank and its transnational policy networks. *Geoforum*, (38) 786-800.
27. Harris, L. (2009.) Gender and emergent water governance: Comparative overview of neoliberalized natures and gender dimensions of privatization, devolution, and marketization. *Gender, Place and Culture*, 16 (4) 387-408.
28. Hannah, M. G. (2011.) Biopower, Life and Left Politics. *Antipode*, 43 (4) 1034-1055.
29. Harvey, D. (2005.) *A Brief History of Neoliberalism*. Oxford University Press, New York.
30. Hess, D. J. 2011. Electricity Transformed: Neoliberalism and Local Energy in the United States. *Antipode*, 43 (4) 1056-1077.
31. Heynen, N., McCarthy, J., Prudham, S., Robbins, P. (eds.) (2007.) *Neoliberal*
32. *Environments: False Promises and Unnatural Consequences*. Routledge: New York.
33. Holmes, G. (2010.) The Rich, the Powerful and the Endangered: Conservation Elites,
34. *Networks and the Dominican Republic*. *Antipode*, 42 (3) 624-646.
35. Igoe, J., Neves, K., Brockington, D. (2010.) A Spectacular Eco-Tour around the Historic Bloc: Theorizing the Convergence of Biodiversity Conservation and Capitalist Expansion. *Antipode*, 42 (3) 486-512.
36. Kurečić, P., Vusić, D., Primorac, D. (2015.) Neoliberalism as a "Villain": A Content Analysis of Theoretical Critical Stance Towards Neoliberalism in the Texts from *Antipode* – A Radical Journal of Geography, 2010-2013, 10th Economic and Social Development Conference Proceedings, 134-145, Miami, U.S.A., September 2015, ISSN 1849-7535, http://www.esd-conference.com/esd_Book%20of%20Proceedings_Miami_ONLINE.pdf;
37. Lansing, D. M. (2011.) Realizing Carbon's Value: Discourse and Calculation in the Production of Carbon Forestry Offsets in Costa Rica. *Antipode*, 43 (3) 731-753.
38. MacDonald, K. I. (2010.) The Devil is in the (Bio) diversity: Private Sector "Engagement" and the Restructuring of Biodiversity Conservation. *Antipode*, 42 (3) 513-550.

39. McDonald, D. (2002.) The theory and practice of cost recovery in South Africa. In: D. McDonald and J Pape (eds.) *Cost Recovery and the Crisis of Service Delivery in South Africa*: 17-41. Zed Books, London.
40. McDonald, D., Ruiters, G. (2005.) Theorising water privatisation in South Africa. In: D.
41. McDonald and G. Ruiters (eds.) *The Age of Commodity: Water Privatisation in Southern Africa*: 13-43. Earthscan: London.
42. Maragia, B. (2002.) Almost there: Another way of conceptualizing and explaining NGOs'
43. quest for legitimacy in global politics. *Non-State Actors and International Law*, 2: 301-332.
44. Mbembe, A. (2001.) *On the Post-Colony*. University of California Press, Berkeley.
45. McAfee, K. (1999) Selling nature to save it? Biodiversity and green developmentalism.
46. *Environment and planning D: Society and Space*, (17) 133-154.
47. McCarthy, J., Prudham, S. (2004.) Neoliberal nature and the nature of neoliberalism.
48. *Geoforum*, 35 (3) 275-283.
49. Miroso, O., Harris, L. M. (2012.) Human Right to Water: Contemporary Challenges and Contours of a Global Debate. *Antipode*, 44 (3) 932-949.
50. Nash, F. (2013.) Participation and Passive Revolution: The Reproduction of Neoliberal Water Governance Mechanisms in Durban, South Africa. *Antipode*, 45 (1) 101-120.
51. Neves, K. (2010.) Cashing in on Cetourism: A Critical Ecological Engagement with Dominant E-NGO Discourses on Whaling, Cetacean Conservation, and Whale Watching. *Antipode*, 42 (3) 719-741.
52. Ojakangas, M. (2005.a) Impossible dialogue on bio-power: Agamben and Foucault.
53. *Foucault Studies*, (2) 5-28.
54. Ojakangas, M. (2005.b) The end of biopower? A reply to my critics. *Foucault Studies*, (2) 47-53.
55. Peck, J., Tickell, A. (2002.) Neoliberalizing Space. *Antipode*, 34 (3) 380-404.
56. Peck, J. (2004.) Geography and public policy: Constructions of neoliberalism. *Progress in Human Geography*, (28) 392-405.
57. Peck, J., Tickell, A. 2007. Conceptualising neoliberal, thinking Thatcherism. In: Leitner, H., Peck, J., and Sheppard, E. (eds.): *Contesting Neoliberalism: Urban Frontiers*. The Guildford Press, New York and London: 26-50.
58. Robertson, M. (2006.) The nature that capital can see: Science, state, and market in the commodification of ecosystem services. *Environment and Planning D: Society and Space*, 24 (3) 367-387.
59. Rodan, G., Hewison, K., Robison, R. (2001.) Theorising South-East Asia's boom, bust and recovery. In: Rodan, G., Hewison, K., Robison, R. (eds.) *The Political Economy of South-East Asia*, Second Edition. Oxford University Press, Melbourne.
60. Rothkopf, D. (2008.) *Superclass: The Global Power Elite and the World They are Making*.
61. Farrar, Straus and Giroux, New York.
62. Smith, A. (1976. [1776.]) *An Inquiry into the Nature and Causes of the Wealth of Nations*.
63. University of Chicago Press, Chicago.
64. Sparke, M. 2013. *Introducing Globalization: Ties, tensions and uneven integration*. Wiley & Sons, New York.
65. West, P. Carrier, J. G. (2004.) *Ecotourism and authenticity. Getting away from it all?*
66. *Current Anthropology*, 45 (4) 483-498.
67. <http://antipodefoundation.org/about-the-journal-and-foundation/a-radical-journal-of-geography/> (Retrieved 23.05.2015.).

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RESEARCH ON STUDENTS' SATISFACTION WITH BANKING SERVICES

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ABSTRACT

The aim of the research was to investigate which banking services students' use, which banks they prefer, to define which dimensions or elements of banking services are important for them, and to determine the level of students' satisfaction with each dimension of the mentioned services. Finally, the research had to explore the overall level of students' satisfaction with banking services. Qualitative and quantitative researches have been conducted. Convenience sampling has been applied. Control categories were students aged from 18 to 26 years who use banking services and are full time students. The research was conducted in phases. In the first phase 12 in-depth interviews were conducted with the target group representatives. The second research step was used for questionnaire pilot-testing. In the last research stage the questionnaire was accurately completed by 281 respondents. The results show that students prefer big banks and that the almost half of the respondents, 49.82%, are completely satisfied with their banking services. The highest level of satisfaction is related to employees' dress code, although the respondents did not evaluate the dress code as an important element in offering banking services. The results showed that the important banking service element is the provision of service on time and in accordance with what was promised, as well as expertise and professional behaviour of employees. It is important to stress that the respondents are not satisfied with the speed of service delivery. A lower level of satisfaction is also related to banking fees. Furthermore, banks' working hours and the availability of an adequate number of ATMs was awarded with a lower average in satisfaction ratings. Since the mentioned elements are relatively important to respondents, banks should make the necessary improvements in order to ensure greater student satisfaction with banking services.

KEY WORDS: customer satisfaction, customer satisfaction survey, elements of customer satisfaction

1. INTRODUCTION

Customers' satisfaction is subjective. It is regarded as the opinion or state of mind that customers have about the company. Customers' satisfaction is a result of comparison between customers' expectations and the use of particular product or service.¹ Satisfaction implies customer's positive feeling on the used product that gives him confirmation of making a right decision when he chose between different possibilities. A customer will be satisfied if a product or service is in line with their expectations or dissatisfied if the experience is under expected levels.² Due to the existence of numerous definitions of satisfaction, in the continuation there are alternative definitions of service satisfaction.

Table 1. Alternative definitions of service satisfaction

APPROACH	DEFINITION
Normative definition of satisfaction	Compares the results with those which are acceptable in a certain culture.
Definition of equalisation	Compares the results achieved through social exchange. If unequal, the side which was less successful is dissatisfied.
Normative standard definition	Expectations are based on what the customers believes he or she should receive – dissatisfaction occurs when the actual outcome is different to the standard expectation.
Procedural definition of correct behaviour	Satisfaction is the reflection and function of a customer's belief that he or she was treated the right way.

Source: Ozretić Došen, Đ. (2010.) Osnove marketinga usluga, Zagreb: Mikrorad, pp. 81.

¹ Kos, A., Trstenjak, M., Kralj, A. (2011.) Zadovoljstvo kupaca – kako ga mjeriti? Hrčak: Zbornik radova Međimurskog veleučilišta u Čakovcu, Vol.2, No.1

² Marušić, M., Vranešević, T. (2001.) Istraživanje tržišta. Zagreb: Adeco, 5th edition, pp. 486.

As a result of the comparison between the performance of products or services with the expectations, the client can be enthusiastic, satisfied or dissatisfied. The relationship between the three possible levels of customers' satisfaction is shown in Table 2. In the situation when the product is above customers' expectations occurs positive confirmation or negative confirmation when the product's performance is below expectations.³

Table 2. Levels of customers' satisfaction

Experience/ Performance	Customer's experience	Satisfaction level	Result
Actual value of a product or service	Better than expected	Enthusiasm	The customer will say positive things about the product and he or she will become loyal.
	In accordance with expectations	Satisfaction	The customer will say positive things about the product.
	Worse than expected	Dissatisfaction	The customer will choose a competitor if one is available.

Source: Adapted from Vranešević, T. (2000.) Upravljanje zadovoljstvom klijenata. Zagreb: Golden marketing, pp. 192.

The literature points out that there are two types of satisfaction, and these are cumulative satisfaction and satisfaction that is the result of a specific transaction. Parasuraman et al. (1994) describes the total (cumulative) satisfaction as a function of unit satisfaction.⁴ Furthermore, cumulative satisfaction is described as the total user experience with a product or service over a longer period of time while unit satisfaction indicates that satisfaction is the result solely of a single transaction or a single product purchase.⁵ Therefore, customers' satisfaction is a value that can be determined for each transaction between the user and the company, but also on the basis of a comprehensive, long-term use of products or services.⁶

There are many methods and techniques that are used for a better understanding of customers' satisfaction. Questioning as a method of measuring satisfaction involves asking questions that may be in verbal or in written form. The advantage of this method is its ability to collect various data on customers' satisfaction that may be related to the past, present, future, and it is generally possible to collect large amounts of data - including attitudes, opinions and behavior intentions.⁷ Questioning as a method for measuring customers' satisfaction is most often carried out using a questionnaire as an instrument of research.⁸ Customers' satisfaction is influenced by numerous factors. Some of them are characteristics of a product or service, the perception of their quality, price, situational and personal factors.⁹ It is important to stress that the dimensions of customers' satisfaction vary depending on the market segment that is being observed. For example, students as a specific segment of the market are affected by objective parameters such as height and transparency of prices and also subjective parameters such as employees, waiting time, communication, quality of service and so on.¹⁰ Furthermore, it is considered that their satisfaction can be increased by improving the quality of service, characteristics such as appropriate bank and ATM locations, the range of products, fees and interest rates, and successful system for handling customers' complaints.¹¹

Various experts point out different dimensions of customers' satisfaction, but all agree that the impact of the quality of services to the satisfaction is the most important.¹² Accordingly, experts concentrate on researching the link between the quality of service and customers' satisfaction. For example, Beerli, A., Martin, JD, Quintana, A. did the study in which the results demonstrated the existence of exclusively positive and statistically significant relationship between service quality and customers' satisfaction.¹³ The quality is subjectively determined and varies from client to client and depends on their age, income, lifestyle, and education. One commonly used model for measuring the quality of service

³ Kesić, T. (2006.) Ponašanje potrošača. Zagreb: Adeco, pp. 352.

⁴ Kaura, V., Durga Prasad, C.S., Sharma, S. (2015.) Service quality, service convenience, price and fairness, customer loyalty, and the mediating role of customer satisfaction, Emerald: International Journal of Bank Marketing, Vol. 33 Iss 4 pp. 404 – 422.

⁵ Lerbin, R., Aritonang, R. (2014.) Student loyalty modeling. Hrčak: Tržište, Vol. 26, No.1, pp. 8.

⁶ Ozretić Došen, Đ. (2010.) Osnove marketinga usluga. Zagreb: Mikrorad., pp. 80.

⁷ Vranešević, T. (2014.) Tržišna istraživanja u poslovnom upravljanju. Zagreb: Accent, pp. 245.

⁸ Kos, A., Trstenjak, M., Kralj, A. (2011): op.cit.

⁹ Nefat, A., Paus, N. (2008.) Odrednice zadovoljstva korisnika susretom s uslugom. Hrčak: Tržište, Vol. XX, br.2, pp. 195-210.

¹⁰ Baňáková, M. (2014.) Students Satisfaction as a Competitive Advantage in the Financial Products Market: A Comparative Study. Ebscohost: Journal of Competitiveness.

¹¹ Levesque, T., McDougall, G. (1996.) Determinants of customer satisfaction in retail banking. Emerald: International Journal of Bank Marketing, Vol.14, Iss 7.

¹² Shahraki, A.R. (2014.) Evaluation of customer satisfaction about bank service quality. Ebscohost: International Journal of Industrial Mathematics, Vol.6. No.2

¹³ Beerli, A., Martin, J.D., Quintana, A. (2004.) A model of customer loyalty in the retail banking market. Emerald: European Journal of Marketing, Vol.38, Iss 1/2.

is SERVQUAL model developed by Parasuraman et al. (1988). It is a conceptual framework for researching the quality of service that is based on the difference between expected and obtained values. If the expectation is greater than the values obtained – the service is bad, and vice versa, if the resulting value is greater than expected then the service is good.¹⁴ SERVQUAL model enables identification of the services' dimensions without which the service could not ensure the quality and thus customers' satisfaction.¹⁵

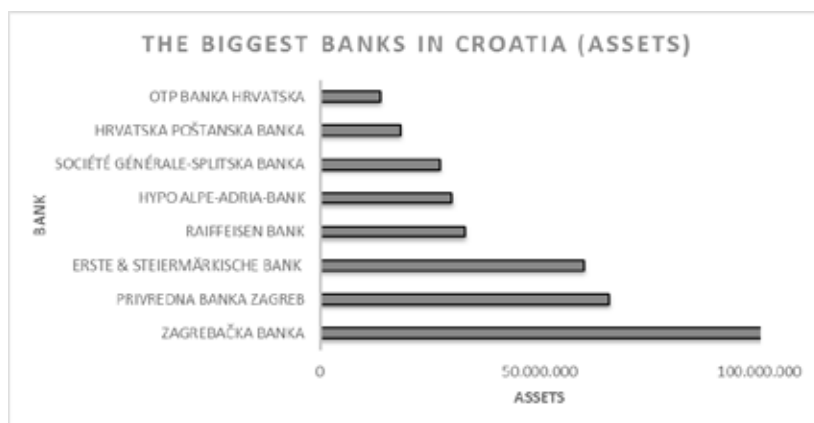
SERVQUAL model is based on five dimensions¹⁶

- Reliability
- Assurance
- Empathy
- Responsiveness
- Tangibility¹⁷

Lately, financial institutions are turning to the new market segments in order to find new customers. Banks have realized that students are an extremely interesting and potentially highly profitable segment in the long term. In Croatia, banking services for students have appeared in the last ten years, while in developed countries such as the United Kingdom, banking services for young people exist more than 40 years.¹⁸ According to the Agency for Science and Higher Education the number of students in Croatia, in the academic year 2013/2014 amounted to 178,676 students.¹⁹ The reason for the great interest of banks in student segment is the expectation of their well-nigh employment and above-average incomes.

Banking services for students include student loans, giro account, current account, various forms of students' savings account, internet banking, mobile banking, credit cards and additional benefits that are given to students disposition. Due to increasing use of technologically aided banking services, banks with traditional channels have begun to offer their financial products and services via the Internet as an alternative distribution channel. Thus, the banks can ensure the loyalty of its customers, reduce operating costs and increase business productivity. Online and mobile banking is interesting to students (and youth in general) because it allows them access to services anytime and anywhere, ease of use, time and cost savings, transparency of information, the possibility of comparing tenders, etc.²⁰ Also, students use different types of bank cards that allow them easier management of their own resources. A survey conducted in 2011 in the Republic of Croatia showed that 65.62% of students use at least one or more card products as a means of payment.²¹

Figure 1. The biggest banks in Croatia (assets)



Source: Adapted by authors from the website of Croatian National Bank

¹⁴ Maddern, H., Maull, R., Smart, A., Baker, P. (2007.) Customer satisfaction and service quality in UK financial services. Emerald: International Journal of Operations & Product Management, Vol. 27, Iss 9.

¹⁵ Zameer, H., Tara, A., Kausar, U., Mohsin, A. (2015.) Impact of service quality, corporate image and customer satisfaction towards customers' perceived value in the banking sector in Pakistan. Emerald: International Journal of Bank Marketing, Vol. 33 Iss 4 pp. 442 – 456.

¹⁶ Nefat, A., Paus, N. (2008): op.cit.

¹⁷ Činjurević, M., Tatić, K., Avdić, A. (2010.) An integrated model of price, service quality satisfaction and loyalty: An empirical research in the banking sector of Bosnia and Herzegovina. Hrčak: Ekonomska istraživanja, Vol. 23, No. 4

¹⁸ Lewis, B.R., Orledge, J., Mitchell, V.W. (1994.) Service Quality: Students Assessment of Banks and Building Societies. Emerald: International Journal of Bank Marketing, Vol.12, Iss 4.

¹⁹ Agencija za znanost i visoko obrazovanje. Dostupno na: <https://www.azvo.hr/hr/statistike/broj-studenata-po-raznim-kriterijima/44-statistike/689-broj-studenata-na-visokim-uilitima-za-0910-i-1011-godinu> [14.06.2015.]

²⁰ Liébana-Cabanillas, F., Muñoz-Leiva, F. Rejón-Guardia, F. (2013.) The determinants of satisfaction with e-banking. Emerald: Industrial Management & Data Systems, Vol. 113 Iss 5.

²¹ Ozretić Došen, Đ., Vajda, B. (2011): op.cit.

Table 3. Type of service intended for students

BANK	TYPE OF SERVICE INTENDED FOR STUDENTS				
	Student loans	Giro account	Current account	Students' savings account	Package of services
Erste & Steiermarkische banka	✓	✓	✓	✓	✓
Hrvatska poštanska banka	✓	✓	✓		✓
Hypo Alpe Adria banka		✓	✓		
Otp banka	✓	✓	✓	✓	✓
Privredna banka Zagreb	✓	✓	✓		✓
Raiffeisen banka		✓	✓		✓
Splitska banka - Societe Generale	✓	✓	✓		✓
Zagrebačka banka	✓	✓	✓		✓

Source: Authors

Based on information shown in Table 3, it is possible to conclude that only two banks in Croatia offer services that are fully adapted to the students, such as Erste & Steiermarkische and Otp Bank. Those two banks stand out for offering a special package of student savings.

2. METHODOLOGY

Qualitative and quantitative researches have been conducted. Convenience sampling has been applied. Control categories were students aged from 18 to 26 years who use banking services and are full time students. The research was conducted in phases. In the first phase 12 in-depth interviews were conducted with the target group representatives. Research results show there are 15 banking service features which influence students' satisfaction:

- Service fees and charges
- Transparency of service fees and charges
- Delivery of services without errors
- Delivery of services on time and as agreed upon
- Transparency and clarity of bank statements
- Quality customer service
- Upfront information about when and how a service will be delivered
- Understanding students' needs
- Expert and professional staff
- Polite and friendly staff
- Appropriate staff uniform
- Comfortable interiors/exterior to branches
- Service delivery speed (short queues)
- Convenient branch opening hours
- Accessible cashpoints close to home with free cash withdrawals

The second research step was used for questionnaire pilot-testing. In the last research stage the questionnaire was accurately completed by 281 respondents. Table 4 shows age structure of the respondents.

Table 4. Sample structure - Age

Age	%
18-20	21%
20-22	35%
22-24	29%
24-26	15%

Source: Authors

Table 5 shows the structure of the sample by gender, from which it is possible to conclude that the majority of respondents consists of female students. It should be noted that the actual structure of student population of the University of Zagreb is dominated by female students.

Table 5. Sample structure - Gender

Gender	%
M	27%
F	73%

Source: Authors

3. RESULTS

The obtained data was analyzed using Microsoft Office Excel 2010 and Gretl statistical software. The data shows that the most used services are giro and current account. On the other hand, at least used banking services are student loans.

Table 6. Services used by students

Services	%
giro account	81,85%
current account	75,09%
internet banking	52,31%
mobile banking	46,62%
package of services intended for students	40,57%
savings accounts	18,15%
student loans	2,49%

Source: Authors

According to the collected data students prefer big banks. 77.94% of respondents are clients of the two largest banks measured by the size of total assets, of which 49.47% are clients of Privredna banka Zagreb, and 28.47% are clients of Zagrebačka banka. This information is very interesting considering the fact that Zagrebačka banka is by total assets the largest bank in Croatia. Although Privredna banka Zagreb is not the largest bank, it is significantly ahead of Zagrebačka banka measured by the number of students' - bank customers.

Table 7. Banks – overall students' satisfaction

Level of satisfaction	%
fully satisfied	49,82%
partially satisfied	30,96%

neither satisfied nor dissatisfied	13,17%
partially dissatisfied	4,98%
fully dissatisfied	1,07%

Source: Authors

Based on the research and the data from Table 8 it can be concluded that there is a medium level of students' satisfaction with service fees and charges. Its average grade is 3.69. Respondents point out that the fee for the use of banking services is important and it is evaluated with average grade of 4.37. The standard deviation from the average grade is 0.83, which means that the majority of respondents agree about the great importance of service fees and charges.

Table 8. Service fees and charges

Indicator	Level of satisfaction	Level of importance
Average grade	3,69	4,37
Standard deviation	1,18	0,83
Coefficient of variation	32,02%	19,05%
Median	4	5
Mod	5	5
Interquartile range	2	1
Coefficient of quartile deviation	25%	11,11%

Source: Authors

Table 9. Transparency of service fees and charges

Indicator	Level of satisfaction	Level of importance
Average grade	3,70	4,22
Standard deviation	1,12	0,84
Coefficient of variation	30,29%	19,96%
Median	4	4
Mod	4	5
Interquartile range	2	1
Coefficient of quartile deviation	25%	11,11%

Source: Authors

As for students' satisfaction with transparency of service fees and charges it is visible that there exists a medium level of satisfaction. The students evaluated the dimension as relatively important due to the average grade, which is 4.22. The range of the central 50% of the data is 1, or 11.11% measured by coefficient of quartile deviation.

Table 10. Delivery of services without errors

Indicator	Level of satisfaction	Level of importance
Average grade	4,23	4,60
Standard deviation	0,93	0,68
Coefficient of variation	22,05%	14,77%
Median	4	5
Mod	5	5
Interquartile range	1	1
Coefficient of quartile deviation	11,11%	11,11%

Source: Authors

Results presented in Table 10 shows students' satisfaction with delivery of services without errors. The mod, or most often rating is 5, which on the one hand means completely satisfied students, while on the other hand means a very great influence to students' satisfaction.

Table 11. Transparency and clarity of bank statements

Indicator	Level of satisfaction	Level of importance
Average grade	4,02	4,36
Standard deviation	1,07	0,81
Coefficient of variation	26,65%	18,63%
Median	4	5
Mod	5	5
Interquartile range	1	1
Coefficient of quartile deviation	11,11%	11,11%

Source: Authors

Table 12. Quality customer service

Indicator	Level of satisfaction	Level of importance
Average grade	4,37	4,59
Standard deviation	0,86	0,67%
Coefficient of variation	19,61%	14,61%
Median	5	5
Mod	5	5
Interquartile range	1	1
Coefficient of quartile deviation	11,11%	11,11%

Source: Authors

Table 13. Upfront information about when and how a service will be delivered

Indicator	Level of satisfaction	Level of importance
Average grade	4,16	4,48
Standard deviation	0,90	0,75
Coefficient of variation	21,68%	16,76%
Median	4	5
Mod	5	5
Interquartile range	1	1
Coefficient of quartile deviation	11,11%	11,11%

Source: Authors

Students are more satisfied with quality customer service than the upfront information about when and how a service will be delivered.

Table 14. Understanding students' needs

Indicator	Level of satisfaction	Level of importance
Average grade	4,10	4,45
Standard deviation	0,97	0,74
Coefficient of variation	23,58%	16,64%
Median	4	5
Mod	5	5
Interquartile range	1	1
Coefficient of quartile deviation	11,11%	11,11%

Source: Authors

When considering the satisfaction of understanding students' needs average grade amounts 4.35. The median, is 4, which means that the first 50% of the respondents awarded grade 4 and less, and the remaining 50% grade 4 and higher.

Table 15. Expert and professional staff

Indicator	Level of satisfaction	Level of importance
Average grade	4,35	4,63
Standard deviation	0,90	0,60
Coefficient of variation	20,65%	12,85%
Median	5	5
Mod	5	5
Interquartile range	1	1
Coefficient of quartile deviation	11,11%	11,11%

Source: Authors

Observation of the importance and satisfaction of students with expertise and professionalism of staff on one side and politeness and kindness of the staff on the other side can lead to conclusion that students are equally pleased and think that mentioned dimensions are equally important.

Table 16. Polite and friendly staff

Indicator	Level of satisfaction	Level of importance
Average grade	4,37	4,60
Standard deviation	0,90	0,65
Coefficient of variation	20,62%	14,05%
Median	5	5
Mod	5	5
Interquartile range	1	1
Coefficient of quartile deviation	11,11%	11,11%

Source: Authors

Table 17. Appropriate staff uniform

Indicator	Level of satisfaction	Level of importance
Average grade	4,68	3,23
Standard deviation	0,64	1,33
Coefficient of variation	13,67%	41,02%
Median	5	3
Mod	5	3
Interquartile range	0	2
Coefficient of quartile deviation	0%	33,33%

Source: Authors

According to the results, students are satisfied with appropriate staff uniform and comfortable interiors/exterior to branches, but those elements are not considered particularly important. The lack of importance of tangible dimension confirms the level of importance with average grade 3.23, and for the comfortable interiors/exterior to branches 3.49. In both cases there is a significant deviation of the average value as the coefficient of variation exceeds the value of 30% which is considered as an unusual deviation from the average grade.

Table 18. Comfortable interiors/exterior to branches

Indicator	Level of satisfaction	Level of importance
Average grade	4,35	3,49
Standard deviation	0,81	1,12
Coefficient of variation	18,53%	32,25%
Median	5	4
Mod	5	3
Interquartile range	1	1
Coefficient of quartile deviation	11,11%	14,29%

Source: Authors

Table 19. Service delivery speed (short queues)

Indicator	Level of satisfaction	Level of importance
Average grade	3,34	4,44
Standard deviation	1,18	0,78
Coefficient of variation	35,40%	17,51%
Median	3	5
Mod	4	5
Interquartile range	1	1
Coefficient of quartile deviation	14,29%	11,11%

Source: Authors

Students are not fully satisfied with service delivery speed. The average grade is 3.34, which indicates a medium level of satisfaction. Standard deviation is 1.18 or relatively high 35.40%. Furthermore, the median is 3, which means that 50% of respondents graded service delivery speed with 3 and less, and the remaining 50% grade it 3 and higher. The most commonly assigned grade is 4.

Table 20. Convenient branch opening hours

Indicator	Level of satisfaction	Level of importance
Average grade	3,74	4,30
Standard deviation	1,09	0,88
Coefficient of variation (%)	29,16%	20,38%
Median	4	5
Mod	4	5
Interquartile range	2	1
Coefficient of quartile deviation	25%	11,11%

Source: Authors

There is a medium level of students' satisfaction with convenient branch opening hours. The level of importance is high – average grade amounts 4.30 with standard deviation of 0.88.

Table 21. Accessible cashpoints close to home with free cash withdrawals

Indicator	Level of satisfaction	Level of importance
Average grade	3,80	4,50
Standard deviation	1,20	0,80
Coefficient of variation	31,69%	17,72%
Median	4	5
Mod	5	5
Interquartile range	2	1
Coefficient of quartile deviation	25%	11,11%

Source: Authors

Although students find accessible cashpoints close to home with free cash withdrawals an important feature of banking services, they are not completely satisfied. The average level of satisfaction is 3.80. Coefficient of quartile deviation varies in the range of 25%.

3. CONCLUSION

Previously presented results show that students are partially satisfied with banking services. The highest level of satisfaction is related to employees' dress code. Even though there is a high satisfaction with this dimension, students did not evaluate the dress code as an important element in offering banking services. Hereof, it is necessary to observe the students' satisfaction with dimensions that have high level of importance such as provision of service on time and in accordance with what was promised, as well as expertise and professional behaviour of employees. On the other hand, students are the least satisfied with the speed of service delivery, banking fees, banks' working hours and the availability of an adequate number of ATMs. Since the mentioned elements are relatively important to respondents, banks should make the necessary improvements in order to ensure greater students' satisfaction with banking services.

Every research has certain limitations. In this case, limitations are related to the use of convenience sampling. Also, there is a small number of satisfaction studies which concentrate on exclusively student population. However, as most authors concentrate on researching service quality and its impact on customers' satisfaction it should be noted that the specificity of this study is that it includes a number of features that have an impact on students' satisfaction. Furthermore, apart from the traditional dimensions of service quality shown in SERVQUAL model, this study includes the dimensions of service accessibility such as opening hours and the availability of an appropriate number of ATMs. In addition, a special contribution of this paper is the focus on student population as an interesting and potentially highly profitable market segment.

This research applies several recommendations for managers that are primarily related to the student's satisfaction ensurance. Due to low satisfaction with the service delivery speed, banks should reduce the waiting time in line and

offer more services that can be done outside the branch. Therefore, banks should put the emphasis on online banking that apart from outside the branch may have application inside the branch. Thus, while waiting, students would be able to observe different online content and customized offers as well as the information on student savings, credit cards, student loans calculators or similar financial products. Furthermore, the presence of students in banks could be used to encourage students to update information about their financial preferences, wishes and needs for which they would be awarded, and on the other hand, banks could use collected data to customize services.

Recommendations for future research of students' satisfaction with banking services include use of random samples to ensure greater representativeness and reliability of results, the participation of a larger number of respondents from other universities and adapting the dimensions of service quality to banking industry. Further research should also examine the details on expected service delivery speed, fees that students are willing to pay, opinions on the appropriate availability of ATMs and other areas of interest.

LITERATURE

1. Agencija za znanost i visoko obrazovanje. Dostupno na: <https://www.azvo.hr/hr/statistike/broj-studenata-po-raznim-kriterijima/44-statistike/689-broj-studenata-na-visokim-uilitima-za-0910-i-1011-godinu> [14.06.2015.]
2. Baňárová, M. (2014.) Students Satisfaction as a Competitive Advantage in the Financial Products Market: A Comparative Study. Ebscohost: Journal of Competitiveness
3. Beerli, A., Martin, J.D., Quintana, A. (2004.) A model of customer loyalty in the retail banking market. Emerald: European Journal of Marketing, Vol. 38, Iss 1/2.
4. Činjarević, M., Tatić, K., Avdić, A. (2010.) An integrated model of price, service quality satisfaction and loyalty: An empirical research in the banking sector of Bosnia and Herzegovina. Hrčak: Ekonomska istraživanja, Vol. 23, No.4
5. Kaura, V., Durga Prasad, C.S., Sharma, S. (2015.) Service quality, service convenience, price and fairness, customer loyalty, and the mediating role of customer satisfaction, Emerald: International Journal of Bank Marketing, Vol. 33, Iss 4, pp. 404 – 422.
6. Kesić, T. (2006.) Ponašanje potrošača. Zagreb: Adeco
7. Kos, A., Trstenjak, M., Kralj, A. (2011.) Zadovoljstvo kupaca – kako ga mjeriti? Hrčak: Zbornik radova Međimurskog veleučilišta u Čakovcu, Vol.2, No.1
8. Lerbin, R., Aritonang, R. (2014.) Student loyalty modeling. Hrčak: Tržište, Vol. 26, No.1, pp. 8.
9. Levesque, T., McDougall, G. (1996.) Determinants of customer satisfaction in retail banking. Emerald: International Journal of Bank Marketing, Vol.14, Iss 7.
10. Lewis, B.R., Orledge, J., Mitchell, V.W. (1994.) Service Quality: Students Assessment of Banks and Building Societies. Emerald: International Journal of Bank Marketing, Vol.12, Iss 4.
11. Liébana-Cabanillas, F., Muñoz-Leiva, F. Rejón-Guardia, F. (2013.) The determinants of satisfaction with e-banking. Emerald: Industrial Management & Data Systems, Vol. 113 Iss 5.
12. Maddern, H., Maull, R., Smart, A., Baker, P. (2007.) Customer satisfaction and service quality in UK financial services. Emerald: International Journal of Operations & Product Management, Vol. 27, Iss 9.
13. Marušić, M., Vranešević, T. (2001.) Istraživanje tržišta. Zagreb: Adeco
14. Nefat, A., Paus, N. (2008.) Odrednice zadovoljstva korisnika susretom s uslugom. Hrčak: Tržište, Vol. XX, br.2, pp. 195-210.
15. Ozretić Došen, Đ. (2010.) Osnove marketinga usluga. Zagreb: Mikrorad
16. Ozretić Došen, Đ., Vajda, B. (2011.) Koliko studenti koriste kartične proizvode i kako doživljavaju marketinšku komunikaciju izdavatelja kartica. Hrčak: Tržište, Vol. XXIII, br.1, pp. 73-87.
17. Pepur, M. (2006.) Kvaliteta usluga u bankarskoj industriji: koncept i mjerenje. Hrčak: Tržište, Vol.18, No.1-2
18. Podrug, N., Rašić Bakarić, I., Slijepčević, S. (2007.) Identificiranje i analiza temeljnih kriterija za odabir banke u Hrvatskoj. Hrčak: Zbornik Ekonomskog fakulteta u Zagrebu, Vol.5, No.1
19. Shahraki, A.R. (2014.) Evaluation of customer satisfaction about bank service quality. Ebscohost: International Journal of Industrial Mathematics, Vol.6. No.2
20. Vranešević, T. (2000.) Upravljanje zadovoljstvom klijenata. Zagreb: Golden marketing
21. Vranešević, T. (2014.) Tržišna istraživanja u poslovnom upravljanju. Zagreb: Accent
22. Zameer, H., Tara, A., Kausar, U., Mohsin, A. (2015.) Impact of service quality, corporate image and customer satisfaction towards customers' perceived value in the banking sector in Pakistan. Emerald: International Journal of Bank Marketing, Vol. 33 Iss 4 pp. 442 – 456.

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THE IMPORTANCE OF MARKETING MIX IN SUCCESSFUL POSITIONING OF PRODUCTS AND SERVICES ON THE MARKET

TAJANA MARUŠIĆ

ABSTRACT

The main goal of this article is that by using theoretical knowledge of respectable marketing experts, and a decade of experience in marketing inside food industry by the article's author, to interpret the very essence of marketing - the marketing mix or globally known as the 4 P.

Marketing managers who had the opportunity to create product or services, know how important it is that every part of the marketing mix is used equally in creating and selling a successful product to consumers. It was Edmund McCarthy who first described the marketing manager as „the one that mixes ingredients“ of successful marketing strategy. 4P (product, price, promotion, placement) can also be described as a puzzle that symbolizes a successful product, and a puzzle can only be completed if all parts are present. Product implies everything that can be offered to the market in order to satisfy a want or a need. Price represents an amount of money consumer is ready to pay for a specific product or a service. Promotion is every form of communication with consumers: advertising, trade marketing, public relations, direct sales and direct marketing.

Placement refers to the channels we offer product to consumers; retail, wholesale, specialised shops, the way the product is positioned in stores, etc. Through this article, every part of marketing mix is viewed from a theoretical point of view, and also how it is done in practice.

KEYWORDS: marketing mix, 4P, placement, product, service.

1. INTRODUCTION

The purpose of this article is to interpret the very essence of marketing which is marketing mix or 4P. Marketing managers that had a chance to work on developing the products know how important is for all parts, elements of marketing mix to be equally represented in placement strategy and selling of the products to final consumers.

Four Ps (product, price, promotion, and placement) can best be described as pieces of a puzzle that symbolize successful product or service. If one piece is missing the puzzle is not complete, that is, product never reaches its full potential. Throughout the article each element of marketing mix will be dealt with in detail and shown will be its importance in developing successful product by using the theoretical knowledge of respectable marketing experts but also longtime work of the author of the article in the field of marketing within food industry.

2. MARKETING MIX

Term marketing mix or four Ps has been used since 1960s when it was used by Edmund Jerome McCarthy, respectable marketing professor from Michigan and Notre Dame University (McCarthy, 1994). However the term itself was first coined by Neil Borden in his speech on the occasion of his acceptance as president of American Marketing association. That term was precisely the formulation of the idea that the function of marketing manager is to “mix the ingredients”. Sometimes he (or she) just follows the recipe of others, sometimes he follows his own recipe, sometimes he improvises with ingredients that he has at his disposal and sometimes he uses ingredients that no one has heard about before and presents them to the public for the first time (Culliton, 2008).

The primary definition of marketing mix covered bigger number of elements: defining the price, branding, advertising, packaging, providing the service, physical management of the product, data analysis (Borden, 1964). Simplified definition of marketing mix consists of, as previously mentioned (McCarthy, 1994):

- product
- price
- promotion
- place

All of the four elements are important for particular product or service to achieve success and each is equally unique. What is meant under unique is that each product requires unique approach. Some may ask why that is. Simply it is because each and every consumer is unique.

Product will be successful only if it satisfies all the needs of consumers, if their trust is gained and if it attracts consumer to buy it and continue buying it through the means of its quality, price and communication (message). After decade of work in marketing, the author of this article can without a doubt say that marketing mix is of unquestionable importance for successful development and placement of products and services.

Marketing mix is crucial for defining the optimal marketing strategy of the company. If this strategy on how the product will be presented to the market doesn't exist it is quite possible that consumers won't even hear about the product, let alone use it. In the ocean of products and services that consumers are exposed to each day it is important to be different, to have some kind of "wow factor" so that consumers reach for precisely that particular product among many similar xy products.

When looking from the global position it is needed for marketing mix to be adopted to markets where products are planned to be launched, placed, and in that case especially it is important for the company itself to have clear vision of what it wants to achieve and to have control over expenses that can become really high.

Out of 4Ps author of this article feels that promotion has experienced the greatest growth, more precisely the way the communication with the consumers is managed and particularly with the emergence of social networks and influence of online advertising to which some successful companies turn to putting the classic channels like television and printed media in second place.

But, to start from the beginning, from the very foundation of marketing which is 4P is necessary to making final conclusion about acceptance of marketing mix concept in prevailing circumstances on the market.

2.1. Product as element of mix

According to the standard definition a product is anything that can be offered to satisfy needs and wants (Kotler, 1991). From this definition easily a conclusion can be made that developing and placing the product on the market is an easy task when in fact there is no harder task than developing the product that will satisfy all the needs of the consumer, but also there is no greater pleasure when a good and successful product is developed. Developing a successful product is time-consuming, sometimes even arduous process that final consumers are unaware of.

Product can be physical object, service or idea. Without clearly defined product it is not possible to successfully carry out marketing strategy. The question is how to make a good product that consumer wants. The answer lies in finding the target market that is interested in the product that the company offers.

Process of launching the product described in short from the personal experience of the author goes in a following way:

- idea
- research of the market/competition
- calculating the expenses of production
- defining the selling price of the product
- deciding on the launch of the product on the market
- production
- positioning, presenting the product on the market
- promotion of/investment in the product
- sale results

Each and every product starts as an idea. In most of the companies idea emerges from the marketing department. Whole product life-cycle is a well-coordinated cooperation between marketing department and sales department but also production department and procurement department and so on. Idea can be fantastic but without all of the mentioned departments product will not be successful. After the company decides and defines what product it wants to have in its assortment, next step is to invest in market research in terms of size and potential of the market. If the potential exists, company moves into investigating if the product can be produced and how, how much it would cost to produce it and would it be profitable. When all the aforementioned steps and criteria are carried out turn is on developing the design

of the product, selecting/defining the desirable retail price, target market share, marketing campaign – in short the marketing strategy is defined. From the beginning till the end, however, what is most important is to always have the consumer in mind, because the whole process itself begins because of the consumer. After all consumers, as Greenberg (2010) nicely puts, “sit at the hub, rather than just being a spoke in the corporate wheel.” (p. 38).

The consumer is the purpose for every company's operation and company doesn't here do the consumer a favor by serving him, on the contrary, the consumer does company a favor by providing it opportunity to offer its products or services (Kotler, 2001). Thus, it is crucial for companies to listen to its consumers - what they say and think about not just the products they offer but also about the companies' people, services, vision etc. - and this is the first step towards understanding of the consumers (Unruh, J. A., 1996).

What is necessary is for company also to offer a product that will not just satisfy consumers' needs and wants but also that will be differentiated from competitors. Differentiation can be achieved through price, quality, design, positioning on the selling place, TV campaign, print campaign, advertising on public places (billboard). Every company has one goal – create great and profitable product but above else gain the loyalty of the consumers. Task of a marketing manager is thus to communicate, explain to the consumer the advantages of company's product(s) (Burns, 2012).

Of course, when speaking about product there exists also a product mix which consists of: a) consistency, which is how closely related products are; b) width, which spells out to how many different categories or product lines there is, c) line length, which refers to the total number of items in the mix, and d) depth, which pertains to how many variants of each product the company offers. Moreover, it is worth noting that the product can be classified in general as services, durable or capital intensive product and nondurable or fast-moving consuming goods, and that it consists of five levels which are: core benefit, which is the core level and just spells out to sole purpose of the product, basic product, expected product, augmented product and potential product (Kotler P., Keller L. K., 2016).

2.2. Price as element of mix

The price represents the amount of money that consumer spends for one unit of product on the market (Meler, 2005). This definition can be expanded with the statement that the price is the amount of money that consumer is *willing* to spend for a certain product or to exchange appropriate value. It is the only element of marketing mix that generates profit, other three elements are expenses or, better to say - investments. Precisely because of that the well-set, “right”, price along with the quality of the product makes up the most important precondition for the success of the product.

Pricing policy is very complex since it is not just the question of setting the price for one product but also for the whole assortment of products that company can offer, or for example different packaging of the same product and/or how much each packaging will cost per kilogram. Price of the product or service must be set adequately low in order to achieve sales results and adequately high to cover the expenses of developing, producing and distribution (Daniels, 2011). In addition, it is worth noting that right price positioning allows company short-term profit but also the resources that are needed for achieving the long-term competitiveness.

It can be said that the price of the product is determined by the consumer's perception of how much that product in question is worth (Clinger, 2015). High price of the product generally illustrates its higher quality in comparison to other products with similar characteristics but of average price. Price of the product will be lower thus if the product falls under lower rank of products according to predefined criteria of quality. Company must have knowledge of break-even point for its product(s) which means it must know at what point the product starts to generate profit. Defining the break-even point is also significant in order to know what the minimum price the product must have is. When aforementioned criteria are achieved then pricing policy or pricing strategy at launching the product on the market is to be decided.

It is important to set the price goals, more precisely price strategy the company will use for particular product (Previšić J. Ozretić Došen Đ., 1999):

- a) *Penetration pricing* – pricing policy where prices are lower than competitors' and which is used for conquering the new market. If company is entering the market as a challenger then most commonly the lowest retail price below market leader is set since this is the way that will make it most possible for consumer to (be willing to) try the product. This strategy is often used when products or categories of products for which great budgets cannot be spared are placed on the market. The thing is that it is not always possible to support product via advertising (TV, print media, online advertising) but the greatest tool is exactly the retail price, then attractive design, good positioning on the shelves, additional promotion in the store itself. However, the consumer, who is the most important, must not be forgotten and underestimated. The consumer may and will try a product once but if the product doesn't contain any additional value that is important for him (quality, taste, packaging, easy usage, availability of the product) he/she will not buy again.

- b) *Premium pricing* – setting high prices usually designed for luxury products where the ability for production is purposely or naturally limited (caviar, luxury automobile, high-priced purses etc.). Through limited supply created is the effect of consumption in a sense that the need is induced for owning something that majority of average consumers can't afford. The mass market and great sales are not the goals here, but just the opposite – lower supply, lower sales but that bring profit due to high prices.
- c) *Preserving the existing market share* – used when the main goal of a company is to preserve the existing market share and correction of pricing policy in regards to that. In this position are the companies that have fierce and very active competition such as in milk industry. Great number of producers with very wide offer of packaging and sizes of the products is fighting for each consumer by the way of prices. Every consumer is significant and 1% of increase or decrease is very important. No matter if it is luxury products or essential groceries like milk, it is needed for pricing policy for each product in assortment of the company to be defined. That also means setting clear goals as to what the product should achieve on the market and how to capture market share, will the product be sold at discount prices from time to time or exclusively at regular price, where the product will be sold (whether only at big formats of stores/shops and/or small convenience shops or only at specialized shops/boutiques in limited quantities). All of these are challenges that the company must define before the product is launched on the market. Well-defined pricing strategy is the foundation for successful product since it is also the additional tool for the consumer – who is motivated by “fair”/“good” price to try the product in the first place – to become regular customer as well.
- d) *Market-skimming pricing* – pricing policy where prices start high and are then slowly drop over time. This pricing policy is used when, as Kotler and Keller (2016) acknowledge:
 - 1) a sufficient number of buyers have high current demand,
 - 2) the unit costs of producing the small volume are not so high that they cancel the advantage of charging what the traffic will bear,
 - 3) the high initial price does not attract more competitors to the market
 - 4) the high initial price communicates the image of a superior product (p. 201).

There is also something to be said from the perspective of consumer psychology and how consumers perceive prices and that is that there are three concepts, factors to have in mind as well when setting the right price and these are: reference prices, price-quality inferences and price endings. Reference prices refers to how consumers compare prices of the products with internal reference price they remember or external reference price such as “regular retail price”, price-quality inferences refers simply to how consumers tend to associate quality with price in a sense that lower prices represent lower quality of the products and vice-versa, and price endings refers to how consumers perceive (unconsciously) products whose price is just below the rounded figure as much cheaper, that is they consider them to be in lower price range (e.g. 39kn would be perceived as being in the price range of 30kn instead of 40kn) (Kotler P., Keller L. K., 2016).

2.3. Promotion as element of mix

Successful product means nothing if it is not communicated to the consumer. Promotion covers any kind of communication with the target market regardless if the communication is conducted by the producer or by retail chain. It purports all from advertising and promotion to activities on social networks.

However, what is the most important is how the product will be presented to the market. Advantages of the product that are communicated clearly and successfully can induce the consumer to buy the product, even if otherwise he/she wouldn't usually buy this product.

For successful marketing strategy it is necessary to know what, to whom, when and why to communicate. Good communication with the consumers is a must for every company and it is what distinguishes really successful companies from other averagely good companies. Communication with the consumers is what consumers remember well and appreciate (or not), the messages that they receive from products and services remain deep in their consciousness and have decisive effect in the loyalty to the brand itself. In short, a company can have the greatest product in the world, but it won't mean nothing if its advantages are not communicated well to the target market. Classically promotional mix, or communicational mix as it is also called, consists of five forms of communication: *advertising, sales promotion, public relations, personal selling and direct marketing*. Author of this article would also like to add internet marketing as sixth element of promotional/communicational mix as well as indispensable social networks as seventh element or form since it has particularly significant role in disseminating information to the consumers.

These elements, however, can all go under the “umbrella” term of *online and social media marketing* which then constitute a much wider set of activities, and added to all these mentioned elements can be mobile *mobile marketing* and *events and experiences* (Kotler P., Keller L. K., 2016).

Advertising in general is paid form of promotion and its purpose is to present the product or service to the general public with the goal of achieving communication and economic results (Kotler, 2001.)

Second definition that is worth noting is that *advertising* purports impersonal, paid form of communication directed to the general public with the goal of informing, creating positive perception and motivating the consumption (Kesić, 2003). A company can advertise its product(s) or service(s) through: television, print media, internet and social networks.

Advertising can be considered as any form of impersonal communication that uses mass media (Nizam, 2014). However, the most important is to accentuate that the purpose of advertising is to get positive feedback from consumers and that in addition to all communication channels there also exists one that is completely free, independent and extremely influential and that is word-of-mouth (WOM).

Often as consumers we are not even aware that in our consumption behavior, what we will buy and what we will not buy, we are influenced greatly by the opinions which we heard or read, especially if they come from those who have our trust. Companies need to have in mind that negative opinion/situation is shared among consumers thrice as fast as positive opinion/situation (Nizam, 2014). Consumers' trust towards companies and/or producers is very fragile and demands significant investment in communication from a producer's side.

When speaking about what influences our consumption behavior, there are many factors involved apart from the sources we trust and whose opinion matter to us such as: family members, members of our reference groups, our brand community or consumer tribe, opinion leaders, wide-known experts or even celebrity persons we aspire to. These other factors can be: our own biological features, that is conditions (nervous and endocrine system, physique, physiologic processes etc.), our consciousness, psychological conditions, society we live in and its related culture, our education, our occupation and related income, and so and so forth. All these factors companies must bear in mind (Solomon M. R., 2015)

But, returning to the promotion, promotion in the bigger companies in Croatia in the most cases is done in cooperation with media buying agencies. Agency for certain cost does the media buying, that is directly arranges with television, newspapers, radio stations and companies that sell advertising space the exact time periods when TV commercial/radio commercial/print advert of certain company will go.

Communication towards these agencies within the company goes from marketing department. In that case, brand manager delivers brief (instructions) to the media buying agency with necessary information. Brief contains: product description, to whom it is intended, length of TV commercial, marketing budget, period in which advertising will run and which media will be used (TV, newspapers/magazines, internet, billboards). In addition, there are certain periods in the day when advertising on television is more expensive or cheaper – prime time (8 till 10 pm) when most of the people watch television is logically the most expensive.

In advertising in print media it is important whether company puts, arranges advert over the whole page, half the page, one quarter, eights, whether the advert demands special format or perhaps two pages together or, for example, inside of the title page or the last page which are most expensive. All of these are information that the company must pass to the agency so the agency could make detailed advertising plan which in practice is called media plan. Media plan - if the budget allows it - will contain radio advertising, web (internet) advertising and advertising on billboards in trams, autobuses, tram stations etc.

All of the assignments are given through brief, having in mind available financial resources, and the agency need to integrate this in media plan where each piece of the puzzle in the end makes the whole picture. Good relation between the agency and the company is crucial for quality advertisement. One additional, evermore important, form of advertising is also advertising at the selling place. Retail chains for certain financial compensation sell areas of the store where companies can advertise its products or in the weekly catalogs that are very popular in Croatia.

Sales promotion represents all that induces consumers to buy the products and all that can classify as advertising, personal selling, publicity, public relations, in short all the activities at the selling place that influence on the sales of the products. Every company, however, doesn't have its own department of sales promotion because although it significantly helps the selling of the product(s) it is also significant source of cost for the company.

Sales promoters are in practice in charge of helping the products sell as much as possible. The example would be that each year there are negotiations between companies that sell their merchandise and retail chains that offer this merchandise to the final consumer. Negotiations include number of points but one of the most important ones are positioning of the products on the shelves which basically means how many meters of shelves will each producer/company get, will the position be in the eyes line, on the first or on the last shelf. Mentioned positions are defined which in practice is called planograms and the job of sales promoters is to check which positions and the way of order on the selling place match that what was defined by planogram. Also, they take care if the promotional material for the selling place is set as it was agreed, meaning they take care about visual appearance of the shelf and whether the set/agreed-upon marketing activities are conducted.

The primary function of *public relations* is creating the positive image of the company and developing long-term relationships with the consumer. The art of managing public relations rests not only in creating the positive publicity in media but also in the successful dealing with the negative publicity. Public relations represent range of programs created for promoting or preserving the image of the company or one of its products (Kotler, 2001)

In recent times the definition has been modernized and it states that a public relations is strategic communicational process that creates mutually beneficial relations between the organization/company and its stakeholders (Prsa, 2012). Often in everyday life, especially in media like television we can hear terms like positive or negative PR, but what does that exactly mean?

Example of positive PR for the company can be company raising funds for numerous good causes like donations to various associations, for restoring children playgrounds and similar. Example of the negative PR, on the other hand, would be experience of unsatisfied consumers being broadcasted by the media which can directly damage the business of the company. Every company or organization has business relations with the group of people that influence all that company/organization does or says - consumers, employees, shareholders, competitors, suppliers. All these groups make public, and the purpose of public relations is just this, having good communication with the public. Because of the huge impact of the public opinion companies must be aware at any moment what consequences can their actions trigger. Good public relations are continuous process that shape long-term relations and have important role in integrated communication.

Under *promotion* usually understood are activities at the selling place with the aim of short-term increase of sales. In practice this is called promotion at the selling place which consists of tastings/try-outs of the products, related shopping where with the purchase of one product consumers get 30% for the next purchase or with the purchase of one product consumers get reward in the form of promotional material (mugs, hats, pencils etc.)

Personal selling represents mutual communication which in the past was often neglected. Today it is still used, however not for all the products and services. The reason why is that personal selling can have opposite effect of what the company wanted to achieve, for instance when something is being offered to consumers via our homes (door-to-door selling), like what cable television companies that use this practice, potential consumers can perceive that as coercion and can create a negative image of the product that is being offered but also the company itself that practices this, especially since the whole impression rests on how the seller himself/herself looks.

Direct marketing can be defined as interactive system that uses one or more media to influence the measurable response and/or transaction at any location (Sudar J, Keller G, 1991). The purpose of direct marketing is to establish relations with the consumers in order to develop measurable responses. One of the most valuable tools of direct marketing is data pools about consumers. Today these data pools are created from the data of loyalty card consumers. Almost all retail chains today have their loyalty cards where each purchase brings certain amount of points on that card and reaching xy points realizes possibility of discount in later purchases. The purpose of these cards is to offer discounts to its holders but also store knowledge of, give insight into their purchases for the retailer. One additional and very popular form of direct marketing in Croatia is catalogs of retail chains that are delivered to almost every postbox. Direct marketing is often conducted in large systems where messages about new products or services are sent to the e-mail addresses of all employees.

Internet marketing or also named e-marketing, web marketing, online marketing, and digital marketing is the, among else, advertising of products and services via Internet. Digital marketing has completely changed the way how companies become visually recognizable and credible in the perception of the consumers. It allowed availability of certain product or opinion about the product in a matter of second. Consumers have all the information about companies, whether they are good or bad, at hand reach. For instance, via Google over 30 billion of searches monthly is made (www.google.hr).

For radio to reach 50 million potential consumers/users, to illustrate, 38 years was needed, for television to reach that number 13 years was necessary while Facebook managed to achieve this feat in only 2 years (www.wikipedia.com). New internet communication platforms are made almost on daily basis.

Perhaps this was best illustrated in the statement of Ray Kurtzweil, one of the directors in Google, where he acknowledged that in the last 5 years Internet has changed more than in its 25 years of existence (Monaghan, 2013).

Tracking the development of trends is very demanding task and is one of crucial factors of a successful internet campaign. Internet advertising has certain advantages in comparison to traditional methods, and some of them are: lower cost of advertising, possibility of easier reaching of target market segment and easily measured return on investment. Advertiser can monitor all relevant statistics about its visitors to the internet page and buyers of particular product or service on a daily basis. At any time it is known whether certain investment is cost-effective and it is possible to recall the campaign that doesn't bring satisfactory return. Internet campaign is also possible to launch in only a couple of hours and the results are visible almost immediately. Thus, it is not a surprise then that the share of internet advertising is rapidly increasing and that in Great Britain, for example, it surpassed TV advertising (Monaghan, 2014.).

Social network is internet space that serves for interconnection of users. Today there is large number of social networks but most well-known are Facebook and Twitter. New social networks are arising offering new possibilities as well. These networks, among their primary goal which is communication, also have the role in terms of marketing and promoting other web-pages and various other services.

Adding to the facts, also it is important to note the huge influence that social networks can have on the company's business practice. In Croatia almost every company has its Facebook page on which new material is published on daily basis, such as: notifications about new products, new TV campaign, prize competitions or simply questions asking consumers to state their favorite product the company offers. Technology has advanced so much that it was never easier to communicate with the consumers, but also in some regards never harder. Media like social networks allow consumers to communicate directly with the companies which can be both a good and a bad thing. On social networks information spread as quickly as fire, especially the negative ones. It is astonishing how much positive publicity is needed to gain the consumers trust and favor, and how little negative publicity is needed for the same to vanish. Internet giants like Apple, Google and Facebook have completely changed the way consumers communicate and gather information, forever.

Finally, *events and experiences* as element of communicational mix represent simply as Kotler and Keller (2016) state "company-sponsored activities and programs designed to create brand-related interactions with consumers, including sports, arts, entertainment and cause events as well as less formal activities, while *mobile marketing* constitutes "special form of online marketing that places communications on consumer's cell phones, smart phones or tablets" (p. 247).

2.4. Place as element of mix

Place purports to the way in which company offers its service or product to the final consumer. In distribution channels, placement of the products or services is extremely important element of the marketing mix. Why, some may ask. Simply because it is necessary to know which spot (place), which locations – physical or virtual – are adequate for company's products or services in order for them to be successful. When speaking about physical placement then a company must consider in which types of stores will they want their products to place, whether that will be retail chain and if yes what will be the size of its stores (will it be supermarkets or hypermarkets), or the product will be offered through specialized channels like gas stations. It is possible for a company to offer its products in all types of channels from supermarkets to specialized channels. Of course, the position(ing) of the product in the stores also mustn't be forgotten and must be defined as it is also important factor for the success of the product. For different parts of assortment distribution strategy can be different depending on whether the whole assortment will be accessible on the national level or perhaps regional. Not all products will be equally successful in all parts of the country since the consumption habits are not the same. Thus, a company must bear exactly this in mind when defining, setting the distribution strategy. With the evolution of internet and on-line shopping ever-growing number of companies, whether small or big, are deciding to have its web-shop due to less-costly and easier doing of business, however it is also important to know to whom the products are intended because limiting itself to only web also means limiting itself to the number of potential consumers of the products or service that can be reached.

Distribution in term of sale activity can be direct or indirect. Direct distribution means distribution from producer to consumer. This form of distribution allows total control over the product(s). Indirect distribution, on the other hand, means that there is a mediator (*middleman*) between the producer and the consumer in the form of retail chain and, if the company doesn't have its own distribution then also a *middleman* that fulfills this role of distributing the products to the retail chain. There are four types of retailers according Kotler and Keller (2016): 1) self-service, 2) self-selection, 3) limited service and 4) full service.

The growth of online shopping of course creates new distribution channels but also new challenges for the companies that sell their products on the global level. Internet shopping allows fast, easy and reliable ways of distribution. Many companies over the world use Internet in order to expend their business but that also brings certain challenges and problems, such as seen in the case of Facebook which is forbidden in China. No matter the possible obstacles it is almost certain that with further development of Internet the technology will grow as well as will the supply of distribution channels.

In general, related to distribution, there are four marketing channels: 1) zero-level or direct marketing channel where there is no *middlemen* between the manufacturer and the consumer, 2) one-level channel where just one retailer serves as middlemen or selling intermediary, 3) two-level channel, where between the retailer and the producer we also have another intermediary in the form of a wholesaler and 4) three-level channel which consists of yet another intermediary which is the jobber, in-between the wholesaler and the retailer (Kotler P., Keller L. K., 2016).

3. CONCLUSION

One of well-known definitions of marketing mix that preceded the definition given by Edmund McCarthy lies in the statement of Niel Borden where he described a marketing manager as one who "mixes ingredients". Marketing mix is crucial for defining, setting the optimal marketing strategy of the company and its product(s) as well. McCarthy has, in addition, defined marketing mix as 4P: product, price, promotion, and place.

Under product it is considered all that can be offered to the market in order to satisfy certain need or want. In practice, the development of successful product is arduous work, sometimes more, sometimes less successful, but there is no greater sense of the achievement and pleasure for the company when the product it has worked hard on finds its way to the hearts of the consumers and the market in general.

Price represents the amount of money the consumer is willing to pay for certain product or service. Setting optimal price policy and positioning related to the price is crucial in developing the strategy for successful product. There are several pricing policies or strategies that can be used when launching the product on the market: penetration pricing, price skimming, premium pricing and preserving the existing market share.

Promotion is any form of communication with the consumer and it consists of: advertising, sales promotion, public relation, personal selling and direct marketing. Here it is important to look back on the growth of the Internet in last five years and on the impact of the social networks and how they changed the way how people communicate and receive information.

Place in sense of placement of the product in different distribution channels is also important part of the marketing mix. Before the product is offered to the market, it is necessary to define for whom it is intended, that is which are the channels through which the company wants to sell its product(s), such as retail chain or specialized stores, position on the shelves in the stores etc.

Regardless about which marketing mix we are speaking, it is necessary to remember that successful product is the one that practices all 4 Ps equally, meaning that the equal amount of importance is given to each element.

LITERATURE

1. Burns, R. (2012) „Marketing in Less Than 1000 Words“, www.reactor15.com
2. Borden, N. (1964) „The Conept of Marketing Mix“ Harvard University
3. Clinger, T. (2015) „The Marketing Mix“ Kindle Edition, Amazon Book Store
4. Culliton, J. (2008) „The Management of Marketing Costs“, Harvard University
5. Greenberg, P. (2010) CRM at the Speed of Light: Social CRM Strategies, Tools, and Techniques for Engaging Your Customers, McGraw-Hill Companies, Inc.
6. Kesić, T. (2003) „Integrirana marketinška komunikacija“, Opinio d.o.o., Zagreb
7. Kotler, P. (2001) „Upravljanje marketingom“, MATE d.o.o., Zagreb
8. Kotler, P. & Keller, K. L. (2016) A Framework for Marketing Management, Pearson Education Ltd., Harlow, Essex, England
9. McCarthy, E. J. (1994) „Basic Managerial Marketing Approach“, Erwin, SAD
10. Meler, M. (2005) „Osnove marketinga“, Ekonomski fakultet, Osijek
11. Monaghan, D. et.al. (2013) „Digital Mind“ www.wsiworld.com
12. Nizam, F. (2014) „The 4Ps Marketing Mix“ Kindle Edition, Amazon Book Store
13. PRSA -Public realtions society of America (2012) „What is Public Relations?“ www.prsa.org
14. Previšić, J., Ozretić Došen, Đ.(1999) „Međunarodni marketing“, Masmedia, Zagreb
15. Solomon, M. R. (2015) Consumer Behavior: Buying, Having, and Being, London, UK: Pearson Education Ltd.
16. Sudar J., Keller G.,(1991)„Promocija“, Informator, Zagreb
17. Unruh, J. A. (1996) Customers mean business: Six Steps to Building Relationships That Last, Boston, Massachusetts: Addison-Wesley Publishing Company, Inc.

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A CASE STUDY ON THE THE INFLUENCE OF FACEBOOK COMMUNICATION ON THE BRAND EQUITY OF MOJPOSAD JOBSITE

PETRA RULEK
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ABSTRACT

After the commercialization of the Internet in the early 1990s, it took quite some time for companies to recognize its potential for marketing activities, especially for brand management. Social networks, platforms which gather users on the basis of common interests, significantly influenced marketing communications activities.

Social networks have changed the mindset of consumers, increased the reach of marketing information and the speed of information exchange, which affected word-of-mouth marketing of brands. Facebook was the first social network entered by brands.

Today, Facebook and other social networks are significant communication channels to (potential) customers. The final thesis describes the impact of Facebook communication on customer satisfaction and loyalty. The final thesis also describes how brands can improve their market value through effective Facebook communication.

After an overview of the brand management and communication strategies theory, research was carried out in the form of a questionnaire on two target groups: Facebook users in general and Facebook users who follow MojPosao jobsite via this social network. The research results confirm the impact of Facebook communication on brands value, highlight the positive and negative qualities of MojPosao jobsite communication as well as suggest a desirable element of Facebook communication.

KEYWORDS: brand equity, social networks, Facebook, communication, MojPosao jobsite.

1. INTRODUCTION

The Internet has long ceased to be just a place where one searches for information. It has become a platform for exchanging experience and opinions as well as for forming friendships. Te users of the Internet have become the creators of the content and experience, and social networks have grown to become the centre of their activity. This has reminded companies that consumers are in the focus of attention. Whether it be communication with clients, partners or users, the external communication is one of the crucial elements in every successful company. Goals of external communication such as creating and maintaining image, reputation and relations with the media are achieved through a new channel – social networks. Therefore, successful communication via social networks is no longer a matter of choice, but an integral part of external communication which maintains the value of a brand.

This paper examines to what extent and in what way communication via the largest social network, Facebook, influences the value of a brand. It also draws attention to the importance of social networks when establishing emotional relationships with the users as well as to the fact that social networks are a form of customer support. This is exemplified by communication of the portal MojPosao via its Facebook page (Fan page). The aim of the paper is to analyse the influence of the communication via the most popular social network on the equity of brands in general and the way communication of MojPosao on Facebook influences the perception and value of the portal.

2. BRANDS AND BRAND EQUITY

The consumerism era has made brand management an integral part of marketing strategy. The marketing communication focuses on creating and communicating company and brand image and the preference of a brand becomes the result of a successful communication process.

First of all, it is important to define the term brand. "A brand consists of a brand name and/or a brand sign (logo) as well as other elements and activities the producer allocates to a particular product, service or idea, so as to inform the

market about its uniqueness either in general and/or in relation to competitors.” (Vranešević, 2007, pg 10). It is essential that the brand guarantees stability of product features that attracted the consumer, that were accepted by the consumer and which made the consumer stay loyal to them. The elements of a brand include everything that contributes to identify the brand and differentiate it from other brands: name, web address, logo, symbol, sign, person, slogan, jingle, packaging, etc. by choosing brand elements companies influence brand equity directly. (Kotler, Keller 2008).

“Brand equity represents the power, financial and perceptive value as well as the way and approach to communication appeal to all target groups.” (Kesić, 2003, pg 120)

According to (Kesić, 2003, str. 120.), the key components of brand equity are the description, power and future of the brand. The first brand equity component is brand description – this is what the brand stands for as perceived by the consumer based on associations, beliefs and values. The second component of brand equity is brand power. This stands for the advantage and dominance over its competitors. The third component is the future of the brand which is determined by the producer’s innovation and investment strategy as well as consumer expectations based on previous experience and personal reflection. (Kesić, 2003)

After positioning the brand strategically, a company must choose the communication strategy which will achieve the brand aims. By implementing a communication mix one establishes the rapport with the consumers/clients and contributes to the final act of purchasing the product or using the service. An extensive brand communication plan includes advertising, promotion, sales, PR, direct marketing, personal selling and the rest of the marketing mix which makes it possible to communicate with the target group. Since this paper researches a jobsite (portal), the focus is placed on the Internet as a means of communication.

Ten years ago the Internet was just an addition or expansion of classic media, but nowadays it is an autonomous, independent and the most important medium. Direct contact with the potential consumers is established via internet sites.

Finally, the authors of the paper emphasize the following as the benefits/advantages of communicating brands on the Internet:

1. Increase in brand recognition
2. The possibility to present a fuller story of the brand
3. Identifying customers and creating a sense of community
4. Establishing dialogue with the potential users
5. Ability to communicate quickly and efficiently in a crisis

According to the authors, potential flaws/threats when communicating the brand on the Internet are.

1. Exposing the brand to the population which is not supportive
2. The issue of the digital identity (false user profile, false experiences and accusations) High maintenance of communication
3. All communication remains recorded and available

3. SOCIAL NETWORK FACEBOOK

Nowadays, there is a wide selection of social networks worldwide whose primary goal is to connect people with common interests and the largest among them is Facebook.

At present, Facebook is the major social network which experiences a constant increase in the number of users in spite of the permanent growth of its competition. 728 million active users daily were recorded in the third quarter of 2013, which was an increase of 25% as compared to the same quarter of the year before.¹

Facebook is immensely popular among Croatian citizens with 1.8 million profiles. (Penović, Ličina, Cetinić, Raštea, 2014).

Except for attracting so many users, Facebook has had the same effect in the business community. Companies have recognised this network as an opportunity to show their more relaxed, warmer “human face”. Precisely the two-way

¹ Investor.fb.com, downloaded 12/03/14 from: <http://investor.fb.com/releasedetail.cfm?ReleaseID=802760>

communication is the advantage of Facebook since it is both fast and free of charge. Facebook has greatly influenced the change in the decision-making process when purchasing goods. Consumers have begun to research, examine and seek advice, and then, based on the gathered information, take the decision to buy².

Another important feature of social networks, particularly Facebook, is the possibility to target a particular group highly precisely. Social network users are willing to disclose a lot of personal information frequently (e.g. what cities they have visited, what kind of music they listen to, what their favourite food is, etc.), which can be used for sending targeted messages. Moreover, the cost of advertising on Facebook is low as compared to the classic media (television, radio, newspapers) because the price of an advertisement depends on the number of hits. According to the results of the agency Akcija³, the average price of an Internet hit is €0.05, while the average price in the neighbouring countries is even lower and is €0.01 per hit. Since the average price depends hugely on the market it advertises at, a hit in Western Europe costs between € 0.20 and €0.40.

Although there is still some distrust of Facebook as a marketing tool, even 88% of the respondents use Facebook in their business according to research conducted by Ping Pong, an agency specialized in two-way communication. More than half of the respondents (58%) believe that social networks are an extremely useful tool. However, almost a third (28%) have not recognised the social network potential for their future growth and development.

The appearance of a brand on Facebook is preceded by planning or creating a strategy or a document which will consolidate all the activities and the elements of the appearance at a particular platform in a particular period and decrease the risks which are possible in the direct communication with the consumers/users. The consequences of the brand's presence and high quality communication with the users on social networks are an increased company and brand awareness, authenticity and the establishment of a positive relationship with the community. When forming communication strategy, it is necessary to take into consideration: why, to whom, how and what we communicate. (Pavlek, 2008.)

4. THE INFLUENCE OF THE COMMUNICATION VIA FACEBOOK ON THE BRAND EQUITY OF MOJ POSAO JOBSITE (research results)

In the times of recession there are ever more internet pages people use to find employment, share their experience and give advice on recruitment. There is one recruitment portal which, with its tradition and market share, stands out from the others –MojPosao.net. MojPosao.net is the first and the leading portal for advertising vacancies in the Republic of Croatia, set up in 2000. Research on the best employers in Croatia is one of the most successful projects of the portal. Qualitative research, which has identified the strengths and the weaknesses of MojPosao portal's communication on Facebook as well as established to what extent the communication is reflected on the brand equity, was carried out in this paper.

4.1. Research description

A questionnaire survey was carried out in order to gain insight into the influence of Facebook communication on brand equity. The questionnaire consisted of two parts, i.e. two sets of questions which were sent to users of the social network and the fans of MojPosao jobsite's Facebook profile. The questionnaire was conducted via email and Facebook and the answers provided a clear picture of the two areas of interest.

1. How does Facebook communication influence brand equity generally?
2. How does Facebook communication influence the equity of MojPosao portal?

The research was run during the period of two months, beginning in December 2013 and ending in February 2014. The respondents filled in the questionnaire online and 224 respondents took part.

² Mashable.com, downloaded 17/03/14 from <http://mashable.com/2012/03/12/facebook-brand-building-tips/>

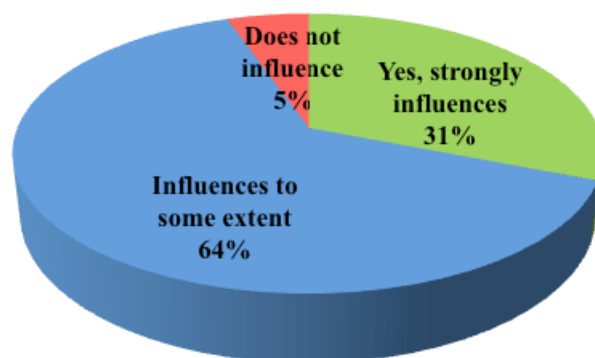
³ Akcija.com.hr, downloaded 28/12/14 from: <http://akcija.com.hr/facebook/koliko-kosta-facebook-oglasavanje/>

4.2. The depiction and the interpretation of the research

The first part of the research included the respondents who had an active Facebook profile. The questions were about the influence of Facebook communication on the brand equity. The survey showed that 75%, i.e. 168 out of 224 respondents had an active Facebook profile and the remaining 25% were not active on the leading social network.

The next question was set to establish to what extent the communication of a brand influences the brand recognition. The majority of the respondents (64%) think it influences the recognition to some extent while a little more than a third (31%) think it has strong influence on brand recognition (figure 5.1). According to the obtained results one it can be concluded that Facebook has a strong influence on the perception of brands depending on their communication on Facebook.

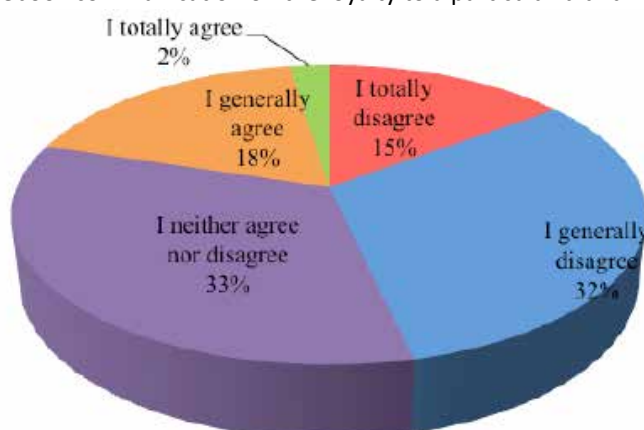
Figure 1: The influence of Facebook communication on the recognition of a particular brand



Source: authors, research result

User, consumer or client loyalty is often the key factor in the success of a brand, especially a luxury one. Only 2%, or four respondents totally agree with the statement that they are more loyal to a particular brand because of its Facebook communication (figure 5.2). 18% of the respondents generally agree with the same statement, while a little more than a third (33%) neither agree nor disagree with it. Almost half of the respondents (47%) claim that Facebook communication does not influence their loyalty to a brand, while 32% generally disagree and 15% totally disagree. The results confirm that the medium such as Facebook should be a part of an integrated approach in the marketing communication of a brand, but cannot function independently.

Figure 2: The influence of Facebook communication on the loyalty to a particular brand



Source: authors, research result

"Are you a fan of MojPosao portal on Facebook?" was a question that 49 (29%) respondents answered with yes, while 117 (70%) do not follow MojPosao portal on Facebook.

The research then continued with only the portal fans in order to gain insight into their impressions of the current Facebook communication of the portal. The respondents were asked to choose only one of the given characteristics. Even 67% of the respondents feel that the optimal combination of job advertisements, news from the labour market and entertainment is a positive characteristic of its communication. It can be concluded from the results that improvements can be made by introducing communication innovations.

Besides listing the most striking positive characteristics of MojPosao communication on Facebook, the respondents were asked to list negative ones as well. A little more than half of the respondents (53%) opted for the lack of two-way

communication, the most important prerequisite for efficient communication, which is quite worrying. According to the respondents, the second negative characteristic is formality and lack of creativity of the communication (17%).

The aim of every brand is achieving user, customer or client satisfaction. This paper deals with the satisfaction with the communication via Facebook. After choosing the positive and negative characteristics of the portal's communication the respondents were asked to choose a level on a satisfaction scale.

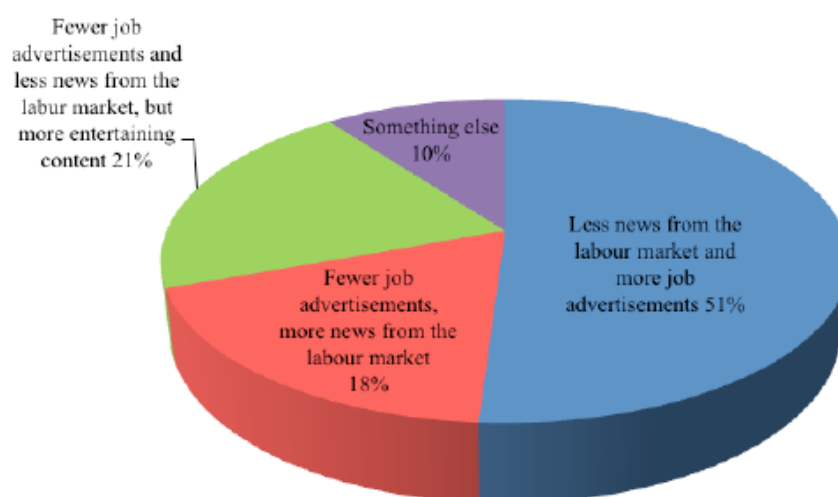
The highest level or the one which means that the users were extremely satisfied with the communication was chosen by 8% of the respondents. The majority (53%) were generally satisfied, while a little more than a third (33%) opted for equally satisfied and dissatisfied. Only 6% were not satisfied with the communication on Facebook.

After analysing the portal's communication, the respondents were asked to suggest the ways to improve its communication on Facebook. The respondents were offered the options which had been a part of the main content on Facebook portal until then, with the possibility to enter their own ideas (figure 5.3).

Even 51% opted for decreasing the amount of news from the labour market and publishing more job advertisements. This can be explained by taking the current economic situation into account. The fans of the site expect more advertisements on MojPosao Facebook page because they expect a new or a better job opportunity. A little more than a fifth of the respondents (21%) think the opposite – they would like to see fewer job advertisements and less news from the labour market, but more entertaining content.

The fact that 18% of the MojPosao profile fans want to see more news from the labour market shows that they do not use Facebook only for entertainment but also for seeking information. 10% of the respondents opted for something else and commented that they would like "more prize contests and information on employment with a particular employer."

Figure 3. Advice on how to improve communication of MojPosao portal on Facebook



Source: authors, research result

67% of female and 33% of male respondents took part in the research. Regarding their age, almost a half (49%) were between 26 and 35. This age group are the most frequent visitors of the recruitment portal, which makes the sample a representative one. A little more than a third of the respondents (33%) were younger than 25, and 16% were from 35 to 45. Only 2% of the respondents were more than 46.

The majority of the respondents were academically educated – 33% had a university or a polytechnic degree, 26% had a university or polytechnic master's degree. 37% of the respondents had a secondary education degree and 4% were blue collar. There were no respondents who hold a PhD degree (0%). The education level division also corresponds to the profile of an average visitor/user of the MojPosao portal.

Finally, it can be concluded that the respondents agree most when the influence of Facebook communication on the brand equity is in question (only 5% claim that brand recognition is not influenced by Facebook communication). The respondents show less agreement regarding the influence on brand loyalty. Even 47% of the respondents claim that Facebook communication has no influence on their loyalty.

As regards MojPosao portal's communication, it is commendable that not a single respondent claimed that they were not satisfied with the communication at all, while only 6% were generally dissatisfied.

4. CONCLUSION

Traditional marketing media are one-way communication channels with consumers. Advertisers send messages and the consumers receive them without the possibility to react to them, express their opinion or initiate two-way communication.

Social networks have initiated a significant change regarding the communication between the advertisers and the consumers. They have enabled companies to communicate with their consumers in a friendly way and find out firsthand what their problems and needs are. Marketing products or services via social networks creates brand awareness and the aim is not to achieve sales aggressively but encourage consumers to think about the product or service.

Due to the mentioned advantages of marketing via social networks, the influence of communication via the most popular social network on the brand equity is significant. The portal MojPosao, which had launched its own Facebook page at the very beginning of its commercialisation in Croatia, was chosen to be the subject of this research, which confirmed that social networks are an important link with the consumers. The results also confirm the hypothesis that Facebook communication influences brand perception as well as the hypothesis that high quality communication contributes to brand loyalty and customer satisfaction to some extent. That the communication via Facebook must be honest, consistent and creative are important suggestions obtained in this research. However, the community needs increase over time and the content is expected to be original with the aim to increase the engagement level which can then result in the higher demand for a particular product or service. At the same time, personal approach and availability for additional advice, information or complaint becomes key to success, because social networks are a two-way and a less formal means of communication than classic advertising. Before starting a Facebook page, it is necessary to create a plan and decide on the communication direction which corresponds with the recent brand image.

To conclude, social networks enable communication to be improved, new products to be launched, customer service to be enhanced, even sales to be increased, as well as have a cumulative influence on the company and brand equity in the long run.

LITERATURE

1. Brajković I., How much does Facebook advertising cost? At: <http://akcija.com.hr/facebook/koliko-kosta-facebook-oglasavanje/> (28.12.2014.)
2. Facebook Reports Third Quarter 2013 Results, At: <http://investor.fb.com/releasedetail.cfm?ReleaseID=802760> (12.03.2014.)
3. Kesić, T. (2003.), Integrated Marketing Communication - Advertising, Zagreb: Opinio
4. Kotler P., Keller K.L (2008.), Marketing Management, Zagreb: MATE
5. Mashable.com. At: <http://mashable.com/2012/03/12/facebook-brand-building-tips>. (17.03.2014.)
6. Pavlek Z. (2008.), Branding: How to Build Up a Brand, Zagreb: M.E.P Consult
7. PingPong.com.hr, At: <http://www.pingpong.com.hr/vecina-tvrtki-u-hrvatskoj-prepoznaje-vaznost-komunikacije-na-drustvenim-mrezama> (29.12.2014.)
8. Penović A., Ličina B., Cetinić M., Raštea I. (2014.), Pobjedite internet ili će internet pobijediti vas, Zagreb, Jasno i Glasno d.o.o.
9. Vranešević, T. (2007.), Upravljanje markama, Zagreb: Accent

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A REVIEW OF SPECIFIC FEATURES OF HUMAN RESOURCE MANAGEMENT FUNCTIONS IN THE MEDIA INDUSTRY

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ANITA ZELIĆ

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ABSTRACT

There have been heated discussions about the topic of business leadership in recent years. Organisations consider this hard-to-define ability to be the key to success and want to educate their leaders to be successful in all aspects of management. In addition, specific features of media industry and companies require different business processes and different approach to management.

This paper's thematic focus is on the theory of management in the media with the human resource management element at its core. It has an interdisciplinary approach based primarily on economics and recent ideas in behavioural science. The paper examines the specifics and differentiations of management in the media and the specific features of human resource management in the media. It also addresses the issue of dedication to work which is typical of media professionals.

The purpose of this paper is to determine to what extent are the numerous human resource management functions applied in the media industry. An overview is given of the theory relevant to the topic which is then related to the key issues of quality management in the media, theory of excellence in the media management and speed-based business strategy.

Structural challenges and opportunities for human resource managers in Croatian media are discussed. The paper critically examines the consequences of management practice for creative media practice as well as the consequences for the organisation of the failure to implement the best practice human resource management in the media.

Our findings can provide media managers with guidelines for raising awareness of the existing specific traits of media professionals and making better use of them, with the objective of creating a positive organisational culture.

KEYWORDS: media industry, human resource management, media management.

1. INTRODUCTION

Since Maslow's hierarchy of needs, which defines self-actualization as the most important human need, the study of this thesis of modern psychology has spread to other sciences. It is also found in the management theories, especially in the segment of human resource management. This area requires an interdisciplinary approach to the study of media industry, which differs in many aspects from other industries. Media management has the advantage of having employees who often identify themselves with the media product, are motivated intrinsically and find self-actualization in journalism, which is more often considered a vocation than a means to make a living. The paper analyzes specifics and differentiations of media industry and emphasizes the advantages of the dedication of media employees. It compares numerous management and media operations theories where human resource management is highlighted.

2. SPECIFIC FEATURES OF MEDIA INDUSTRY

The media are in many ways a specific industry characterised by the short life of media products and content, highly creative employees, high work intensity, and double sales – to advertisers and consumers. This is why it is essential to observe the media from the organisational aspect of the socio-technical system.

Quoting McQuail, Kanižaj (2010: 194) in his doctoral thesis states the following features which differentiate the media business from other types of business:

1. Regarding the market, products and technology the media are a hybrid i.e. they have the features of different models.
2. The structure of costs in the media is influenced by high work intensity and high fixed costs (although both of these features are weakening as the result of technological changes and media development).

3. High level of insecurity concerning the evaluation of the consumers and the uniqueness of the product.
4. Despite standardisation many media products can and must be differentiated from day to day and can rarely be resold in the same form.
5. The media appear to be particularly inclined to concentration tendencies.
6. Most media investments require a high level of capital resources (mostly due to high fixed costs and high costs of product launch).
7. The media are different because they have to take into account the public interest.

However, their most interesting component, the invisible capital of every medium are the people. Media industry borders on art, whose content creators have to come up with the way of presentation, select the topic, find the interviewees, think about the graphic and visual attractiveness on a daily basis, over and over again. Therefore, it would be logical to expect a behavioural approach to media management, which sees human resource management as the fundamental managerial task. Moreover, the insistence on good human resource management is essential in terms of quality, excellence and speed in the creation of media content.

2.1. Quality management in the media

The main objective of quality media professionals is to create a quality media product i.e. content.

In spite of the fact that quality as a topic is widespread in the theory of journalism it is only gradually being introduced into newsrooms. This is comparable to the fact that the management methods implemented in the practice of other industries are rarely adopted in journalism in a systematic way. Ruß-Mohl (2005: 299) gives a few explanations for this fact:

- media companies are profit-making businesses and as long as they earn revenues for the owners there is no initiative to change the way things are done;
- production processes are too short;
- the majority of media content is financed by advertising and the audience is not so aware of the quality to realise that the offer would be different if it was not subsidised by advertising;
- media companies don't develop their product (medium) as a brand – there is a lack of awareness of marketing and brand name – managers are not aware of a certain quality standard that their media products should have, so they cannot oblige the producers to maintain consistent quality.

Some of the quality management tools in newsrooms are decision-making programs related to journalism as a craft, such as the selection of the topic and research, as well as re-reading for checking purposes and the critical review of the content on the level of organisation. In addition, according to Hermes (2006) there are decision-making programs for editorial management, e.g. workforce management, target setting, opportunities for further training etc.

Redmond (2006) emphasizes that the effective media manager must orchestrate traditional structural-functional aspects of the organisation while dealing with the psychology of organisational members to help them be as creative and productive as possible.

The starting position of total quality management theory is that quality comes from people and that more quality is achieved with less control. The source of this management theory is in the better use of human resources. It requires a desire for professional perfection and excellence by everyone. Key words in total quality management are competence, creativity, participation, high level of motivation, team work, responsibility, cooperation and excellence. (Bahtijarević-Šiber, 1999: 105).

Quality management in the media is a starting point for achieving further excellence in media management.

2.2. Excellence theory in media management

One of the aspects of quality is by all means the question of excellence. The theory of excellence is examined within the management theory that is constantly being developed and adapted to the conditions in practice. It has its foundation in four basic elements (Sikavica, Bahtijarević-Šiber, Pološki Vokić, 2008: 85, according to Peters and Waterman):

1. people's need for sense and significance
2. people's need for autonomy and self-control
3. people's need for positive incentives and perception of themselves as winners
4. study of the impact of behaviour and action on attitudes and beliefs

In regard to total orientation to the demands and needs of their customers and the market, which is a crucial feature of excellent companies, excellence theory is clearly imperative in media management. Excellent companies pay close attention to their customers' needs and create a narrow segment of the market – niche, where they adjust their products and services to particular customers. (Sikavica, Bahtijarević-Šiber, Pološki Vokić, 2008: 86). Many theorists, and practitioners even more, claim that the future of journalism is in niche products, e.g. print media will survive only as luxurious products aimed at a very small, specialised audience. This specialisation is currently most visible in new media using the Internet, but it is also present in electronic media (Travel Channel, Fashion TV, Music TV, Sports TV, Catholic radio...). In economics theory this can be explained by the selection of focus strategy – being competitive in a market niche by having unique products as competitive advantage. (Bahtijarević-Šiber, 1999:161).

Another characteristic of excellent companies is that they consider their employees to be their most important asset and main source of innovativeness and success of the organisation. This notion is widespread in journalism where numerous anchors, journalists and columnists are brands in themselves. Even the media themselves are quite often recognised because of their most prominent anchors, newsreaders or journalists.

Porter's model of competitive advantage, which emphasises the differentiation of design, brand, reputation, image and quality can be viewed in this context.

2.3. Advantages of speed-based business strategy

Speed is imperative in media business due to its very nature, specific features of a media product that frequently has the characteristics of news, as well as the growing use of modern technology in the production of media content.

Redmond (2006) states that since the 1980s every aspect of media business has been changed due to new technology and audience fragmentation. Therefore, media organisations depend more than ever on human creativity. Although the level of creativity in journalism is particularly high, the operations are still planned in a systematic way. Moreover, (Tuchman, Luhmann) consider the technique in producing media programme and the set phases of the production process to be the 'invisible capital'.

'Due to the specific organisation of operations, which require speed, journalistic assignments are dealt with in teams, following commands that do not allow complaints, lateness or excuses. In order to meet these requirements and maintain quality, the workforce should identify with the values and aims of the company.' (Ruß-Mohl 2005:171).

In the theory of economics this is called speed-based business strategy, which is applicable to the media because of the frequency of deadlines and the emphasis on production processes. The following famous quote by Jack Welch applies definitely to the media: 'We have to get faster if we are to win in a world where nothing is predictable except the increasingly rapid pace of change.' (Bahtijarević-Šiber, 1999: 164).

The importance of human resource management in the uncertain, dynamic and complex environment should be repeatedly pointed out. Uncertainty and high intensity require general planning of activities, flexibility and innovations (Bahtijarević-Šiber, 1999: 155).

2.4. Situation in Croatia

Considering all of the above and numerous specific features typical of media industry the situation in Croatian media is probably below average. The human resource management function is rarely present in Croatian media and deals predominantly with administrative issues. Therefore, this function can be seen as the successor to the 'personnel administration' function. (Bahtijarević-Šiber, 1999).

The (un)employment problem of journalists and other media professionals in Croatia, current crisis notwithstanding, is often justified by the elaboration of the meaning of freelance journalists. At the Croatian Bureau of Statistics the profession journalist is classified as 'artist'¹. This creates an image that journalists are artists who want to be free and independent to be able to offer their ideas, stories and other work to the medium of their choice, so they do not want to be tied to any media organisation. Unfortunately, the freelance status and absence of a 'permanent' contract is mostly not the journalist's personal choice, at least not in Croatia. Some compare this situation to tourism or construction industry, where it is also not common for professionals to be employed by a company.

The situation in Croatian media is described on the Trade Union of Croatian Journalists website²: 'The media are hit by the economic crisis as well, so the workforce is declining. Instead of regularly employed journalists, a growing number of the media engage the services of independent journalists in an informal status. An acute problem are the so-called RPO associates (registered tax payers/RTP), independent entrepreneurs who in a media organisation have the same obligations as the permanent staff members but without adequate rights.'

Nevertheless, despite the unquestionable importance of quality, excellence and speed in the creation of media content, the creativity factor as the integral part of creating media content should not be neglected. Small organisational units and autonomy are necessary for promoting creativity, as well as rational and organised behaviour that are imperative in every industry.

3. IMPLEMENTATION OF MANAGEMENT IN CREATIVE MEDIA PRACTICE

According to Nikodijević (2008), there is frequent resistance to management in the media organisations that is characteristic of traditional artistic work, since there are certain typical artistic patterns in some aspects of the media, especially in the audio-visual domain. The same author identifies characteristic negative consequences of management implementation in the world of art and creative media practice:

- In accordance with its basic principles of efficiency, profitability and productivity management implies practical orientation, usefulness and pragmatism, which is not immanent to creativity. These rational standards are almost non-existent in the system of values in creativity. We should also consider the fact that, due to the nature and character of the creative process, this domain is such that its content, effect and end results are not easily measured by rational management methods and techniques.
- Management imposes conventional standards, norms and routine procedures and activities, which is contrary to unique originality, creativity, curiosity and initiative of creative practice.
- Since it is primarily interested in material success it is logical that management has a doing and not creative orientation which is necessarily functional; management is interested in 'how' and not 'why'. In order to meet its limited and practical objectives management needs a doer, homo faber, and not a creative person who has the need to understand the objective and the complex whole.
- Management equalizes individuality, reduces it to group and collective standards, to the sense of belonging to an organisation. Individual interest is subordinated to collective interest, which is contrary to the essential characteristics of creativity such as autonomy, personal identity and individuality (Nikodijević, 2008).

¹ National Occupational Classification, Narodne novine 52/94,

² Available at: <http://www.snh.hr/index.php?jezik=hr&idMenu=1> [15.11.2014]

4. UNTAPPED POTENTIALS OF HUMAN RESOURCE MANAGEMENT IN MEDIA MANAGEMENT

The theories of human resource management have maintained for a long time that human resources are the competitive advantage of organisations. Barney (1991) states that human resources add a positive value to an organisation, which is a characteristic difficult to imitate and cannot be substituted by another resource in the long term.

Since the beginning of the 1920s there have been discussions about the analysis of organisations from the viewpoint of behavioural sciences. It has been proved that social relationships (working atmosphere especially) affect the work results so the management of companies is oriented at employees (Maletić, 2012). One of the variants of behavioural approach is a theory of motivation which explains organisational behaviour based on the structure of needs of an individual, taking into consideration material and content elements which motivate or demotivate people. The best known such model is Maslow's hierarchy of needs (Maletić, 2012).

In the 1960s the concept of human resource accounting was developed 'with the purpose of highlighting the need for management to calculate the costs and loss which the organisation suffers due to the negative attitudes, low motivation and staff dissatisfaction, as well as the profit from their improvement' (Bahtijarević-Šiber, 1999: 44).

Analyzing human resource management in media organisations researchers are almost unanimous in emphasizing underdevelopment and lagging behind the trends, even when it comes to basic postulates of this discipline. Inadequate attention is paid to working environment and staff policy in newsrooms, even to the leadership theory, which is the most neglected theory in the field of media management³.

Mierzejewska (2011) states that although motivation in media leadership has not been extensively researched, there are studies on work satisfaction which demonstrate that journalists are more satisfied when they feel they are working on a high-quality, informative media product. A good relationship with the management, job autonomy and higher social status increase additionally the level of work satisfaction.

Journalistic work frequently implies enthusiasm, high level of involvement and identification with journalism as a vocation. Experts argue that journalists are motivated intrinsically, through needs that come from the inside and the satisfaction is the result of the activity itself and its meaning and not the external reasons e.g. reward or fear of punishment (Petz, 2005).

Media companies could be perceived not only as business organisations, but also as normative ones, where members create values and norms as is the case in church communities, political parties and educational institutions. Ruß-Mohl (2005) claims that media companies can be compared to organisations that count on high level of identification of associates with the aim of the organisation such as churches, political parties, trade unions, cultural and humanitarian aid institutions. Redmond (2006) writes about the media employees who think of their job as an altruistic vocation and feel they own the media product, although the copyright belongs to the media organisation.

Küng (2007) describes how media organisations face the central tension between optimisation and innovation and that innovation in this sector does not come from key players. Editorial boards often mount conservative resistance to change. The redefining of editorial concept and organisational objectives can personally affect the professional self-image of journalists. (Ruß-Mohl 2005:237).

In addition, studies on technology development and innovation in media organisations investigate the effects of introducing new technologies on organisations and its employees. One study shows that the introduction of new technology to media production diminishes work satisfaction in the short term, changes work functions, forces employees to learn new skills, prolongs production time and shortens the time spent on content development. It has also been proved that these negative effects of new technology vanish after some time (Mierzejewska, 2011).

³ Mierzejewska (2011) analyzes theoretical approaches used in the media management scholarship and discusses strategic management theory (most widely used); structural contingency theory (describes the relationship between organisational structure and performance outcome; has not been used a lot so far, but the interest is growing due to media consolidation and mergers); transnational media management theory (because of the penetration of global markets by media organisations the following issues are addressed: financial returns, cross-cultural personnel management, leadership, product development, operational coordination...); organisational culture theory; technology and innovation (the management of innovation has become one of the most critical areas of research for the field of media management and economics).

5. ORGANISATIONAL CONSEQUENCES OF THE ABSENCE OF PLANNING IN THE AREA OF HUMAN RESOURCES

The consequence of the absence of planning in the area of human resources is the lack of people with appropriate skills and the burden of inadequate people, which has inhibited the development of many companies. This is very expensive, many times fatal for the company and 'frequently the most important element contributing to the inability of the company to deal with competition or technological changes' (Bahtijarević-Šiber, 1999: 185-186). Numerous analyses demonstrate that this is exactly the case in media industry.

It should also be noted that 'laying-off the workforce as a way of solving the problem of fluctuations in business operations has a negative effect on the staff morale. This can cause lower levels of commitment, productivity and identification with the organisation, which is growing in importance nowadays.' (Bahtijarević-Šiber, 1999: 185). Since the media professionals are known to identify with their organisation, such conditions at work are very dangerous for organisational behaviour and media production output.

In the dynamic environment of media industry the planning of human resources should be part of proactive activities which anticipate future developments and prepare for them. This is a way of managing uncertainty. What is paradoxical in the theory of management is the fact that the more a company needs human resource planning, the more difficult it is to realise it. Such are organisations with a greater share of more expensive, scholarly, expert, managerial staff; organisations oriented at expert and innovative knowledge; organisations open and responsive to the environment; organisations providing a highly diversified product or service (Bahtijarević-Šiber, 1999). The above relates directly to business operations in numerous media organisations. However, managers in media industry should become aware of this situation and benefit from the dedication and intrinsic motivation of their employees.

6. CONCLUSION

It is predominantly believed that human resource management is not adequately developed in the media. The main problem is considered to be the economic crisis and lack of funds in the media, which has drastically changed the relationship towards employees and associates. Due to inadequate knowledge and skills numerous human resource management functions e.g. staff monitoring and appraisals, motivation, rewards, education and training and fostering a positive corporate culture are hardly ever or never implemented in the media.

If we consider the following main elements comprising human resource management (Sikavica 2011:525, according to Schermerhorn): attracting quality employees, developing quality employees (professional orientation, training) and retaining quality employees (productivity evaluation, rewards, special benefits, cultivating good relations with the management), it is evident that media industry lags behind the others. There is often no position of an HR manager in the media and even when there is, it is too often an administrative job. Unsolved problems in business relations, long-lasting associate relations and complete absence of professional orientation, training and career development place media industry very low in human resource management.

Having observed human resource management in media organisations we can conclude that classical organisation theory is applicable to media industry. Very rarely have we observed neoclassical models that place people in the foreground, their behaviour, needs and interpersonal relationships. Additionally, when considering the media and journalism as scholastic disciplines we notice that the behaviour of the people in an organisation, their interpersonal relationships and exploring ways of motivating the people are neglected.

A recent study by the Centre for Performance-Led HR of Lancaster University on the effect of jobs with poor psycho-social quality on the employee mental health and well-being demonstrated that for their mental health it is better to be unemployed than to have a bad job. Psycho-social quality includes control, autonomy, challenge, diversity and decision-making in doing a job, which consequently improves or endangers psychological health).⁴

Media industry is suffering from business failures. The reasons for that might lie in the untapped potentials of human resource management – the invisible capital of every medium.

⁴ Available at: [http://www.telegram.hr/biznis-tech/upravo-je-dokazano-da-je-za-mentalno-zdravlje-bolje-bit-nezaposlen-nego-raditi-los-posao/\(18.5.2015\)](http://www.telegram.hr/biznis-tech/upravo-je-dokazano-da-je-za-mentalno-zdravlje-bolje-bit-nezaposlen-nego-raditi-los-posao/(18.5.2015))

REFERENCES

Books:

1. Bahtijarević-Šiber, F.(1999), *Management ljudskih potencijala*, Zagreb: Golden marketing
2. Bahtijarević-Šiber, F., Sikavica P., Pološki Vokić, N. (2008), *Suvremeni menadžment – vještine, sustavi i izazovi*, Zagreb: Školska knjiga
3. Hermes, S. (2006) *Upravljanje kvalitetom u novinarskim redakcijama*, Köln: Halem
4. Kanižaj, I. (2010): *Proizvodnja vijesti u hrvatskim dnevnicima (novinsko izvještavanje u kampanjama za parlamentarne izbore 2003. i 2007. godine)*, doktorska disertacija, Fakultet političkih znanosti, Zagreb
5. McQuial, Denis (1994), *Mass Communication Theory*, London: Sage Publications
6. Ruß-Mohl, S., Zagorac Keršer, A. J. (2005) *Novinarstvo*, Beograd: Clio
7. Sikavica, P., Bahtijarević-Šiber, F., Pološki Vokić, N. (2008) *Temelji menadžmenta*, Zagreb: Školska knjiga

Papers:

1. Küng, L. (2007), Does Media Management Matter? Establishing the Scope, Rationale, and Future Research Agenda for the Discipline, U: *Journal of Media Studies*, 4(1): 21-39
2. Mierzejewska, B. (2011) Media Management in Theory and Practice. U: Deuze, M. Edt. *Managing Media Work*, SAGE Publications, Inc
3. Redmond, J.W. (2006) Issues in Human Resources Management. U: Albarran, A.B., Chan-Olmsted, S.M., Wirth, M.O. eds. (2006), *Handbook of Media Management and Economics*, LEA, Publishers

Other:

1. Anić, V., Goldstein, I. (2000), *Rječnik stranih riječi*, Novi Liber, Zagreb
2. *Nacionalna klasifikacija zanimanja*, Narodne novine 52/94, <http://narodne-novine.nn.hr/clanci/sluzbeni/269247.html>
3. Sindikat novinara Hrvatske, <http://www.snh.hr/index.php?jezik=hr&idMenu=1> (15.11.2014.)
4. Telegram.hr., <http://www.telegram.hr/biznis-tech/upravo-je-dokazano-da-je-za-mentalno-zdravlje-bolje-bit-nezaposlen-nego-raditi-los-posao/> (18.5.2015.)

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MARKET RESEARCH OF CARD OPERATIONS OF SELECTED BANKS IN CROATIA

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ABSTRACT

One of the markets that are in recent economic developments rapidly evolving is certainly the card business, both at the global and national level. For the purpose of this study a continuous research was conducted which lasted one year. The study was based on monthly monitoring, collecting and reporting on, first of all, technological innovations that have been launched on the Croatian market by leading credit card companies sampled in the survey, such as Zagrebacka Banka (ZABA), Societe Generale - Splitska banka (SG-SB), Sberbank Inc. (SBER), Raiffeisenbank Austria (RBA), OTP banka (OTP); Hypo Alpe-Adria-Bank (HYPO), Hrvatska poštanska banka (HPB); Erste&Steiermärkische Bank (ERSTE) and Erste Card Club Ltd. (ECC).

During the preparation of monthly reports there was noted a pattern of behaviour by most banks. Croatian banks follow international trends, because they themselves are part of the international group, and are very competitive with each other. An example of this is the PayPass technology that allows users, of this type of cards, contactless payment in retail outlets. All banks introduced this innovation into their product portfolio in a few months in order to maintain competitiveness on the market. The work, therefore, represents a quality review of trends and changes in the card business market based on which Croatian credit card companies base their strategic decisions in future business.

KEYWORDS: bank, market research, innovation, cards.

1. INTRODUCTION

Market card business falls into one of the fastest growing industries in today's modern world of business. Due to the numerous and accelerated changes occurring in the world, technology is changing according to new needs in order to make life easier for customers. Money as a method of payment is present from the time of ancient Egypt, and today, money as it was known in the paper and wrought release slowly disappearing. An example of that is given by the fact that Sweden recently began using cards as a primary payment method. Niklas Arvidsson from Sweden's Institute of Technology claims that four out of five transactions in Sweden today are done electronically¹. This includes credit cards via the Internet as well as payment at the physical retail outlets. The reason for this fact is that Swedes like technology and new ways to simplify their life, as well as the fact that by this way the number of robberies on the streets are reduced because people are less likely to carry cash.

Some of the many advantages of card operations are convenient and secure access to funds in a clients account anywhere in the country and abroad, the possibility of buying anywhere in the world, paying costs in monthly installments, as well as control and review of account balance at any time via mBanking application on the Internet and smartphones. Croatia, from the example of Sweden can learn a lot about card business, and the task of the banks is to explain all the steps in the card business to their customers. "Given the market trends and large mutual competition, credit card companies try to impose their solutions and optimize their operation in order to accelerate business processes and reduce the cost of its operations²".

2. CARD BUSINESS

Due to the numerous needs for simplifying the life of users, banks and credit card companies continually offer its customers new types of cards and using innovative technology refine existing products and enhance services used by cardholders. A few years ago it was unthinkable to pay for a product or service by holding the card to the device or even a credit card payment over the phone. Banks in cooperation with leading credit card payment systems like MasterCard Worldwide and Visa International, offer a wide range of products, such as debit cards, cards with deferred payments

¹ The Guardian, <http://www.theguardian.com/world/2014/nov/11/welcome-sweden-electronic-money-not-so-funny>, 14.10.2015.

² Danić, D., Vidačić, T., Mijoč, I., REFERENTNI MODEL PROCESA KARTIČNOG POSLOVANJA U RAČUNOVODSTVENO INFORMACIJSKOM OKRUŽENJU, http://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=166282, 2013., 17.10.2015.

(charge cards) and revolving (credit that is constantly renewed) credit cards. The characteristics of a particular card depends on the type of consumer (personal and business), to whom they are intended, and it depends also on the banks that will provide benefits to an individual card. With bank credit card systems, and there are non-banking card systems, such as globally known American Express and Diners Club with their respective card products³.

The process of card business includes three participants: the customer, merchant, and the bank and credit card companies. From the standpoint of the customer, credit cards represent a simpler way to pay. There is no need to carry large amounts of cash, the payment process is accelerated, and each transaction is registered and the user receives a confirmation of the completed transaction. Merchants on the other hand reduce the time spent by the cash register, there is no need for returning the change money, and there is no manipulation of a greater amount of cash. Banks and credit card companies make their profit from the relationship customer - merchant through fees, membership fees, commissions and interest rates that are charged on loans that can be picked up through the card⁴.

3. RESEARCH DESCRIPTION

The research topic is the credit card business, ie. innovations and changes taking place in the Croatian market of the nine banks included in the survey: Zagrebačka banka(ZABA), Societe Generale - Splitska banka (SG-SB), Sberbank Inc. (SBER), Raiffeisenbank Austria (RBA), OTP banka (OTP); Hypo Alpe-Adria-Bank Inc.(HYPO), Hrvatska Poštanska banka(HPB); Erste&Steiermärkische Bank (ERSTE), Erste Card Club Ltd. (ECC). The research was conducted on a monthly basis, by collecting and sending reports which were then processed. As data sources for the research secondary sources were used, which were data from Internet sites of banks. The survey was carried out in a time span of one year and therefore belongs to the continuous, that is, longitudinal study. The aim was primarily to study the market of card business of selected banks in Croatia with a focus on technological innovation. Other fields which were also followed were studying changes regarding cash withdrawal fee, special benefits for cardholders, the study of changes in interest rates related to the raising of loans and other changes in the credit card business of banks.

4. RESEARCH RESULTS

Due to the extensiveness of the research, this work will only include technological innovations that banks introduced during almost one year, in the period from December 2014 to September 2015.

In December 2014, five banks have introduced innovative contactless payment card from the MasterCard brand. Those banks were Erste&Steiermärkische Bank, Raiffeisenbank Austria dd, OTP Bank Croatia, Sberbank Inc. and Hrvatska poštanska banka. PayPass technology is a new payment method, which involves paying with the MasterCard debit card by scanning it on the reader. The merchant at no point touches the card and in this way significantly speeds up the process of the transaction. This card is ideal for payment at places where the daily purchases are done like newsstands, shops, fast food restaurants and similar, and is also suitable for other places. PIN or signature is not required if the transaction is amounted to HRK 100 or less and all transaction over this amount must be confirmed by PIN or signature.

Erste&Steiermärkische Bank introduced Erste Display card that can access electronic banking services, such as Erste Wallet, a service that enables cashless payments quickly and securely over smartphones, as well as non-cash transfer of funds. A further advantage of electronic banking via Erste Display Card is Erste Redomat. It is a mobile application for Android and iOS platforms that allows the issuing of a virtual number for an office of choice and notifications about how many users are in the line in front of the customer, all to avoid long waiting in the office. Net Banking and Financial manager - from home with a computer or tablet an user can perform financial transactions and through the free service, Financial manager, users can plan and monitor their monthly consumption.

Raiffeisenbank Austria for their MasterCard credit card has introduced an innovation that is actually tracking the global trend which had been introduced by the MasterCard company. Contactless payment is made by putting contactless MasterCard card on a contactless POS and the transaction is done.

Sberbank, Hrvatska poštanska banka and OTP Bank introduced the same innovation with contactless prepaid MasterCard card, with the difference that the OTP bank also introduced OTP mobile banking.

³ Šućur, I., Tržište kartičnih proizvoda u Republici Hrvatskoj, http://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=33639, 2007., 17.10.2015.

⁴ Danić, D., Vidačić, T., Mijoč, I., REFERENTNI MODEL PROCESA KARTIČNOG POSLOVANJA U RAČUNOVODSTVENO INFORMACIJSKOM OKRUŽENJU, http://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=166282, 2013., 18.10.2015.

In January 2015, only the Zagrebačka banka brought innovation regarding their mobile services, m-zaba and m-token. Specifically, they introduced support for these applications on cell phones on the Windows platform, and by doing that granted their customers who own these devices access to mobile applications and services of Zagrebačka banka. Innovation is also the fact that these services are integrated into a single application and they can be used more easily, with a single PIN. The visual appearance of services has been visually and content-enhanced, with the addition of viewing the locations of ATMs and offices which customers can use for free. M-banking and m-token can be arranged in the office or via e-zaba for citizens. Brands of cards included in this innovation are all products of Zagrebačka banka, therefore, all the MasterCard, Maestro, Visa and Visa Electron cards other than Visa Electron Avenue Mall gift card and Visa Electron EFZG and this is a permanent innovation. It covers personal and business cards and the innovations has been published on January the 28th, 2015.

In February 2015, innovations were presented by Erste&Steiermärkische Bank and Hrvatska poštanska banka. Erste&Steiermärkische Bank has for its personal and business Maestro and VISA Electron cards released an innovation regarding its mobile application Redomat. In the office of Erste&Steiermärkische Bank in Rijeka on the Adriatic Square, the application Redomat will show their users, through their iPhone and Android devices, how many other customers are in the line in front of them, as well as the possibility of raising queue papers for queuing and the possibility of arranging a meeting with a personal advisor at the bank. This innovation is permanent and is introduced on 02/15/2015.

Hrvatska poštanska banka, for its Maestro, MasterCard and VISA Electron debit card which users can use via the HPB Internet banking, introduced the possibility of blocking cards in case of theft. This innovation is permanent and is introduced on 02/15/2015.

In March 2015, Sberbank, OTP and Hypo Alpe Adria Bank introduced the option of withdrawing cash at TISAK newsstands and Konzum supermarkets to the users of their cards. The service is similar to withdrawing cash at an ATM, only what the difference is that the user says what amount he wants to withdraw to the clerk and present to him his debit or credit card. In the TISAK newsstands and small Konzum stores it is possible to withdraw a maximum of 1.000 HRK of cash per transaction. In maxi and super Konzum stores and TISAK media outlets it is possible to withdraw up to 3.000 HRK per transaction. Cash is possible to withdraw with all Maestro and MasterCard cards as well as at ATMs.

In April 2015, Erste&Steiermärkische Bank has introduced innovation aimed at their business customers who are users of Erste MasterCard Business debit cards. Innovation is reflected through simpler usage, better functionality and improved design for the Net Banking services for businesses. Erste Card Club Ltd. has also brought innovation to their customers of all business cards, MasterCard, VISA and Diners brands. The company introduced the m-pos terminals for mobile payments. M-pos device allows mobile payments with all credit and debit cards that accept EFT - POS devices from the Erste Card Club Ltd. This will accelerate the users transactions and general business operations with their clients because this innovation introduces a completely electronic form of payment, without the need for "paper" bills.

In May 2015, Zagrebačka Banka has introduced an innovation / limited time only action for its mobile application, m-zaba. All private users of MasterCard, Maestro and VISA cards who have not activated their m-zaba application, Zagrebačka banka offers a trial period of 6 months in which they do not have to pay a fee to use this application.

In July 2015, Hrvatska poštanska banka has improved its mobile application, m-HPB for all its customers, personal and business, and it supports all types of card. The new mobile application m-HPB offers all users a lot of information and services, and the clients who had been using mBanking from HPB already, 35,000 of them, were given access to additional services. The application also brought the ability to view HPB's offices in the country and the ATMs, the possibility of making meetings at the bank, review of exchange rates, currency calculator and contact details. Clients of HPB were given additional use of mBanking and mToken, offering a wider range of services. The service "Photopay" has also been introduced offering clients the ability to take pictures of their bills and paying with their mobile phones. This innovation was introduced 07/27/2015 and it is a permanent type of innovation.

In September 2015, Zagrebačka banka has, for all its m-token and token users (both personal and business), introduced the possibility to access the e-Citizen system. This system offers the possibility of faster and easier access to numerous e-services of the government and thus save time and simplifies the communication with the state. Also through the e-Citizens service, the e-Craft service is also available, through which current or future craft dealers can submit an application for establishing a craft or enter the status change without going to the competent registration bodies. By accessing this system Zaba's customers can easily electronically retrieve and check numerous documents, announcements and information issued by public sector bodies without submitting

additional requirements and signing documents. This innovation is permanent and includes all personal and business card brands Maestro, VISA and MasterCard, and it was introduced 09/28/2015.

Table 1. Innovations in card operations in Croatia

INNOVATIONS										
	December	January	February	March	April	May	June	July	August	September
ZABA	MasterCard PayPass	mZaba on Windows platform	N/A	N/A	N/A	m-zaba - 6 months, no fee	N/A	N/A	N/A	Access to the system e-Citizens (e-Craft)
SG-SB	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SBER	MasterCard PayPass	N/A	N/A	Cash withdrawal - TISAK, Konzum	N/A	N/A	N/A	N/A	N/A	N/A
RBA	MasterCard PayPass	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
OTP	MasterCard PayPass, OTP mobile banking	N/A	N/A	Cash withdrawal - TISAK, Konzum	N/A	N/A	N/A	N/A	N/A	N/A
HYPO	N/A	N/A	N/A	Cash withdrawal - TISAK, Konzum	N/A	N/A	N/A	N/A	N/A	N/A
HPB	MasterCard PayPass	N/A	Card block through Internet banking	N/A	N/A	N/A	N/A	Updated mobile application, m-HPB	N/A	N/A
ESB	Erste Display card	N/A	Redomat app on Adriatic square, Rijeka	N/A	Updated desing of Erste NetBanking for business users	N/A	N/A	N/A	N/A	N/A
ECC	N/A	N/A	N/A	N/A	m-Pos terminal za mobilna plaćanja	N/A	N/A	N/A	N/A	N/A

Source : Authors' work

Table 1 shows all the banks that were included in the study to highlight the most important technological innovations related to credit card transactions collected during the study.

5. CONCLUSION

During this research, a pattern of behaviour from the banks was noted regarding technological innovations. This pattern is actually following the global trends in innovations because the banks are trying to provide cutting-edge services to their customers, keep them for themselves as well as to gain customers of competing banks. All the banks, with the exception of Hypo - Alpe Adria Bank and Societe - General Splitska Bank, have introduced their product, MasterCard with the PayPass technology. As a bank with most innovations it is worth mentioning Zagrebačka banka, which has introduced four innovations, then the Hrvatska poštanska banka and Erste&Steiermärkische Bank with three innovations.

LITERATURE

1. Danic, D., Vidačić, T., Mijoč, I. Referentni model procesa kartičnog poslovanja u računovodstveno informacijskom okruženju, http://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=166282, 2013, 18.10. 2015.
2. Erste&Steiermärkische Bank, <http://www.erstebank.hr/hr/>, 14.10.2015.
3. Erste Card Club, <http://www.erstecardclub.hr/>, 14.10.2015.

4. Hypo-Alpe-Adria Bank, <http://www.hypo-alpe-adria.hr/home.nsf/home/hr> , 14.10.2015.
5. Hrvatska poštanska banka, <http://www.hpb.hr/> , 14.10.2015.
6. OTP Bank, <https://www.otpbanka.hr/html/dobrodosli.htm> , 14.10.2015.
7. Raiffeisenbank Austria, <https://www.rba.hr/wps/public-web/naslovna> , 14.10.2015.
8. Sberbank, <http://www.sberbank.hr/> , 14.10.2015.
9. Splitska banka, <http://www.splitskabanka.hr/> , 14.10.2015.
10. Šućur, I, Tržište kartičnih proizvoda u Republici Hrvatskoj, http://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=33639 , 2007, 17-18.10.2015.
11. The Guardian, <http://www.theguardian.com/world/2014/nov/11/welcome-sweden-electronic-money-not-so-funny> , 14.10.2015.
12. Zagrebačka Banka, http://www.zaba.hr/home/wps/wcm/connect/zaba_hr/zabautils/naslovnica/ , 14.10.2015.

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INDEX OF AUTHORS

A

ABRANTES, JOSÉ LUÍS 168
AL KASSIRI, MARIO 226
ANTUNES, JOAQUIM 125
AUGUSTO, LUÍSA 97

B

BALLESTEROS, CARLOS 176
BARROCO, CRISTINA 125
BENITO, CONSUELO 176
BERKE, SZILÁRD 346
BERNIK, IGOR 319
BRZOVSKA, EZENI 138

C

CARDOSO, ANA PAULA 168
CHEN, SHIH-YI 188
CSONGOR, HERKE 83

Č

ČOREJOVÁ, TATIANA 226, 253

D

DOBRINIĆ, DAMIR 312, 332, 337
DVORSKI, STJEPAN 131

Đ

ĐOKIĆ, NENAD 77
ĐURANOVIĆ, DRAGAN 67

F

FERREIRA, MANUELA 168
FIGUEIREDO, ANTÓNIO JOSÉ 231
FONSECA, ANA PAULA 159
FRÖHLICH, ELISABETH 301

G

GRD, PETRA 319
GREGUREC, IVA 312, 319
GRIMM, SABINE 301
GRUBOR, ALEKSANDAR 67

H

HERBERT, JEFF 45
HORVAT, VALENTINA 332

J

JELČIĆ, SANDRA 265
JOHNSTON, TONY 1
JOVKOVA, JORDANKA 118

K

KAMIŞLI, MELIK 291
KANAI, MASAE 188
KARIĆ, DARKO 105
KAŠNAR, KATARINA 357
KLUN, MAJA 343
KOTNIK, ŽIGA 343
KOVAČ P. ŽNIDERŠIĆ, RUŽICA 77
KOVÁCS, NIKOLETTA 182
KOVŠCA, VLADIMIR 131
KOZÁK, TAMÁS 306
KOZÁK, ÁKOS 198
KUREČIĆ, PETAR 386

L

LACKOVIĆ VINCEK, ZRINKA 131
LEKOVIĆ, KSENIJA 77
LESAKOVA, DAGMAR 212
LONČARIĆ, BILJANA 282
LUBURIĆ, GORAN 386
LUDWIG, CORINNA 226
LULIĆ, LUKŠA 386

M

MAGALHÃES, NUNO 125
MAGIĆ, MAJA 337
MANDIĆ, MIROSLAV 394
MARINKOVIĆ, RENATA 91
MARIĆ, DRAŽEN 67
MARUŠIĆ, TAJANA 405
MEDVEĐOVÁ, PETRA 366

N

NOVOSEL-DOLNJAK, ZVONKO 113
NOVOSEL PRKLJAČIĆ, ROMANA 113

O

O'CONNOR, NOËLLE 1

Ö

ÖZER, MUSTAFA 291
ÖZKER, A. NIYAZI 25

P

PALAMIDOVSKA-STERJADOVSKA, NIKOLINA 138
PEDERSEN, MORTEN JARLBÆK 147
PIHIR, IGOR 325
PLETIKOSIĆ, MERICA 218

R

RENNEMO, ØYSTEIN 56
REŠETAR, MATEJA 394
ROBALO, ANTÓNIO 231
ROCCO, SANJA 357
ROSTÁŠOVÁ, MÁRIA 253
RUŽIĆ, DRAGO 282

S

SALAJ, NIKOLAJ 35
SEABRA, CLÁUDIA 159, 168
SILVA, CARLA 159
SILVEIRINHA, MARIA JOÃO 97
STABAUER, MARTIN 45
STANKOVIĆ MOČAN, DINKO 375
SZENDRŐ, KATALIN 271
SZENTE, VIKTÓRIA 271

T

TAKEMURA, MASA AKI 188
TEMELJOTOV SALAJ, ALENKA 35
TOMIČIĆ-PUPEK, KATARINA 325
TOMIČIĆ FURJAN, MARTINA 325
TORMA, DORISZ 271
TRENEVSKA BLAGOEVA, KALINA 242
TÓTH, KATALIN 361

U

URBANÍKOVÁ, MARTA 366

V

VRANEŠEVIĆ, TIHOMIR 312
VRÁNOVÁ, MARTA 366

Z

ZUFFEREY, NICOLAS 12

Å

ÅSVOLL, HÅVARD 56

INDEX OF AUTHORS

A

ABRANTES, JOSÉ LUÍS 168
AL KASSIRI, MARIO 226
ANTUNES, JOAQUIM 125
AUGUSTO, LUÍSA 97

B

BABOGREDAC, KRUNOSLAV 426
BAČIĆ, ANA 413
BALLESTEROS, CARLOS 176
BARROCO, CRISTINA 125
BENITO, CONSUELO 176
BERKE, SZILÁRD 346
BERNIK, IGOR 319
BRZOVSKA, EZENI 138

C

CARDOSO, ANA PAULA 168
CHEN, SHIH-YI 188
CSONGOR, HERKE 83

Č

ČOREJOVÁ, TATIANA 226, 253

D

DOBRINIĆ, DAMIR 312, 332, 337
DUBROJA, MARKO 426
DVORSKI, STJEPAN 131

Đ

ĐOKIĆ, NENAD 77
ĐURANOVIĆ, DRAGAN 67

F

FERREIRA, MANUELA 168
FIGUEIREDO, ANTÓNIO JOSÉ 231
FONSECA, ANA PAULA 159
FRÖHLICH, ELISABETH 301

G

GRD, PETRA 319
GREGUREC, IVA 312, 319
GRIMM, SABINE 301
GRUBOR, ALEKSANDAR 67

H

HERBERT, JEFF 45
HORVAT, VALENTINA 332

J

JELČIĆ, SANDRA 265
JOHNSTON, TONY 1
JOVKOVA, JORDANKA 118

K

KAMIŠLI, MELIK 291
KANAI, MASAE 188
KARIĆ, DARKO 105
KAŠNAR, KATARINA 357
KLUN, MAJA 343
KOTNIK, ŽIGA 343
KOVAČ P. ŽNIDERŠIĆ, RUŽICA 77
KOVÁCS, NIKOLETTA 182
KOVŠCA, VLADIMIR 131
KOZÁK, TAMÁS 306
KOZÁK, ÁKOS 198
KRŠUL, SVEA 419
KUREČIĆ, PETAR 386

L

LACKOVIĆ VINCEK, ZRINKA 131
LEKOVIĆ, KSENIJA 77
LESAKOVA, DAGMAR 212
LONČARIĆ, BILJANA 282
LUBURIĆ, GORAN 386
LUDWIG, CORINNA 226
LULIĆ, LUKŠA 386

M

MAGALHÃES, NUNO 125
MAGIĆ, MAJA 337
MANDIĆ, MIROSLAV 394
MARINKOVIĆ, RENATA 91
MARIĆ, DRAŽEN 67
MARUŠIĆ, TAJANA 405
MEDVEĐOVÁ, PETRA 366

N

NOVOSEL-DOLNJAK, ZVONKO 113
NOVOSEL PRKLJAČIĆ, ROMANA 113

O

O'CONNOR, NOËLLE 1

Ö

ÖZER, MUSTAFA 291
ÖZKER, A. NIYAZI 25

P

PALAMIDOVSKA-STERJADOVSKA, NIKOLINA 138
PEDERSEN, MORTEN JARLBÆK 147
PIHIR, IGOR 325
PLANTIĆ TADIĆ, DIANA 426
PLETIKOSIĆ, MERICA 218

R

RATKIĆ, HRVOJE 413
RENNEMO, ØYSTEIN 56
REŠETAR, MATEJA 394
ROBALO, ANTÓNIO 231
ROCCO, SANJA 357
ROSTÁŠOVÁ, MÁRIA 253
RULEK, PETRA 413
RUŽIĆ, DRAGO 282

S

SALAJ, NIKOLAJ 35
SEABRA, CLÁUDIA 159, 168
SILVA, CARLA 159
SILVEIRINHA, MARIA JOÃO 97
SLIJEPEČEVIĆ, MARIJA 419
STABAUER, MARTIN 45
STANKOVIĆ MOČAN, DINKO 375
SZENDRŐ, KATALIN 271
SZENTE, VIKTÓRIA 271

T

TAKEMURA, MASAACKI 188
TEMELJOTOV SALAJ, ALENKA 35
TOMIČIĆ-PUPEK, KATARINA 325
TOMIČIĆ FURJAN, MARTINA 325
TORMA, DORISZ 271
TRENEVSKA BLAGOEVA, KALINA 242
TÓTH, KATALIN 361

U

URBANÍKOVÁ, MARTA 366

V

VRANEŠEVIĆ, TIHOMIR 312
VRÁNOVÁ, MARTA 366

Z

ZELIĆ, ANITA 419
ZUFFEREY, NICOLAS 12

Å

ÅSVOLL, HÅVARD 56

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