

SVEUČILIŠTE J. J. STROSSMAYERA U OSIJEKU
EKONOMSKI FAKULTET U OSIJEKU
HRVATSKA AKADEMIJA ZNANOSTI I UMJETNOSTI



efos



2.

**MEĐUNARODNI ZNANSTVENI SIMPOZIJ
GOSPODARSTVO ISTOČNE HRVATSKE -
JUČER, DANAS, SUTRA**

2nd

**INTERNATIONAL SCIENTIFIC SYMPOSIUM
ECONOMY OF EASTERN CROATIA -
YESTERDAY, TODAY, TOMORROW**

ISSN 1848-9559



Osijek, 2013.



SVEUČILIŠTE J. J.
STROSSMAYERA
U OSIJEKU

UNIVERSITY OF J. J.
STROSSMAYER
IN OSIJEK



EKONOMSKI FAKULTET
U OSIJEKU

FACULTY OF
ECONOMICS IN OSIJEK



HRVATSKA AKADEMIJA
ZNANOSTI I UMJETNOSTI
Zavod za znanstveni i
umjetnički rad u Osijeku

CROATIAN ACADEMY OF
ARTS AND SCIENCES
The Institute for scientific and
art research work in Osijek

2.
MEĐUNARODNI ZNANSTVENI SIMPOZIJ
GOSPODARSTVO ISTOČNE HRVATSKE – JUČER, DANAS, SUTRA

2nd
INTERNATIONAL SCIENTIFIC SYMPOSIUM
ECONOMY OF EASTERN CROATIA – YESTERDAY, TODAY, TOMORROW

Pokrovitelj: / Under the auspices of:

MINISTARSTVO GOSPODARSTVA RH

**MINISTRY OF ECONOMY
OF REPUBLIC OF CROATIA**

U Osijeku, 23.- 25. svibnja 2013.
Osijek, 23rd - 25th May 2013

Nakladnici / Publishers

Sveučilište Josipa Jurja Strossmayera u Osijeku
Ekonomski fakultet u Osijeku

Za nakladnike / For the publishers

Prof. dr. sc. Anka Mašek Tonković, Ekonomski fakultet u Osijeku

Programski odbor / Programme committee

Prof. dr. sc. Željko Turkalj, predsjednik, Ekonomski fakultet u Osijeku

Prof. dr. sc. Marko Backović, Srbija

Professor emeritus prof. dr. sc. Dražen Barković, Hrvatska

Prof. dr. sc. Samo Bobek, Slovenija

Prof. dr. sc. Saša Bošnjak, Srbija

Prof. dr. sc. Małgorzata Gajos, Poljska

Prof. dr. sc. Peter J. Halls, Engleska

Dr. sc. Dražen Kušen, Hrvatska

Prof. dr. sc. Szerb Laszlo, Mađarska

Prof. dr. sc. Alessio Lokar, Italija

Prof. dr. sc. Zsolt Lukáč, Slovakia

Professor emeritus prof. dr. sc. Stanislav Marijanović, Hrvatska

Akademkinja prof. dr. sc. Vlasta Piližota, Hrvatska

Prof. dr. sc. Bodo Runzheimer, Njemačka

Prof. dr. sc. Slavica Singer, Hrvatska

Dr. sc. Stjepan Sršan, Hrvatska

Prof. dr. sc. Franz Wurm, Austrija

Prof. dr.sc. Zlata Živaković Kerže, Hrvatska

Organizacijski odbor / Organizing Committee

Prof. dr. sc. Anka Mašek Tonković, predsjednica, Ekonomski fakultet u Osijeku

Darko Dumančić, prof., Hrvatska

Katica Križanović, univ.spec.oec., Hrvatska

Prof. dr. sc. Dragan Milanović, Hrvatska

Urednica / Editor

Prof. dr. sc. Anka Mašek Tonković, Ekonomski fakultet u Osijeku

Tehnička podrška / Technical Support

Katica Križanović, univ.spec.oec.

Recenzenti / Reviewers

Prof.dr.sc. Slavica Singer

Prof.dr.sc. Anka Mašek Tonković

Professor emeritus prof.dr.sc. Dražen Barković

Prof. dr. sc. Małgorzata Gajos

Prijevod / Translation and reader

Igor Barišić, prof.

Tisak / Print

Studio HS internet d.o.o., Osijek

ISSN 1848-9559

**2. MEĐUNARODNI ZNANSTVENI SIMPOZIJ
GOSPODARSTVO ISTOČNE HRVATSKE – JUČER, DANAS, SUTRA**

**2nd INTERNATIONAL SCIENTIFIC SYMPOSIUM
ECONOMY OF EASTERN CROATIA – YESTERDAY, TODAY, TOMORROW**

Predgovor / Foreword	10
Tematska područja / Topics	12
1. Povijesne jezgre istočne Hrvatske / Historical cores of eastern Croatia	13
<i>Šimić, Jasna:</i> NEOLITIČKA EKONOMIJA U ISTOČNOJ SLAVONIJI I BARANJI - PRVI KORACI / NEOLITHIC ECONOMY OF THE EAST SLAVONIJA AND BARANJA - THE FIRST STEPS	14
2. Gospodarstvo istočne Hrvatske / Eastern Croatian economy	23
<i>Blažević, Ivona; Katolik, Andreja; Žakić, Zrinka:</i> SLAVONSKI BROD – POTENCIJALNI MEĐUNARODNI LOGISTIČKI CENTAR / SLAVONSKI BROD - POTENTIAL INTERNATIONAL LOGISTICS CENTER	24
<i>Duspara, Lena; Knežević, Sanja:</i> ZAPOŠLJAVANJE UZ PODRŠKU „UPI“ ŠTIĆENIKA U METALNOJ INDUSTRIJI U BRODSKO POSAVSKOJ ŽUPANIJI / SUPPORTED EMPLOYMENT OF „API“ MEMBERS IN METAL INDUSTRY IN BRODSKO POSAVSKA COUNTY.....	30
<i>Grebenar, Vladimir; Bošnjak, Slavko; Banović, Boris:</i> PERSPEKTIVA PROIZVODNJE I PRERADE INDUSTRIJSKE ORGANSKE ŠLJIVE U ISTOČNOJ SLAVONIJI / THE PROSPECTS OF INDUSTRIAL ORGANIC PLUM PRODUCTION AND PROCESSING IN EAST SLAVONIA	36
<i>Hadrović Zekić, Blaženka:</i> POKAZATELJI LIKVIDNOSTI KAO ČIMBENIK UPOZORENJA NA PROBLEME U POSLOVANJU: NA PRIMJERU ISTOČNE HRVATSKE / LIQUIDITY RATIOS AS PREDICTORS OF ORGANIZATIONAL DECLINE: EVIDENCE OF THE EASTERN CROATIA	44
<i>Horvat, Đuro; Kovačić, Marinko:</i> SASTAVNICE REGIONALNOG RAZVOJA SLAVONIJE – KONKURENTNOST U NOVOJ EKONOMIJI / ELEMENTS OF REGIONAL DEVELOPMENT OF SLAVONIA – NEW ECONOMY COMPETITIVENESS	57
<i>Ivanović, Milan; Subašić, Rajko; Trischler, Renata; Križanović, Katica:</i> RAZVOJ INDUSTRIJE ZA PRERADU VOĆA I POVRĆA NA PODRUČJU SLAVONIJE I BARANJE – POTREBNA JE PARADIGMA / DEVELOPMENT OF FRUIT AND VEGETABLE PROCESSING INDUSTRY IN THE SLAVONIA AND BARANJA REGION – THE PARADIGM IS NEEDED	64
<i>Jurković, Zvonimir:</i> ULOGA KLASTERA U POVEĆANJU KONKURENTNOSTI VUKOVARSKO-SRIJEMSKJE ŽUPANIJE / THE ROLE OF CLUSTERS IN INCREASE OF COMPETITIVENESS IN VUKOVAR-SRIJEM COUNTY.....	78

Kovačević, Tomislav; Japundžić, Matija; Jokić, Mirko: ULOGA POLJOPRIVREDE U GOSPODARSTVU SREDNJE I ISTOČNE HRVATSKE / THE ROLE OF AGRICULTURE IN ECONOMY OF MIDDLE AND EASTERN CROATIA	85
Kovačević, Branko; Kovačević, Marina: POTICANJE RAZVOJA PODUZETNIŠTVA U TURIZMU ISTOČNE HRVATSKE / ENTREPRENEURSHIP DEVELOPMENT IN THE EASTERN CROATIAN TOURISM	92
Kraljić, Tihana; Bekić, Ivana; Saracevic, Nerma: PROVEDBA MJERA ZA POTICANJE PODUZETNIŠTVA U OSJEČKO-BARANJSKOJ ŽUPANIJI-SLAVONIJA NIJE ZAKINUTA / IMPLEMENTATION OF MEASURES TO ENCOURAGE ENTREPRENEURSHIP IN OSIJEK-BARANJA COUNTY – SLAVONIA NOT NIPPED	101
Kulaš, Anita; Knežević, Sanja; Kedačić, Anita: FINANCIJSKO UPRAVLJANJE I KONTROLE I FISKALNA ODGOVORNOST PRORAČUNSKIH KORISNIKA U PODRUČJU JAVNA NABAVE / FINANCIAL MANAGEMENT AND CONTROL AND FISCAL RESPONSIBILITY OF BUDGET USERS IN THE FIELD OF PUBLIC PROCUREMENT	109
Lacković, Zlatko; Šandrak Nukić, Ivana: EKONOMSKA OPRAVDANOST KORIŠTENJA SOLARNE ENERGIJE U SLAVONIJI I BARANJI / ECONOMIC JUSTIFIABILITY OF SOLAR ENERGY USAGE IN SLAVONIJA AND BARANJA	115
Mesarić, Dalibor; Ambroš, Franjo; Ivanović, Milan: RAZVOJ MREŽE ŠIROKOPOJASNOG PRISTUPA INTERNETU NA PODRUČJU SLAVONIJE I BARANJE / DEVELOPMENT OF BROADBAND NETWORK IN SLAVONIA AND BARANJA	123
Poor, Jozsef; Kontra-Čapo, Đurđica: UPRAVLJANJE LJUDSKIM RESURSIMA U TRANZICIJI / HUMAN RESOURCE MANAGEMENT IN TRANSITION	131
Požega, Željko; Crnković, Boris; Leko, Vjekoslav: GOSPODARSKI RAZVOJ SLAVONIJE I BARANJE – ANALIZA INVESTICIJA, UVOZA I IZVOZA ZA PET ŽUPANIJA ISTOČNE HRVATSKE / ECONOMIC DEVELOPMENT OF SLAVONIA AND BARANJA - ANALYSIS OF INVESTMENTS, IMPORTS AND EXPORTS FOR THE FIVE COUNTIES IN EASTERN CROATIA	138
Pudić, Dalibor; Martinović, Marko; Lakoš, Ivan: UTJECAJ CIJENE ENERGENATA NA POTROŠNJU NA PRIMJERU SLAVONIJE I BARANJE / THE IMPACT OF PRICES RATES ON ENERGY CONSUMPTION – EXAMPLE AND REQUEST SLAVONIA AND BARANJA	147
Saračević, Nerma; Štavlić, Katarina; Kukec, Ljiljana; Cepanec, Drago: USPOREDBA SOCIOKULTURNIH STAVOVA I POKAZATELJA PODUZETNIČKIH AKTIVNOSTI IZMEĐU REGIJA U HRVATSKOJ / A COMPARISON OF SOCIO-CULTURAL ATTITUDES AND ENTREPRENEURIAL ACTIVITIES BETWEEN REGIONS IN CROATIA	158

Styblinska, Maria; Čandrić Dankoš, Ivana:

IZAZOVI IZRADE PROGRAMA I PLANA ENERGETSKE UČINKOVITOSTI U NEPOSREDNOJ POTROŠNJI NA PODRUČJU OSJEČKO-BARANJSKE ŽUPANIJE / CHALLENGES OF MAKING THE PROGRAM AND PLANS OF ENERGY EFFICIENCY IN FINAL USE OF OSIJEK-BARANJA COUNTY170

3. Graditeljstvo / Architecture179

Netinger, Ivanka; Vračević, Martina; Bušić, Robert:

OPEKA I MORT DOSTATNE TRAJNOSTI-ISTRAŽIVANJA I REZULTATI / BRICK AND MORTAR OF SUFFICIENT DURABILITY – THE INVESTIGATION AND RESULTS180

4. Turizam i hotelijerstvo / Tourism and Hospitality industry189

Bartoluci, Mato; Hendija, Zvezdana; Budimski, Vanja:

VALORIZACIJA MOGUĆNOSTI RAZVOJA RURALNOG TURIZMA U ISTOČNOJ HRVATSKOJ / EVALUATION OF THE POSSIBILITIES OF RURAL TOURISM DEVELOPMENT IN EASTERN CROATIA190

Jurlina, Mirna; Vida, Dino:

RAZVOJNA RAZINA ZDRAVSTVENOG TURIZMA U OSJEČKO BARANJSKOJ ŽUPANIJI / DEVELOPMENT LEVEL OF HEALTH TOURISM IN OSIJEK-BARANJA COUNTY201

Kljaić Šebrek, Jelena; Birkić, Draženka; Petračić, Mateja:

TURISTIČKA SEOSKA OBITELJSKA GOSPODARSTVA U FUNKCIJI RAZVOJA TURISTIČKE DESTINACIJE ISTOČNA HRVATSKA / TOURIST FAMILY FARMS IN FUNCTION OF DEVELOPMENT OF TOURIST DESTINATION EASTERN CROATIA208

Lončarić, Biljana; Bolfek, Berislav:

OBNOVA TVRĐAVE BROD SREDSTVIMA IZ EUROPSKIH FONDOVA / RESTORATION OF THE BROD FORTRESS BY THE EU FUNDS217

Rašetina, Sanja:

PREDNOSTI PRIMJENE STRATEŠKOG PLANIRANJA U RAZVOJU MALIH HOTELSKIH PODUZEĆA OSJEČKO-BARANJSKE ŽUPANIJE / BENEFITS OF IMPLEMENTING STRATEGIC PLANNING TO DEVELOPMENT OF SMALL HOTEL COMPANIES IN OSIJEK-BARANJA COUNTY223

Rašetina, Sanja:

TURISTIČKA VALORIZACIJA KULTURNO POVIJESNIH RESURSA NA PODRUČJU OSJEČKO-BARANJSKE ŽUPANIJE / TOURIST VALORISATION OF CULTURAL AND HISTORIC RESOURCES IN OSIJEK-BARANJA COUNTY.....230

Vidaković, Stjepan:

POVIJEST OSIJEKA I OKOLICE KAO OSNOVA ZA TURISTIČKI RAZVOJ OSJEČKO-BARANJSKE ŽUPANIJE / HISTORY OF OSIJEK AND ITS AREA AS THE BASICS FOR THE DEVELOPMENT OF TOURIST POTENTIALS IN THE OSIJEK-BARANJA COUNTY237

<i>Zalewski, Andrzej:</i> TURISTIČKE BICIKLISTIČKE RUTE U ISTOČNOJ POLJSKOJ / TOURISTIC BICYCLE ROUTES IN EASTERN POLAND	243
5. Novčarske institucije / Financial institutions	251
<i>Brekalo, Miljenko; Palić, Viktor:</i> POVIJEST I BUDUĆNOST HRVATSKOG NOVCA – LEGALNI I EKONOMSKI ASPEKTI / THE HISTORY AND THE FUTURE OF CROATIAN MONEY - LEGAL AND ECONOMIC ASPECTS	252
<i>Pavković, Anita; Klarić, Tomislav:</i> UČINCI FINANCIJSKE KRIZE NA EFIKASNOST POSLOVNIH BANAKA U POŽEŠKO- SLAVONSKOJ ŽUPANIJI / THE FINANCIAL CRISIS' EFFECTS ON BANKS' EFFICIENCY IN THE POŽEGA AND SLAVONIA COUNTY	258
6. Kulturna i spomenička baština / Cultural and monumental heritage	265
<i>Šercer, Mario; Kavić, Zlatica:</i> ORGULJE - KRALJICA GLAZBALA I DIO KULTURNE BAŠTINE / THE ORGAN – QUEEN OF INSTRUMENTS AND PART OF CULTURAL HERITAGE	266
<i>Tufekčić, Anita:</i> NUŽNOST PRIMJENE MARKETINGA U KNJIŽNICAMA ISTOČNE HRVATSKE / THE NECESSITY OF THE APPLICATION OF MARKETING IN THE LIBRARIES OF THE EASTERN CROATIA	274
7. Školstvo i sport / Education and sport	281
<i>Dumančić, Darko; Širić, Željko:</i> PREOBLIKOVANJE NOGOMETNOG KLUBA OSIJEK U SPORTSKO DIONIČKO DRUŠTVO / REFORMING OF THE FOOTBALL CLUB OSIJEK INTO JOINT STOCK SPORTS COMPANY	282
<i>Gravorac, Saša; Kovač, Aleksandar:</i> REFORMA SREDNJEG STRUČNOG OBRAZOVANJA U AUTONOMNOJ POKRAJINI VOJVODINI – FINANCIJSKI ASPEKTI / VOCATIONAL EDUCATION REFORM IN THE AUTONOMOUS PROVINCE OF VOJVODINA - FINANCIAL ASPECTS	292
<i>Ištoka Otković, Irena; Bošnjak, Nataša; Brkanić, Ivana:</i> ANALIZA UTJECAJA INTRINZIČNE I EKSTRINZIČNE MOTIVACIJE NA POSTIGNUTI USPJEH STUDENATA PRVE GODINE GRAĐEVINSKOG FAKULTETA U OSIJEKU / ANALYSIS OF IMPACT OF INTRINSIC AND EXTRINSIC MOTIVATION ON ACHIEVEMENT OF FIRST-YEAR CIVIL ENGINEERING STUDENTS IN OSIJEK	300
<i>Kuharić, Darija; Ranogajec, Ljubica; Kuharić, Ines:</i> IMPLEMENTACIJA FACEBOOKA U NASTAVI STRANIH JEZIKA U VISOKOM OBRAZOVANJU / IMPLEMENTATION OF FACEBOOK IN FOREIGN LANGUAGE TEACHING IN HIGHER EDUCATION	308

<i>Mašek Tonković, Anka; Križanović, Katica; Miličević Lubar, Helena:</i> ZNAČAJ CJELOŽIVOTNOG UČENJA U STVARANJU DRUŠTVENOG KAPITALA – PRIMJER EKONOMSKOG FAKULTETA U OSIJEKU / THE IMPORTANCE OF LIFELONG LEARNING IN CREATION OF SOCIAL CAPITAL - CASE STUDY: FACULTY OF ECONOMICS IN OSIJEK	316
<i>Milanović, Dragan; Jukić, Igor; Čustonja, Zrinko; Škegro, Dario:</i> STRATEŠKA PITANJA RAZVOJA VRHUNSKOG SPORTA U REPUBLICI HRVATSKOJ / STRATEGIC APPROACH TO THE DEVELOPMENT OF HIGH-PERFORMANCE SPORT IN THE REPUBLIC OF CROATIA	325
<i>Orkić, Marko; Ižaković, Dubravko; Trubeljak, Darko; Suk, Tomislav; Dumančić, Darko:</i> RAZVOJ ATLETIKE KROZ IZGRADNJU ATLETSKIH TRKALIŠTA I BORILIŠTA / DEVELOPMENT OF ATHLETICS THROUGH CONSTRUCTION OF ATHLETIC TRACKS AND VENUES	339
<i>Sedlan Kónig, Ljerka:</i> PREDNOSTI I OGRANIČENJA UVOĐENJA ZAJEDNICA PRAKSE U NASTAVU PREDDIPLOMSKIH STUDIJA U REPUBLICI HRVATSKOJ / OPPORTUNITIES AND LIMITATIONS OF COMMUNITIES OF PRACTICE IN GRADUATE EDUCATION IN CROATIA	346
<i>Vukašinović, Anica:</i> UJEDNAČAVANJE UVJETA OBRAZOVANJA - PREDUVJET UČINKOVITIJE OBRAZOVNOM SUSTAVU / STANDARDIZATION OF EDUCATIONAL CONDITIONS – PREREQUISITE OF MORE EFFICIENT EDUCATIONAL SYSTEM	357
8. Društveno odgovorno poduzetništvo / Social responsible entrepreneurship	367
<i>Britvić, Josip; Prelas Kovačević, Anita; Cingel, Monika:</i> MOGUĆNOST INTEGRACIJE SUSTAVA UPRAVLJANJA KVALITETOM ISO 9001:2008 I SUSTAVA UPRAVLJANJA INFORMACIJSKOM SIGURNOSĆU ISO 27001:2010 / INTEGRATION POSSIBILITIES OF ISO 9001:2008 QUALITY MANAGEMENT SYSTEM WITH ISO 27001:2010 INFORMATION SECURITY MANAGEMENT SYSTEM	368
<i>Gajos, Małgorzata; Čandrlić Dankoš, Ivana; Mašek Tonković, Anka:</i> UTJECAJ MEĐUNARODNE NORME ISO NA USPJEŠNOST ORGANIZACIJE / THE IMPACT OF THE INTERNATIONAL STANDARD ISO ON THE SUCCESS OF ORGANIZATION	374
<i>Gajos, Małgorzata; Čandrlić Dankoš, Ivana:</i> ETIKA KAO ODLIKA GOSPODARSKE RAZVIJENOSTI – ČINJENICA ILI MIT / ETHICS AS A FEATURE OF ECONOMIC DEVELOPMENT – FACT OR MYTH	382
<i>Horvat, Jasna; Ljevak, Petra; Mijoč, Josipa:</i> DRUŠTVENO ODGOVORNO NAKLADNIŠTVO I STRATEGIJE ČITANJA / SOCIALLY RESPONSIBLE BOOK PUBLISHING AND READING COMPREHENSION STRATEGIES	390

<i>Udovičić, Ana; Marošević, Katarina; Arnold Bratić, Katarina:</i> DRUŠTVENO ODGOVORNO POSLOVANJE MALIH I SREDNJIH PODUZETNIKA U RH / CORPORATE SOCIAL RESPONSIBILITY OF SMALL AND MEDIUM ENTREPRENEURS IN CROATIA	398
9. Umjesto zaključka / Instead of a conclusion	405
<i>Mašek Tonković, Anka:</i> UMJESTO ZAKLJUČKA / INSTEAD OF A CONCLUSION	406
Zahvala sponzorima / Gratitude to sponsors	408

Predgovor

Drugi međunarodni znanstveni simpozij „GOSPODARSTVO ISTOČNE HRVATSKE JUČER, DANAS, SUTRA“ dogovoren je već tijekom održavanja prezentacija i provedene diskusije prvog. Svi sudionici na postavljeni upitnik treba li nastaviti kontinuitet, bili su zainteresirani za njegov nastavak kako bi znanstvenici, stručnjaci iz prakse, istraživači i analitičari, mogli prezentirati svoje radove.

Nastojali smo kroz navedena tematska područja obuhvatiti cjeloviti pristup mogućnosti gospodarskih i društvenih aktivnosti. Kako imamo ljudske i prirodne resurse za korištenje primarnih i proizvodnih djelatnosti, razvoj raznih oblika turizma (s obzirom na rijeke Savu, Dravu i Dunav kao poveznicu država i regija od istoka do zapada) ostvarile su se u prezentiranim radovima očekivane nove ideje i vizije za pokretanje novih poduzetničkih poduhvata u svrhu razvoja istočne Hrvatske.

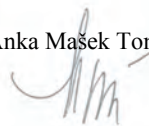
Kako se održivi razvoj ne može zamisliti bez zdravstva, kulture, školstva i sporta istraživači i znanstvenici obradili su ovo područje kako bi prikazali njihovu usku spregu s gospodarskim i društvenim razvojem. Kroz povijest istočna Hrvatska je bila kolijevka vrsnih i svjetski poznatih sportaša.

S obzirom na nove trendove povezivanja, prekogranične i međusektorske suradnje, razvoj svih oblika partnerstava, a s obzirom na ulazak Republike Hrvatske u članstvo Europske unije imamo radove koji obrađuju konkretne prijedloge, a kroz njihovu viziju mogu se očekivati aktivnosti u pokretanju sadašnjeg i budućeg razvoja.

Osiijek kao centar istočne Hrvatske je bio, a ponovo bi trebao postati, generator inovativnih primjena u procesima elektrifikacije i informatizacije kao temeljnih pretpostavki globalizacijske preobrazbe, a posebice s obzirom na članstvo u EU.

Ovim Simpozijem želimo aktivno sudjelovati u vraćanju istočne Hrvatske na pozicije na kojima je nekada bila kroz povijest - križišće puteva, razvijeno gospodarsko, kulturno, sportsko i povijesno središte Hrvatske.

Prof. dr. sc. Anka Mašek Tonković



Foreword

The Second International Scientific Symposium, "ECONOMY OF EASTERN CROATIA - YESTERDAY, TODAY, TOMORROW" has already been agreed during the presentations and discussion conducted at the first Symposium. All participants responded positively to the question whether the continuity should be carried on, being interested in its extension so that scientists, experts from practice, researchers and analysts could present their work.

We have tried to include a comprehensive approach to economic opportunities and social activities through the indicated thematic areas. Since we have human and natural resources for the use of primary and manufacturing industries, and the development of various forms of tourism (due to the Sava, Drava and Danube rivers as a link between countries and regions from the East to the West), presented papers carried out new ideas and vision to launch new entrepreneurial ventures with the purpose of development of eastern Croatia.

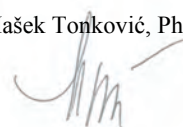
Since sustainable development cannot be conceived without healthcare, culture, education and sport, researchers and scientists described the importance of all these activities and its close connection to the economic and social development. Throughout the history the eastern Croatia was the cradle of excellent and world-renowned athletes.

Given the new trends of linking, cross-border and cross-sector cooperation, development of all forms of partnerships, and considering the Croatian accession to the European Union, we have papers that deal with concrete proposals, and through it, to be the drivers of the present and future development.

As the center of the eastern Croatia, Osijek was, and should become again, a generator of innovative applications in the processes of electrification and computerization as the fundamental prerequisites of globalization transformation, especially with regard to the EU membership.

With this Symposium we want to actively participate in the recovery of the eastern Croatian positions in which was once in history - cross roads, developed economic, culture, sports and historical center of the Croatia.

Anka Mašek Tonković, PhD.



Tematska područja / Topics

1. Povijesne jezgre istočne Hrvatske / Historical cores of eastern Croatia
2. Gospodarstvo istočne Hrvatske / Eastern Croatian economy
3. Graditeljstvo / Architecture
4. Turizam i hotelijerstvo / Tourism and Hospitality industry
5. Novčarske institucije / Financial institutions
6. Kulturna i spomenička baština / Cultural and monumental heritage
7. Školstvo i sport / Education and sport
8. Društveno odgovorno poduzetništvo / Social responsible entrepreneurship



**Povijesne jezgre
istočne Hrvatske**

**Historical cores
of eastern Croatia**

doc. Jasna Šimić, PhD.

Filozofski fakultet u Osijeku

L. Jägera 9, Osijek

Phone: 091 726 87 18; 031 502 493

e-mail address: eurinomechild@yahoo.com

NEOLITHIC ECONOMY OF THE EAST SLAVONIJA AND BARANJA - THE FIRST STEPS

NEOLITIČKA EKONOMIJA U ISTOČNOJ SLAVONIJI I BARANJI - PRVI KORACI

ABSTRACT

According to the results of the archeological researches at some neolithic settlements in the eastern part of Slavonija and in Baranja (Čepin, Kneževi Vinogradi, Belišće, Osijek) it is possible to get the insight into the beginning of the prehistoric economy of that region. The first neolithic population of the mentioned region is called Starčevo culture. With its appearance (end of 7th millenium) the economy based on agriculture and breeding of some animal species, fe. cattle, begins. The first trade routes which provided stone of high quality, are established. Neolithic economy of that time was in its very beginnings. Starčevo culture in the east part of Slavonija and Baranja was replaced by Sopot culture (about 5500 BC), which in that region lasted till the end of Neolithic and the first signs which announced the beginning of the next period – the Eneolithic or the Copper Age (about 4300 BC). Population of Sopot culture is represent of the developed neolithic economy, primarily agricultural with the great participation of cattle breeding. At all mentioned sites, some kinds of stone imported from very distinct areas were found. That presumes well organised trade and trade routes. The example is opsidian, volcanic stone that is possible to find only at the region of volcanic activity in the past. It is ascertained that all opsidian found at the sites in the north Croatia, including those in Slavonija and Baranja, comes from the northern Carpathian region, which means several hundreds km distance. Population of Sopot culture in the mid- and late neolithic had sufficient economical power to acquire such highly valued goods. The second example that proves the existance of trade routes is spondylus gaederopus, thorny oyster, the marine mollusc which occurs in Adriatic and Aegean sea and at some spots in Mediterranean sea. Jewelry made of its shells have been found at almost every site of Sopot culture. At the very end of Neolithic, that is time of late Sopot culture, appears elementary use of copper – metal that has marked the next prehistoric period.

The purpose of the paper is to present that at the beginning of the Neolithic origins the economy of which some aspects can be followed until today, such as agriculture and cattle breeding, production of various artefacts for everyday's needs or trade, even the earliest beginning of metalurgy. Also, starting with some general facts about neolithic economy, on some examples from the mentioned excavated sites, its development during the Neolithic will be presented, as well as some details specific to the region in question.

Key words: *Neolithic, Starčevo culture, Sopot culture, neolithic agriculture, neolithic trade*

SAŽETAK

Na temelju rezultata arheoloških istraživanja nekoliko naselja mlađega kamenog doba u istočnoj Slavoniji i Baranji: Čepin, Kneževi Vinogradi, Belišće i Osijek, moguće je steći uvid u početke prapovijesne ekonomije na području istočne Slavonije i Baranje. Prvu neolitičku populaciju na spomenutom prostoru nazivamo starčevačkom kulturom. Njezinom pojavom potkraj 7. tisućljeća, otpočinje gospodarstvo utemeljeno na zemljoradnji i počecima uzgoja pojedinih životinjskih vrsta, npr. goveda. Uspostavljaju se i prvi trgovački putevi kojima se nabavlja kvalitetan kamen za izradu različitih potrepština. Neolitička ekonomija u to vrijeme u svojim je začecima. Starčevačku kulturu u istočnoj Slavoniji i Baranji oko polovice 6. tisućljeća naslijedila je sopotska kultura, koja se na spomenutom prostoru zadržala do samoga kraja neolitika i prvih naznaka početka sljedećeg razdoblja – eneolitika ili bakrenog doba, oko 4300. godine. Sopotska populacija reprezent je razvijene neolitičke ekonomije, primarno zemljoradničke i s velikim udjelom stočarstva, prije svega uzgoja goveda. Na svim spomenutim nalazištima pronađene su pojedine vrste kamena importiranoga i s vrlo udaljenih područja, što podrazumijeva dobro organiziranu trgovinu/razmjenu i postojanje stalnih trgovačkih puteva. Primjer tome je opsidijan, vulkanski kamen što ga se može pronaći na mjestima negdašnje vulkanske aktivnosti. Ustanovljeno je da sav opsidijan pronađen na sjevernohrvatskim, pa tako i na spomenutim nalazištima, potječe sa sjevernih Karata, što znači s udaljenosti od više stotina kilometara. Sopotske zajednice srednjega i kasnog neolitika imale su dovoljnu ekonomsku moć kako bi nabavile tu iznimno cijenjenu i skupu robu. Drugi primjer koji svjedoči o postojanju komunikacijskih i trgovačkih puteva jest spondylus gaederopus ili kopitnjak, vrsta školjkaša koji obitava u Jadranskom i Egejskom moru, te ponegdje u Sredozemnom moru. Nakit izrađen od njegovih ljuštura pronađen je na gotovo svim lokalitetima sopotske kulture. Na samome kraju neolitika, u vrijeme kasne sopotske kulture pojavljuje se već i elementarna uporaba bakra, kovine koja je obilježila sljedeće prapovijesno razdoblje.

Cilj rada jest pokazati kako već na početku neolitika na području Slavonije i Baranje nastaje začetak ekonomije čije pojedine aspekte možemo pratiti do danas, kao što su zemljoradnja i stočarstvo, proizvodnja najrazličitijih proizvoda namijenjenih svakodnevnim potrebama ili razmjeni, trgovina (možemo je nazvati unutarnjom i vanjskom) pa čak i najraniji počeci metalurgije. Također, krenuvši od općih činjenica o neolitičkoj ekonomiji, na nekoliko primjera sa spomenutih istraživanih lokaliteta, pokazat će se njezin razvitak tijekom neolitika i neke specifičnosti vezane za područje o kojemu je riječ.

Ključne riječi: *neolitik, starčevačka kultura, sopotska kultura, neolitička zemljoradnja, neolitička trgovina*

During the last few centuries of the 7th millenium, great changes in human life started to occure in the south Panonian area. These changes take place in the organisation of economical and social life and in the production of material goods. That what makes essential difference from the previous periods – Paleolithic and Mesolithic Ages – is economy based on food production in the first place, which results with the occurrence of the permanent settlements, as like as many innovations in social organisation and spiritual conceptions.

Producing of food and the end of necessity to depend only on what can be caught and found in the nature, resulted with the increase of the life quality and permanent stay in the settlements, what enabled the storage of the food and raw materials which could be used as the trade goods. Higher quality of life has led to the population boom, and the surplus of population have migrated, colonised new territories with fertile soil and founded new communities. In search for new areas to cultivate, neolithic populations have migrated in several waves from south-east of Europe towards north and north-west, coming into contact with mesolithic communities that still were hunters and gatherers. The process of gradual transmission and spreading of knowledge and skills which are characteristic to the neolithic way of life is called neolithisation.

When speaking of neolithic economy, we must have on mind its entirety and mutual impact of its various 'economical branches' such as, beside ones which are directly related to food production, are those which satisfy the needs for various supplies – for example, production of tools and equipment used at the tillage and plant cultivation, from clearing of forests to the storage of harvest and other food. In the close connection to that is the greatest neolithic technological innovation, that is production of ceramics, such as vessels in which the food can be stored, kept and cooked much better than before.

Besides the food overpluses and the stock-breeding products, eventual overpluses of stone, bone, antler and pottery products or materials for their production, enabled trade with other communities and providing materials of special quality, as well as the rare, valuable and prestige goods, mostly imported from distant even very distant regions. As the need for such goods increases during the Neolithic Age, trade becomes more important. Of course, kinds of trade goods changes with time, so in the late Neolithic Age some different products and different materials are circulating than it was at the beginning of that period.

The first neolithic population settled in north-east Croatia, which are Slavonia, west Srijem and Baranja, is called Starčevo Culture. With its appearance at the end of the 7th millennium, the economy based on the agriculture and the very beginnings of the breeding some animal species, such as cattle and pigs, appears, the first permanent settlements are organised and the first pottery is made. It is the time when the earliest permanent, archaeologically documented trade routes are established, by which mainly stone of high quality for various supplies production is provided.

There are about 60 sites of Starčevo Culture known in the north Croatia, from Danube at the east to Bjelovar surrounding at the west. Among the best known are: Vukovar, Vinkovci, Sarvaš, Osijek, Belišće, Kneževi Vinogradi, Kaznica near Đakovo, Galovo and Zadubravlje near Slavonski Brod, Pepelane near Virovitica and Našice, some of which have been excavated. As the sites in Belišće-Staro Valpovo (Old Valpovo) and in Kneževi Vinogradi-Osnovna škola (Elementary School) have been the subjects of our professional interest, we will expose some facts on economy of that early neolithic culture, as far as it is possible to conclude based on the archaeological researches.

In the early neolithic economy of east Slavonia and Baranja, that is the age of Starčevo culture, there are no significant differences at the detached sites. According to archaeological finds in Belišće and in Kneževi Vinogradi too - the similar situation is elsewhere – we can conclude that the primal role in the economy has agriculture, on which the prosperity of human communities depends. Although the rests of carbonised cereals haven't been found yet, we can presume with very high probability that native species: rye, barley and millet were cultivated. During the Neolithic Age the wheat was imported from Anatolia but in the early stages of that period that cereal has not been domesticated in Europe yet.

Archaeological indicators of intensive farming are richly represented in both settlements. Those are stone crumblers for grains, which consists of two stones – the lower one, bigger and flat and the upper one, smaller and round shaped. Between them grains were hashed up by rubbing and pressing. Also, the part of entire lithic chopped finds are parts of sickles; small stone blades, as it is considered, in the row were fixed into curved tool with the handle, made of wood.

In the both settlements mentioned, there is noticeable minority of animal bones. Of course, part of animal bones was used as the material for the production of some artefacts (pins, needles, awls, daggers, spatulae etc.), what decrease the quantity of bones among the archaeological finds. But, on the contrary to the settlements of the late neolithic Sopot Culture, which inhabitants have had great production of bone artefacts, and nevertheless, animal bones are always among the most numerous finds, stock-breeding and hunting seem not to have important role in the early neolithic economy in this region.

In the settlement in Kneževi Vinogradi, however, in the early neolithic layer, extremely great amount of river mussel shells and water snail shells was found in one object, so that it seemed to be a storage room. One can presume that the inhabitants used those molluscs as food and their shells

were probably hashed up and used at the pottery production, as the clay fitting of some kind. Fish bones and scales have been found too, which means that fishing had its place in the economy of that settlement, and the entire Starčevo Culture.¹

In the entirety of the early neolithic economy trade also has its place. The most important trade goods of that time were some kinds of stone that were used as the material for chopped and polished tools production. We can presume with great possibility, that populations of that time the most of stone obtained directly, which means that members of some community took even very long trips inside the territory controlled by that community to acquire the stone of the highest quality. The stone of less quality, such as sandstone for example, sometimes was possible to find not far from the settlement. It is considered that the part of quality materials was acquired indirectly, that is by trade.

The most of the small chopped lithic finds in Starčevo Culture layers of Beliše and Kneževi Vinogradi settlements, were made from chert and radiolarite, solid rocks suitable for working out. The most of the bigger, polished stone artefacts were made from sandstone, softer sedimentary rock of less quality. The closest layers of all three rocks are in Papuk and Fruška gora,² so it is presumable that they were provided there. Besides, sandstone can be found in Banovo brdo, Baranja,³ so it is very much possible that inhabitants of Kneževi Vinogradi settlement, as well as the inhabitants of other Starčevo Culture settlements, acquired it there.

There are two ways of direct acquiring the stone. The first one is gathering creek and river pebbles and stone visible at the ground surface, which mostly could not be done in the east Slavonia, due to siltiness of local rivers and the thickness of Quaternary sediments. It has to be mentioned, however, that on some spots along the right Drava river bank aluvial gravel layers are formed, where the prehistoric inhabitants could supply themselves with the part of stone material, with no great trouble. That, of course, refers mostly to some more western parts of Drava flow, although similar layers exist along its lower flow, too, but they can not be found on the very surface of the ground.

The second way is mining. Although there aren't archaeological proves to that, it is possible that the early- and also the late neolithic inhabitants of Baranja have dig sandstone at the suitable spots on Banovo Brdo. Consequently, inhabitants of the settlement in Kneževi Vinogradi could obtain the part of stone material directly, not far from their village, which perhaps includes elementary mining. The rest, especially the stones of higher quality as radiolarite and chert, they acquired by taking trips to the nearest area in which such stones could be found, or they could buy it from the local populations.

It is presumable that the population of Starčevo Culture settlement in Beliše part of necessary stones could find in the wide surrounding, too, thanks to the position of their village close to Drava river and the possible aluvial pebble layers, not deep from the ground surface. The rest, similar to the Kneževi Vinogradi settlement inhabitants, they probably purchased.

In the context of trade contacts of the early neolithic populations in the east Slavonia with very distant regions, it is important to mention a find from the child grave found within the younger Starčevo Culture layer at Hotel/Tržnica (Market) site in Vinkovci. It is a pendant made from spondylus, the sea mussel that lives in Adriatic and Aegean sea and some spots in the Mediterranean sea. That is the only known evidence of trade connections of Starčevo Culture population in north-east Croatia with the populations at the east Adriatic coast, although that connections, with no doubt, were only indirect.

Into the settlement in Vinkovci that object probably has come via central Bosnia or, maybe, via settlement in Vinča near Belgrade, Serbia, where spondylus of Aegean provenience has been

¹ Šimić, J., 2004., 78.

² Pmić, J., Radonić, G., Pavić, G., http://www.papukgeopark.com/publikacije/geo_vodic1_30.pdf (8.4.2013.).

³ Dukić, Ž., Briški, M., 2010., 22.

found.⁴ Trade with spondylus, as very valuable and prestige trade goods, was very important during the middle- and the late Neolithic Age and the Eneolithic Age, but the pendant from Vinkovci is the witness to the fact that the first trade contacts and trade routes of such kind have been established as early as at the beginning of Neolithic Age.

According to all mentioned, it can be concluded that the early neolithic economy in Baranja and east Slavonia is founded mostly on agriculture with only small share of stock-breeding and hunting, but with relatively well representation of fishing and water molluscs gathering. There are activities which can be called crafts as well, that are producing various artefacts from wood, antler, bone, pottery and mostly from stone. The trade is important part of the economy too - mostly among neighbouring populations - by which some kinds of stones are acquired, but also the other kinds of trade goods. Although it is proved by only one example, for now, the establishing of the indirect trade contacts with the east Adriatic coast, where the precious and luxury goods are imported from, must be taken into consideration. Also, the possibility of mining activities at some suitable spots on Banovo brdo in Baranja, is not excluded.

About the middle of the 6th millenium Starčevo Culture in the east Slavonia and Baranja was replaced by Sopot Culture, which lasted in that region untill the end of Neolithic Age and the beginning of Eneolithic (Copper) Age, what happened about 4.300. Sopot Culture population is the represent of developed neolithic economy, primary agricultural, with the great share of cattle-breeding. It has developed on the late Starčevo Culture basis and the Vinča Culture, whose territory was to the east of Sopot Culture area, has given great contribution to its development. Among the most important Sopot Culture sites in the east Slavonia and in Baranja, some of which has been investigated, are: Bapska, Vinkovci, Sopot near Vinkovci, Sarvaš, Osijek, Čepin, Aljmaš, Belišće, Đakovački Selci, Kneževi Vinogradi.

Although there are middle- and late neolithic Sopot culture layers at Belišće-Old Valpovo and Kneževi Vinogradi-Elementary School sites, at both of them they are mostly destroyed, due to their position directly under the ground surface. Therefore, as the represents of the Sopot Culture, we'll detach two sites: Osijek-Filipovica/Herman's Vineyard and Čepin-Ovčara/Turkish Cemetary, that we have researched at two and ten campaigns.⁵

Both settlements have some common characteristics, the most important of which is very high amount of animal bones among all archaeological finds. That includes not only mammal bones but also the bones of birds, fish and reptiles (water turtles, for example), as well as moluscs and water snail shells. That testifies of the great role that cattle-breeding, hunting and fishing have had in the economy of the middle- and late Neolithic Age in this region.

Based on the animal osteological finds, it can be concluded that animals have had extremely great role at the Sopot culture population, as the food resource and the resource of various materials (bones, antlers, hooves, leather, fur, tendons, feathers, fat, scales) for production of many artefacts which could content the needs of the community and could be used as the trade goods, as well. Although the osteological analysis, unfortunately, is not finished,⁶ we can preliminary say that the bones of big plant-eating mammals predominate, bred ones and cought ones. These are cattle and red deer. The part of cattle bones probably is of bred and the part of cought animals. The same can be related to pig bones.

Among the wild animals are roes, small mammals (hamster, for example) and birds. In that time birds have not been domesticated yet. Domestic birds in Europe are geese and ducks and during the

⁴ Težak Gregl, T., 2001., 28.

⁵ Osijek-Filipovica/Herman's Vineyard was researched the first time in 1897., then in 1998. and 2007., under the leadership of the author of this paper. Čepin-Ovčara/Turkish cemetary was researched continuously from 1997. untill 2006., under the same leadership.

⁶ Osteological material was send to The Faculty of Veterinary Medicine in Zagreb.

late Iron Age, close to the end of prehistory, hen was imported to Europe by the intercession of Scyths.

It is obvious that the importance of hunting and fishing grows during the middle- and the late Neolithic Age in the east Slavonian region. That fact is attested not only by animal bones, but also by hundreds of ceramic and, in much smaller amount, stone balls with diameter mostly between 4 and 5 cm, which were munition for slings. Slings were used for small animals hunting and they have been found in both settlements. It is interesting that such way of hunting hasn't been used by all populations of Sopot Culture. Balls were not found in Sopot, Belišće and Kneževi Vinogradi, while, besides Osijek and Čepin, in Klisa settlement they existed in great amount.

Fishing, important economy branch of that time, too, is attested not only by fish bones and scales, but also by some equipment used for fishing, such as harpoons and fish-hooks made from bone or antler.

Zoogenic finds in the wider sense include objects made from spondylus gaederopus, that are found at the both sites in great quantity, and at numerous other Sopot Culture sites, as well. They are very significant indicators of 'international' trade which flourished during the middle- and especially during the Late Neolithic Age. The origin of spondylus at the north Croatian sites hasn't been analysed yet, but there are two most important trade routes, archaeologically attested, by which row shells and/or final products were transported to the Pannonian-Danube region. One of them starts at the east Adriatic coast and leads along the Neretva river valley to the central Bosnia and further to the north, along the Bosna river valley.⁷ That trade route has connected neolithic populations in the central Bosnia with south Pannonia and the east Adriatic coast, and the southpannonian populations, including these from our sites, were connected with north and central Bosnia and, indirectly, with the Adriatic coast, too.

The second trade route leads from the north Aegean coast along Vardar, Struma, Mesta and Marica rivers valleys to the central Balkan, from where it gets to southeast Pannonia along the Morava river valley.⁸ To the eastslavonian Sopot culture sites objects made from spondylus, consequently, could come by one of these two trade routes, and obviously, Sopot Culture population has had sufficient economical power to obtain them.

Both at Osijek and at Čepin settlements, numerous finds of jewelry made from that moluscs shells have been found. By their texture and colour, these shells are similar to the ivory.⁹ The jewelry include cylindrical beads, slab-like pendants of round, square and curved shape and parts of bracelets. The find of special value is a hoard that consists of 460 pieces of jewelry made from spondylus and dentalium, that is another species of maritime moluscs, which curved shells are suitable for small beads production. The hoard was found at Čepin-Ovčara/Turkish Cemetery site.¹⁰ Dentalium has come to the south Pannonia by the same trade routes as the spondylus, but in significant smaller amount.

When speaking of spondylus, it is necessary to mention a certain opinion, that consider spondylus and objects made from its shells as the means of payment of some kind, that is natural or premonetary money. In some parts of the world that role usually had the maritime moluscs – cowry snail. Impossibility of falsification, standard size and relatively rarity, probably made them objects of very great value.¹¹

⁷ Težak Gregl, T., 2001., 28.

⁸ Balen, J., 2006., 30.

⁹ Šimić, J., 2008., 20.

¹⁰ Šimić, J., 2007., Same, 2009., 12.

¹¹ Goericke Lukić, H., 2011., 137, 138.

The second indication of 'international' trade is obsidian, volcanic rock which can be found at the areas of volcanic activity, recent or ancient. It is black or gray and has glassy structure, so it is sometimes called 'volcanic glass'. Its characteristic that while chopped it splits into very sharp slices, has made it remarkably valuable trade goods during the middle- and late European Neolithic Age, used for small blades production. Large obsidian deposits in Europe can be found on Sardinia, Lipari Islands, Melos (the island in Cyclades archipelago in the southwestern Aegean sea) and in Charpathians.¹² At almost every Sopot culture sites obsidian is found, and at some of them it has been worked out from the raw material. Settlement at Herman's Vineyard in Osijek, according to great quantity of characteristic lithic finds, was one of the obsidian blades production centres.¹³

Analysis done to obsidian from the sites in north Croatia has proved its Charpatian origin,¹⁴ the fact that approves the existence of trade communications from the north towards the south of Panonnia basin. That communications lasted until the end of Neolithic Age and with the beginning of the next period – Copper Age – obsidian loses its importance and is replaced by new materials. Let us also mention already established trade with less expensive but qualitative stone, which has started before the beginning of the Neolithic Age, and the possibility of mining, as the ways to obtain the stone. Such trade was mostly of local character and takes place at the limited area, and the stone was traded to agricultural and stock-breeding products.

At the very end of the Neolithic Age, during the late Sopot Culture, sporadically appears the elementary use of copper, metal that marked the economy of next prehistoric period. In the Sopot culture layers at the sites in Belišće and Kneževi Vinogradi, small and very corroded, unidentifiable copper objects were found,¹⁵ the presence of which indicates the possibility of trade contacts with the Vinča Culture populations, that also have some copper artefacts at their sites. The nearest copper deposits are in east Serbia; archaeological researches have proved the exploitation of copper at Rudna Glava mine (near Majdanpek) during the Eneolithic Age, possibly even during the late Neolithic Age.

Sopot Culture populations in south Panonnia, of course, had not their own copper deposits, so it is evident that some members of the communities at the sites in Kneževi Vinogradi and Belišće have been wealthy enough to obtain such extremely rare and, most probably, very expensive goods. As copper appears exceptionally rarely in the late Neolithic Age in our region, it had not significant economical role, and probably was only another prestige and precious goods. But, although these finds could seem insignificant, they indicate the beginnings of trade communications connected to copper ore mining as well as to the copper artefacts production and distribution. During the next period such activities will reach full development and prosperity.

BIBLIOGRAPHY

Balen, J. (2006), **Neolithic Age**, Trade and Exchange in Prehistory, Archaeological Museum in Zagreb, Zagreb, pp. 25-32.

Duić, Ž, Briški, M. (2010), **Effect of geological structures on the hydrogeological characteristics of quaternary deposits in Baranja**, Alamanch for Mining, Geology and Petroleum, Vol. 22, Faculty for Mining, Geology and Petroleum in Zagreb, Zagreb, pp. 1-9.

Goericke Lukić, H. (2011), **Premonetary forms of money**, Prehistory, Archaeological Museum in Osijek, Osijek, pp. 136-147.

¹² Balen, J., 2006., 32.

¹³ Šimić, J., 2008., 19.

¹⁴ We are thankful to our colleague M.Burić, from The Faculty of Philosophy in Zagreb for the verbal information .

¹⁵ Šimić, J., 2007.a, 30; Same, 2004., 77.

Prnić, J., Radonić, J., Panić, G. (2003), **Geological Gide through The Nature Park Papuk, Velika.**

Šimić, J. (2004), **Kneževi Vinogradi-Elementary School, rescue research at the neolithic site,** Obavijesti Hrvatskog arheološkog društva (Croatian Archaeological Asociaton), Vol. 1/2007, Zagreb, pp. 74-79.

Šimić, J. (2007a), **Rescue research at the prehistoric site Old Valpovo near Belišće,** Obavijesti Hrvatskog arheološkog društva, Vol. 1/2007., Zagreb, pp. 26-35.

Šimić, J. (2007b), **Čepin-Ovčara/Turkish Cemmetery, research in 2006.,** Obavijesti Hrvatskog arheološkog društva, Vol. 1/2007., Zagreb, pp. 65-72.

Šimić, J. (2008), **Herman's Vineyard, archaeological site from the Younger Stone Age in Osijek,** Archaeological Museum in Osijek, Museum of Slavonia in Osijek, Osijek.

Šimić, J. (2009), **Čepin-Ovčara/Turkish Cemmetery, ten years of researching,** Historical Almanach, Vol. 4, Department of History, Faculty of Philosophy in Osijek, Osijek, pp. 7-16.

Težak Gregl, T. (2001), **Connections between continental and coastal Croatia during Neo/Eneolithic Age,** Opuscula archaeologica, Vol. 25/1, Faculty of Philosophy in Zagreb, Zagreb, pp. 27-38.



**Gospodarstvo
istočne Hrvatske**

**Eastern
Croatian economy**

Ivona Blažević, mag.oec.

University of Applied Sciences in Slavonski Brod
Dr. Mile Budaka 1
35000 Slavonski Brod
Phone: 095/ 505-2848
E-mail address: ivona.blazevic@vusb.hr

Andreja Katolik, mag.oec.

University of Applied Sciences in Slavonski Brod
Dr. Mile Budaka 1
35000 Slavonski Brod
Phone: 091/567-3396
E-mail address: andreja.katolik@vusb.hr

Zrinka Žakić, mag.oec.

City of Slavonski Brod
Vukovarska 1
35000 Slavonski Brod
Phone: 095/511-1434
E-mail address: zrinka.zakic@gmail.com

**SLAVONSKI BROD - POTENTIAL INTERNATIONAL LOGISTICS
CENTER**

**SLAVONSKI BROD – POTENCIJALNI MEĐUNARODNI LOGISTIČKI
CENTAR**

ABSTRACT

Slavonski Brod is the largest city of Brod-Posavina County and the sixth largest city in Croatia, located at the crossroads of intercontinental and interregional transportation route connecting Central and Eastern Europe. Slavonski Brod was a major center and market town once, but today there are more different developed economic activities that are not fully exploited, such as a border river Sava which should be used for the formation of a logistics center. Projects for the creation of logistic center are prepared, the implementation of this type of center would increase the standard of living and increase employment in one of the least developed counties in the Croatian.

There is an insufficient interest of the relevant institutions and administrative bodies for investment in inland transport infrastructure that would create the basic conditions for recognizing Slavonski Brod as the international logistics center.

There are projects in the city that promote the interests for the development of the international port in it, but they are awaiting realization because of the lack of financial resources. Apart the port activities, it will contribute to investments in machinery and equipment of industrial plants which are waned by the advent of privatization.

The aim of this paper is to analyze and determine the objective reasons for untimely implementation of projects which would help creating and strengthening the Port Brod, and provide measures and activities of relevant authorities for the affirmation of international logistics center in Slavonski Brod.

Analysis of the problem and research objectives definition leads to two research objects. The first object of the research is Slavonski Brod, whose historical and current analysis of

economic and logistics activities will determine the consequences of the current economic situation in the Brod-Posavina County.

Another object of research is an international logistics center which should affirm Slavonski Brod with the proposed guidelines.

During research of facts and possibilities that currently exist, for the formulation of the research results in this paper, the following research methods are used in a different combination: historical method, the method of analysis and synthesis, classification and description method.

Keywords: *Slavonski Brod, logistics center, economic growth*

SAŽETAK

Slavonski Brod je najveći grad Brodsko-posavske županije i šesti grad po veličini u Hrvatskoj koji se nalazi na raskrižju interkontinentalnog i interregionalnog prometnog pravca, povezujući srednju i istočnu Europu. Nekad je bio značajno središte i trgovište, a danas ima više različito razvijenih gospodarskih djelatnosti koje ne iskorištavaju u potpunosti prirodne potencijale, kao što je pogranična rijeka Sava; koja bi se trebala iskoristiti za formiranje logističkog centra, za čije stvaranje postoje pripremljeni projekti koji čekaju na realizaciju, a čijom bi provedbom porastao standard života i povećala se zaposlenost u jednoj od najslabije razvijenih županija Republike Hrvatske.

Nedovoljan je interes nadležnih institucija i upravnih tijela za ulaganja u infrastrukturu riječnog prometa koji bi Slavonskom Brodu stvorio osnovne pretpostavke za afirmaciju u međunarodni logistički centar.

U gradu postoje projekti koji promiču interese za razvoj međunarodne luke u njemu i koji čekaju na realizaciju zbog nedostatka financijskih sredstava. Istima bi se osim lučkih djelatnosti pridonijelo ulaganjima u mehanizaciju i opremu industrijskih postrojenja koja su stupanjem privatizacije oslabila.

Cilj ovog rada je istražiti i utvrditi objektivne razloge za nepravodobno realiziranje projekata koji bi pomogli stvaranju i jačanju Luke Brod, te ponuditi mjere i aktivnosti resornih tijela za afirmaciju međunarodnog logističkog centra u Slavonskom Brodu.

Iz analiziranja problema i definiranja cilja istraživanja proizlaze dva objekta istraživanja.

Prvi objekt istraživanja je Slavonski Brod, čijom će se povijesnom i trenutnom analizom gospodarskih i logističkih djelatnosti utvrditi posljedice sadašnjeg gospodarskog stanja u Brodsko-posavskoj županiji.

Drugi objekt istraživanja je međunarodni logistički centar u koji bi se sa predloženim smjernicama trebao afirmirati Slavonski Brod.

Pri istraživanju činjenica i mogućnosti koje trenutno postoje; a za formuliranje rezultata istraživanja u ovom radu su u različitoj kombinaciji korištene sljedeće znanstvene metode: povijesna metoda, metoda analize i sinteze, metoda klasifikacije te metoda deskripcije.

Ključne riječi: *Slavonski Brod, logistički centar, gospodarski rast*

1. The possibilities of building a logistics centre in Slavonski Brod

1.1. Slavonski Brod port authority's objectives and services

Slavonski Brod port captaincy was established in 1924. It is situated on the waterway of Sava, operates from the 211. to 477. km, and it has its berths in five counties, six cities and across 262 km of Sava waterway. Slavonski Brod port captaincy is actually a district office of the Ministry of Maritime Affairs, Transport and Communications and Internal Navigation Office, which, together with the Government of the Republic of Croatia has acknowledged the potential value of Slavonski Brod Port as an economic driver for local economy, employment and growth of national income.

(Ivančić, 2009, 360-361) Slavonski Brod port captaincy has made ambitious plans for the future of the port and has requested Deloitte & Touche Croatia to conduct a study whose main goal would be the assessment of suggested long-term and short-term port growth sustainability.

Table 1 Planned space and transactions of Slavonski Brod Port t

The size of the overall port territory	1.286.000 m ²
The size of the warehouse for merchandise transfer	56.000 m ²
The size of the warehouse space for containers	40.000 m ²
Free port zone	720.000 m ²
Landing pier	1.800 m ²
• the amount of merchandise transshipment in the 1 st year	400.000 t
• the amount of merchandise transshipment after 10 years	3,500.000 t

Source: Ivančić, 2009, 355-356 (made by the author)

Slavonski Brod Port is categorized as an international waterway Class IV, which means that the port captaincy has to secure ship passage of maximum 85 m length, 9,5 m breadth and ensure water depth between 2,5 and 2,8 m. (Deloitte, 2003, 8). The main duties of Slavonski Brod Port Captaincy are:

- 1) making proposals and documents for the development of a river system on internal waterways
- 2) providing continual unrestricted traffic and supervision of trade associations which perform various harbor services

The most important goals of Slavonski Brod Port Captaincy (Deloitte, 2003, 8) are:

- 1) employment increase (directly in the port area and indirectly throughout the whole Croatia)
- 2) achieving the added value for the region and the whole Croatia (through value added logistic services, subsidiary industrial branches, social sector, etc.)
- 3) state income growth through port and port service taxation

Today, Slavonski Brod is an oil trans-shipment port, with one working dock (dock number 9), which is used for the delivery of raw oil from oil fields in Slavonia to Sisak Refinery for processing.

1.2. Models and prerequisites for the actualization of port services

1.2.1. Prerequisites for the provision of port services in Slavonski Brod

Requirements for carrying out port services and completing goals in Slavonski Brod Port captaincy in order to increase business are following:

- 1) adequate state investment
- 2) adequate private operator investment and
- 3) permanent economic growth

State government should, when it comes to Slavonski Brod Port Captaincy, achieve macroeconomic goals with active internal water port policy, i.e. exercise broad regulatory authority politics and not conduct port policy by assigning assets, while the Port Captaincy goals should be directed towards financing and governing the port.

The main goal of Port Captaincy should be the full refund of all the costs made due to the port (capital costs with adequate capital drawback which would help maintain costs discipline, attract

foreign investment, stimulate innovation in functional fields and avoid spending port authority assets in order to accomplish third party goals (Deloitte, 2003, 8-18)

1.2.2. Models of managing the port and its property

Tool port is a proposed model for port governance and ownership of infra and supra structure in Slavonski Brod Port Captaincy because this mode will offer the possibility to invest and launch port activities which will enable the port to function as an economic focal point, therefore becoming a logistics centre and even an industrial centre. First of all, the Government should invest into launching economic activities aimed at transport services, value added logistics and industry, which will turn Brod Port into a public service port. But, due to forthcoming EU accession, the Port should be market oriented, i.e. it should allow private firms to invest in order to launch their business.

2. The advantage and influence of Slavonski Brod Port

2.1. The advantages of the initiator and the accomplishment of added harbor values

In order for Slavonski Brod Port to use its initiator advantage, it should first offer a framework program for the port, its services and added values which would be accomplished through port investment. For this to be done, the Captaincy needs a vision combined with a port development and growth strategy. By using the development strategy, Port Captaincy and the Government should create a policy which will define permanent relations with interested parties, create the identity of the Port and fulfill the vision of Slavonski Brod Port Captaincy, i.e. transform the port Slavonski Brod into an important regional logistics centre. Strategic framework for transport development has been adopted in 1999, before the beginning of the integration processes, through a document called Strategy of Transport Development in the Republic of Croatia, which mentions the biggest disadvantage of Croatian transport system, i.e. disintegrated transport network. (Ivančić, 2009, 72) This problem will be solved, according to the newly accepted strategy, by setting long term goals, such as the integration of a combined river-sea network, the so called Danube-Adriatic Sea Corridor. The accomplishment of this long-term goal would also complete the mission of Slavonski Brod Port Captaincy whose aim was to attract cargo and business activities which would bring employment and prosperity to the whole region. At the third IPC forum, the need for merchandise distribution centre has been highlighted, especially in the continental part of our country, where there is a crossing of important European corridors (X and Vc – traffic routes which go through Slavonski Brod). This would enhance merchandise traffic and develop an international network which would connect the ports and Croatian traffic infrastructure with the international traffic corridors. (IPC Danube – Adriatic Sea: Merchandise terminals in Slavonski Brod, 2006)

Table 2 Goods traffic in inland waterway ports

000t

Year	Total traffic	National traffic			International traffic		
		Total	Loading	Unloading	Total	Loading	Unloading
2007.	1635	330	167	163	1305	864	441
2008.	1017	278	137	141	739	318	421
2009.	661	255	128	127	406	197	209
2010.	657	287	142	145	370	156	214
2011.	595	185	93	91	411	121	290

Source: DZS, 2011 (made by the author)

The overall merchandise business on inland waterway ports in 2011 records a 9.44 % decrease in relation to the same period in 2010. The internal merchandise business records a 35.54% decrease, while international merchandise business records an 11.08% increase over the same period.

Over the last seven years Slavonski Brod Port was transhipping more than 6 million tons of cargo, mainly gravel and raw oil. There was also some special cargo transshipment in 2010 and 2011. (Kovačević, 2011)

2.2. Direct and indirect effects of Slavonski Brod Port potentials

Due to private sector interest for port investment, Croatian government has launched a program to attract direct foreign investment into privatization procedure and Greenfield investment, and offered following incentives for foreign investors (Deloitte, 2003, 52):

- concessions for using natural and other resources, with the implementation of specific rates and tax subsidies
- freedom of establishing an association or branch-office with minimum capital
- the freedom of acquiring property and free asset disposal in Croatia
- 5 years or longer tax exemption for foreign investors using free trade zone, which depends on the amount of money invested

Direct effects which ensure added values are incomes created by port fees, land lease, manipulative atonements (for equipment owned by the state), trade association incomes and employee pays which bring tax income. Apart from those, all added port services are taxable. The most direct effect of Brod Port will be made by port services which are labor intensive, i.e. create a big number of work places. (Deloitte, 2003, 25)

Indirect effects are tied to port authority and employees who contribute to national consumption, together with industry which attracts numerous other services which create added value and in this way encourage business.

The potential made by direct and indirect port effects will ensure a supply of competitive, reliable, high-quality transport services and added value logistics services, which will be accomplished by ensuring prerequisites for creating harbor services: infrastructure, facility and operator availability.

3. Actions recommendation for affirmation of Slavonski Brod as an international logistics centre

3.1. Activities for building a port in the area of Slavonski Brod

The complete Croatian waters project has arranged a municipal water infrastructure project worth 30 mil Euros, EU should take part through IPA fund with irretrievable assets worth 15.5 mil, while the rest is to be financed through government budget (12.5 mil) and the budget of Slavonski Brod (2 mil). Capital development project includes the construction of water supply network and municipal water infrastructure, the building of eight pumping stations, water tanks, water-purifying apparatus and the acquisition of the equipment for sewage maintenance (Capital development projects co-financed by EU funds, 2010).

Slavonski Brod as the region's economic and cultural centre should base its future economy on competitive production centre based on new technologies and by spreading the education sector adapt to the needs of the economy. The provision of historical, sport and recreational content should ensure a touristic offer for the development of added value which will contribute to the creation of international logistics centre. Prerequisites for the development of the city economy and Brod-Posavina County are the construction of transport and municipal infrastructure which would foster business environment for strengthening entrepreneur and craftsmen competitiveness and programs which would encourage educated labor force to use the city's potential in the most effective way in order to create sustainable development.

4. Conclusion

Apart from natural resources, the advantage of Slavonski Brod Port is the competitive initiator advantage, which should be used to develop economy, because with an attractive transport location it could develop into the first international logistics centre in this region, and occupy a huge market share of transport and logistics services, while other ports with similar resources, due to financial problems, don't have the same opportunity. The same applies to Brod Port, which, due to financial issues, cannot develop into a logistics centre. Nevertheless, current negotiations, and the help expected from the pre-accession EU funds give hope for the final realization of this long-expected project.

Slavonski Brod Port, at the moment only oil and oil derivatives trans-shipment port, has all the predispositions needed to make new harbor services which would be of use on local and national level. Therefore, investment which will trigger production and create new values, as well as enable combined river – railway transport is needed.

REFERENCES

Deloitte & Touche, (2003): *Studija izvodljivosti: Luka Slavonski Brod*, pp. 8-52

IPC Dunav-Jadran, (2006): *Robni terminali u Slavonskom Brodu*,

<http://www.desb.hr/MEGAZONA/index.htm> (accessed 22 February 2013)

Ivančić, D. (2009): *Hrvatski riječni vukovi opet plove*, Davorska plovidba d.o.o., Zagreb

Kovačević, M. (2011): *Pretovareno više od 6 milijuna tona tereta*, Luka Slavonski Brod, Posavska Hrvatska,

http://www.posavskahrvatska.hr/Novost.aspx?kat=2&id=2_2011061711525 (accessed 23 February 2013)

Poslovni dnevnik, (2010): *Kapitalni razvojni projekti sufinancirani sredstvima EU*,

<http://www.poslovni.hr/vijesti/kapitalni-razvojni-projekti--sufinancirani-sredstvima-eu-157219.aspx> (accessed 22 February 2013)

Lena Duspara, univ.spec.oec.

Veleučilište u Slavonskom Brodu

Dr. Mile Budaka 1, 35 000 Slavonski Brod, Hrvatska

Phone: 035-492-805 Fax: 035-492-804

E-mail address: lena.sigurnjak@vusb.hr

Sanja Knežević, mag.oec.

Veleučilište u Slavonskom Brodu

Dr. Mile Budaka 1, 35 000 Slavonski Brod, Hrvatska

Phone: 035-492-805 Fax: 035-492-804

E-mail address: sanja.knezevic@vusb.hr

SUPPORTED EMPLOYMENT OF „API“ MEMBERS IN METAL INDUSTRY IN BRODSKO POSAVSKA COUNTY

ZAPOŠLJAVANJE UZ PODRŠKU „UPI“ ŠTIĆENIKA U METALNOJ INDUSTRIJI U BRODSKO POSAVSKOJ ŽUPANIJI

ABSTRACT

Nowadays economic uncertainty, everyday testimonies about permanently increasing number of unemployed, lack of a legal framework, prejudice and limited financial support in Brodsko Posavska County, it's almost impossible to imagine that even a small group fighting for employee status. The Association for Promoting Inclusion (API) is a non-governmental and non-profit organization based on the philosophy of inclusion according to which people with intellectual disabilities have the right to be equal and active members of the society. Metal industry is one of the largest and most important industries, together with agriculture, in Brodsko Posavska County. Through history this industry was and still is one of the main drivers of the economy. Basic role and importance of entrepreneurial orientation is in creation of social values and characteristics of social entrepreneurs, their motivation and ethical frameworks.

This paper will point out two facts. First one is that social entrepreneurs can be unusual kind of leader ahead of its time, which will encourage new initiatives, create certain transformations within their sector, and gather and connect people who want to contribute to the creation of social value on the principle of permanent sustainability. Another is that the society creates new values and attitudes, and finally provides opportunity to people with different types of intellectual disabilities to get a chance to be equal, and not isolated or rejected.

In this paper will be conducted primary research by survey and interview in enterprises in the metal industry and API in 2013 in order to: analyze aspects of social entrepreneurship, with an entrepreneurial orientation within creating of social value; analyze the benefits of social entrepreneurial activities and need for the formation of additional social entrepreneurial activities; explore the activities performed by API members, their pleasure, and satisfaction and needs of their tutors.

Keywords: Metal industry, API members, Social entrepreneurship, Employment

SAŽETAK

U današnje doba ekonomske nesigurnosti, svakodnevnih svjedočanstava o povećanju broja nezaposlenih, nedostatak pravnog okvira, predrasuda, te ograničene financijske podrške u Brodsko posavskoj županiji, gotovo je nemoguće zamisliti da se i jedna mala skupina bori za status zaposlene osobe. Udruga za promicanje inkluzije (UPI) je nevladina i neprofitna organizacija, temeljena na filozofiji inkluzije, prema kojoj osobe s intelektualnim teškoćama imaju pravo biti ravnopravni i aktivni članovi društva. Metalska industrija je jedna od najvećih i najvažnijih gospodarskih grana, zajedno s poljoprivredom, u Brodsko posavskoj županiji. Kroz povijest ova industrija je bila i još uvijek je jedan od glavnih pokretača gospodarstva. Velika je uloga i značaj poduzetničke orijentacije u stvaranju socijalnih vrijednosti te karakteristike socijalnih poduzetnika, njihovoj motivaciji i moralnim okvirima.

Ovim radom se želi ukazati na dvije činjenice. Prva je socijalni poduzetnici mogu biti ona rijetka vrsta vođa u vremenu ispred nas, koji će poticati nove inicijative, stvarati određene transformacije unutar svog sektora, te okupljati i spajati ljude koji žele dati svoj doprinos u stvaranju socijalnih vrijednosti na principu trajne održivosti. Druga je da se u društvu stvaraju nove vrijednosti i shvaćanja, te se konačno kreće pružati mogućnost da i ljudi sa različitim tipovima intelektualnih teškoća dobivaju priliku da budu ravnopravni, a ne izolirani ili odbačeni.

Provesti će se primarno istraživanje putem ankete i intervjua u poduzećima u metalnoj industriji i UPI u 2013 kako bi se mogli: analizirati aspekti socijalnog poduzetništva, pri čemu treba razmatrati poduzetničku orijentaciju kod stvaranja socijalnih vrijednosti; analizirati dobrobiti od socijalno poduzetničkih aktivnosti u i potrebe za nastajanjem dodatnih socijalno poduzetničkih aktivnosti; te istražiti koje aktivnosti obavljaju štićenici UPI, njihovo zadovoljstvo, te zadovoljstvo i potrebe njihovih voditelja.

Ključne riječi: *metalska industrija, UPI štićenici, socijalno poduzetništvo, zapošljavanje*

1. Introduction

Term „social entrepreneurship“ is developed as a concept in the last decade of the 20th century. The reason was the presence of many unresolved social problems in different parts of the world. Traditional programs of state support and assistance are not efficient enough, and there is the need for new forms and ways of solving social problems. Aim of this paper is to explore concept of social entrepreneurship on specific example and practical application that is based on supported employment of „API“ members in metal industry in Brodsko Posavska County. Social entrepreneurship has been attracting widespread interest, because it is a potential "solution" to social exclusion and helps to develop sustainable community.

2. Social entrepreneurship

For understanding of this topic it is important to define what social entrepreneurship is. It is a new term in Croatian society, and nowadays it tries to implement that term from theoretical to practical use. A commitment and need to the development and growth of the social enterprise sector is expressed at all levels. „In the past few decades, the emergence of the phenomenon of social entrepreneurship, understood as the process through which so-called social entrepreneurs create social value through the innovative use and combination of resources“ (Mair & Marti, 2006, 41).

For understanding of social entrepreneurship it is important to analyze evolution of entrepreneurship. At the beginning of the second half of the 20th century main interest was on managerial viewpoint to entrepreneurship. „At the beginning of 1990s accent was on developing of concepts of sustainable development, knowledge-based economy became actual, as well as social

dimension in entrepreneurship” (Krkač, 2007, 303). Some authors define social entrepreneur as “someone who has created and led an organization whether for profit or not, that is aimed at catalyzing systematic social change through new ideas, products, services, methodologies and changes in attitude, and the most important point is social value creation” (Smith-Hunter, 2008, 94). They can also be „individuals or private organizations that take the initiative to identify and address important social problems in their communities, in order to develop new ways of solving social problems“ (Korosec- Berman, 2006, 450).

Social entrepreneurs: don't create only private, but also social value; recognize new opportunities, support innovations, intellectual capital, collaboration and teamwork, and so on. Social entrepreneurship in the past 10 years in Croatia succeeded to develop, but it struggled with lack of financial support of community and institutions that are supposed to recognize that need. In Croatia term of social entrepreneurship is not well known, and creation of Strategy of social entrepreneurship is in temporary in progress.

3. Metal industry and „API“

Under this title for better understanding, it would be described what metal industry is and current state of that industry, also explanation what is API, goals of organization and so on.

3.1. Current state of metal industry in Brodsko Posavska County

Metal industry in Brodsko Posavska County has 90-year tradition and is one of the main developments of the Slavonski Brod and County. It can be divided into three main sectors: ore and mining industries - natural metals in the earth's crust, which is extracted and sent to further processing; metallurgy-ore from the mining industry is chemically processed to obtain metals in its natural state and those can be used in the manufacturing industry; metalworking industry and manufacturing industries-industries that use raw materials for the production of metallurgical machinery and other metal objects.

Metal industry is element of industrial production. The structure of industrial production in 2011 in Croatia shows that unfavorable developments is result of the three-year trend of falling production in the manufacturing industry, and four-year trend of decline in production of mining and quarrying. Index of metal industry in 2011 of National Classification of Activities in sector „C 24- Manufacture of basic metals was 65 (2008=100) and C25- Fabricated metal products was 40 (2008=100)“ (Hrvatsko gospodarstvo 2011. godine, 13).

The government needs to leverage investments in metal industry otherwise it will be in problem. In 2014th year will be even worse in Brodsko Posavska County. One of the reasons is that Croatia accepts from Europe only what is wrong, and does not accept wages that are in the industry 20 percent lower than the Croatian average. It is unacceptable that from 1.4 million employees in Croatia, only 250 000 of them creates new value and only five thousands work in metal industry. One of the reasons of very bad situation in metal industry is badly managed privatization of metal industry, where many companies are destroyed. Privatization process of metal industry in Croatia is over. Big companies are mostly destroyed or work with minimum of capacity, but now there are new small enterprises who are willing for progress. Croatian deindustrialization process is at end, and it is important to save what can be saved. Except for a few notable exceptions, metal companies this year have no contracts. In Brodsko Posavska County construction and metal industries together exceed „50 percent of total employment, and total revenues of these activities make up 46 percent of the revenue“ (<http://www.posavskahrvatska.hr>) .

3.2. API

„The Association for Promoting Inclusion (API) is a non-governmental organization established in October 1997 in Zagreb, Croatia. API's activities are based on the philosophy of inclusion

according to which people with intellectual disabilities have the right to be equal and active members of the society. Their mission: to promote the development of a society in which people with intellectual disabilities have equal opportunities, their contributions are valued, and their human rights are respected. Vision: An society which values diversity and discovers the unique contributions of all its members“ (<http://inkluzija.hr>) . API wants that their members became part of society with equal possibilities for living, working, participating in usual everyday activities same as all people from community. API is based on the deinstitutionalization process of people with intellectual disabilities by establishment of subsidiaries through Croatia, currently there are five of them in: Bjelovar, Osijek, Slavonski Brod, Zagreb and Šibenik. Important fact for this paper is that during working on it „Association for Promoting Inclusion Subsidiary Slavonski Brod“ changed its name in „Center for inclusive support,, and now is independent association supported by government, but with same goals, mission and vision as API.

4. Supported employment of API members

Supported employment is paid work done by people with mostly intellectual disabilities (there are also other disabilities like physical or visual), but in the ordinary working environment with continuous monitoring and support (supported by employment assistants and persons from the workplace). Supported employment enables: interactions with persons without disabilities, they get their salaries, person is placed in the work environment, and everyone can be involved in supported employment regardless of the extent of the difficulties and so on. In this paper primary research is conducted on interviews and survey with coordinators of API and employers in metal industry.

4.1. Supported employment in Brodsko Posavska County

In Brodsko Posavska County there are 55 members of API and all of them are working somewhere according their abilities. They are divided in two groups: 30 live with their families and 25 in organized housing in six apartments in Slavonski Brod. All of them are older than 21, before that age they are under supervision of primary special school Milan Ambrus in Slavonski Brod. In API they are supervised by: 3 coordinators, 9 assistants and 1 driver. The main difference between API and other organization is based on API concept of responsibility. All of members are not capable of working, they are under guardianship. Regardless of that fact all of them work in one of only four enterprises in area of Brodsko Posavska County. According survey, coordinators estimate on satisfaction and work ability of members in scale of 5-excelent to 1- low is shown in table below.

Table 1 Satisfaction and work ability of API members

Satisfaction and work ability	Number of members	Characteristics
5-excellent work	1	trustworthy, responsible worker, since birth if in institution, without parents, young
4- very good	5	Mostly very interested
3-good	36	Most of members: they don't like to work, but main motivation is material
2- not so good	8	Older persons, who joined API lately
1-not good at all	5	Eldery, not interested at all for work

Source: Made by authors

Very important question is how they get job especially in time of recession and negative economic motion: the answer is that they get job and opportunity to work throught informal friends- employers of association who supports them. Activities of enterprises are: delivery of promotional materials- all members participate in that job on area of Slavonski Brod with capacity of 18.300 flyers delivered in each household; in food industry- folding paper packaging or carrying or counting of

paper boxes according each ability; in cosmetic store they work temporarily on recycling of packaging; and the activity of fourth enterprise that is most important for this article is small private enterprise in metal industry.

4.2. Supported employment in metal industry in Brodsko Posavska County

There is only one enterprise in metal industry that employs API members. It is small, private, and 27 years old with 40 employees' enterprise for sales and production of metal products. It gets a prize form City council of Slavonski Brod for best social entrepreneurship in 2012. Main industries in Brodsko Posavska County are metal and construction, and it is very bad situation that only one enterprise from that industry employs API members. There are 9 API members who work, 4 of them permanently and 5 temporarily. One of four permanently employed is a person which coordinators in survey estimated as excellent and interested in work. Also, employer estimated that person in a same way and characterized a valuable for job like every other person that is not API member. But, one of them is person with completely impaired vision. For entrepreneur it is important to find and give them a job according their capabilities. API driver drives them to work and pick them up after. Their daily tasks are defined by job assistant in enterprise. Their tasks are: outdoor jobs like gardening, sweeping, cleaning, or helping in some process of metal industry like polishing of small not smooth parts of metal- that is precisely a job of person with impaired vision. They work two day in a week for 2 hours and have rights like other employees- it's very important for them to have break time. Entrepreneur is a friend of association and helps to introduce API members in usual everyday activities. On the other hand, API members said that they are very satisfied with their position and their job. Main motivator for going to work is material compensation- and mostly they spend their money on catering or sometimes on clothes. API members, their coordinators and entrepreneur are mutually very satisfied with cooperation, but there is factor of discrimination- not on their workplace but from neighbors. Employer and coordinators had a problem with constant accusations of neighbors who think that they exploit and abuse API members who works, despite the national television coverage that came to support project of employing in metal enterprise. Our society is not educated and don't recognize needs of some groups, and perhaps it is a reason why only one enterprise in metal industry employs API members.

5. Conclusion

So far in supported employment services of API included about all their members, whom are beneficiaries of the program and supported housing programs and prevent institutionalization. By this program the goal is that persons do normal jobs, not charity. They have to earn by their own capabilities and effort, not by the fact that they are different from most people. The results of research are devastating because only one enterprise from metal industry employs API members. Social awareness must be changed and it is important to educate people to teach them how to accept differences in order to support social entrepreneurship in Brodsko Posavska County.

REFERENCES

- Mair, J., Marti, I. (2006.) Social entrepreneurship research: A source of explanation, prediction, and delight. *Journal of World Business*, p. 36-44.
- Krkač, K. (2007) Uvod u poslovnu etiku i korporativnu društvenu odgovornost, Mate, Zagreb, p.303
- Smith-Hunter A. E. (2008). Toward a multidimensional model of social entrepreneurship: definitions, clarifications, and theoretical perspectives//*Journal of Business & Economics Research*, June, Vol. 6, No. 6, p. 93-112.

Korosec, R. L., Berman, E. (2006.), Municipal Support for Social Entrepreneurship, Public Administration Review, Vol. 66, Issue 3, p. 448-462 2006. Available at: <http://ssrn.com/abstract=1503832> (Accessed 15 February 2013)

<http://www.hgk.hr/sektor-centar/centar-makroekonomija/hrvatsko-gospodarstvo-2011-godine> (Accessed 28 February 2013)

http://www.posavskahrvatska.hr/Novost.aspx?kat=2&id=2_201201271088_(Accessed 16 February 2013)

Udruga za promicanje inkluzije, Available at: <http://inkluzija.hr/eng/about-api/>(Accessed 05 February 2013)

Vladimir Grebenar, univ. spec. oec
Periska L.t.d.,
H. D. Genschera 14, 32100 Vinkovci
Phone: +385 99 2689688
E-mail address: marketing@bazenilenije.com

Slavko Bošnjak, M.Sc.
City of Vinkovci
Ul. B. J. Jelačića 1, 32100 Vinkovci
Phone: +385 99 5906005
E-mail address: slavko.bosnjak7@gmail.com

Boris Banović, univ. spec. oec
Phone: +385 91 5839807
E-mail address: boris.banovic@gmail.com

THE PROSPECTS OF INDUSTRIAL ORGANIC PLUM PRODUCTION AND PROCESSING IN EAST SLAVONIA

PERSPEKTIVA PROIZVODNJE I PRERADE INDUSTRIJSKE ORGANSKE ŠLJIVE U ISTOČNOJ SLAVONIJI

ABSTRACT

The paper deals with the profitability issue of industrial organic (ecological) plum production as well as the profitability of its processing into dried plums in East Slavonia. The authors explore the production prospects of both respective products on the basis a cost-benefit analysis and a production-cost analysis. The analysis is based on historical pre-feasibility study data, which is used as a basis to draw conclusion about production profitability. The trend of deteriorating weather conditions during the past several years, which has a huge impact on the overall agricultural production, is taken into consideration as well. The paper aims to prove the prospects of investment potential in East Slavonia on the basis of a real-life plum production and processing example. The numerical variables used in the analysis are precise and based on market research and financial-analysis methodology. In addition, a conclusion about the plum production is presented.

Key words: plum, conventional and organic production, profitability

SAŽETAK

U radu se obrađuje problematika rentabilnosti proizvodnje poljoprivredne kulture industrijske organske (ekološke) šljive i njezine prerade u proizvod organske sušene šljive na području istočne Slavonije. Autori istražuju perspektivu proizvodnje oba spomenuta proizvoda temeljem analize troškova i koristi i financijske analize koštanja proizvoda. Rezultati takve analize temelje se na podacima iz prošlosti i sažeti su u obliku pre fesability studije na osnovi koje se donose zaključci o ekonomičnosti proizvodnje. Autori u obzir uzimaju i trend pogoršanja vremenskih uvjeta unazad nekoliko godina, a koji su uzrok kvantitativnog smanjenja poljoprivredne proizvodnje. Cilj je rada dokazati na primjeru proizvodnje i prerade šljive perspektivu investicijskog potencijala Istočne Slavonije. Numeričke vrijednosti koje se u radu upotrebljavaju su egzaktni i temelje se na

marketinškom istraživanju i metodologiji financijske analize. Na kraju se daje zaključak o snimljenom stanju u proizvodnji ove poljoprivredne kulture.

Ključne riječi: *šljiva, konvencionalna i organska proizvodnja, rentabilnost.*

1. Introduction

In 2010, the Ministry of Agriculture approved the „Action plan for the development of organic agriculture in the Republic of Croatia for the period of 2011 to 2016“. According to the official data from the study „The world of organic Agriculture – Statistics & Emerging trends 2010“, the global organic agricultural land surface grows on average by 9% p.a. According to the same study, the largest areas of organically managed agricultural land are registered in Oceania (12.1 million hectares), Europe (8.2 million hectares) and Latin America (8.1 million hectares).

Some 32.036 hectares of organically managed and supervised agricultural land was registered in the Republic of Croatia at the end of 2011. Around 69,2% of it refers to plough-fields, while 6,4% relates to permanent plantations (orchard). The organically managed agricultural land in the Republic of Croatia tripled compared to 2008.

According to the Act on Organic Production of Agricultural and Food Products („Narodnenovine“ 12/2001, 14/2001 i 79/2007), the aim of organic production is humans' health and life protection as well as the protection of environment and consumers. The organic production is defined as a “specific system of sustainable agricultural and forestry management, which covers plant cultivation and animal breeding; food, commodity and natural fibre production and primary product processing. It includes all ecological and socio-economically accepted production-technological methods, procedures and systems, which most favourably use land and water, plants', animals' and environments' natural attributes, the improvement of plants' resistance based on natural forces and laws with prescribed usage of organic fertilizers, plant and animal remedies, in accordance with international norms and principles.”¹⁶

The aim of the „Action plan for the development of organic agriculture in the Republic of Croatia for the period of 2011 to 2016“ is an increase of organically managed agricultural land in the Republic of Croatia to 8% of total agricultural land which is around 90.000 hectares and some 5.000 of registered organic agricultural producers.

As far as plums are concerned, they are one of the oldest fruits. First written evidence on plum cultivation dates from ancient Greece (around 500 BC). Tsar Diocletian cultivated plums in Podravina, Posavina and Bosnia. At the time when Slavs arrived to the areas of today's Croatia, plum plantations have already existed. Plums originate from Western Asia and are cultivated on all continents.

Major producers of plums suitable for drying processing are the United States and France. Two most cultivated plum species suitable for drying processing are „aženka“ (prune d'ete) and „požegača“. Since the end of twentieth century the biggest global plum producers have imposed the plum corpulence as a major profitability factor. Accordingly, the most cultivated plum species since the second half of the twentieth century in the United States has been the species “Stanley”. The characteristics of the new species are its height (48,2 mm), width (35,1 mm) and a simple de-seeding process. Besides, the “Stanley” plum contains highly favourable mechanical and chemical ingredients for drying processing, is robust and easy to transport.

¹⁶http://www.azri.hr/fileadmin/dokumenti-download/AKCIJSKI_PLAN_RAZVOJA_EKOLOGICKE_POLJOPRIVREDE_ZA_RAZDOBLJE_2011-2016.pdf

2. Methodology

The data on which this paper is based are mostly secondary source data and are retrieved from publications such as the statistical year book, electronic publications of the government of the Republic of Croatia and other electronic data sources. Besides, other scientific literature on plum production and processing was consulted as well.

The primary data collection on agro-production technology for the purposes of this paper was conducted by interviewing agronomists from the Agro-Consulting Office. Information on prices of major raw materials, agricultural machinery, seedlings and other assets were collected. Market research was conducted and relevant data (prices) for a financial cost-benefit analysis were collected.

The financial analysis used for the purposes of this paper included all data collected from the primary and secondary sources as well as from expert-consulting sources. Based on this data, a projection of a 25-year production plan was developed. Total plum plantation costs and projected returns for the respective period were used to calculate the organic plum production cost and discount it to its present value. The details on methodology are explained in the next chapters.

The cost price of organic industrial plum is a direct input cost into organic dried plum processing. The total production cost of an organic dried plum was compared to prices of other organic dried plums sold in supermarkets in the EU. Finally, a conclusion on profitability was established.

3. Research results

Two entrepreneurial ventures were analysed. Entrepreneur "A" is an organic industrial plum producer in East Slavonia. He invests into permanent plum plantations. He buys land (4 pieces x 5 hectares), adjusts the land for planting and conducts all other needed investments during the period of 5 years when no full harvest is expected. After 20 years, he manages permanent plum plantations (plum species "Stanley"). He permanently employs two employees, while additional employees are employed during harvest seasons. His market is the organic dried plum processing industry, which he supplies with the plum as a major commodity. The analysis includes the possibility that the investor is an employee at same time, which positively affects the profitability of the project. The data from table 1 are based on scientific and expert literature as well as a real-life list of investments and expenses for permanent plum plantations. Presented data are confirmed by agro-consultants specialized in organic production. Entrepreneur "A" invests 3.000.000 kn of its own capital and additional 2.000.000 kn as a 20-year loan with 4% interest rate. The loan has a grace period of 5 years. Interests are recognized as annual costs during the respective period, while the loan is used for investments into long-term assets which are depreciated over the respective period. The plum yield is reduced by 10%, which represents a corrective factor due to expected deteriorating weather conditions (draught, flood etc.), while the assumed redemption price for organic plums is 20% lower compared to the current price. By applying such a corrective factor, the risks for two major and most sensitive variables (price and yield quantity) are reduced. In our case study, the entrepreneur buys 20 hectares of land in the first project year, while he sells the respective land in the last project year (2038) at the price which is corrected for the inflation rate of 3% p.a. Land is the only asset in our project which is not being depreciated.

Table 1: List of costs and investments, profit and loss projections, cash flow projections for the period of 2014 - 2038

ENTREPRENEUR „A“ – AGRO-PRODUCER: COST-BENEFIT ANALYSIS												
INVESTMENTS	UNIT	QUANTITY	km/UNIT	2014.	2015.	2016.	2017.	2018.	2019.-2028.	2029.-2038.		
1	Land (4x)	20	50.000	1.000.000								
2	Technological project - plantation	1	50.000	50.000								
3	Seedlings	10000	95	1.007.855								
4	Soil analysis and adjustment	20	11.590	245.917								
5	Organic fertilizers	kn			53.544		77.885	107.117				
6	Replanting and other	kn			26.444		27.462	1.275				
7	Maintenance	kn			78.676		99.045	125.202				
8	Special maintenance	kn			73.431		91.166	83.468				
9	Fence h = 2,3 m	m ¹	510	74	40.038							
10	Draw-well and concessions	pcs	4	170.000	721.412							
11	Watering system	m ¹	37500	4	143.420							
12	Machinery	kn						1.391.129				
13	TOTAL INVESTMENTS	kn		1.050.000	2.158.642	232.095	295.559	1.708.190				
COSTS												
11	Depreciation – plantation and other assets	kn							1.526.679	1.526.679		
12	Depreciation machinery	kn							695.564	695.564		
13	Organic fertilizers	kn							1.401.699	1.883.767		
14	Replanting and other	kn							15.057	20.236		
15	Packaging	kn						28.500	2.080.648	2.796.216		
16	Harvests	kn						144.000				
17	Permanent employees	contract 2		55.000					1.505.732	2.023.578		
18	Temporary employees	contract 5		25.000					1.711.059	2.299.520		
19	Loan interest	kn							1.190.000	1.190.000		
19	TOTAL COSTS	kn						172.500	10.126.439	12.435.560		
20	Revenue (+ 10 %)	kg					40000	100000	3460000	4000000		
21	REVENUE	kn		3,75			168.826	434.728	17.760.792	27.594.241		
22	PROFIT	kn					135.061	209.782	6.107.483	12.126.945		
CASH FLOW												
1	Investment activity inflows – outflows	kn										
2	Business activity inflows – outflows	kn			-1.050.000	-232.095	-295.559	-1.708.190				
3	Financial activity inflows - outflows	kn				2.000.000		262.228				
4	#Cash flow	kn			-1.050.000	-2.158.642	1.767.905	-1.445.963				

Source: Krpina, I. I. suradnici (2004); Voćarstvo, Nakladni zavod Globus, Zagreb (page 145.-146.), and interviews with the employees from the Agro-Consulting Office in Vinkovci

Discounted cash flows for the period of 2014 – 2038

Table 2 Financial indicators

INVESTOR: CORPORATION		INVESTOR: FAMILY FARM (OPG)	
NPV	715.000 kn	NPV	1.650.000 kn
DR	10 %	DR	10 %
IRR	11,9 %	IRR	14,3 %

Source: authors

The net present value (NPV) of the investment into permanent organic plum plantation with the discount rate of 10% (5% interest rate on time deposits + 5% other additional risks) is 715.000 kn. The internal rate of return (IRR) is 11,9%.

In a case where a family farm (OPG) is an investor, the net cash flow is corrected for the expected wages and salaries during the project time-period. In such a case the net present value (NPV) is 1.650.000 kn, while the internal rate of return (IRR) is 14,3%.

Total investment outflows and present value of organic plum cost price

Total investment outflows which represent either time-period costs or are registered as depreciation costs (land is not being depreciated) are 27,278.895 kn nominally. Investment outflows during the plantation usage period are based on current market prices corrected for 3% p.a. due to expected inflationary pressures.

Discounted nominal investment outflows for the time-period of 25 years with the discount rate of 5% on the present value (PV) are 15.401.812 kn. In this case, outflows are being discounted with a discount rate which is equivalent to commercial bank fixed-term deposit rate. The present value (PV) divided by total expected yield of 7.600 tonnes gives us a weighted average organic plum cost price of 2,03 kn/kg.

Table 3 Present value of weighted average cost price for organic plum for the period of 2014-2038

NOMINAL CASH OUTFLOWS 2014 - 2038	27,278.895 kn
DISCOUNT RATE	5 %
PRESENT VALUE OF CASH OUTFLOWS 2014 - 2038	15.401.812 kn
TOTAL EXPECTED RETURN	7.600 t
PV WEIGHTED AVERAGE COST PRICE (ORGANIC PLUM)	2,03 kn / kg

Source: authors

The market price of organic industrial plums on the domestic market was 3,60kn (+VAT) last year. Based on such data we can draw a conclusion that the gross profit margin for the organic plum of the entrepreneur “A” is 77% on the base-cost price. In our cost-benefit analysis we assume that the future real market price will be 20% lower due to supply increase. In such a case, the gross profit margin would be 47%. If we do the calculation for a family farm (OPG), the gross profit margin for the owner would be even higher.

Table 4 Organic dried plum production – calculation

ENTREPRENEUR „B“ – PROCESSING						
MONTHLY COST CALCULATION – ORGANIC DRIED PLUM (PACKAGING 200 g)						
	COSTS	UNIT	QUANTITY	PRICE/UNIT	factor	AMOUNT
1	GENERAL PRODUCTION COSTS					57.500,41
2	Wages and salaries	kn		18.000,00	1,25	22.500,00
3	Depreciation	kn		7.917,00	1,25	9.896,25
4	Energy and telecommunication	kn		2.800,00	1,25	3.500,00
5	Daily and travelling allowances	kn		700,00	1,25	875,00
6	Consumables	kn		500,00	1,25	625,00
7	Maintenance and other services	kn		1.500,00	1,25	1.875,00
8	Quality systems: ISO, HACCP, EKO	kn		8.333,33	1,25	10.416,66
9	Cold storage 750 t	kn		6.250,00	1,25	7.812,50
10	DIRECT PRODUCTION COSTS					86.420,00
11	Plums	kg	11000	3,00		33.000,00
12	Gas	m ³	3000	2,50		7.500,00
13	Electricity	kWh	1000	1,50		1.500,00
14	Wages and salaries	h	704	30,00		21.120,00
15	Maintenance and spare parts	kn		1.000,00	1,25	1.250,00
16	Depreciation	kn		8.400,00	1,25	10.500,00
17	Packaging	kom	16.500	0,70		11.550,00
18	OTHER GENERAL COSTS					53.872,79
19	General production costs	%	50%			28.750,21
20	Administration	%	50%			16.296,88
21	Cost provisions	%	5%			8.825,71
22	TOTAL COSTS	kn				140.292,79 kn
23	UNITS PRODUCED IN 22 DAYS	20 dkg	16.500			
24	PRICE – ORGANIC DRIED PLUM 200 g	kom				8,50 kn
25	PRICE – ORGANIC DRIED PLUM 200 g	kom				1,13 €

Source: authors

Entrepreneur “B“ is a small entrepreneur in East Slavonia. He is engaged in fruit processing business and owns all needed processing equipment, cold storage and other needed assets. The entrepreneur employs 20 employees. The market for his products is the organic product market. We assume that the entrepreneur will sell his products on EU markets. Entrepreneur “B“ buys organic plums from the entrepreneur “A“ at a market price. During a period of two months within a year, the entrepreneur processes the organic plum into a final product (dried plum). The cost price for 200g of dried organic plums is 1,13€ or 8,50 kn (all costs included). We assume (based on agro-

consultancy data) that out of 1kg of organic plum (species “Stanley”), 300g of dried organic plums can be produced.

The retail price of the same product on EU markets is 3,50€. If 19% for VAT and 40% for trade margin and transport costs are subtracted, we arrive at a price of 15,30kn/unit. Based on such calculation, we can conclude that the producer can reach very high gross profit margins of more than 80%.

4. Conclusion

Not enough industrial organic plums are produced on the territory of East Slavonia. The only bigger producer, who bought negligible quantities of organic industrial plums and processed it into organic plum juice, last year, is located in Baranja. Neither the production of organic industrial plum (species “Stanley”) nor the capacities for drying processing do exist. Even if processing capacities would exist, larger quantities of processing would not be possible since there is not enough industrial organic plum in the Republic of Croatia. It is possible to find suitable land for organic plum plantations in East Slavonia by conducting a soil analysis. As far as the profitability issue is concerned, the production and processing prospects for organic industrial plum (species “Stanley”) are very positive. A family farm can tie its whole life cycle to a permanent plantation of such a culture and have very good profitability prospects. In a base case scenario, a gross profit margin of 50% per unit can be expected. A small fruit processing business can use domestically grown organic plums and process them into highly profitable final product (dried plums) with an expected gross profit margin of more than 70% in a base case scenario.

REFERENCES

- Bićak, L., Bradić, V., Miholić, Z., Šimunović, V., (2008): *Šljiva*, Zavod za poljoprivrednu savjetodavnu službu, Zagreb
- Defilippis J. (2005): *Poljoprivreda i razvoj*, Školska knjiga, Zagreb
- Defilippis J. (2002): *Ekonomika poljoprivrede*, Školska knjiga, Zagreb
- Grahovac P. (2005): *Ekonomika poljoprivrede*, Golden marketing i Tehnička knjiga, Zagreb
- Krpina, I. suradnici (2004): *Voćarstvo*, Nakladni zavod Globus, Zagreb
- Miljković, I. (1991): *Suvremeno voćarstvo*, Nakladni zavod Znanje, Zagreb
- Miljković, I. (2003): *Opće voćarstvo*, II. Izdanje, Školska knjiga, Zagreb
- Mišić, D.P. (2006): *Šljiva*, II. dopunjeno izdanje, Partenon, Beograd
- Državni hidrometeorološki zavod (2013): *Odstupanje od klimatskog prosjeka 1961. – 1990. za godine od 2000. do 2012.*, http://klima.hr/ocjene_arhiva.php (accessed 20. Veljače 2013)
- Državni hidrometeorološki zavod (2013): *Publikacije – Praćenje i ocjena klime (1997. – 2010.) za godine od 2000. do 2010.*, <http://klima.hr/razno.php?id=publikacije¶m=prikazi> (accessed 20. Veljače 2013)
- Državni hidrometeorološki zavod (2013): *Praćenje kišnih I sušnih uvjeta na različitim vremenskim skalama za godine od 2000. do 2010.*, <http://klima.hr/klima.php?id=SPI> (accessed 20. Veljače 2013)

Ministarstvo poljoprivrede, ribarstva i ruralnog razvoja (veljača 2011): *Akcijski plan razvoja ekološke poljoprivrede u Republici Hrvatskoj za razdoblje 2011.-2016. godine*, http://www.azrri.hr/fileadmin/dokumenti-download/AKCIJSKI_PLAN_RAZVOJA_EKOLO%C5%A0KE_POLJOPRIVREDE_ZA_RAZDOBLJE_2011-2016.pdf(accessed 15. prosinca 2012)

Marković, V. (22.06.2009.): *Unapređenje tehnologije sušenja šljiva sorte stenlej*, <http://www.tehnologijahrane.com/tehnologijavoca-i-povrca/unapredjenje-tehnologije-susenja-ljiva-sorta-stenlej>(accessed 17. prosinca 2012)

“Zakonu o ekološkoj proizvodnji poljoprivrednih i prehrambenih proizvoda“, Narodne novine, br. 12/2001.,14/2001. i 79/2007.

Blaženka Hadrović Zekić, PhD

J.J. Strossmayer University of Osijek, Faculty of Economics in Osijek

Gajev trg 7, HR-31000 Osijek, Croatia

Phone: +385 (0)31 22 44 00 Fax: + 385 (0)31 211 604

E-mail address: hadrovic@efos.hr

LIQUIDITY RATIOS AS PREDICTORS OF ORGANIZATIONAL DECLINE: EVIDENCE OF THE EASTERN CROATIA

POKAZATELJI LIKVIDNOSTI KAO ČIMBENIK UPOZORENJA NA PROBLEME U POSLOVANJU: NA PRIMJERU ISTOČNE HRVATSKE

ABSTRACT

Problems in business are present long before bankruptcy procedure is initiated, whereas methods for bankruptcy prediction provide reliable results in a short term period – up to three years, which is most often too late for a company to be saved. Therefore company management boards and stakeholders strive to recognise latent business problems as early as they arise so that they could start business changes as soon as possible.

The aim of this research is to analyse liquidity ratios as the factor of influence on assessment of business decline, that is, problems in business operations.

Research methodology is based on descriptive and inferential statistical analysis of financial reports of the studied companies to warn about the influence.

Empirical research of financial reports of large companies in Slavonia and Baranja in the period from 1999 to 2008 and statistical analysis of results led to the conclusion that only some of the analysed liquidity ratios are of key importance in warning about business decline. A decrease of the current liquidity within one year does not indicate that the company is in crisis, but it warns about problems in business that need to be acknowledged and eliminated to maintain successful performance.

Key words: *Liquidity ratios, organizational decline, organizational change, Eastern Croatia*

SAŽETAK

Problemi u poslovanju postoje duže vrijeme prije odlaska u stečaj, dok metode predviđanja bankrota daju sigurne rezultate na kratki rok – do tri godine, što je najčešće prekasno za spašavanje poduzeća. Stoga uprave poduzeća i dionici teže što ranijem prepoznavanju latentnih problema u poslovanju kako bi što prije mogle započeti s promjenama u poslovanju.

Cilj istraživanja je analiza pokazatelja likvidnosti kao čimbenika utjecaja na ocjenu slabljenja poslovanja odnosno problema u poslovanju poduzeća

Metodologija istraživanja temeljena je na upotrebi deskriptivne i inferencijalne statističke analize financijskih izvještaja proučavanih poduzeća upozorilo se na utjecaj .

Empirijskim istraživanja financijskih izvještaja velikih poduzeća Slavonije i Baranje u razdoblju od 1999. do 2008. i statističkom analizom rezultata zaključilo da su samo neki od analiziranih pokazatelja likvidnosti ključni u upozoravanju na slabljenje poslovanja. Jednogodišnji pad pokazatelja tekuće likvidnosti ne ukazuje da je poduzeće u krizi, već upozorava na postojanje problema u poslovanju koje treba što prije uočiti i otkloniti kako bi se nastavilo uspješno poslovanje.

Ključne riječi: *Pokazatelji likvidnosti, slabljenje poslovanja, organizacijska promjena, Istočna Hrvatska*

1. Introduction

The issue of monitoring, exploring and evaluating problems in company performance, its influence on assessing problems in business operations, and through this its usage value in scientific and professional literature has so far mostly been covered from the management's point of view, i.e. problems were solved instead of being prevented. The aim of the research in this paper is to identify financial liquidity ratios that provide warning about decline (problems) in company performance. In the process of achieving the aim of this research the term **business problems** is defined as failure of a company to adapt to demands of the environment and to carry out the associated metamorphosis of its own resources.

The aim of the research is to analyse liquidity ratios as the factor of influence on the assessment of business decline, i.e. problems in business operations. Constraints that appear in the model development have been emphasized by applying statistical tools, i.e. specific qualities of financial reporting and characteristics of business operations of Croatian companies. Namely, the studied problems of business decline are primarily based on internal accounting reports that are monitored on a monthly basis. The aim of the research is to prove that liquidity ratios can indicate business decline before crisis is recognised in business based on annual reports.

2. Research Aim and Methodology

Studying the literature referring to business issues and changes within a company as well as timely adjustment of business operations and making of business decisions adjusted to business issues makes it possible to prevent crisis, i.e. possible bankruptcy. The aim of the research is to prove the following key research hypothesis:

H-1: Liquidity ratios influence assessment of business decline, i.e. issues in business operations.

The above hypothesis implies the following auxiliary hypotheses that are synthesized as follows:

1. Cash ratio (1) influences evaluation of business decline.
2. Quick ratio influences evaluation of business decline.
3. Current ratio influences evaluation of business decline.
4. Cash to current assets influences evaluation of business decline.
5. Cash and cash equivalents to current assets influence evaluation of business decline.
6. Working capital influences evaluation of business decline.
7. Working capital to total assets influences evaluation of business decline.
8. Financial stability indicator influences evaluation of business decline.

3. Research Methodology

The first studies of business decline go back to the 30-ies of the 20th century (Fitzpatrick, 1936). Research went in two directions: (1) bankruptcy prediction research (going concern assumption) in the 60-ies of the same century, such as research by Beaver, Altman, etc.; and (2) business decline preceding bankruptcy.

In most research studies decline is studied as the first of at least three phases of decline (FitzPatrick 1934 & 1936, Miller 1977, Hambrick & D'Aveni 1988 & 1989, Fopp 1989, Guy 1989, Weitzel & Jonsson 1989, Argenti 1977), studying the decline process itself and warning about the possibility of a turnaround. Research in the field of business decline is present in the literature of the 1970-ies, but also of the end of 1980-ies. Inability to develop a research of business decline beyond the

conceptual model is reflected in the first appearance of the so-called soft indicators that cannot be quantified in financial reports (especially annual reports). Therefore researchers make recommendations for company managements to apply the above conceptual models by monitoring changes within the company on a monthly basis during the minimum period of five years (Saloma, 1985) to prevent problem escalation, thus preventing the need for hiring crisis management.

3.1. Empirical Study

In the empirical part of the research, effort was made to point out the effects of business decline through liquidity ratios by analysing gathered annual financial reports. To achieve research goals, a research was conducted on the analysis of annual financial reports of companies in Slavonia and Baranja during a ten-year period (1999 to 2008). Statistical analysis of gathered data was carried out by means of a statistical software IBM SPSS ver. 19.0.

In addition to descriptive statistical analysis by means of which business performance of the observed companies was presented, multivariate statistical analysis methods were used to examine the latent connections among variables (factor analysis). Primary goal of descriptive research methods, i.e. normative research methods is to understand complex meaning of many different discreet events. Descriptive or normative approach was used to explore studied cases that require application of observation techniques as the main method of data gathering.

3.2. Sample Formation

Research was conducted in 2012, and it encompassed financial reports of 20 public joint stock companies in Slavonia and Baranja, in the period from 1999 to 2008. The sample was selected from the database of the Public information library of the Croatian Financial Services Supervisory Agency¹⁷ and Fina's Public announcements – GFI (annual financial reports)¹⁸.

The sample of 20 companies was formed by extracting, filtering and formatting data, satisfying the following criteria in the process:

1. Entrepreneur does not operate in the sector of financial institutions and insurance companies;
2. In the database of the Public information library of the Croatian Financial Services Supervisory Agency there are financial reports for the company for the studied period (ten years – from 1999 to 2008);
3. The seat of the entrepreneur is in Slavonia and Baranja (counties: Osijek-Baranja, Vukovar-Srijem, Požega-Slavonia, Virovitica-Podravina and Brod-Posavina county).

The first criterion was established because of the different nature of business of companies operating in the sector of financial institutions and significant differences in the structure of assets and ratio values that cannot be compared to ratios of companies in other sectors. The second criterion was established according to approach of relevant authors (Hambrick & D'Aveni, 1988, 1989) who used the observation period of ten years in their research. Further, the studied entrepreneurs have been operating for a long period of time (more than 30 years) so they can be described as Type 3 – mature entrepreneurs with problems according to Argenti (1976).

The next step divides entrepreneurs in two subsamples based on data published in financial reports for 2010 – Successful entrepreneurs and Unsuccessful entrepreneurs. Indicators chosen as selective indicators in this research are successful performance for successful entrepreneurs (realised profit and existence of retained earnings) in 2010, and growth of loss carried forward, including initiated bankruptcy procedure, for unsuccessful entrepreneurs.

¹⁷ <http://www.hanfa.hr>

¹⁸ <http://www.fina.hr>

SUCCESSFUL ENTREPRENEURS (USPJ 1) → retained earnings > 0
UNSUCCESSFUL ENTREPRENEURS (USPJ 0) → retained earnings < 0

In the process of model development, logistic regression was used with several prerequisites: (1) sample size, (2) multicollinearity and (3) non-typical points. Research was conducted on a sample of large entrepreneurs from Slavonia and Baranja from six successful and 14 unsuccessful entrepreneurs. Constraints that arose during model development can be divided into constraints arising from application of certain statistical tools and constraints arising from specific qualities of financial reporting in Croatia. Constraints in research that occurred due to application of certain statistical tools include:

1. Changes in the form, content and applied methodology of used data – content and form of financial and business reports is prescribed by the Bylaws on quarterly financial and business reports¹⁹ amended in 2003²⁰, which was adopted by the Securities Commission and changes in the Accounting Act²¹ and the Bylaws on the structure and content of annual financial reports (GFI)²². Namely, modifications of the Bylaws and the Act resulted in changes of report positions that entrepreneurs are required to publish.

1. Possible violation of normal distribution assumption;
2. Possible violation of homogeneity of covariance matrix assumption;
3. High disproportion between the share of successful and unsuccessful companies in the sample.

Constraints in the research related to specific qualities of financial reporting include:

1. Application of the historical cost principle in recording of business transactions;
2. Arbitration and application of the fair value principle in acknowledging and evaluating of assets;
3. *Noise* in financial reports that diminish reliability of contained information, and it occurs due to errors in accounting records or due to errors in criteria for evaluation or evaluation itself;
4. Manipulation.

Finally, certain constraints are also related to **specific qualities** of business operations in Croatia:

1. Reluctance of companies to publish information on their performance;
2. Shallow and non-liquid capital market.

4. Statistical Analysis of Gathered Data

Statistical analysis of gathered data was carried out by means of information tool IBM SPSS ver. 19.0. Statistical analysis of ratios based on financial reports about business decline implies application of a set of statistical methods:

- Descriptive statistical methods
- Inferential statistical method

Frequency distributions of liquidity ratios that are characterised by measuring the ability of a company to settle due short-term (current) liabilities, interests, total liabilities and dividends were studied by means of descriptive statistical analyses. All liquidity ratios are calculated based on data from the balance sheet.

¹⁹ Bylaws on quarterly financial and business reports, *Official gazette*, 38/2000

²⁰ Bylaws on the structure and content of annual financial and business reports of public joint stock companies, *Official gazette*. 118/2003

²¹ Accounting Act, *Official Gazette*, 146/2005 and Accounting Act, *Official Gazette*, 109/2007

²² Bylaws on the structure and content of annual financial reports, *Official gazette*. 38/2008; Bylaws on amendments to the Bylaws on the structure and content of annual financial reports, *Official gazette*. 12/2009; Bylaws on amendments to the Bylaws on the structure and content of annual financial reports, *Official gazette*, 130/2010

- Cash ratio (1) – P01
- Quick ratio – P03
- Current ratio – P04
- Cash to current assets – P05
- Cash and cash equivalents to current assets – P06
- Working capital – P07
- Working capital to total assets – P08
- Financial stability indicator – P09

Table 1 Inferential statistical analysis – Variance analysis (ANOVA, F-test)

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Cash ratio (1)	P01 Between Groups	.067	1	.067	1.854	.175
	Within Groups	7.169	198	.036		
	Total	7.236	199			
Quick ratio	P03 Between Groups	2.893	1	2.893	8.542	.004
	Within Groups	67.055	198	.339		
	Total	69.948	199			
Current ratio	P04 Between Groups	3.982	1	3.982	6.313	.013
	Within Groups	124.886	198	.631		
	Total	128.868	199			
Cash to current assets	P05 Between Groups	.010	1	.010	2.263	.134
	Within Groups	.903	198	.005		
	Total	.913	199			
Cash and cash equivalents to current assets	P06 Between Groups	.059	1	.059	4.104	.044
	Within Groups	2.825	198	.014		
	Total	2.883	199			
Working capital	P07 Between Groups	65747732232.292	1	65747732232.292	6.113	.014
	Within Groups	2129712399837.580	198	10756123231.503		
	Total	2195460132069.870	199			
Working capital to total assets	P08 Between Groups	.378	1	.378	8.876	.003
	Within Groups	8.428	198	.043		
	Total	8.806	199			
Financial stability indicator	P09 Between Groups	2.197	1	2.197	3.772	.054
	Within Groups	114.158	196	.582		
	Total	116.355	197			

Source: Author's calculation

Inferential statistical analysis, primarily F-test (ANOVA, i.e. variance analysis), was used to test assumptions about the existence of statistically significant difference among two or more categories of selected variables, i.e. business performance ratios based on financial reports. Comments were made on statistically significant differences of those test ratio whose significance (calculated p value) was below 0.05 (Horvat, 1995). Namely, variance analysis as parametric statistical procedure determines whether there is a statistically significant difference among several sets of results. Indicator test of ANOVA analysis is F-test (quotient of interpreted and total deviations) whose value directs at statistically significant difference at calculated p value less than 0.05. Mostly $p < 0.05$ presents probability that the mean value of the observed variable will be found in the calculated interval of 95%.

T-test was used to compare mean values of variables of business performance indicators based on financial reports of successful and unsuccessful companies respectively, for a ten-year period (1999 to 2008). The aim of t-test is to show that change of the dependent variable does not take place by accident. Namely, experimental control disables other influences on the dependent variable (successful/unsuccessful business performance), so the change is attributed to influence of independent variable.

Table 2 Selection of predictors of warning about problems in business (T-test)
Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Interval Difference		Confidence of the Upper
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper		
											Equal variances assumed	
Cash ratio (1)	P01	2.449858	0.119132	-1.36173	198	0.17483	-0.03998	0.029362	-0.09788	0.017919		
Quick ratio	P03	0.028978	0.865004	-2.92269	198	0.003874	-0.26245	0.089796	-0.43953	-0.08537		
Current ratio	P04	0.759504	0.384539	-2.51263	198	0.012781	-0.30791	0.122546	-0.54958	-0.06625		
Cash to current assets	P05	5.752	0.017398	-1.50424	198	0.134112	-0.01567	0.01042	-0.03622	0.004874		
Cash and cash equivalents to current assets	P06	1.949184	0.164238	-2.0259	198	0.044116	-0.03734	0.01843	-0.07368	-0.00099		
Working capital	P07	1.690101	0.195099	-2.47236	198	0.014265	-39565.4	16003.07	-71123.7	-8007.09		
Working capital to total assets	P08	11.96525	0.000664	-2.97918	198	0.003252	-0.09484	0.031835	-0.15762	-0.03206		
Financial stability indicator	P09	5.382599	0.021368	-3.59233	175	0.000426	-0.09484	0.026401	-0.14695	-0.04274		
				1.942288	196	0.053535	0.229222	0.118016	-0.00352	0.461967		
				2.669054	190	0.008263	0.229222	0.085881	0.059821	0.398622		

Source: Author's calculation

5. Research findings

Research aimed at development of a model of business decline based on financial reports includes analysis of calculated ratios of business performance.

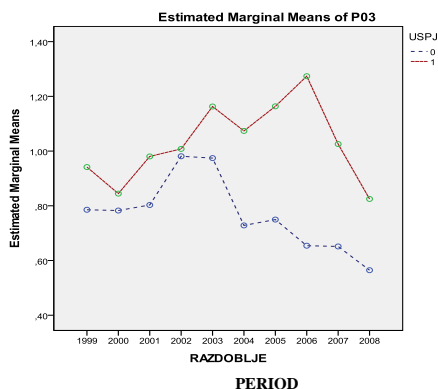
As the main goal of the research is to develop a warning model for business decline, selected statistical parameters were presented for each of the two sub-samples – successful and unsuccessful companies for each year. Separate presentation of statistical parameters by groups of stable and unstable companies provides insight into basic characteristics of both sub-samples during the observed period of business activities (1999 - 2008).

Based on T test, six (6) out of eight (8) tested liquidity ratios were selected with significant difference (sig. <0.05) between successful and unsuccessful companies.

Based on T test, the **auxiliary hypothesis 1 is partially dismissed** due to lack of significant difference between successful and unsuccessful companies. Namely, significant difference between successful and unsuccessful companies on the selected sample was detected for the following ratios:

- ❖ *Quick ratio (P03),*
- ❖ *Current ratio (P04),*
- ❖ *Cash and cash equivalents to current assets (P06),*
- ❖ *Working capital (P07),*
- ❖ *Working capital to total assets (P08) and*
- ❖ *Financial stability indicator (P09).*

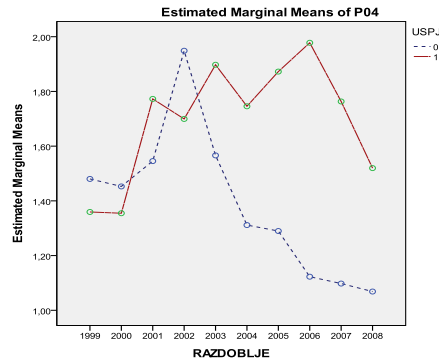
Chart 1 *Quick ratio (P03) trends for successful (1) and unsuccessful (0) companies for the period 1999 – 2008*



Source: Author's calculation

Quick ratio or acid test indicates the ability of a company to satisfy the urgent needs for money within a short period. Namely, quick ratio shows the ratio between cash, cash equivalents and marketable securities and short-term receivables and short-term liabilities. According to common criteria, it is not recommended that quick ratio is below 1 as it may lead to a delay in company's ability to pay liabilities within their due dates. Based on the above presented Chart (1) it can be concluded that successful entrepreneurs are better at managing cash and cash equivalents compared to unsuccessful entrepreneurs whose quick ratio was not above 1 for the entire observed period. Successful companies have recorded increase of this ratio since 2001 i.e. after restructuring of one of the observed companies. Poor economic situation in Croatia and global economic crisis showed their impact on business performance of successful companies already in 2007.

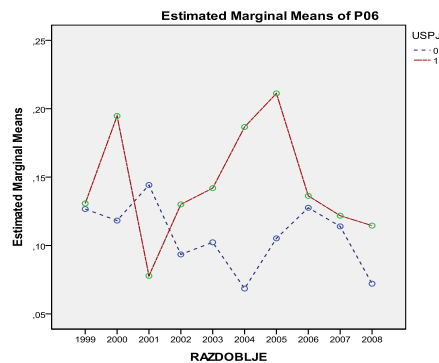
Chart 2 *Current ratio (P04) trends for successful (1) and unsuccessful (0) companies for the period 1999 – 2008*



Source: Author's calculation

Current ratio is the most frequently used liquidity ratio, showing the coverage of current liabilities by current assets. This ratio warns about the limit up to which an entrepreneur can go with its current assets without having problems. It is recommended that current ratio is minimum 1.3, that is, 2 in case of companies with large inventories that are typical for specific production. High current ratio is also not recommended because it indicates poor liquidity management of a company. Entrepreneurs with current ratio being around 1 have continuous liquidity issues, which can be observed here in unsuccessful entrepreneurs. Influence of the global economic crisis is visible in the years 2007 and 2008, which is also reflected in a sudden fall of current liquidity of successful companies (from almost 2 to 1.5 within two years). Also, restructuring of one of the successful companies in 2001 is visible through growth of current liquidity.

Chart 3 *Cash to current assets ratio (P06) trend for successful (1) and unsuccessful (0) companies for the period 1999 – 2008.*

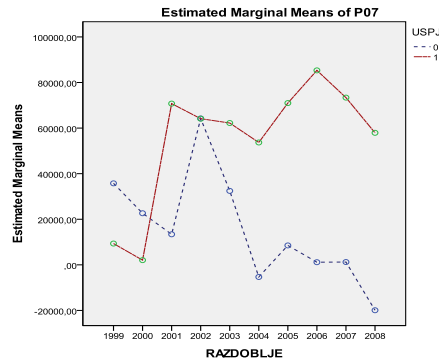


Source: Author's calculation

Cash to current assets ratio is useful when determining the share of current assets and financial assets easily convertible into cash. This ratio is considered the most conservative way of assessing company's liquidity as it ignores liquidation value of receivables and inventory. During the observed period it can be seen that unsuccessful entrepreneurs were not good at managing cash, cash equivalents and current financial assets with the falling tendency of the share. Among successful companies restructuring of one of them is visible in 2001, so that a significant growth of the share of cash, cash equivalents and current financial assets can be observed in the period from

2001 to 2006, when the share was reduced, which can be explained with the onset of the global economic crisis.

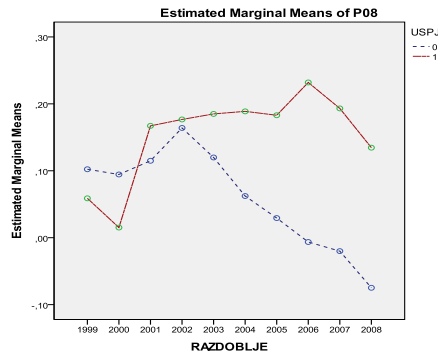
Chart 4 *Working capital (P07)* trend for successful (1) and unsuccessful (0) companies for the period 1999 – 2008



Source: Author's calculation

Working capital is the difference between current assets and current liabilities, which is a prerequisite for liquidity and financial stability of a company. Higher working capital reduces market pressure on business performance of entrepreneur and enables independent financing of growth. Taking into account specific qualities of a company, there is no ideal level of working capital that would be universally applicable to all entrepreneurs. Poor efficiency of business operations of unsuccessful companies lacking assets that are stuck in inventory, ongoing production and at buyers' place in relation to current liabilities can be seen in the Chart 4. On the other hand, importance of good management of working capital can be seen in the influence of the restructured company in 2001 which improved business performance.

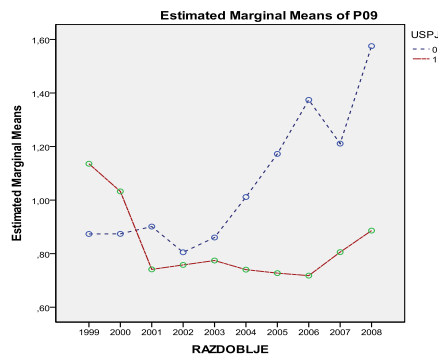
Chart 5 Working capital to total assets (P08) for successful (1) and unsuccessful (0) companies for the period 1999 – 2008



Source: Author's calculation

Working capital to total assets shows efficiency of working capital in relation to total assets. Higher level of working capital in total assets provides better long term business performance in terms of the ability to expand, improve or make changes in business. Higher level of working capital in total assets makes it possible for entrepreneurs to finance business growth independently, thus reducing market pressure. During the observed period low and negative share of working capital can be observed in unsuccessful companies. Low level of working capital before restructuring of one of the successful companies had influence until 2001. Continuous monitoring of the working capital level is necessary to be able to make timely changes in trends in order to prevent business decline.

Chart 6 Financial stability indicator (P09) trend for successful (1) and unsuccessful (0) companies for the period 1999 – 2008



Source: Author's calculation

Financial stability indicator shows the ratio between fixed assets and long term sources of assets (capital and long term liabilities). Financial stability indicator should not exceed 1. Decrease of a financial stability indicator is considered a positive tendency because that means that increasingly growing portion of current assets is financed from long term sources of financing, thus creating prerequisites for financial stability of the observed company. During the observed period, restructuring of entrepreneurs in 2001 had a positive impact on business performance of successful entrepreneurs, whereas unsuccessful entrepreneurs had negative tendency since 2004, with small improvement during 2007.

Results of this research should be taken with a grain of salt. Business decline of a company is an extremely complex process. As emphasized in earlier research of company performance (Adizes, 2006), each phase of company's life cycle is characterised by specific problems, which has different influence on business decline indicators. Further, research was conducted on a small sample of large companies in Slavonia and Baranja and the sample was uneven (six successful and 14 unsuccessful companies). Use of longitudinal data (10 years) reduced the influence of small sample, but larger sample would provide higher authenticity, thus strengthening internal value of the study.

Regardless of limitations of the model development, results of this research should be considered with due attention. Namely, future research could also include small and medium-sized entrepreneurs, especially those in different growth phases, due to their vulnerability and lack of experience of management/owners in business monitoring.

6. Conclusion

This research included analysis of liquidity ratios as factors of influence on assessment of business decline, i.e. problems in business. On the grounds of empirical research based on *ex post* data, i.e. financial reports of companies in the period from 1999 to 2008, the aim is to assume future, i.e. *ex ante* company performance.

Here *ex ante* refers to future performance, that is, suggestions and some solutions that could be applied by company managements and stakeholders based on this research. Recommendation to the management boards of large companies that were the object of this research is to introduce internal audits or controls to improve the continuity of business monitoring. The reason is objective understanding of company performance, especially regarding problems within particular industries.

REFERENCES

Altman, Edward I., Hotchkiss, Edith (2006) *Corporate financial Distress and Bankruptcy: predict and Avoid Bankruptcy, Analyze and Invest in Distress Debt*, 3 ed., John Wiley & Sons, Inc., Hoboken, NJ

Argenti, John (1976), *Corporate Collapse: The Causes and Symptoms*, McGraw-Hill, London

FitzPatrick, Paul J. (1936.) *The Problem of Business Failures*, The Dolphin Press, Philadelphia, Pa.

Fitzpatrick, Paul J.(1934.), *Transitional Stages of a Business Failure*, Accounting Review, pp. 337-340

Bylaws on amendments to the Bylaws on the structure and content of annual financial reports, Official Gazette, 12/2009

Bylaws on amendments to the Bylaws on the structure and content of annual financial reports, Official Gazette, 130/2010

Bylaws on the structure and content of annual financial and business reports of public joint stock companies, Official Gazette, 118/2003

Bylaws on the structure and content of annual financial reports, Official Gazette, 38/2008

Bylaws on quarterly financial and business reports, Official Gazette, **38/2000**

Accounting Act, Official Gazette, 109/2007

Accounting Act, Official Gazette, 146/2005

Accounting Act, Official Gazette, 90/1992

Company Act, Official Gazette, 111/2003

Law on the Croatian Financial Services Supervisory Agency, Official Gazette, 140/2005

Duro Horvat, PhD.

Agrokor d.d.
Trg Dražena Petrovića 3, 10000 Zagreb, Hrvatska
Phone: 091/9841 700
E-mail address: djuro.hovvat@agrokor.hr

Marinko Kovačić, M.Sc.

Hrvatska gospodarska komora
Rooseveltova trg 2, 10000 Zagreb, Hrvatska
Phone: 098 9292 635
E-mail address: mkovacic@hgk.hr

ELEMENTS OF REGIONAL DEVELOPMENT OF SLAVONIA – NEW ECONOMY COMPETITIVENESS

SASTAVNICE REGIONALNOG RAZVOJA SLAVONIJE – KONKURENTNOST U NOVOJ EKONOMIJI

ABSTRACT

Synergetic effects can be the result of synthesis of traditional values and comparative advantages with high technologies and new organizational structures. Slavonia's autochthonous culture and customs, tradition of production and landscape e.g. Vučedol culture, Vinkovačke jeseni festival, bećar²³, kulen²⁴ and svinjokolja²⁵, Papuk geologic park and Kopački rit, should be the platform for unique and recognizable regional brand articulation. In this matter the authenticity should constantly be filled up and improved by basic elements of new economy such as green tech or clean tech, ecological agriculture, sustainable development i.e. responsible business, workforce competency and innovativeness, research and development, and high technologies. Traditional and post-modern economy integration is articulated through new structural forms that are network form of industrial organization, scientific and technological parks, clusters and risky funds. The process mentioned above should be based on the knowledge generated at scientific and academic community and developed within economical entity. Economic effectiveness is an important part of regional brand affirmation. It is based on maximally rational information managing, constant quality improvement and holistic approach to business conduct. High productivity and competitiveness finally result in business excellence of economical entities of that region in the lump. Processes of regional development of Slavonia have to be transparent and by conducting them basic processes like branding, education and innovativeness have to be formulated. Maximal affirmation of the new economy principle is possible within civil society frame in which civil activism is very important corrective of both political and economical processes. According to plan new economy citizens i.e. consumers are integrated in business policy and strategies with the aim of achieving better business results and organizational aims which are not essentially related to profit. In that way local community and thus region is successfully developed and this is positively reflected on economical entities' business.

Key words: Competence, Competitiveness, New economy, Processes, Regional development

²³ man about town

²⁴ paprika-flavored sausage

²⁵ pig butchering time

SAŽETAK

Sinteza tradicionalnih vrijednosti i komparativnih prednosti s visokim tehnologijama i novim organizacijskim strukturama može rezultirati sinergijskim efektima. Autohtona kultura i običaji, proizvodna tradicija te krajobraz Slavonije poput primjerice Vučedolske kulture, Vinkovačkih jeseni, bečarca, kulena i svinjokolje, geološkog parka Papuk i Kopačkog rita, trebaju biti platforma za artikulaciju unikatnog i prepoznatljivog regionalnog brenda. Pri tome tu izvornost treba nadopunjavati i oplemenjivati temeljnim sastavnicama nove ekonomije kao što su zelene odnosno čiste tehnologije, ekološka poljoprivreda, održivi razvoj odnosno društveno odgovorno poslovanje, kompetentnost radne snage i inovativnost, istraživanje i razvoj te visoke tehnologije. Integracija tradicionalne ekonomije i post-modernog gospodarstva artikulira se kroz nove strukturalne forme kao što su umrežene organizacije, znanstveni i tehnološki parkovi, klasteri i rizični fondovi. Navedeni procesi moraju se temeljiti na znanjima generiranim u znanstvenoj i akademskoj zajednici te nastalim unutar gospodarskih subjekata. Ekonomska učinkovitost je važna sastavnica afirmacije regionalnog brenda a temelji se na primjerice maksimalno racionalnom upravljanju informacijama, stalnom poboljšavanju kvalitete te holističkom pristupu vođenja poslova. Visoka produktivnost i konkurentnost rezultiraju u konačnici poslovnom izvrsnošću gospodarskih subjekata te regije u cjelini. Proces regionalnog razvoja Slavonije moraju biti transparentni pri čemu treba formulirati temeljne procese poput primjerice brendiranja, obrazovanja te inovativnosti. Maksimalna afirmacija načela nove ekonomije moguća je u okviru civilnog društva u kojem je građanski aktivizam bitan korektiv političkih ali i ekonomskih procesa. Građani odnosno potrošači u novoj ekonomiji planski se integriraju u poslovne politike i strategije s ciljem ostvarivanja boljih poslovnih rezultata ali i organizacijskih ciljeva koji nisu prvenstveno vezani uz profit. Na taj način se uspješno razvija lokalna zajednica odnosno regija što se u krajnjoj liniji pozitivno odražava na poslovanje gospodarskih subjekata.

Ključne riječi: kompetentnost, konkurentnost, nova ekonomija, procesi, regionalni razvoj

1. Introduction

Transition processes are in a way still active in Croatia, thus contemporary market mechanisms are being established. Clear vision and precise strategy lack make defining Slavonia (and Croatia as a whole) as recognisable and competitive entity on the international market scene difficult. In this paper fundamental guidelines for future articulation of Slavonia as recognisable, attractive and prosperous region in the context of new economy will be pointed out.

Establishment of Slavonia and Croatia as a whole has to be realised in conformity with principles of post modernism i.e. new economy and sufficient attention is not devoted to it. The problem is evident, even though there are potentials for solving it. The aim of this study is to point out the strategic direction necessary for the development of Slavonia in the new economy context. In the process categorical analysis based on the insights of world literature and substantiated by empirical study results will be used.

2. Tradition and contemporariness

Contemporary principles of economic business should also be integrated in traditional activities. Numerous activities with long tradition exist in Slavonia. One of them is agriculture which has been relying on science for some time. It should be added that informational science can contribute to more efficient performance of agricultural economy. Software programs have been created to improve cattle-farm labour.

Slavonia's undertaking should be systematically prepared for innovative engagement and convinced that constant planned changes enable development and adaptability in contemporary economy. Due to strong traditional culture establishment of changes i.e. dynamism and flexibility in Slavonia presents a demanding task.

Within traditional activities domination of material resources as main level of growth is characteristic. Traditional paradigm integrated in craftsman practice and agricultural activity intensifies static quality i.e. activity ingrained in inherited practical experience. However, in such circumstances innovation and change of secondary significance occur.

Traditional paradigm stimulated individuality i.e. individual market competition regardless the craft guild and professional organization. In current conditions, traditional practice is necessary to be improved by new activity principles. One of the principles is networking by the Internet which enables efficient information and knowledge exchange. Even in Ancient Greece, where the idea of knowledge was invented, the most famous thinker reached toward knowledge exclusively through dialogue with others (Weinberger, 2011, 51). It is necessary that knowledge, information and skill exchange is made voluntarily with simultaneous affirmation of mutual trust (Mayo, 2001, 165).

The metaphor of the family is used to describe a type of corporate culture where relationships between managers are personal. There exists a well-defined hierarchy. (Jacob, 2003, 112) In contemporary business organizations it is desired to articulate egalitarian relationships which are characterized by trust and innovativeness and this is described as incubator by certain authors.

3. Trust

Croatian social relationships are currently burdened i.e. complicated by erosion of trust within almost all socio-economic segments. In Slavonia, one of the assumptions for successful economic and social development is the articulation of trust not only between managers and workers but between employees and politicians. Trust in general has to permeate whole Slavonia region.

Even though we live in time of systematic technology when technology and science are becoming key economical generator, human resources which include emotions like empathy are in radical contrast with technical tools of business/activity. Within technological reality emotional aspects of human engagement are important elements of economic and social reality (8; Hicks; 2010; p. 12). Regardless the scientific technological paradigm which is dominant in new economy trust is being more and more appreciated as an important element of organizational processes functioning. Moreover, interpersonal relations in which trust is key element are generators of technological innovations (Peppers, Rogers, 2012, 122). In the process, innovations and new ideas are a continuation of previous knowledge and discoveries. The exception is radical innovation which creates new market places and new social and economic processes. Legally lack of trust would result in long and detail contractual relations which can finally make the development of partnership more difficult (Fukuyama, 2000, 183).

A number of immaterial elements, together with trust, are important for new economy. Slavonian economy can be systematically articulated as post modern economy with the help of suitable educational system. Different personalities have to be appreciated and team work developed within educational processes.

Different students need to learn how to work and study together in the same class. Personality, skills and aspiration differences have to be considered when creating of surrounding for studying and pedagogical methods choosing in schools is being done. This has proved to be one of the most demanding challenges of teaching practice (Sahlberg, 2012; 102). Furthermore, Sahlberg states that

trust in the educational system can survive only when being surrounded by built trust, self confidence, professionalism and good management.

4. Branding process

Competent work force has to manage immaterial resources maximally rationally. Slavonian entrepreneurs and managers have to systematically approach branding with speed, time, flexibility and quality. Articulation of Slavonia as recognisable destination rooted in autochthonous tradition which encloses gastronomy, folklore, flora and fauna diversity, culture, landscape, old craftsmen, wine-growing tradition is one of the strategic branding aims. Mentioned elements of Slavonian brands offer a unique emotional experience which can be placed with the help of original tourist offer. In the process, tourist industry of Slavonian region has to be focused on other market niche such as cycling and religious tourism. Original emotional and unforgettable experience which is a significant element of new economy will be ensured in this way.

Traditional heritage needs to be constantly explored in order to be preserved and with the help of certification and branding and to gain exclusiveness which ensures competitiveness on global economy market. Being specific, attractive, exclusive and innovative is not only the part of tourist offer but new economy in general which accepts difference as well. In the process, competitiveness has to be ensured.

PDO - Protected Designation of Origin – is the label of protected origin food which is produced, processed and prepared in specific geographical area in recognisable and acknowledged way. PGI – Protected Geographical Indication – is protected indication which confirms that certain product is related to certain geographical area in at least one of three segments (production, process and preparation) (Vukić, 2008, 168).

Finally, TSG – Traditional Speciality Guaranteed – stands for traditional speciality, not necessarily related to certain site but made traditionally and with such ingredients (Vukić, 2008, 169). With the help of labels, traditional *svinjokolja*²⁶ and recognisable Slavonian products like *kulen*²⁷ and *čvarci*²⁸ have to be preserved. Branding of Slavonia has to be based on healthy i.e. food grown organically which harmonically supplements with traditional production and customs creating specific and recognisable image.

In the future, branding of Slavonia will have to be based on creative economy on larger scale. Today, creativity permeates all segments of economy. For example, Vučedol culture and Kopački rit which possess great potentials for stimulating emotional experiences with tourists should be maximally and rationally established and exploited in tourist industry.

5. Elements of new economy

Knowledge is one of the basic guidelines in new economy. Because of it patents i.e. intellectual property in general represents legal frame for the protection of creativity i.e. research and development. Number of entrances for vegetal and generic patents is increasing exceptionally rapidly (Howkins, 2003, 74). It is necessary to organize a “bank“ of vegetal species in Slavonia focused on preserving i.e. protection of autochthonous vegetal species. Processes and knowledge developed in Slavonia have to be protected with patents because only in this way sustainable competitiveness can be ensured.

²⁶ pig butchering time

²⁷ paprika-flavored sausage

²⁸ greaves

Slavonian companies have to articulate transparent chain of values in which each link functions with help of clear, precise and measurable goals. Managers have to be concentrated on processes and the context in which they are done. It is necessary to organize production of knowledge which will cause innovation processes. In the process managers have to be sensitive to local community development by using the model of socially responsible business with immediate planned and rational networking of business processes.

Establishment of innovative processes initiates additional possibilities for learning in new organizational context suitable for confronting with numerous changes (Easterby-Smith, Burgoyne, Aravjo, 1999, 189). Learning organization is one of organizational matrix which represents suitable structural platform for maximally rational manipulating of information and knowledge. Networking and noticing strategic challenges on the market are important elements of contemporary organizational paradigm (Macrae, 1996, 270). Slavonian businessmen and politicians have to be aware of the importance of these processes for realizing competitiveness on international market.

Branding of Slavonia which includes traditional and autochthonous products i.e. processes which have to be harmoniously completed with fundamental principles of new economy. New economy articulation includes contemporary informational and telecommunication technology usage which presents suitable infrastructure building and new tools usage.

Social networks developed into a powerful tool for designing corporate reputation which cannot be centrally supervised or which cannot be managed from one place. In 2011 there were over 800 million active Facebook users and every day 300.000 new users join Twitter while 35 hours of videos are uploaded on You Tube servers every minute (Flynn, 2012, 216). Social networks i.e. multimedia are essential to be maximally rationally used for the establishment of positive image of Slavonia and in the process recognisability and attraction of the region should be systematically articulated. New communication tools are used by young people but also by more and more older citizens/consumers.

Social media marketing is based on the synthesis of classical marketing channels and new communication tools. Efficient usage of social media stands for integrated or better to say holistic approach (Evans, 2012, 46). Marketing strategy for promoting Slavonia should be realized with the help of tangle i.e. traditional and new communicative channel mix. Holistic approach should be practiced in marketing and in strategic thinking within all economic segments, for example production, distribution and development (Gallardo, 2012, 194-195).

Establishment i.e. Slavonia's image defining has to include public relations operation techniques like press conference, sponsorship, event management, crisis management and guerrilla marketing campaigns (Lea-Greenwood, 2013, 27). Strategic and holistic promotion can result in recognisable and attractive Slavonian image articulation.

6. High technologies

Science and agriculture permeation, healthy food, traditional craftsmen, landscape and culture are some elements of Slavonian identity which needs to be promoted. In the process industrial sector is of extreme importance for image development, not only regional image but country's image in general. Nokia Corporation is global association for Finland, Mercedes for Germany and Sony for Japan and vice versa, when one mentions one of these countries they think of these corporations. It is necessary to develop high, clean i.e. "smart" technologies in Slavonia which in the first place depend on human creativity and in doing so great financial funds are not often needed in the beginning.

Since 1960s, Slavonia has been losing population dynamic because population from areas with passive high rate of birth is not attracted by fertile land, and in Slavonian towns dominant food processing industry is of low technological level and it does not initiate development. Support of certain number of city centres which would keep population in the region has failed to take place in Slavonia (Group of authors, 2011, 33).

Young people and people in general are key element of new economy. It is necessary to establish business characteristic for new economy which is based on innovation and relatively low financial investment. At the same time hard work is essential and it presents challenge for young people. Young people and businessmen novice have to be directed to agricultural production with high added value (organic i.e. functional food and food supplement) and certain segments of high technologies (software production and computer simulation in different scientific and engineer disciplines).

Slavonia's development strategy has to focus on the development of new (clean) technologies together with preservation and development of traditional heritage i.e. skill and applied evaluation of geostrategic components. In this way it is necessary to develop suitable infrastructure which will stimulate innovativeness and science, organize applied advising support for the development of business i.e. start-up company, organize financial mechanisms of development of innovative small and medium-sized enterprises, organize suitable stimulating regional norms and systematically network business entities and economic sector with scientific community as well (Ružinski, Salamon, Švarc, 1994, 31). Incubators, technological parks, campus, institutes, risk fund capitals, scientific parks and clusters can provide an important motive to the development of high and new technologies.

In the world there are numerous innovative regions like Ontario, Canada, Silicon Valley, USA or Toscana, Italy. Intensive cooperation and communicative networking within certain region enable synergy which is additionally generated by flexible specialization which finally results in successful (industrial) development. In Baden-Württemberg province vertical integration which led to strong development of high technologies is noticeable (Braczyk, Cooke, Heindrich, 1998, 225-226). Horizontal and vertical integration which enable not only cluster organization but also supplying chains articulation (vertical integration), which is particularly interesting for food processing industry (field to table relation), should be combined in Slavonia. For the development of Slavonia system of flexible specialization which among other things implicates skilled work force, precisely defined market and suitable technology should be developed simultaneously with innovativeness (Welford, Prescott, 1196, 168). Flexible specialization i.e. computer managed production is capable of producing small production runs in economical way. Such technologies and skilled workforce are the basis for high productivity in which consumers' unique interests are possible to satisfy. Furthermore, profitability ensures consumers integration in the new products production process. This is the new economy business philosophy which has to be established in Slavonia so it can become a region recognised by its high and green technologies with harmoniously included ennobled tradition.

7. Conclusion

Development of Slavonia has to be urgently worked out in accordance with new economy principles. With systematic principles, it is essential to pay attention to implementation which is based on innovative businessmen and small and medium-sized enterprises networked in dynamic entity. This does not represent marginalization of large business entities which have to be maximally focused on the development of new products and services. The whole region has to rationally use material and immaterial resource with the help of traditional heritage and contemporary actions of economical activities synergy. In the process it should be highlighted that human resources are generator of new added value and the process can be realized by particularly

motivated and skilled workforce within stimulating surrounding and with latest structural forms usage.

REFERENCES

- Braczyk J.H., Cooke P., Heidenreich M. (1998): *Regional Innovation Systems*, UCL Press Limited, London
- Eastergy-Smith M., Burgoyne J., Araujo L. (1999): *Organizational Learning*, Sage Publications, London
- Evans D. (2012.): *Social Media Marketing*; John Wiley & Sons, Inc., Indianapolis
- Flynn N. (2012.): *The Social Media Handbook*, Pfeiffer, San Francisco
- Fuzkuyama F. (2000): *Povjerenje*, Izvori, Zagreb
- Gallardo L. (2012.): *Brands & Rousers*, LID Publishing LTD., London
- Group of authors (2011): *Hrvatska-društvo i država blagostanja*, HGK, Zagreb
- Hicks R. M. (2010): *The Digital Pandemic*, New Horizon Press, Far Hills, NJ
- Howkins J. (2003.) *Kreativna ekonomija*, Binoza Press, Zagreb
- Jacob N, (2003.): *Intercultural Management*, Kogan Page, London
- Lea-Greenwood G. (2013.): *Fashion Marketing Communications*, John Wiley & Sons Ltd., Cichester
- Macrae C. (1996): *The Brand Chatering Handbook*, Addison-Wesley Publishing Company, Harlow
- Mayo A. (2001.): *The Human Value of the Enerprise*, Nicholas Brealey Publishing, London
- Peppers D., Rogers M. (2012): *Extreme Trust*, Pengvin Group, New York
- Ružinski N., Salamon D., Švarc J. (1994.): *Technology Parks: European experience for Croatian Development*, Most Publication, Zagreb
- Sahlberg P. (2012.): *Lekcija iz Finske*, Školska knjiga, Zagreb
- Vukić F. (2008): *Hrvatske posebnosti*, Privredni vjesnik d.o.o. Zagreb
- Weinberger D. (2011): *Too Big To Know*, Basic Books, New York
- Welford R., Prescott K. (1996): *European Business*, Pitman Publishing, London

Milan Ivanović, PhD.

Rajko Subašić, M.Sc.

Renata Trischler, M.Sc.

PANON - Think-tank for Strategic Studies, Osijek

31000 Osijek; Vijenac Ivana Meštrovića 19

Phone: +385 31 204 074;

E-mail address: panon@panon.eu

Katica Križanović, univ. spec. oec., PhD candidate

Credere, Centre for research, development and reengineering

31000 Osijek, Gornjodravska obala 84

Phone: +385 91 535 6162

E-mail address: katica.krizanovic@sb.t-com.hr

DEVELOPMENT OF FRUIT AND VEGETABLE PROCESSING INDUSTRY IN THE SLAVONIA AND BARANJA REGION – THE PARADIGM IS NEEDED

RAZVOJ INDUSTRIJE ZA PRERADU VOĆA I POVRĆA NA PODRUČJU SLAVONIJE I BARANJE – POTREBNA JE PARADIGMA

ABSTRACT

The absence of a social and economic development paradigm, both in Croatia and the Slavonia and Baranja region (SliB), has caused a serious setback in economic and social development compared to of the most successful transition countries. Without fundamental changes it will take several decades to rectify these unfavourable trends. This paper points out major downsides due to lack of social and economic development in the Slavonia and Baranja region population decline, low GDP per capita, high unemployment rate, low social cohesion, as well as absence of a development strategy and adequate responses to economic and technological developments in the region. Decisive change could be realized by establishing a development paradigm. This includes joining producers and processors of fruits and vegetables by direct involvement of science and state in the development process. This state would be initiator of the development model and guarantor of public interest. Development potential of the SliB region can and should be the fruit and vegetable processing industry. It would also serve as a stabilization engine for agricultural production as well as a development all related industries such as trade, services and transport. Croatia's government system (including county authorities) is largely responsible for the poor situation in Croatia and it must take responsibility. In conclusion we propose a development model for fruit and vegetable processing industry under current conditions

Keywords: fruit, industry, paradigm, Slavonia and Baranja, social cohesion, vegetables

SAŽETAK

Odsustvo paradigme društvenog i privrednog razvoja u Hrvatskoj, a tako i na području sla-vonsko-baranjske regije (SliB), rezultiralo je značajnim zaostajanjem za privrednim i društvenim razvojem uspješnijih tranzicijskih zemalja. U radu se ukazuje na niz nepovoljnih elemenata društvenog i privrednog razvoja Slavonije i Baranje: alarmantno smanjivanje broja stanovnika, nizak BDP po stanovniku, dva desetljeća visoke stope nezaposlenosti, nisku socijalnu koheziju te odsustvo strategije razvoja i primjerenih odgovora na ekonomska i tehnološka kretanja u okruženju. Za ispravak ovih nepovoljnih trendova – ako se ne provedu kardinalni zaokreti – trebat će više de-

setljeća. Kardinalni zaokret mogao bi se realizirati postavljanjem razvojne paradigme, čvrstim udru-živanjem proizvođača i prerađivača voća i povrća, direktnim uključivanjem znanosti te države kao inicijatora razvojnog modela i jamca javnog interesa u ovaj razvojni ciklus. Razvojni potencijal na području SliB regije može i mora biti industrija za preradu voća i povrća – koja će biti ujedno i sta-bilizator ove poljoprivredne proizvodnje te pokretač razvoja pratećih industrija, obrta, usluga i tran-sporta. Država (uključujući i županijske vlasti) ima vrlo veliku odgovornost za neiskorištavanje pri-rodnih potencijala i loše stanje gospodarstva i ona mora preuzeti odgovarajuće obaveze. U zaključku se predlaže model razvoja industrije prerade voća i povrća u aktualnim uvjetima.

Ključne riječi: industrija, paradigma, povrće, Slavonija i Baranja, socijalni kapital, voće

1. Slavonia and Baranja region

Slavonia and Baranja region (SliB) is territorially organized in five counties: Brod-Posavina, Osijek-Baranja, Slavonia-Pozega, Virovitica-Podravina and Vukovar-Sirmium (fig.1). Despite its natural resources, traditionally strong economy (agriculture, crafts, industry) and expert personnel it has been lagging behind in economic development in recent decades comparing to the Croatian average. Part of the reason (for the region) were objective considerations: former socialist system has through its economic system and economic policy put agriculture in an unfavourable economic situation by using primary distribution (system and price policy), development priorities (heavy industry) as well as pulling out of it accumulation (instead of incentives as EEC). However, there were at that time a number of subjective weaknesses of the local (SliB) politics and science. After the democratic social change in the 90s there were again (for the region) three objective difficulties present: a) the aggression against Croatia has resulted in great human and material losses and cut of social relations - which has regressed economic and social development; b) concept and implementation of privatization in Croatia. During the same period huge losses were made in the material, financial and social capital of the region local politicians are particularly responsible for this inappropriate implementation ; and c) processes of globalization changed the economic environment - with the large amounts of food imports extra large damage has been made to Croatia, especially in SliB region. [10]

Figure 1

Geo location of Slavonia and Baranja

Source: [10]



1.1. Demographics and economic development

According to the 2011 Census Slavonia and Baranja had a population of 805,998. It should be noted that the region between the two censuses (1991_2001) lost 86,000 inhabitants during the war period, and in the next ten years (2001_2011) due to economic reasons (emigration to other regions and countries) lost more than 85,000 inhabitants. Due to bad macro-economic policies and the Homeland War this region has been in unfavourable conditions of development for decades - which is manifested in a high unemployment rate and lowers GDP per capita than Croatia's average (tab. 2-3 and fig. 2-3).

Based on the data presented it can be concluded: the average unemployment rate in five counties of the SliB region has been significantly above the average Croatia during entire period, and far below average of Zagreb. The same relationship is in the GDP per capita falling in relation to the Croatian average - while in Zagreb it has been gro-wing. This is another proof of an unsuccessful and ineffec-tive policy of regional development and reconstruction of war-destructed areas. [14]

Table 1 Number of inhabitants in the SliB region

Counties	1991	2001	2011
VPc	104,625	93,389	84,836
PSc	99,334	85,831	78,034
BPc	174,998	176,765	158,575
OBc	367,193	330,506	305,032
VSc	231,241	204,768	179,521
SliB_total	977,391	891,259	805,998

Source: [4]

registered unemployment rate in Croatia, five SliB counties and Zagreb

Source: [4]

Table 2 Average number of unemployed in the five counties of the SliB region

Counties	2002	2004	2006	2008	2010	2011
VPc	10,943	9,716	9,484	7,729	9,242	9,395
PSc	7,602	5,446	5,332	4,669	5,795	5,996
BPc	20,035	15,876	15,339	12,796	16,297	16,906
OBc	37,417	32,481	30,176	25,633	32,722	32,663
VSc	23,929	20,183	18,477	16,380	18,748	18,377
SliB	99,926	83,702	78,808	67,207	82,804	83,337

Source: [4]

Table 3 GDP per capita in the five counties of SliB and the City of Zagreb (Croatia = 100)

Counties	2000	2002	2004	2006	2007	2009	2010
BPc	62.3	62.5	60.3	56.5	55.4	55.4	53.3
OBc	79.3	81.3	77.9	76.7	81.6	80.2	75.0
PSc	75.2	72.8	72.9	65.7	67.4	61.6	60.2
VPc	77.4	79.2	73.3	73.8	71.7	63.3	58.4
VSc	60.9	61.7	59.8	62.5	59.6	59.1	54.9
C-Zg	163.2	166.3	172.1	176.8	173.6	176.2	185.4

Source: [4]

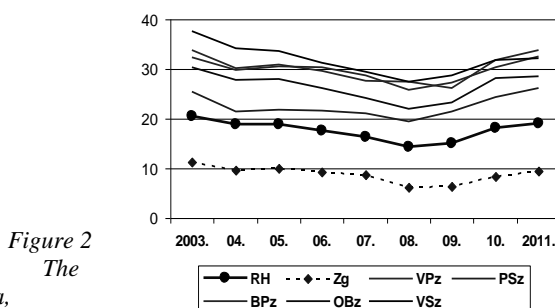
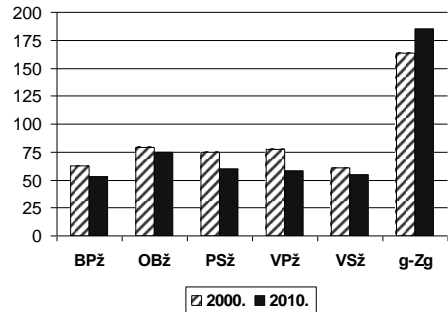


Figure 2
The

Figure 3
GDP per capita in the five counties of SliB
and the City of Zagreb (Croatia = 100)

Source: [4]



1.2. Society and social cohesion

Society is one of the new fundamental concepts that represent the biggest challenge in the processes of transition both for residents of transition countries as well as its authorities. The main obstacle to understanding and functioning of society is that they are (people and new authorities) not sufficiently differentiating society from the state. It was, and still is, a fundamental problem of incomplete transition processes in Croatia. [8] Social cohesion is an essential element of economic and social development of each country; it provides efficient access to economic resources and development of individuals as well as the collective human potential and the potential of a whole society. According to results of well-organized and efficient societies - horizontal social interactions reinforce social trust, strengthen social ties, expand social identities and contribute to the integration of a pluralistic society. Empirical - social cohesion is composed of three elements: (a) confidence in people and social institutions indicating a willingness to cooperate not only with family members or acquaintances; (b) association and collective actions to provide direct experience of cooperation and its advantages in achieving interests which are beyond the scope of individual action; and (c) compliance with social and legal norms. [2] [9] [21]

In 2005 we conducted research on the system of social values and social cohesion on a random sample of 1000 respondents in the Slavonia and Baranja region. Social cohesion is explored through trust in the institutions of state and society and analysed civic activity; the main results show tab. 4 - 5 and fig. 4 - 5; [9]

Table 4 Trust in institutions of society in the SliB region 2005th (%)²⁹

Trust	Church	Civic associations	Trade unions	Media	Political parties	Local government	Entrepreneurs
100 %	11.6	4.2	1.9	1.0	0.5	2.2	1.8
51 - 99 %	39.8	40.3	25.1	24.3	10.4	16.5	18.6
50 %	14.2	19.4	18.9	21.0	9.9	17.2	18.8
2 - 49 %	22.1	27.4	42.7	45.0	58.6	50.0	49.0
1 %	4.8	0.9	4.0	2.5	7.0	4.9	3.6
No answer	7.5	7.8	7.4	6.2	13.7	9.2	8.2

Source: [9]

²⁹ More details on the methodology and complete results of the research in book of group of authors "Where we are going", part 2: Milan Ivanović: "The system of social values and civic activism in eastern Croatia," pp. 83-162;

Table 5 Trust in state institutions in the SliB region 2005th (%)

Trust	President of the Republic	Parliament	Government	Police	Court
1-25/ %	2.1	6.7	6.4	2.8	3.1
26-49 %	27.8	51.4	52.2	42.0	45.7
50 %	17.1	14.5	13.6	19.6	17.2
51-99 %	41.1	14.9	14.6	24.6	22.2
100 %	5.6	0.3	0.5	1.2	1.4
No answer	6.3	12.2	12.7	9.8	10.4

Source: [9]

Figure 4
Volunteer activity of inhabitants in the SliB region 2005th
Source: [9]

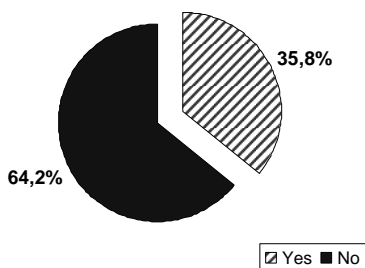
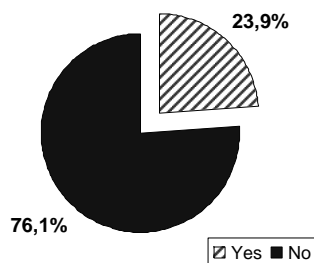


Figure 5
Material support of inhabitants to social actions in the SliB region 2005th
Source: [9]



Based on presented data it can be concluded:

- **Low trust in institutions of society:** church and civic organizations have trust of only half of those surveyed, much less trust in the media, trade unions and businesses, and there is very low confidence in local government and political parties.
- **Low trust in state institutions;** only half of those surveyed have confidence in the President, less confidence in the police and courts, and very low confidence in the Croatian Parliament and the Government.
- **Low levels of civic activism** (volunteer and philanthropic involvement of inhabitants).

Analysis with similar results was later published by several other Croatian authors.. There are no new data, but following a series of major corruption scandals in the country and the low turnout at the elections - we are sure that new research data would have been even worse. Several of our books, publications and public appearances - emphasize the importance of social cohesion and the important concept of development of a civic national identity (instead of the dominant ethnic concept) as the precondition for social and economic development of Croatia. [8] [9] [25] We should point out Slavko Kulic's attitude (Zagreb) on the need for reconstruction of the Croatian society, which he presented (at the national scientific conference 1996) in his work "Reconstruction of the Croatian society as a precondition for economic restructuring and European integration". [16] We believe that the aforementioned social elements should have been taken as key reasons for low competitiveness of the Croatian economy and low valuation of our natural and human resources. All plans for the development of our society and economy have to consider these two elements which, especially without a strong and well-organized campaign, cannot be overcome in the short or medium term. [7] [8] [9] [13] [25]

1.3. Natural resources

Production of fruits and vegetables is a traditional agricultural activity in Slavonia and Baranja - because natural conditions (land, climate, water) with agriculture and animal husbandry for centuries have a comparative advantage in this area. [1] [11] [22]

2. PRODUCTION OF FRUIT_VEGETABLES AND PROCESSING IN THE REGION

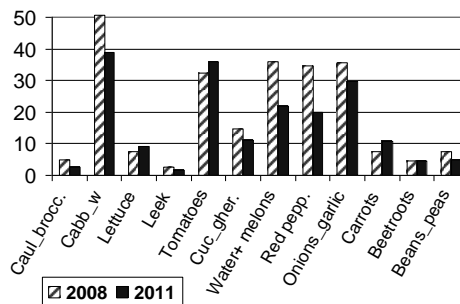
2.1. Production

Vegetables are produced in the whole of Croatia thanks to favourable land, water resources and climate. Today vegetables are produced on the surface of about 135,000 hectares, i.e. 9% of the total arable land and gardens; total production (depending on the yielding year) is about 370,000 tons of various vegetables.³⁰ Since there is no statistical data on the production of vegetables and fruit across the country, an overview is given of the major types of vegetable production in Croatia - and according to rough estimates more than a 1/3 of that production is realized in the Slavonia region [1] [21]; tab. 6 and fig. 6;

Figure 6

Production of vegetables in Croatia (000 t)

Source: [4]



Basic features of the sector are - by a series of analysis [1] [5] [10] [11] [22]: (a) fragmentation of production; (b) insufficient market supply - the amount and seasonal dynamics; (c) average yields are several times lower than the EU average; (d) a high proportion of direct sale product to consumers through retail markets; (e) prices of vegetables are higher than average prices in the EU; (f) market in Croatia is poorly organized; (g) there is not enough capacity for high-quality storage and processing (canning, drying, freezing) including juice and fruit wines (excluded grape wine).

Fruit is produced on about 70,000 ha (over 2% of agricultural area). These are small areas, because Croatia has a favourable climate and soil conditions as well as tradition of continental and Mediterranean fruit.[1] About 95% of orchards are a family-owned farms for which production is fragmented and insufficiently productive with significant fluctuations in yield and quality. Out of twenty fruit trees species grown, Croatia meets the needs only with the production of mandarins only. In the following analysis Mediterranean fruit is not considered; (tab. 7 and fig. 7)

³⁰ National statistics does not keep records of production of vegetables and there are no production data by counties.

Table 6 Total production of vegetables in Croatia (t)³¹

Vegetables	2008	2009	2010	2011	2012
Cauliflower and broccoli	5,049	4,652	3,000	2,760	2,556
Cabbage, white	50,619	66,833	36,597	38,871	23,093
Lettuce	7,640	7,854	8,252	9,115	5,218
Leek	2,556	3,175	2,829	1,759	885
Tomatoes	32,358	37,419	33,648	35,798	25,418
Cucumbers and gherkins	14,795	14,516	10,894	11,067	6,714
Melons	3,622	3,794	4,039	3,436	3,385
Watermelons	31,986	40,381	19,274	17,645	17,589
Red peppers, capsicum	34,760	35,991	18,621	20,022	14,553
Onions and garlic	35,701	35,634	30,363	29,631	27,501
Carrots	7,629	10,954	12,999	10,767	15,294
Beetroots	4,722	6,795	5,316	4,656	3,128
Beans, runner and French	7,663	9,329	5,277	4,769	2,851
Peas	- - -	4,671	3,703	6,060	3,528
Total	239,100	281,998	194,812	196,356	151,713

Source: [4]

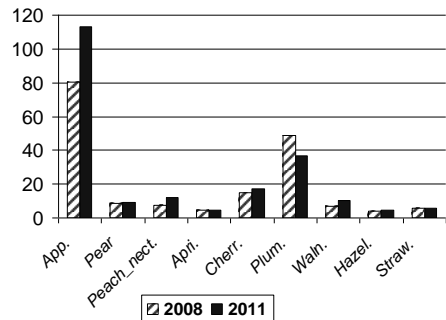


Figure 7

Production of fruit in Croatia (000 t)

Source: [4]

Table 7 Production of fruit in Croatia (t)

Fruits	2008	2009	2010	2011	2012
Apples	80,201	93,355	106,865	112,931	44,765
Pears	8,849	9,950	8,715	8,929	3,455
Peaches and nectarines	7,348	10,110	8,914	11,824	6,131
Apricots	1,493	1,583	1,170	1,655	793
Cherries	14,674	14,125	12,064	16,980	10,819
Sweet cherries	8,009	7,148	5,283	6,241	4,854
Sour cherries	6,665	6,977	6,781	10,739	5,965
Plums	48,614	38,369	40,901	36,919	15,047
Walnuts	6,828	7,226	8,651	5,797	2,140
Hazelnuts	1,289	1,384	3,333	1,860	442
Strawberries	2,460	2,548	2,572	2,771	2,279
Total	171,756	178,650	184,271	199,666	85,871

Source: [4]

Figure 8 shows the total production of fruit and vegetables in Croatia. There is a fall in the vegetables production until 2011. 2012 should not be taken into account due to an adverse climatic year. Investment in new orchards in recent years (perennial crops) has given results and this production will continue to grow - but it still will not cover the needs of domestic market. Here it should be noted that production of fruit and vegetables in a significant degree is: (a) labour intensive and (b) more profitable than crop production. Therefore it is surprising that these elements

³¹ Without potatoes; about 60,000 t.

(economics of natural space and high unemployment in the region) are not taken into account when giving land on lease.

This unfavourable picture of the fruit and vegetable sector – is supplemented by data on exports and imports of these products: in the period from 2001 to 2006 export of fruit and vegetables has increased from 20 to 39 million USD, but imports grew rapidly from 149 to 305 million USD. (fig. 9) In the period from 2006 to 2012 exports increased from 226 to 477 million HRK, and imports rising from 1.77 to 2.18 billion HRK; [4] (fig. 10)³² These data point to some of the reasons in production decline of vegetables in the previous period, and the need for strong social, professional and administrative actions to increase fruit and vegetable production in Croatia, especially in the Slavonia and Baranja region.

Figure 8

Total production of fruits and vegetables in Croatia (000 t)

Source: [4]

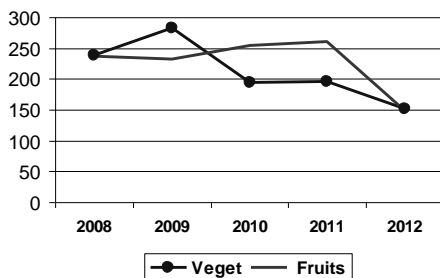


Figure 9

Export and import of fruit and vegetables in Croatia (mil. \$)

Source: [4]

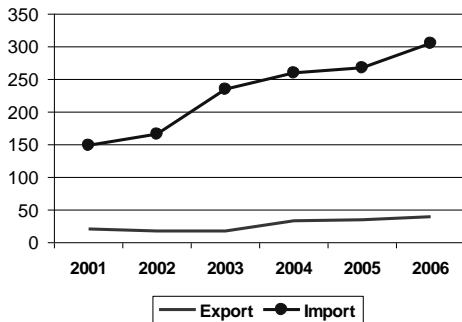
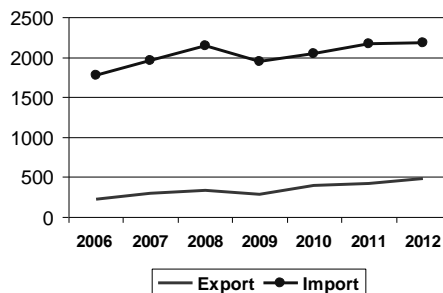


Figure 10

Export and import of fruit and vegetables in Croatia (mil. HRK)

Source: [4]



2.2. Processing

Fruit and vegetable processing is in Croatia the least developed part of the food industry (although some 20 years ago this industry was well developed); registered are only 30 entities (most cooperatives) that are engaged in the processing of fruit and vegetables, most of them located in Slavonia and Baranja. [1] [10] [24] Industrial processing of fruit and vegetables does not meet the domestic consumption neither in range, nor in quantity or cost. Instead of the fruit and vegetable sector (with natural potential) being the strongest economic sector - with many employees achieving a great added value, particularly in the Slavonia and Baranja region with a record high unemployment rate there is a huge import of fresh and processed fruit and vegetables. Thus, alongside the increasing need for primary production of fruit and vegetables, adequate capacity for storage of fresh fruit and vegetables intended for mass consumption and capacity for their processing is required. Optimization of capacity and their regional distribution also have to be taken into account.

³² In total imports about 70,000 tons of fruits are bananas and other exotic fruits that, but imports about 50% of apples, pears 80% and 70% of peaches. Of total available fruit products in Croatia is 78.5% imported products. [24]

2.3. Model of development

During the first decade of Croatia's independence, the whole process of transition of the Croatian society and economy was performed without a consistent macro-economic and social model [8] [9]. The EU accession process continued without a consistent domestic strategy under conditions to adapt EU legal, economic and administrative standards. It happens that Croatia with its comparative advantages, a long tradition and once relatively developed and high-quality production of vegetables and fruit as well as appropriate processing industry - becomes a member of the EU completely unprepared for the challenges of the large EU market and the integration into contemporary market - when fruit and vegetable sector is concerned. Over the past ten years a number of strategies have been adopted in the agriculture (primary production of fruit and vegetables) and industry sector (fruit and vegetables) a number of programs and plans developed, Croatia has participated in the SAPARD and IPARD EU programs – however without any (development) paradigm. One has been developing an EU model without support interventions – which would have prepared transitional Croatian post-war society (or compensated this insufficiency) for the implementation of the EU model.

Investments in manufacturing capacities are left only to private initiative - usually beginners in this sector, private owners who cannot (or do not consider it necessary) employ experts or consult science. Planned and constructed are small vegetable gardens (orchards and processing plants of fruits and vegetables, cold storage and storage facilities) based on EU subsidies and loans - all within the horizon of business opportunities and small business owners. So today the media triumphantly announces the building of a fruit processing factory that will employ as many as 10 (and the words: ten) workers.

Contemporary business is an important principle of unit capacity below which production is not profitable, and the contemporary market, however, the ruling is the law of the quality (brand) and size of supply. Who will be a big part of small-scale producers of fruit and vegetables (except green market, which has limitations) to sell their products (and small entrepreneurs - their products) basically are not capable of responding any request of the local retail network. Increased production today is dictated by market research, brand development, promotional campaigns, developed sales department, laboratory quality control, post-sale service, etc. Such activities our today's small and medium-sized (not affiliated or poorly organized) manufacturers do not understand and do not have the financial resources. Create clusters in Croatian conditions (without social cohesion) remains practically only able to have one (sometimes) can reach the number of members and organizations and efficiency as large regional vegetable and fruit clusters in the EU countries (Italy, France, Hungary, for example).

2.4. Necessity of cardinal shift

Today, the situation in the production of fruit and vegetables and its processing in Slavonia and Baranja are unsatisfactory - even defeating in relation to natural resources, traditions and unemployment. Although the process of implementing a number of measures planned by relevant ministries as well as more investment projects under the EU funds (which will present state of repair) future developments in this sector even from afar would not be appropriate: (a) use of regional resources, (b) solving a number of our problems, and the question will be (c), and only use the built plantation (objects) within the EU market (in which is domestic market). The current implementation of measures and investment is not in harmony with the real potential of the region, nor in the concept and market developments in the EU, or - their successful implementation can bring success to the level of a single business entity, but not the whole community. It can even be asked whether or not these and successful individual projects - under the current development and business model - successful participation in European (mean and domestic) market framework. In particular, however, the issue is- not only in the fruit and vegetable sector - the behaviour of the Croatian authorities running the EU mission for years, without any analytical approach and no respect for national development interests. Simply put - our government implements measures that will make us fit into the EU market which basically means - that favours neoliberal capitalism. In this model, the economy capital owners are not interested to local unemployment and underutilization of local

resources; international centres of financial power are only interested in profit rate only of their main players, monopoly or oligopoly of market related and nothing more.

Professional documents, development plan and politicians' talks in our country - among other things have buzzwords: "we need to open new jobs places" - would-term worries about government social situation in the country. Established are business incubators and zones held seminars - without a development paradigm, as will training on entrepreneurship and constructed concrete runway with a fence (in enterprise zones) to promote economic development and employ an army of unemployed. The results of this practices can only satisfy the interest of local (and national) political establishment - which will take every opportunity (even opening a small workshop) to take advantage of the magnificent presentation in the media - of course before the local and parliamentary elections. This model of "caring" about the social situation in the society and the practice have their concrete results shown in tab. 1, 2, 3, 4 and 5 of this paper.

We could draw a bottom line and summarize as follows: (a) the potential benefits with regard to natural production, (b) large and long-term unemployment (c) importing more than half of its requirements for fruit and vegetables, (d) production and processing of fruit and vegetables are labour intensive activities, (e) that are high-income and production, (f), in Europe (and the world) there is a high need for fruits and vegetables, and (g) there are no restrictions in the EU plantation of fruit. This is a very simple equation development, but - as practice shows - too heavy for all of our social responsibility and government entities. To actively address above mentioned problems - requires cardinal shift in the approach to solving of natural resources exploitation and traditions, and solving problems of development - in the fruit and vegetable sector starting from the (new) paradigm until structure of stakeholders involved in development process and their obligations.

3. Paradigm

Development of a paradigm is missing in present day Croatia and the SliB region. . Para-digm is the supreme form of worldview [13] and is becoming a necessity in today's world of complex international economic relations, economic potential and competitiveness in the global market. By the nature of things - the paradigm is the basis for development of strategies and development plans. It was supposed to be set up as soon as he start the independent state of Croatia, because - without economic development paradigm is floating the "wilderness of historical reality", respectively, as shown closely Croatian history in the last 20 years - there's been selling off national natural and economic resources, and no developmental effects. The alarming picture of the situation in the SliB region is only relevant part also devastating picture of the whole situation in Croatia.

Paradigm that can be fundamental for the development SliB regions as follows: *Economic and social development based on relevant natural and social resources for the benefit of all inhabitants of the region*. [10] Relevant natural resources in the region of Slavonia and Baranja are surely natural conditions for EU economical and quantity relevant production of fruit and vegetables. Paradigm should be adopted and practiced by the state (including counties) and not left to knowledge only for private entrepreneurs.

3.1. Missing links

In order to set the paradigm of development must be actively used by two important social constituents - which were so far in questions of economic development in Croatia not even taken into account. These are:

a) **Civic concept of national identity:** In last two decades in Croatia developed an ethnic concept of the nation from which it is derived model of inhabitant's ethnic national identity - rather than civic model of nation and corresponding civic national identity. Ethnic concept of inhabitants national identity are closed to other ethnic communities and constantly imposes fight against the enemy (they are all different), but - civil identity (dominant in the OECD countries) is open to exchange with other communities. The consequences of incorrectly appointed models are constantly being developed by the devastating Croatian society; past two decades are lost in the social and economic development. So to us in recent years imposed the public irrelevant (ethnic) topic concerning social

and economic development (but, in these ethnic issues politicians are received elections), and neglected are important developmental issues. And when, at times, a developmental issue, and appeared on the agenda - it is, again, ethnic concept prevented effective access to resources and the implementation of development plans. The syndrome of these social relations (discussed on situation in Slavonia) we called "*Slavonian shock of the past*". [7] It is not irrelevant to point out that in such a social framework and public atmosphere: (a) conducted problematic Croatian model of privatization of enterprises and (b) made a series of corruption and mafia projects (later affair) – but it's all far less possible in the concept of civic national identity. [7] [25] Citizens' concept of national identity is an elementary factor in building civil society - and it is missed in recent Croatian processes of transition and this problem will be Croatian (very hard) resolved in decades. The approach to realization of development paradigm of the regions important to make up specific social campaigns and temporary measures of enlightened absolutism (which it is not appropriate to civil society, but in the short term the only instrument).

b) **Developed social cohesion:** There are, also concerned unfinished transition process, i.e. it is the mental matrix of most inhabitants in the country who: (a) they are still clients of the state - that is, there is small self-initiative (expected solutions and activities of government "from above"), (b) is insufficient associate (in all segments and at all levels of society), (c) do not conduct adopted plans, (d) have a patriarchal social values, (e) have no trust in civic institutions, and (f) who lack respect social and legal norms. [7] [10] [11] [25] This failure has, in this case (development of production and processing of fruits and vegetables) can compensate (overcome) the specific model of social, administrative and economic actions (which will be discussed below).

3.2. The basic framework of the model

Optimal use of: (a) natural resources, (b) tradition in production and processing fruit and vegetables and optimal solving: (c) imbalance of production and demand on the domestic market, (d) exports, (e) developmental problems, and (f) high unemployment - must come from the market and technological framework. In this regard it is necessary in Slavonia and Baranja to have (vision) in the function:

- Ten factories with large refrigerated storage and processing of vegetables
- Five factories with large refrigerated storage and processing of fruit

These plants are associated in a special business and technology frame with the brand "*Slavonia vegetables*" and "*Slavonia fruit*" in the consortium (work called) "*Green Slavonia*" (they should associate with the geographical area and the traditional performance of quality food).

- The consortium has own professional technology, laboratory, commercial, export and marketing services - which are a function of these 15 factories. In this way, local technological and scientific personnel finally are in function of material production as a professional.

- On these processing and storage facilities - which provide relevant and business-optimal conditions: (a) retailers in Croatia, (b) retailers in the EU, and (c) exports (outside the EU) - is developing a primary production of fruit and vegetable - based on: (a) natural advantages (land, crops, water, climate), (b) traditional processing, (c) unemployed labour, and which produce (then) in significant conditions: (d) on investigated and processed market, (e) with developed brand and (f) with professional commercial and export services. Then will be new primary production of fruit and vegetables (of which a significant part of organic farming) provide new employment of workers and professionals.

- On this organized production and processing of fruit and vegetables can develop a full range of industrial, craft and service sectors (metal, plastic, glass and cardboard, printing industry, transport, shipping, and promotional services, retail outlets, etc.), or - the existing capacity in the region and country will have secured jobs for its further survival and for new employment of workers and professionals.

Details of this model should be elaborated in special studies and prepare master plan for implementation, and then can be accessed by making investment decisions. Through this our model,

and proposed our method can very quickly - within six months - to start a strong development program and investment cycle is of importance to the Slavonia Baranja region and whole Croatia.

3.3. Stakeholders, ownership and management of the project

The structure of the project stakeholders (work called "*Green Slavonia*") (as opposed to the implementation of similar projects in developed countries in EU) should be different. In addition to standard stakeholder deposit money projects - in this case - must include government bodies and regional administration and local government. Specifically, it was pointed out at beginning of these considerations, number of problems that are specific to country with post-war society and corresponding problems - for which they are responsible unsettlement mentioned authority. Problem by high unemployment and poverty on the border of a living, with a large emigration are not the responsibility of banks and small businesses. Thus, in our model - government and counties: (a) nominate project, and (b) are behind of project (concept of development, guarantor for loans, providing land and infrastructure concession under favourable conditions) – for build this factory and for the providing land to dedicated (fruit and vegetables) produce. Other stakeholders of project are: a) producers of fruit and vegetables (family farms, cooperatives and entrepreneurs), b) processors of fruit and vegetables (family farms, cooperatives and entrepreneurs), c) banks, d) retail chains, and e) scientific organizations and institutions.

Basically it is private equity investment in production facilities that will – finally - be privately owned businesses, but - due to post-war transition and the circumstances in Croatia (and entire region), investment and business cycle will have a particular structure, stages and special administration. Thus project of construction of these factories and setting up models of consortium "*Green Slavonia*" - until payment of investment loans - managed assembly consortium composed of representatives of producers and processors of fruit and vegetables, Government and counties, banks and research organizations.

Governing Council project consisting only of: (a) representatives of banks and (b) representatives of research organizations (selected by public competition) decide on organizational and staffing solutions in built factories and business structure of consortium. This is because authorities in Croatia (at all levels and all mandates) have proven that they are not able to objectively decide at basis of criteria of expertise already guided criteria nationality, nepotism's, party or other non-transparent and non-objective criteria.

Participation of producers and processors of fruit and vegetables in the whole investment process, and later in business relationship, shall be governed by subsistence criteria - production (tons) of fruit and vegetables a hectare of land under plantations, or (tons) processed crops with financial value of production equipment and production facilities. After repayment of investment loans are reversed Governing Council, and ownership of factories and administration of consortium transferred to private entrepreneurs - producers and processors of fruit and vegetables – by physical and financial criteria established on time of repayment investments. In this way, completed production and business cycle, that is - ensures the procurement of high quality and affordable inputs to processing plants (with one hand), and ensures placement of primary production at appropriate prices (on other); avoids dairy situation in Croatia - that all investments will be effectively brought to an ultimate end.

4. Conclusions

The analysis showed that:

- a) Has significant natural resources and a long tradition in the production and processing of fruit and vegetables in the region of Slavonia and Baranja;
- b) Existing production and processing of fruit and vegetables in the region is not sufficient in quantity and range of needs of the domestic market is not in harmony with the natural resources and export options; therefore importing large quantities of fresh and processed fruits and vegetables

c) The war in Croatia and military events in the last decade of the twentieth century, the region is losing over 86,000 residents, due to adverse economic conditions and poor economic development of the region in the first decade of the XXI century, the region is still moved 85,000 residents.

d) Lack of (development) paradigm and unfinished process of transition have low GDP per capita in the region (well below average RH) and considerably lower than the natural capacity of facilities, tradition and potential labour force in the region.

e) Existing measures and development activities in the sector of production and processing of fruit and vegetables are not in harmony with the natural resources, traditional production, the current unemployment rate in the region nor guarantee placement of goods on domestic market and EU in current concept of development of sector, based on a large number of fragmented and unrelated farmer, cooperatives and small businesses,

f) Current model of development and existing measures of state government and EU funds missing (development) paradigm on which to base a strategy for development, bringing key development documents and led investments in sector of production and processing of fruit and vegetables.

Based on our analysis of the complex, as well as of separate analyzes by other authors from Croatia, we set up the paradigm and a new model of development in sector of production and processing of fruit and vegetables in the SliB region (and Croatia). The model is based on:

a) Setting the paradigm

b) Establishing consortium of producers and processors of fruit and vegetables - that: (b1) build 10 factories for processing vegetables, (b2) five plants for fruit processing, and (b3) has its own technology, laboratory, commercial, marketing and export services - which are in operation by said 15 factories

c) In this capacity develops primary production of fruit and vegetables which will be investigated and dealt with the market, developed brands and professional commercial and export services.

d) In this primary production and processing of fruit and vegetables can develop a full range of complementary industrial, crafts and services.

e) Structure of the project stakeholders on development production and processing of fruit and vegetables in the region, in addition to standard commercial project stakeholders (producers and processors of fruits and vegetables, banks, retail chains and scientific organizations) must be included national government and regional administrations due to specific implementation of the investment project land with post-conflict societies and number corresponding problems for responsible government, not private business initiative.

f) On basis of it is investment in production facilities that will (finally) be privately-owned businesses, but - due to post-war circumstances in Croatia and the region, this investment and business cycle will have a special structure, special stages and a special administration to payment of investment.

The realization of this model of development of production and processing of fruit and vegetables in the region can start a new investment cycle within which it can employ tens of thousands new workers and professionals. Details of this model should be elaborated in special studies and prepare master plan for the implementation, after which it can be accessed by making investment decisions.

NOTE

This paper is the short part of study "Development of fruit and vegetable processing industry in the Slavonia and Baranja region"; concept and contents of this study is intellectual property of "Panon" - Think-tank for Strategic Studies, Osijek. Any further development of the model and its use is subject to the prior approval of the Board of Directors of the Institute.

REFERENCES

- [1] Agronomski fakultet, Zagreb (2002) Smjernice razvoja voćarstva 2008.-2013.
- [2] Beauvais, C.; Jenson, J. (2002) Social Cohesion: Updating the State of the Research, CPRN
- [3] Boye J. I. ; Arcand Y. (ed.); (2012) Green Technologies in Food Production and Processing; ISBN 978-1-4614-1587-9, Springer New York
- [4] Državni zavod za statistiku (2013) Popis stanovništva RH; Priopćenja; proizvodnja, izvoz i uvoz voća i povrća
- [5] Ivanović, M.; Pešo, I.; Vuković, S. (2000) Obnova agro-proizvodnje na području prigradskog prstena grada Osijeka; ISBN 9536980-00-2; Albert^E Osijek
- [6] Ivanović, M. (2006) Pogled iz budućnosti; Slavonski šok prošlosti str. 12 - 22; u knjizi grupe autora - Partnerstvo za razvitak, Slap, Osijek
- [7] Ivanović, M. (2005) Agro-poduzetništvo u procesima tranzicije, Savremena poljoprivreda, Novi Sad, Vol. 30, br. 3 - 4, str. 87 - 93;
- [8] Ivanović, M. (2006) Izgubljene šanse – procesi postsocijalističke tranzicije; Albert^E, Osijek
- [9] Ivanović, M.; Lauc, A.; Bogнар, L. (2006) Kamo idemo - društvene vrijednosti u procesima postsocijalističke tranzicije u Hrvatskoj; ISBN 953-6980-01; „Albert^E“ Osijek
- [10] Ivanović, M. (2007) Ruralni razvoj i procesi tranzicije – Slavonska poljoprivreda na putu prema EU standardima; ISBN 953-6032-501-1, Albert^E, Osijek
- [11] Ivanović, M. (2007) Ekološka poljoprivreda i razvitak sela; str. 13 - 28; u knjizi Vodič kroz organsku proizvodnju, ISBN 953 -99364-2-X; Slap Osijek
- [12] Ivanović, M. (2008) Baranjski oktogon 2-Poljoprivreda i modeli njezine organizacije. (<http://www.baranja.net/modules.php?name=News&file=article&sid=3834>)
- [13] Ivanović, M. (2008.) Tri eseja o znanosti; ISBN 978-953-6032-55-6226, Elektrotehnički fakultet Osijek
- [14] Ivanović, M.; Požega Ž. (2010) Economic Development of the Slavonia and Baranja – contributions on macroeconomic analysis of regional development in Croatia, 2nd ICF Focus on Regional Development, Požega, 3.9.; DAAAM International Viena, pp 475-486
- [15] Konvalina, P. (ed.), (2012) Organic farming and food production, InTech, Rijeka
- [16] Kulić, S. (1999) Rekonstrukcija društva kao preduvjet restrukturiranja gospodarstva i uključivanja u europske integracije, u „Hrvatsko gospodarstvo u tranziciji”, Ekonomski institut Zagreb, Zagreb
- [17] Leko, Š. M.; Trischler, R. (2013) Development of a marketing strategy for German minority association in Croatia in: Alves H.; Vázquez H.L. (ed) Volume on best practices in social and public sector marketing. Improving quality of life)
- [18] Mašek, A., Križanović, K. (2010) Ecological production as prerequisite for development of rural area – case study: Ecological production in Slavonia, GIS Odyssey, HIZ, Zagreb
- [19] Mašek, A., Križanović, K (2009) Program ukupnog razvoja Grada Đakovo, Ekonomski fakultet u Osijeku; Credere, Osijek; ISBN 978-953-253-059-9
- [20] Nirmal K. Sinha (ed.); (2011) Handbook of Vegetables and Vegetable Processing, Wiley-Blackwell, Ames, Iowa, USA
- [21] Rimac, I.; Štulhofer, A. (2002) Sociokulturne vrijednosti, gospodarska razvijenost i politička stabilnost kao čimbenici povjerenja u Europsku uniju, Institut "Ivo Pilar", Zagreb,
- [22] Subašić, R. (2004) Mogućnosti izvoza povrća iz pograničnih područja Ukrajine u Mađarsku; elaborat, SBR trade, Pecs
- [23] Trischler, R. (2009) Marketing udruga nacionalnih manjina u Republici Hrvatskoj, magistarski rad, Ekonomski fakultet Osijek
- [24] VRH – MŠVG (2008) IPARD program - plan za poljoprivredu i ruralni razvoj 2007. – 2013.
- [25] * * * (2012) dr Milan Ivanović na tv 2. dio (<http://www.youtube.com/watch?v=9R519IG5SeA>)

Zvonimir Jurković, M.Econ.

Doctoral candidate, Postgraduate PhD study "Management"

Zagrebačka 12, Rokovci

Phone number: +385915756844

E-mail address: zvonimir.jurkovic1@gmail.com

ANALYSIS OF VUKOVAR-SIRMIUM COUNTY WOOD INDUSTRY CLUSTER: THE GAP BETWEEN THEORY AND PRACTICE

ANALIZA KLASTERA VUKOVARSKO-SRIJEMSKE ŽUPANIJE: RASKORAK IZMEĐU TEORIJE I PRAKSE

ABSTRACT

New business trends and the challenges of global market have put pressure on some locations to become more attractive to business, as well as on business entities to become more competitive globally. Cluster, as a special form of organised and interconnected companies and a competitive business model, represents a group of companies that complement each other to enhance their development and performance in the market based on their geographical concentration. The competitiveness of a region does no longer depend solely on individual companies, but more and more on innovative practices of entire industries and sectors. This paper aims to illustrate cluster strengths and weaknesses, their potential benefits and positive effects using a practical example of a cluster created in Vukovar-Sirmium County. Although association and networking of companies should create competitive advantage, boost productivity and innovation, and stimulate growth both at the level of businesses and at the County level, research using methods such as description and compilation has indicated that in practice there is a large gap between the expected and the reality. More attention should be paid to cluster policies at the County and regional levels so that clusters could make headway during their life cycle and stabilize their own business environment. This form of cooperation between business entities is a good example showing how to maintain stability within a certain area by connecting and cooperating with each other. Learning from the experience of foreign countries, studying best practices and connecting with education institutions, are some of the guidelines for creating a competitive and successful cluster. The potential benefits from creating a cluster provide additional motivation to all the actors to support and promote this form of cooperation.

Key words: cluster, association, Vukovar-Sirmium County, competitiveness, environment

SAŽETAK

Rezultat suočavanja sa novim trendovima poslovanja i izazovima uvjetovanim globalnim tržištem, utjecao je na stvaranje pritiska na određene lokacije da postanu privlačnije za poslovanje, te na gospodarske subjekte da postanu globalno konkurentniji. Klaster kao oblik posebno organiziranih i međusobno povezanih poduzeća, te kao oblik konkurentnog modela poslovanja, predstavlja skupinu poduzeća koja se nadopunjuju s ciljem povećanja razvoja i uspjeha na tržištu na temelju osnovne zajedničke veze: zemljopisne koncentracije. Dakle, konkurentnost regije nije uvjetovana samo pojedinim poduzećima, nego i sve više inovativnim aktivnostima cijelih industrija i grana. Svrha rada je prikazati primjer klastera na području Vukovarsko-srijemske županije, te ukazati na snage i slabosti, potencijalne koristi i pozitivne učinke koji se pojavljuju kao rezultat funkcioniranja ovakvog oblika poslovanja. Premda bi udruživanje i umrežavanje poduzeća trebalo voditi ka

ostvarivanju natjecateljske prednosti, povećane produktivnosti i inovativnosti, te veće stope rasta kako na razini gospodarskih subjekata, tako i na razini Županije, metodama istraživanja kao što su deskripcija i kompilacija dolazi se do glavnih rezultata koji kazuju da u praksi postoji veliki nesrazmjer onoga što je i onoga što bi trebalo biti. Politici klasterizacije Županije, kao i cjelokupne regije, potrebno je posvetiti više pozornosti kako bi klasteri ostvarili napredak tijekom svog životnog ciklusa koji ima za cilj stabiliziranje vlastite poslovne okoline. Uspostavljanje ovakvog oblika poslovne suradnje između gospodarskih subjekata ukazuje na činjenicu da postoji dobar način kako međusobno surađivati i povezati se s ciljem održavanja stabilnosti unutar jednog prostornog okružja. Učenje na primjerima stranih zemalja, proučavanje dobrih primjere iz prakse kao i povezivanje sa obrazovnim institucijama, mogu biti samo neke od smjernica za formiranje konkurentnog i uspješnog klastera. Stoga, sve potencijalne prednosti koje proizlaze iz formiranja klastera, predstavljaju dodatni poticaj svim čimbenicima da se uključe u promicanjem ovakvog oblika suradnje.

Key words: *klaster, udruživanje, Vukovarsko-srijemska županija, konkurentnost, okružje*

1. Clusters - Introductory Considerations

Business clusters represent a development model for businesses (especially small and medium-sized) because their networking drives development both at the local and regional levels. Clusters entail creating strategic associations with various institutions driving innovation and competition between rival companies, customers and suppliers in the region who share the same geographic concentration. Business entities have discovered a new way to cooperate with each other and interconnect with an aim to maintain stability within a certain area. New business trends and globalization have increased the pressure on some locations, i.e., regions to become more competitive globally and attractive to business. In short, business clusters represent inter-organisational networks with comparative advantages. They are a special form of organized and interconnected companies that complement each other to enhance their development and performance in the market. The word cluster means “a group of things growing close together, a bunch“, e.g. a bunch of grapes. When you look at a grape stem, without the grapes, it reminds of a network. In their structure, clusters resemble cooperatives. Clusters are particularly popular in Italy, e.g. furniture industry clusters or shoe industry clusters, whereas automotive industry clusters have developed in Austria. In this paper, we look into Croatian clusters to see how competitive they are and investigate how the only cluster in Vukovar-Sirmium County operates and influences the development of the County. Indeed, there are many examples outside the borders of the Republic of Croatia, which can be emulated to establish a competitive and successful business in the observed region. According to The New Oxford Dictionary, cluster means “a group of similar things or people positioned or occurring closely together”. According to the same dictionary, the word cluster in the English language (Old English: clyster) is probably related to clot (of blood or some other fluid), whereas in German it comes from an Old German word *kluschter* and later *kluster*, which, according to the dictionary, was used by the Grimm brothers. In the EU Dictionary, the word cluster is translated to Croatian as *klaster, grozd, nakupina, skupina, roj, kita*.³³ Clusters represent a concept, a phenomenon and a strategy at the same time. They strongly influence the level of development of a country and its economy. Different authors define clusters differently: by direction in which they develop, their type and size, as well as the degree of their development. Clusters are differentiated based on the very criteria mentioned above, because the development of clusters depends on the technological, market, organizational and strategic changes. This is the reason why, as already mentioned, there are different definitions of a cluster. One of them explains in detail that a cluster is a geographical concentration of interconnected business entities, specialized suppliers, service providers and associated institutions in a particular field representing

³³ Available from: http://oliver.efos.hr/razvoj/docs/Klasteri_Erkapic.ppt (accessed 12 February 2013)

a region or a country (Horvat et al., 2004, p. 15). Clusters are highly competitive by nature; however, most cluster participants do not compete directly with each other but rather horizontally with business entities carrying out similar activities but have different markets. A cluster is also defined as a geographic concentration (at local or regional level) of business activities, business entities, and institutions, which have established formal or informal relations, both horizontally and vertically, and exchange information, knowledge and goods through the industrial sector to produce a common product (Horvat et al., 2004, p. 15). One of the definitions of geographic agglomeration, i.e., gathering of businesses in the same industry or related industries states that an industrial cluster is a concentration of businesses or industries linked by common market, products, suppliers, and employees (Horvat et al., 2004, p. 16).

2. Cluster as a Competitive Development Model

Small businesses organised in a cluster with large businesses can contribute significantly to the flexibility or reorganization of large businesses, and have an important role by taking over a part of the activities that do not fall into the responsibilities of a large business enterprise and which can be detached. It is therefore necessary to find a way and a reason for horizontal and vertical linking of small and large businesses. The interconnection should be the result of mutual desire to increase competitive advantage in the global business environment of both large and small business entities individually and the cluster as a whole. In their approach to clustering, small businesses should be viewed as complementary to large businesses rather than as their alternative. The benefits are mutual; small business entities depend on the large ones, while at the same time large business entities depend on a group of interconnected small, manufacturing and service businesses. As small businesses meet the needs of a niche market in a cluster better than large businesses, they should take over the tasks which large businesses cannot perform effectively due to the mass production technology. It is a well-known fact that before the Homeland War in 1990s, all large manufacturing business entities in Croatia functioned in this way. After the war, a large number of them did not undergo a thorough market, financial and organizational restructuring to adjust to the constant and rapid changes in their environment. Large business entities are restructured based on quality, design and services, organizational and technological flexibility and market adaptability. This means that due to the irreversible nature of business, large business entities can become more flexible only by creating a new line of autonomous business entities (Horvat et al., 2004, p. 27). The most important reasons affecting the competitiveness of large business entities that should encourage detaching particular production phases from a large business entity, transforming them into individual entrepreneurial projects and joining a cluster, i.e., reasons for which existing or new business entities in the industry should join a cluster are as follows: (Horvat et al., 2004, p. 27).

- reduction of transaction costs,
- specialization,
- use of each other's flexibility and specialization,
- use of common infrastructure and learning.

After organizational restructuring, business entities need to be reduced in size to reasonable proportions corresponding to their vision, mission and set goals. Various factors that affect the competitiveness of both business entities in a cluster and a cluster as a whole in the global business environment, which enable timely, accurate, efficient, and continuous satisfaction of the needs of customers and other interested parties are as follows: location, innovation, flexibility, specialization, trade interdependence, link between science and practice, emulation, learning, education and training, human resources, technology development, availability of capital, and quality (Horvat et al., 2004, pp. 27-33).

3. Analysis of the Vukovar-Sirmium County Wood Industry Cluster

The Vukovar-Sirmium County wood industry cluster was established three years ago on the initiative of the Vukovar-Sirmium County prefect. The primary goal of creating the cluster was to promote and protect the interests of the Vukovar-Sirmium County wood industry. Businesses have joined a cluster to achieve mutual goals. Short-term objectives and activities of the cluster are focused on keeping and processing the raw materials in the County; increasing the total earnings of cluster members; increasing employment and productivity; increasing the productivity and exports, and fostering the development of wood industry in Vukovar-Sirmium County.³⁴ The principal activities of the cluster are as follows: carrying out preparatory work for the construction of the wood-processing centre, education and professional training of employees, marketing and other promotional activities, activities related to the survival of the wood-processing industry in the County, and activities to improve the quality of the placement of products from the existing product range of cluster members.³⁵ The long-term goal of the wood industry in the County is to become an economically successful, profitable industry with a balanced and sustainable development, which will follow the European and global trends.³⁶ Natural resources are an important input which needs to be used economically for the purpose of overall development. Industrial wood processing in Vukovar-Sirmium County has many comparative advantages such as its own natural resources, a long tradition of wood processing and sales to international markets, a high level of privatization (all wood processing and furniture industry companies are private) and quality human resources. Current conditions in the wood processing sector are favourable for change, because most companies are aware of the fragility of market position in times of global competition, and especially during this economic crisis as well as the need to change their business policy³⁷. The observed cluster consists of business entities whose employees have lower qualifications. All business entities aim for growth and transformation into larger economic entities supported by their technological capacity. However, business entities here are primarily focussing their efforts on ensuring their survival in the long term. Upon analyzing the Vukovar-Sirmium County wood industry cluster, which is partly the result of spontaneous association and partly planned organisation with the assistance of the County, it has been concluded that this cluster has advantages but also numerous disadvantages. Some of the advantages are the potential for high productivity, joint implementation of projects and the availability of information. The shortcomings are evident in the price competition between each other, failure to share knowledge and technology, failure to co-develop a brand, etc. In order to evaluate the strengths and weaknesses of the observed cluster, we used the SWOT analysis. The results of the analysis are shown in Table 1.

³⁴ Available from: <http://drvni-klaster-vs2.com/index.php?link=2> (accessed 12 February 2013)

³⁵ Internal document belonging to the Vukovar-Sirmium County wood industry cluster - 2012/2013 Plan and Programme

³⁶ Available from: <http://drvni-klaster-vs2.com/index.php?link=2> (accessed 12 February 2013)

³⁷ Available from: <http://drvni-klaster-vs2.com/index.php?link=7> (accessed 12 February 2013)

Table 1 SWOT analysis of the Vukovar-Sirmium County wood industry cluster

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Favourable geostrategic location with a well-developed transport network • Good infrastructure coverage and availability of energy sources • Existing natural resources are a good raw material basis for the development of the manufacturing industry • Existing facilities and sites offered to investors under favourable conditions • Preserved and diverse natural resources, unpolluted environment and no significant environmental polluters • Proximity and availability of raw material • Availability of diverse and skilled labour • Development supported by legislation and economic development incentive programmes • Good institutional support for economic development provided by the County • Industrial wood-processing tradition • Adopted national and/or international quality standards • Export orientation 	<ul style="list-style-type: none"> • Long procedure for obtaining a building permit for individual investments • Long and expensive procedure for amending physical plans is a limiting factor for the development of infrastructure • Inadequate capacity of the existing electricity grid • Lack of sewerage system • Poor broadband internet coverage • Obtaining the right of ownership, management and use of natural resources • Excessive fiscal burden on entrepreneurs • Trade accounts for a large portion of economic activity • Weak vertical, horizontal and cross-sectoral coordination of production • Insufficient application of new technologies and innovations • Low level of foreign direct investments • Low level of competitiveness • Inadequate technical support to small and medium-sized enterprises
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Reduction of administrative barriers • Construction of the Danube - Sava Channel and development of ports on the Danube and Sava rivers • Mine clearing • Accession to the European Union and access to EU funds • Proximity of the EU market and Southeast Europe • Government programmes to foster the development of underdeveloped regions • Incentives and programmes at the national level 	<ul style="list-style-type: none"> • Uncompetitiveness of local partners • Inability to dispose of local natural resources • Increased international competition • Inadequate development of entrepreneurship support and development institutions • Inadequate support for the development of the County by the central government • Revoking of current privileges

Source: prepared by the author according to the Vukovar-Sirmium County Development Agency, SWOT analysis template

Based on the SWOT analysis results and cluster member business performance data, it was concluded that the underlying problem for the operation of the cluster is the weakness of cluster members. For example, Spačva d.d., a member of the cluster and the largest business entity that should be the driver of development and cooperation, is awaiting pre-bankruptcy settlement and has been in financial difficulties since 2009. As cluster members are not competitive, they cannot significantly improve the competitiveness of the County. Vukovar-Sirmium County is among ten least competitive counties and thus has the lowest development index (below 75% of the average in the Republic of Croatia). This suggests that their non-competitiveness is the cause of their

underdevelopment (Singer et al., 2011, p. 22). It is important to note that according to the 2009 data, the wood industry sector of the Vukovar-Sirmium County accounted for 0.1% of the Croatian GDP, and 0.08% of the total employment rate in the Republic of Croatia, i.e., 2.6% of the total employment rate in the County.³⁸ The data has not changed significantly since then. Although the solution, which could help achieve a competitive advantage both at the level of business entities and at the regional level through connecting with related industries, was found, there is still a large gap between what the cluster should be and what it actually is. The contribution of the cluster, as a new global model for development of business entities, to the development of small businesses is extremely high, especially in countries where there are measures and programmes in place aimed at development of small enterprises, which are becoming increasingly important for a dynamic economic development and growth of a country (Horvat et al., 2004, p. 7). It is expected that in the coming decade the battle for market dominance will be fought between business clusters, consumers, suppliers, and other private and public participants rather than between individual business entities. Therefore, one of the goals of creating a cluster is to link technologies, manufacturing and small businesses of two regions or several regions from several countries within their core activities. In this way, business entities and regions are developed using the communications, technologies and investments from other regions. This is an additional reason to evaluate the possibilities and limitations of cluster formation in the Republic of Croatia with an aim to establish a new economic development concept (Horvat et al., 2004, p. 9).

4. Conclusion

A business cluster is a form of strategic association, i.e., a group of companies or associations of manufacturers carrying in a field, including producers of raw materials, governmental and non-governmental organizations, as well as research and education institutions that solve problems they have in common thus improving their business performance in a particular segment of the industry, become highly competitive and successful in the country and abroad. The main objective of clustering is to increase the competitiveness of individual companies in a cluster, and thus the competitiveness of the cluster as a whole. It is important for business entities to join a cluster, i.e., group by their common activity or by several similar activities, because of the need to adjust to the global market, define an organisational structure that will allow them to develop and carry out trading and marketing activities in one region or in several closely linked regions. Currently, regions and regional companies are increasingly facing challenges in the global market. The competitiveness of a region does no longer depend solely on individual companies, but more and more on innovative practices of entire industries and sectors. For this reason, regional competitiveness has become of central importance in developing economic and technological policies of the European Union, as well as its Member States. Potential benefits from cluster initiatives for companies and regions are an additional motivation to the governments and other public actors to support cluster policies. Generally speaking, a well-developed clustering of connected activities increases productivity, drives innovative processes and creates new businesses. The results of numerous studies and performance analyses show that the growth rate of partners in a cluster is higher than that of businesses which have not joined a cluster. Unfortunately, this is not always the case. The analyzed Vukovar-Sirmium County wood industry cluster faces a number of threats and weaknesses in its operation. Cluster members have come together to join their efforts and achieve mutual goals. Their poor performance is primarily the result of the fact that its members are not competitive and are facing a number of financial problems. In order to become successful, this cluster needs to increase the number of its members, adopt a policy preventing mutual competition, carry out market research and product branding as there is a long tradition in wood processing, invest in marketing and attracting investments, participate in a range of projects,

³⁸ Internal document belonging to the Vukovar-Sirmium County wood industry cluster – 2011 Plan and Programme

and educate and train its employees. More attention should be paid to cluster management policy so that the observed cluster could make headway during its life cycle.

REFERENCES

Barilović, Z. et al.: *Klasteri kao mogućnost gospodarskog razvoja*, http://www.famns.edu.rs/skup1/radovi_pdf/barilovic_funda.pdf (accessed 12 March 2013)

Breschi, S. et al. (2005): *Clusters, Networks and Innovation*, Oxford University Press, New York

Delgado, M. et al. (2010): *Clusters and entrepreneurship*, Journal of Economic Geography, Vol. 10, pp. 495-518.

Drvni klaster Vukovarsko-srijemske županije, <http://drvni-klaster-vs.z.com/index.php?link=2> (accessed 12 February 2013)

Erkapić, Ž.: *Klasteri kao oblik udruživanja i organiziranja gospodarskih subjekata*, http://oliver.efos.hr/razvoj/docs/Klasteri_Erkapic.ppt (accessed 12 February 2013)

Horvat, Đ., Kovačević, V. (2004): *Clusteri – put do konkurentnosti*, Cera Prom i M.E.P. Consult, Zagreb

Internal document belonging to the Vukovar-Sirmium County wood industry cluster - 2012/2013 Plan and Programme

Internal document belonging to the Vukovar-Sirmium County wood industry cluster - 2011 Plan and Programme

Singer, S. (2011): *Regionalni indeks konkurentnosti Hrvatske 2010*, p. 22, www.konkurentnost.hr/lgs.axd?t=16&id=312, (accessed 20 February 2013)

Tijanić, L. (2009): *Politika Europske Unije u formiranju klastera*, Ekonomska istraživanja, Vol. 22, No. 1, pp. 149-167.

Tsuji, M. et al. (2010): *From Agglomeration to Innovation: Upgrading Industrial Clusters in Emerging Economies*, Institute of Developing Economies IDE-Jetro, New York

Tomislav Kovačević, M. Sc. Agr.

Student Management postgraduate University study, Faculty of Economics in Osijek
Vinogradska 32, Sibirj 35252
Phone: 098 980 46 24
E-mail address: tomislav85@net.hr

Matija Japundžić, M. Sc. Agr.

Matije Gupca 32, Sibirj 35252
Phone: 098 909 54 36
E-mail address: matija.japundzic@net.hr

Mirko Jokić, M. Sc. Agr.

OPG Mirko Jokić
Matije Gupca 1, Lipovac 32246
Phone: 098 975 39 61
E-mail address: zu.sv.lovre@vu.t-com.hr

**THE ROLE OF AGRICULTURE
IN ECONOMY OF MIDDLE AND EASTERN CROATIA**

**ULOGA POLJOPRIVREDE U GOSPODARSTVU
SREDNJE I ISTOČNE HRVATSKE**

ABSTRACT

Croatian Republic is a land of rich and quality natural resources – highly fertile soils, favorable climate and abundance of water resources. Importance of agriculture is not only in its primary role to ensure food for population, but as well in preservation of rural space, ecological balance and keeping of traditional values. Apart from producing crops and livestock products for human consumption, agriculture participates in development of other industries whose products are needed in performance of agricultural activity, such as machinery industry and agricultural equipment, industry of mineral fertilizers, industry of reproductive material, construction industry and others. By using information's from Central Bureau of Statistics about rural population, indicators of Gross Domestic Product (GDP), employment in agriculture, forestry and fisheries, the role of agriculture in economy of Middle and Eastern Croatia has been analyzed. In the analysis Croatian Republic has been classified in three NUTS2 regions (Northwestern Croatia, Middle and Eastern (Pannonia) Croatia, and Adriatic Croatia). The share of agricultural production (in which hunting, forestry and fisheries are included) in Gross Value Added of Middle and Eastern Croatia is registering constant growth from 7,768 mill. of kunas in 2005 on 10,484 mill. in 2008 – increase of 25.91%, while in year 2009 decrease of 2,833 mill. kunas or 37.03% has been recorded. According to information's of Central Bureau of Statistics number of employed in Middle and Eastern Croatia in period from 2008 till 2011 fell for 28.413 employees, while number of employees in agriculture, forestry and fisheries in same period fell for 1.030 employees. The share of employed in agriculture, fisheries and forestry in overall rate of employed grows and in 2008 amounts 5.64%. Considering the connection with supplementary activities, from producing agricultural inputs till traffic processing and marketing of agricultural products, the importance of agriculture in economy of Croatia is higher than listed shares showed.

Key words: agriculture, agricultural population, the economy, the middle and eastern Croatia, GDP

SAŽETAK

Republika Hrvatska je zemlja bogatih i kvalitetnih prirodnih resursa – zemljišta dobre plodnosti, klimatskih pogodnosti i obilja vodenih resursa. Važnost poljoprivrede ne ogleda se samo iz primarne uloge osiguranja prehrambenih proizvoda stanovništvu, već i iz njene uloge u očuvanju ruralnog prostora, ekološke ravnoteže i održanju tradicijskih vrijednosti. Poljoprivreda osim što proizvodi biljne i stočarske proizvode za prehranu stanovništva, ona i sudjeluje u razvoju ostalih industrija čiji su proizvodi ili usluge potrebni za obavljanje poljoprivredne djelatnosti, gdje pripadaju industrija mehanizacije i opreme za poljodjelstvo, industrija mineralnih gnojiva, industrija reprodukcijskog materijala, građevinska industrija itd. Koristeći se podacima iz Državnog zavoda za statistiku o poljoprivrednom stanovništvu, pokazateljima o bruto domaćem proizvodu, zaposlenosti u poljoprivredi, šumarstvu i ribarstvu u radu je analizirana uloga poljoprivrede u gospodarstvu srednje i istočne Hrvatske. U analizi je korištena podjela Republike Hrvatske na tri NUTS 2 regije (Sjeverozapadna Hrvatska, Središnja i Istočna (Panonska) Hrvatska i Jadranska Hrvatska). Udio poljoprivredne proizvodnje (u što su uključeni lov, šumarstvo i ribarstvo) u ukupno bruto dodanoj vrijednosti srednje i istočne Hrvatske bilježi konstantna rast s 7,768 mil. kuna u 2005. godini na 10,484 mil. kuna u 2008. godini – povećanje od 25,91%, dok u 2009. godini bilježi pad za 2,833 mil. kuna ili za 37,03%. Prema podacima DZS RH broj ukupno zaposlenih u središnjoj i istočnoj Hrvatskoj u razdoblju od 2008. godine do 2011. godine je pao za 28.413 zaposlenih, dok je broj zaposlenih u poljoprivredi, šumarstvu i ribarstvu u istom razdoblju pao za 1.030 zaposlenih. Udio zaposlenih u poljoprivredi, ribarstvu, šumarstvu u ukupnoj stopi zaposlenosti raste te u 2008. godini iznosi je 5,44%, dok taj udio u 2011. godini iznosi 5,64%. S obzirom na povezanost s dopunskim djelatnostima, od proizvodnje poljoprivrednih inputa do prerade, prometa i trženja poljoprivrednih proizvoda, važnost poljoprivrede u hrvatskom gospodarstvu je veća nego što pokazuju navedeni udjeli.

Ključne riječi: poljoprivreda, poljoprivredno stanovništvo, gospodarstvo, srednja i istočna Hrvatska, BDP

1. Introduction

Beside mentioned tasks, agriculture is contributing to development of non-agricultural sector and as a market for industrial products (mechanization, mineral fertilizers, plant protection...) or for products for personal consumption of agricultural population, including nutritional products.

Agriculture is economic activity that in overall Croatian economy participates by 7% in GDP (1998), somewhat more in employment (13%) and along with processing industry in foreign trade balance with significant 10 to 12%.

In Croatian economy, agriculture has its place, defined by well recognized and known status. The importance of agriculture is evident through: the share of agricultural population in overall population of Croatia, employment in agricultural sector, contribution to the GDP in direct and multiplicative meanings and gross value added (GVA) for Republic of Croatia. Today, the importance of agriculture is not only in traditional sense of ensuring satisfying population's nutritional needs, but also in its role in preservation of rural environment, ecological balance and keeping traditional values, material and spiritual culture of Croatian village (Par et al., 2008,726).

2. Material and Methods

In order to analyze the role of agriculture in economy of Eastern and Central Croatia, the data of total agricultural population of Central and Eastern Croatia, indicators of GDP and number of

employed in agriculture were used. Statistical division of Croatian Republic on NUTS regions of second level (NUTS 2) was used in analysis. According to NUTS 2 Croatia is divided in three regions: North-western Croatia, Central and Eastern (Pannonia) Croatia, and Adriatic region. In this paper Central and Eastern Croatia are analyzed, which is per NUTS 2 composed of Bjelovar-Bilogora, Virovitica-Podravina, Pozega-Slavonia, Brod-Posavina, Osijek-Baranja, Vukovar-Srijem, Karlovac and Sisak-Moslavina County.

As a source of information the data from the Central Bureau of Statistics for various years were used, the data is organized in tables or graphs, depending on their purpose.

When using statistical data, it is necessary to indicate on a problem of gathering information's and availability of statistical and other information's about agricultural population at the county level from official sources, which considerably made it harder and more limited to make this agro-economic research.

3. Research results

3.1. Agricultural population

By agricultural population it is understood, according to criteria that was valid in 1981 and 1991 census, that people whose profession is among "agriculturists" and "fishermen and hunters" same as those who were supported by them. According to 2001 census, agricultural population is made of people whose profession is classified by the National Profession Classification as "agricultural, hunt-rearing, forestry workers and fishermen" and in type of occupation as "simple agricultural, forestry and fisheries occupations", together with people supported by them (Japundžić et al., 2011, 69). According to 2001 census, from total of 1.351.517 people living in Central and Eastern Croatia, 120.661 makes agricultural population or only 8.93% out of total population living in that area. During the period from 1991 till 2001 number of agricultural population in Central and Eastern Croatia fell from 218.069 or 28.5% of total population on just 120.661 or 8.93% of total population. On county levels the most significant fall of agricultural population in 2001 was in Sisak-Moslavina County (72.73%) while the smallest rate was in Bjelovar-Bilogora County (24.73%).

Table 1 Agricultural population of central and eastern Croatian in 1991 and 2001

County of Center and Eastern Croatia	1991		2001	
	Total agricultural population	Share in total (%)	Total agricultural population	Share in total (%)
Bjelovar-Bilogora	36.573	25,39	27.529	20,69
Virovitica-Podravina	26.067	24,91	12.908	13,82
Pozega-Slavonia	14.361	14,46	8.279	9,65
Brod-Posavina	19.730	11,27	13.554	7,67
Osjecko-Baranja	36.826	15,93	21.112	10,31
Vukovar-Srijem	30.320	13,11	19.202	9,38
Karlovac	16.320	8,84	7.749	5,47
Sisak-Moslavina	37.872	15,07	10.328	5,57
Total	218.069	15,34	120.661	9,84

Source: <http://hgk.biznet.hr/hgk/fileovi/3664.pdf>

Regional differences in spatial distribution are also evident. North-west region marks only a small average increase (5.61%) of agricultural population in total population compared to whole Croatia. At the same time, Central and Eastern (Pannonia) region has above-average share of agricultural population (8.94%), and Adriatic region has only 2.27% of that kind of population (Par et al., 2008, 727).

Development of non-agricultural sector, historically, was not possible without a parallel transfer of labor force and material resources in craft, trade and other non-agricultural activity. Lower work productivity in agriculture and lower incomes related to that activity were the main impeller of population outflow from agriculture (Grahovac, 2005, 87). Dominant changes in the economic structure of the population and is the change that occurs in the distribution of total and active population between agriculture and non-agricultural activities, and between primary, secondary and tertiary activities (Wertheimer-Baletić, 1978, 34-35).

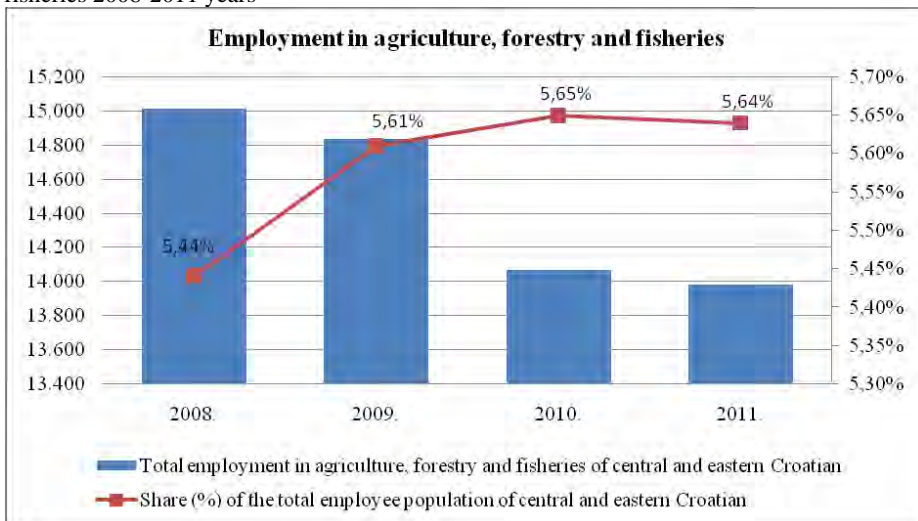
3.2. Employment in Agricultural sector

Labor force in agriculture as one of the fundamental factors in agricultural production is reliable indicator of importance of this activity in economical development of Central and Eastern Croatia. General social and economic development in dynamic scientific and technological development made it possible for labor force to leave agriculture and exceeds in non-agricultural sector. The pace of leaving agricultural production depended almost on development of industry, traffic, trade and other non-agricultural activities. Traditional content of agricultural production is losing its characteristics (high rate of agricultural population in total population, low work productivity rate, low equipment of capital production, and high rate of some crop production, fragmented properties and other) with significantly unfortunate outcome. In case of labor force, undesirable processes of senilization and feminization come across agricultural production. Higher rates of older agricultural population along with increasing female agricultural population become typical frame of Croatian village that is slowly changing. Agricultural production is more often left by young people who, after they have their education is done, rarely return to their homeland and that way they additionally contribute to negative characteristics in agricultural production.

Former vividness of literarily described landscapes becomes only a sad story along the constant «efforts» and promises about something should be changed. And changes often have virtual character that goes in favor to (non)determined individuals: when first chance is created, homeland is deserted and is immersed in omnipresent process of urbanization with uncertain consequences. That way, labor force flow was less perceived as mechanical transfer of agricultural workers in non-agricultural sector, but more as economic and social problem with deep changes of material and social community (Barić, 2012, 22). Size of the agricultural population and the share of the agricultural population in the total population, a reflection of the degree of economic development of the country. Developing countries is characterized by a high share of agricultural population in the total population of the country (Japundžić et al., 2011, 70). Moreover, under conditions of slow changing or developing the economic structure of the country despite the decrease in percentage share of the agricultural population in the total population of the country, the absolute number of agricultural population grows.

Employment in whole Republic of Croatia is falling in period from 2008 till 2011, so number of employed in agriculture, forestry and fisheries is falling too. In Central and Eastern Croatia in period 2008-2011 number of employed in agriculture, forestry and fisheries fell for 1.030 employees. The share of employed in agricultural activities compared to total amount of employed is growing from 5.44% in 2008 on 5.64% in 2011. Due to connection with complementary activities, from producing agricultural inputs till processing, transporting and trade of agricultural products, the importance of agriculture in Croatian economy is greater than listed shares indicate.

Figure 1 Total number of employees of Central and Eastern Croatian agriculture, forestry and fisheries 2008-2011 years³⁹



Source: Created by authors on data the Central Bureau of Statistics

Moreover, unformed employment and involvement of people in agricultural production is significant, that is more than million members of those households that more or less, are engaged in agriculture. The size of agricultural population, just as share of agricultural population within total population, is a reflection of level of economical development of a country. For undeveloped countries high share of agricultural population in total population is characteristic, and along with that, high number of agricultural population as well. Furthermore, in conditions of slow changes, or economic development of a country despite decrease in share of agricultural population in total population, absolute number of agricultural residents is growing (Petrač, 2003.). Croatian unemployment is characterized by big regional differences, and lowest rates always have the most developed part of Republic of Croatia, City of Zagreb. An international comparison of unemployment levels according to labor force survey shows us that in the long term unemployment rate is well above the EU average although the global crisis had a different impact on the various unemployment by individual countries (Čavrak et al., 2011, 140)

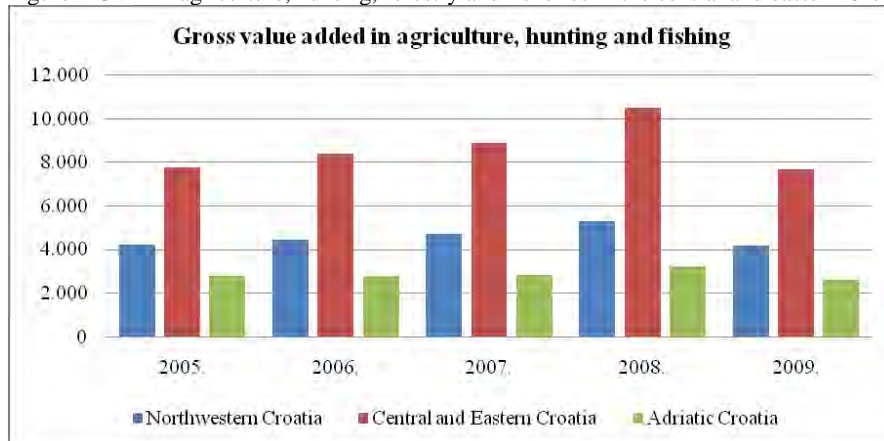
3.3. The share of agriculture in the economy of central and eastern Croatian

By economic development and growth of domestic product per capita, the share of agriculture in shaping gross domestic product is decreased and it is confirmed on example of Croatian Republic how by growth of domestic product per capita the share of agriculture in total economy is decreased, or by stagnation of economy the share of agriculture in whole economic structure is in stagnation too (Zmaić, 2008, 73).

Lower GDP per capita of rural environment is a fundamental economic feature. If on average, GDP per capita in all EU (15) countries is 100 poens (1994), equal GDP per capita is in strictly rural areas 88,4, while in urban areas even 109,6 poens (Defilippis, 2009, 828).

³⁹ 2008 years according to NACE's 2002 (NN 52/03), 2009., 2010 and 2011 years, according to NACE's 2007 (NN 58 / 07th and 72/07), at 31 March 2008, 2009, 2010, 2011.

Figure 2 GVA in agriculture, hunting, forestry and fisheries in the central and eastern Croatia



Source: Created by authors on data the Central Bureau of Statistics

Total GVA in 2009 from agriculture, hunting, forestry and fisheries was 7.651 million of HRK (Croatian kunas) which is 13.17% of total GVA of Central and Eastern Croatia.

But due to ambiguity of agriculture as economic activity and her role in agribusiness or food chain, it certainly is an activity of primary importance for Central and Eastern Croatia.

When it is about GVA accomplished per agricultural capita, the importance of certain regions is changing. The biggest GVA per agricultural capita is achieved in area of Adriatic region and amounts 83.210 HRK. In Central and Eastern Croatia 63.591 HRK, and in North-west Croatia only 46.024 HRK is achieved (Par et al, 2008, 729).

4. Conclusion

Economic development of agriculture is increasingly integrated into the whole of overall economic activity. Agricultural production is the basis of any economy. In Croatia, about 10% of the population engaged in agricultural activities, which is higher than the EU average, agriculture is engaged revising 4% to 7% of the population. Industrialization and modernization have brought in Croatian society and rural development. Rural development should be understood in the context of contemporary globalization and transition, as well as in the context of changes in ecological awareness. Rural development can't be confined to the modernization of agriculture. He is equally concerned and villages, environment, technology, and agriculture (Šundalić and Sudarić, 2003, 260). The importance of agriculture is not exhausted, however, even in the broadest scope of its economic determinations. Agriculture, countryside and peasants have a positive impact on many areas of the overall activities of the company: from the defense capability of the country to protect the natural environment.

Food purpose of most of the final agricultural production is determined and its first and most important task: to feed the local population, or more precisely, to ensure satisfactory primary production of food products. This, like every other, the task may be performed more or less successfully. Agriculture needs to meet the population's needs appropriate amounts and the structure and quality of the product, and with low costs of production. The second task is to provide the agriculture industry raw materials of agricultural origin such as production of food products, beverages, tobacco, leather, textile fibers, animal feed. Third is the export function of agriculture that can be more precisely defined as the efforts to export farm products realize greater foreign exchange earnings. Although agriculture which provides a relatively small contribution to the overall economy of Central and Eastern Croatian, it will continue to be a necessary and important

factor in the overall economy, because the basic function is to provide enough food to feed the population.

REFERENCES

Babić, A., Lovrinčević, Ž., Mikulić, D. (1996): *Procjena BDP-a Republike Hrvatske za 1994. i 1995. godinu*, Privredna kretanja i ekonomska politika, Vol. 6, No. 52, str. 53-79.

Barić, V. (2012): *Zaposlenost u poljoprivredi Bjelovarsko-bilogorske županije: stanje i perspektive*, sv. 6, str. 17-31.

Croatian Bureau of Statistics, poljoprivredno stanovništvo prema aktivnosti i spolu, po gradovima/općinama, popis 2001, http://www.dzs.hr/Hrv/censuses/Census2001/Popis/H01_01_11/H01_01_11.html (accessed 12 december 2012)

Čavrak V., Družić I., Barić V., Grahovac P., Gelo, T., Karaman Aksentijević, N., Mrnjavac, Ž., Obadić, A., Pašalić, Ž., Smolić, Š., Šimurina, J., Tica, J. (2011): *Gospodarstvo Hrvatske*, Politička kultura, Zagreb.

Defilippis J. (2009): *Hrvatska u ruralnom prostoru Europe*, Sociologija i prostor, Vol. 43, No. 4 (170), str. 823-836.

Hrvatska gospodarska komora, Sektor za gospodarsku strategiju, Stanovništvo RH, <http://hgk.biznet.hr/hgk/fileovi/3664.pdf> (accessed 7 January 2013)

Japundžić, M., Palenkić, J. B., Fajdetić, R. N. (2011): *Kvantitativna i kvalitativna obilježja poljoprivrednog stanovništva u Republici Hrvatskoj*, Zbornik radova Veleučilišta u Slavanskom Brodu, Godina 2. Broj 2, Slavonski Brod.

Par, V., Njavro, M., Hadelan, L. (2008): *Agricultural importance in Croatian economy structure*, 1st International Conference "Vallis Aurea" – Požega: Polytechnic of Požega DAAM i International Vienna, 2008, str. 725-729.

Petrač, B. (2003): *Agrarna ekonomika*, Ekonomski fakultet u Osijeku, Osijek.

Poljoprivreda, prehrana i veterina – ASOO, Agencija za strukovno obrazovanje i obrazovanje odraslih, Radnička 37b/VII, 10000 Zagreb, Hrvatska, PRINTER GRUPA d.o.o. <http://www.asoo.hr/UserDocsImages/projekti/kvalifikacije/ishodi/planiranje%20kv/poljoprivreda.pdf> (accessed 5 December 2012)

Statistički ljetopis, Državni zavoda za statistiku Republike Hrvatske 2002.

Šundalić, A., Sudarić, T. (2009): *Slavonija i Baranja danas: između revitalizacije ruralne tradicije i tržišne transformacije*, Zbornik radova: Agroekologija i ekološka poljoprivreda, Agroekonomika i agrosociologija, http://sa.agr.hr/pdf/2009/sa2009_p0227.pdf (accessed 10 January 2013)

Wertheimer-Baletić, A. (1978): *Ekonomska aktivnost stanovništvo*, Demografski aspekti, Školska knjiga, Zagreb.

Zmaić, K. (2008): *Osnove Agroekonomike*, Poljoprivredni fakultet u Osijeku, Osijek.

Branko Kovacevic, PhD, University Professor

Faculty of Economics and Business, University of Zagreb,

10000 Zagreb, J. F. Kennedy Square 6

Phone: 00385 1 238 3117

E-mail: bkovacevic@efzg.hr

Marina Kovacevic, MA, Senior Lecturer

10 000 Zagreb, Stonska 7

Phone: 00385 1 663 6002

E-mail: kovacevic.marina4@gmail.com

**ENTREPRENEURSHIP DEVELOPMENT IN THE EASTERN CROATIAN
TOURISM**

**POTICANJE RAZVOJA PODUZETNIŠTVA U TURIZMU ISTOČNE
HRVATSKE**

ABSTRACT

Entrepreneurship and tourism are extremely important for the development of the Croatian economy, especially its eastern part. Due to the high rate of unemployment and economic inefficiency of the economy as a whole, the development of entrepreneurship in tourism has huge potential for possible economic growth. A special role is the development of small and medium enterprises as a carrier in economic development. Developing tourism businesses in eastern Croatia means supporting attractive varieties of tourism, quality of tourism services, better tourism infrastructure and employment expression. The aim is to determine the primary tourist characteristics and importance of tourism development in eastern Croatia, examine the basic characteristics of the relevant development programmes as well as the institutions that implement them, analyse instruments that support entrepreneurship and tourism, examine the advantages and disadvantages of existing support and propose concrete measures and forms of aid in the context of better exploitation of tourism potential and development of entrepreneurship in eastern Croatia. For the purposes of research, the results of surveys, scientific and vocational literature, strategic documents, development programmes and reports are analysed. Based on the analysis of development programmes, tourism and business development, synthesis and deduction conclusions are made on the promotion of entrepreneurship development in tourism. Classification and comparison with other regions and counties have made concrete conclusion about aid in eastern Croatia. Our results suggest an insufficient utilization tourism potential of eastern Croatia, and a poor tourism offer in Croatia's mainland. Eastern Croatia has great potential for development businesses primarily in rural tourism, such as the development of tourism on rural farms, hunting and fishing, ecotourism, cultural and gastronomic, culinary and wine tourism. Various development programmes of the relevant institutions, specifically ministries, and development financial institutions are being implemented. Studies indicate poor use at these programmes. The role of bank lending in tourism is emphasized and survey research highlights that compared with other Croatian regions, eastern Croatia has the lowest utilisation of subsidised credit programmes. Commercial banks emphasize that stronger state support would greatly stimulate financing of entrepreneurship in tourism.

Key words: *Entrepreneurship, Tourism, Development programmes, Eastern Croatia, Loans*

SAŽETAK

Razvoj poduzetništva i turizma ima iznimno značenje za razvoj gospodarstva Hrvatske, a posebno njezinog istočnog dijela. Zbog visokih stopa nezaposlenosti i ekonomske neefikasnosti gospodarstva u cjelini, razvoj poduzetništva u turizmu predstavlja mogući potencijal gospodarskog razvitka. Posebnu ulogu ima razvoj malog i srednjeg poduzetništva kao nosioca gospodarskog razvoja. Poticanje poduzetništva u turizmu istočne Hrvatske znači potporu razvoju atraktivnih vrsta turizma, kvaliteti turističkih usluga, razvoju turističke infrastrukture i zapošljavanju. Cilj rada je utvrditi osnovna turistička obilježja i značaj turizma za razvoj istočne Hrvatske, ispitati osnovne karakteristike relevantnih razvojnih programa kao i institucije koje ih provode, analizirati instrumente dodjele potpora poduzetništvu i turizmu, sagledati prednosti i nedostatke postojećih potpora te predložiti konkretne mjere i oblike potpora u kontekstu boljeg iskorištavanja turističkih potencijala i razvoja poduzetništva istočne Hrvatske. U svrhu istraživanja analiziraju se rezultati provedenih anketa, znanstvena i stručna literatura, strateški dokumenti, razvojni programi te izvješća. Na temelju provedene analize razvojnih programa, turističke ponude i razvoja poduzetništva, sintezom i dedukcijom izvode se zaključci o poticanju razvoja poduzetništva u turizmu. Klasifikacijom i komparacijom s ostalim regijama i županijama donose se konkretni zaključci o potporama u istočnoj Hrvatskoj. Rezultati istraživanja ukazuju na nedovoljnu iskorištenost turističkog potencijala istočne Hrvatske, dijelom i zbog slabe turističke ponude kontinentalne Hrvatske. Istočna Hrvatska ima veliki potencijal za razvoj poduzetništva prije svega u ruralnom turizmu, a to znači razvoj turizma na seljačkim gospodarstvima, lovni i ribolovni, ekoturizam, kulturni te gastronomski i eno-gastronomski turizam. Provode se različiti programi razvoja od odgovarajućih institucija posebno resornih ministarstava i razvojnih financijskih institucija. Istraživanja ukazuju na slabu iskorištenost tih programa. Naglašena je uloga bankarskih kredita u turizmu, a anketno istraživanje ističe da u usporedbi s ostalim regijama Hrvatske, istočna Hrvatska ima najmanju iskorištenost subvencioniranih kreditnih programa. Poslovne banke naglašavaju da bi snažnija državna podrška uvelike stimulirala financiranje poduzetništva u turizmu.

Ključne riječi: Poduzetništvo, Turizam, Razvojni programi, Istočna Hrvatska, Krediti

1. Introduction

At the same time as achieving its independence, Croatia had to face numerous challenges, such as imbalance concerning social and economic development, depopulation, backwardness of many parts of the country, poor basic and business infrastructures, insufficient financial capital for restructuring, as well as the Homeland War, which had multiple impacts on everything previously mentioned. The development difficulties that areas of Croatia that lag behind in terms of social and economic development are extremely high and include a series of negative and mutually related characteristics. According to the Regional Development Strategy of the Republic of Croatia 2011-2013 (Ministry of Regional Development, Forestry and Water Management, 2010, 24), the Pannonian region, and thereby the entire region of eastern Croatia, on average is less competitive and it needs the most investments in order to reach the competitive level of the other regions, especially in the development of entrepreneurship, business infrastructure and encouraging investment. The SWOT analysis and macroeconomic indicators point to the readiness of the region to develop an entrepreneurial infrastructure, which is relatively underdeveloped as a result of underinvestment by local entrepreneurs, as well as their poor interconnection. Despite the tradition of industry and craftsmanship, a disconnection between agriculture and tourism has been observed. The Strategy of Regional Development of the Republic of Croatia for Pannonian Croatia sets forth as a priority an increase in the competitiveness of the economy, and some of the relevant measures

are development and advancement of all forms of tourism, as well as the development of small and medium enterprises.

The aim of the paper is to determine the basic characteristics of tourism and the importance of tourism for the development of eastern Croatia, to examine the basic characteristics of relevant development programmes, as well as the institutions that implement them, to analyse the aid instruments intended for entrepreneurship and tourism, to examine the advantages and disadvantages of existing aid and to propose concrete measures and forms of aid within the context of the better use of tourism potentials and the development of tourism potentials in eastern Croatia. Used for this purpose was an analysis of relevant literature, especially strategy and development documents in the field of tourism. With a synthesis of the data obtained, derived are certain conclusions about aid in general, while with the classification and comparison with other regions and counties, conclusions and recommendations for aid in eastern Croatia are made.

The observed area includes the counties of eastern Croatia, that is, the counties of Vukovar-Syrmia, Osijek-Baranja, Virovitica-Podravina, Brod-Posavina and Požega-Slavonia.

2. Main characteristics of tourism in eastern Slavonia

Nearly a quarter of the citizens of Croatia live in eastern Slavonia, and it represents a significant component of all relevant indicators in its economic, political, cultural and tourism development. A relevant determinant of this region is its geographical features. It has all of the prerequisites for the development of a range of economic activities: agricultural production, forestry, fishing, water management, as well as advantages in development of transport, energy and environmental areas. These are essential components for the development of tourism in the region.

2.1. Analysis of tourism in eastern Croatia and comparison with other Croatian regions

According to the latest available databases of the Bureau of Statistics (Table 1.), the analysis of the main characteristics of tourism according to regional wholes and Croatian counties show that, despite the tourism products of continental Croatia, Adriatic Croatia holds a large share in all relevant segments and characteristics of tourism. It generates about 90% of tourism activities, accounts for 95% of all accommodation, and achieves 72%, that is, over 1.6 billion HRK in revenue from hotels and restaurants. The remaining shares belong to the continental part, of which the examined area of eastern Croatia occupies about 1% in terms of tourist arrivals, with a total of just over 300,000 overnight stays, which also makes it the least visited area of the country. Accommodation capacities assume an insignificant 0.8% with 2,420 accommodation units and revenue from hotels and restaurants of 5%.

According to the data of the conducted study on tourism activities of the local population in 2011, the most visited travel destinations in Croatia are Dalmatia (2.0 million trips or 40% of all private multi-day trips in Croatia) and Istria, Kvarner and Gorski kotar (1.3 million trips or 25% of trips in Croatia). The area of Slavonia⁴⁰ holds 9.4% of trips in Croatia or 470 thousand (Marušić and Ivandić, 2012, 19).

⁴⁰ Slavonia includes the areas of the Požega-Slavonia, Brod-Posavina, Osijek-Baranja and Vukovar-Syrmia counties (Marušić and Ivandić, 2012, 11)

Table 1 Tourism - an overview of regional units in Croatia and the counties of eastern Croatia

Revenue from hotels and restaurants, in thousand HRK (2010)	Accommodation capacities (31 Aug 2011)							
	Total		Total		Tourist traffic (2011)			
	Total	%	Total	%	Arrivals	%	Overnights	%
Republic of Croatia	16.220.735	100	321.417	100	11.455.677	100	60.354.275	100
Central and Northwest Croatia together:	3.743.363	23,1	12.144	3,8	1.120.794	9,8	2.012.553	3,3
Adriatic Croatia	11.682.339	72,1	306.853	95,5	10.178.624	88,8	58.015.765	96,1
Eastern Croatia:	795.033	5,0	2.420	0,8	156.259	1,4	325.957	0,5
Virovitica-Podravina	73.970	0,5	241	0,07	13.625	0,12	32.917	0,05
Požega-Slavonia	69.145	0,4	193	0,06	9.729	0,08	23.627	0,04
Brod-Posavina	114.502	0,7	278	0,09	18.526	0,16	33.127	0,05
Osijek-Baranja	398.235	2,5	1.076	0,33	77.697	0,68	173.892	0,29
Vukovar-Syrmia	139.181	0,9	632	0,20	36.682	0,32	62.394	0,10

Note: According to the statistical division at the NUTS 2 level, eastern Croatia and central Croatia form one region. For the needs of the analysis, Eastern Croatia is isolated, while the data for Central Croatia are shown together with Northwest Croatia.

Source: Croatian Bureau of Statistics (2011, 22), (2012, 418)

An analysis of statistical data clearly points to the fact that the area of eastern Croatia, despite its resources, is still insufficiently recognizable, and does not have, in terms of resources, developed tourism products.

2.2. Resources and eastern Croatian tourism products - potentials for regional development

The potential for tourism development in eastern Croatia include: cities with an ancient past, e.g. Cibalae (Vinkovci), Mursa (Osijek), Marsonija (Slavonski Brod), Vukovar as a memorial complex and symbol of war destruction, Vučedol with 200 archaeological localities, international folklore events (Vinkovačke jeseni, Đakovački vezovi), Slavonian castles and manor houses, Kopački Rit Nature Park, Bizovačke toplice spas, Lipik, Đakovo Equestrian Academy, specific cuisine (wine from Kutjevo and Ilok, kulen (special type of sausage), šljivovica (plum brandy)), the Danube and Drava rivers etc.

Due to the abundance of rural areas, eastern Croatia has exceptional potential for the development of rural tourism. According to Kušen (2006, 170), the rural area forms a basic resource for the development of rural tourism, which relies on the needs of city residents for tranquillity and a space for sports and recreation in the open air, which does not necessarily have to be related to nature. Given the characteristics of certain parts of the rural areas, rural tourism forms a complex kind of tourism that combines a number of basic types of tourism. It includes tourism on agricultural estates, cultural, hunting and fishing, homeland, adventure, religious, ecological, transit, health and other types of tourism. This form of tourism constitutes an additional source of income, and it plays an important role in reducing the rate of rural depopulation and bringing prosperity to poor rural areas. Investments in tourism can preserve cultural and historic resources and traditional activities in rural areas, while unused buildings and land can be made suitable for the needs of tourists and the various activities that form the special characteristics of rural areas.

Tourism on family farms or agricultural estates forms a segment of rural tourism that allows farmers to diversify their economic activities and to enrich the value of their products, and forms a part of rural tourism and agriculture (Kušen, 2006, 171). In Croatia today, there are 360 registered agricultural estates with an offer of tourist services that, in large measure, offer homemade, traditional food to excursionists, while the offer of accommodation capacities and activities that can complement their multi-day stays are much less common. Of the examined counties, the Osijek-Baranja County stands out, which has managed to position itself as a rural tourism destination

thanks to its rural destinations and offer of accommodation on agricultural estates, in rural holiday houses and farm houses (for instance, rooms, apartments) (Telišman-Košuta, N. et al., 2012, 57).

3. Development of entrepreneurial activities in the tourism of eastern Croatia

The valorisation of the unused resources of eastern Croatia and the development of attractive tourism products significantly depends on forms of financing and state aid, primarily the programmes of relevant ministries and development financial institutions⁴¹. Especially considered is the development of entrepreneurship in tourism as a backbone of tourism products and activities.

3.1. Financial instruments for entrepreneurship in tourism

When considering the importance of tourism in realization of strategic goals of development of the Croatian economy, important segments are: financing construction of new facilities for visitors, financing increase in quality of tourism facilities, development of tourism destinations as well as financing of current activities in preparing and realizing tourism season and tourism activities. Within the financial system of the Republic of Croatia, commercial banks represent the backbone of financing and procuring fresh funding for tourism. The share of non-banking financial institutions is relatively small, and their placement policy is focused on other forms of financial allocations. Funds are interested in investing into equity and debt securities of various sectors. However, given that the costs of securities' emission are very high, and tradition of investing into securities still undeveloped, debtor's financing through bank loans is a typical form of financing new investments of constructing large and other accommodation capacities. Alternative forms of financing entrepreneurship in tourism are not easily accessible. Funds of venture capital funds are accessible in very small quantities. Business angels and other non-formal forms of financing are available in construction of apartments and apartment-hotels linked to investments of private accommodation providers and in individual loan programmes of the Ministry of Tourism. Financing through leasing is usually expensive and inadequate for the main needs of financing in tourism. Altogether, financing of investments, procurement of equipment and other needs in tourism depend on bank loans (Ivanov and Kovačević, 2008, 556-557).

According to the survey conducted on several commercial banks, the regional distribution of loans in tourism corresponds to tourism activities. Banks in general mostly provide tourism loans in the area of Adriatic Croatia, followed by the Zagreb region and central Croatia, and least of all, 2%, in the area of eastern Croatia. Commercial loans are approved in the least amount in the area of the Vukovar-Syrmia and the Brod-Posavina counties (Figure 1.).

Besides financing accommodation buildings, banks generally also finance the development of rural tourism, eco-tourism, sports tourism and health tourism (all relevant forms of tourism for eastern Croatia), whereby they emphasized that stronger state aid would significantly stimulate the financing of all tourism activities (Kovačević, 2006, 108).

⁴¹ CBRD, HAMG invest

Figure 1. Regional distribution of commercial loans for tourism

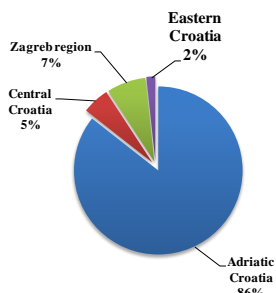
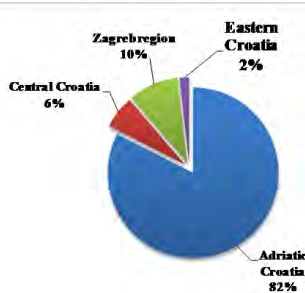


Figure 2. Regional distribution of loans in cooperation with the CBRD for promotion of tourism



Source: Authors' calculation based on survey 'Banks' loan policy" (Figure 1. and Figure 2.)

3.3. State aid for entrepreneurial activities in tourism

In Croatia, there are many programmes of state aid and subsidised loans for tourism. The realisation of subsidised loan programmes in tourism up till now was based on cooperation among the Ministry of Tourism, Croatian Bank for Reconstruction and Development, and the former Ministry of Economy, Labour and Entrepreneurship, today, the Ministry of Entrepreneurship and Crafts. The bulk of government subsidies in tourism are related to the promotion of family, small and medium enterprises in tourism. Particularly significant results in the area of subsidised loans to entrepreneurs in the tourism industry were reached by the incentive measures programme that was implemented from 2002 to 2009, called "Incentives for Success". One of the incentive measures is the Loan programme for small family enterprises in tourism. Data on approved loans from the Incentives for Success programme (Ministry of Tourism 2013a) are confirmed by the results of a survey on the low share of subsidised loans for eastern Croatia. Most subsidised loans from the above programme have been allocated in the Croatian Adriatic region. The least amount, 6.5% of the total of loans approved in the first part of the programme (December 2002- December 2005), went to counties of eastern Croatia. The results of a survey conducted on several commercial banks indicate that the least amount of subsidised loans, 2%, is granted to eastern Croatia (Figure 2.).

In addition to this project, significant to the area of eastern Croatia is the project Development of rural tourism. The aim of this particular loan programme is to encourage the development of tourism in the rural areas of the Republic of Croatia by means of a subsidised interest rate, with the objective of developing the tourism offer as a complementary activity on agricultural estates, increasing the quality of life and creating conditions for staying in the country, maintaining traditional and ambient houses, enabling the direct placement of agricultural products through specific elements of the rural tourism offer, reviving old crafts and trades and local customs, as well as creating a new tourism product and profiling Croatia as a rural tourism destination (Ministry of Tourism, 2013b).

According to the statistical classification of NUTS 2⁴² criteria, the region of Eastern Croatia is examined together with Central Croatia, forming together Pannonian Croatia with eight counties: Bjelovar-Bilogora, Virovitica-Podravina, Požega-Slavonia, Brod-Posavina, Osijek-Baranja,

⁴² NUTS is a statistical classification that is used for the collection, processing, analysis and publishing of statistical territorial data at the EU level, by which territorial units are classified into different levels on the basis of population, and it is the basis for determining the acceptability of territorial units for use of EU funds within the defining of cohesion policy.

Vukovar–Syrmia, Karlovac, and Sisak–Moslavina. Data on the allocation of aid according to statistical region show that, in 2011, Central and Eastern (Pannonian) Croatia was allocated aid amounting to 950.4 million HRK, of which 765.1 million HRK or 80.5% for specific sectors, while horizontal aid amounted to 185.3 million HRK or 19.5% in aid allocated to beneficiaries in this region. As part of sector support in tourism, allocated in 2011 to the region under observation was 64.5 million HRK (Croatian Competition Agency [AZTN], 2012, 71).

Table 2 Allocated aid in 2011 according to map of statistical regions of Croatia (NUTS 2) (in million HRK)

Industry and services	Central and Eastern (Pannonian) Croatia	Adriatic Croatia	Northwest Croatia	Total Croatia
Horizontal objectives	92,2	199,4	424,1	715,7
Small and medium enterprises	43,5	122,2	158,8	324,5
Special sectors	765,1	1.968,5	869,7	3.603,3
Tourism	64,5	169,4	14,3	248,2
Regional aid	69,7	77,5	256,4	403,6
Aid at local level	23,4	45,6	84,3	153,3
Total	950,4	2.291,0	1.634,5	4.875,9

Note: Shown is allocated aid without aid for agriculture and economy

AZTN, (2012, 71) according to data from the Ministry of Finance

Comparing Pannonian Croatia to other regions in this part of continental Croatia, awarded in total was the least amount of aid, 19.5% of all aid, which is particularly relevant to horizontal aid with the objective of encouraging small and medium enterprises (Table 2.). In the area of sector aid, Pannonian Croatia has achieved somewhat more support for the development of tourism activities, however, comparing this with the aid granted for encouraging tourism activities in the Adriatic Croatia, it is several times lower and amounts to approximately 26% of all aid to tourism.

4. Conclusion

Eastern Croatia represents an area that has significant potential for tourism valorisation. Taking advantage of tourism potentials may contribute to the development of entrepreneurship and tourism, and ultimately increase overall economic activities. It is the development of entrepreneurship and tourism that is one of the measures to raise the economic competitiveness of the region, as specified in the Strategy for Regional Development of the Republic of Croatia. An analysis of the data has revealed that the financing of entrepreneurship in tourism is inadequate. In general, financing investments, procurement of equipment and other needs of the tourism industry are dependent on bank loans, while state aid awarded for regional development are insufficient to encourage entrepreneurial activities in tourism. In comparison with other Croatian regions, eastern Croatia receives the least amount of support in the form of subsidies.

In order to improve the structure and quality of accommodation, employment, to encourage investment and to increase tourism demand in eastern Croatia, it is necessary to:

- Harmonize and improve the legal framework with the objective of strengthening entrepreneurship and increasing investments
- Launch new programmes to encourage the development of small, medium and large enterprises for the construction of hotels, the renovation and reconstruction of existing hotel capacities, the investment in small family hotels and inns, and in providing diverse tourism infrastructure buildings
- Launch a programme that encourages more intensive development of rural tourism, especially tourism on agricultural estates

- Through different aid instruments, in particular subsidies, tax exemptions and incentives, preferred loans and government guarantees, direct state aid to the development of entrepreneurial activities to the region in general, and especially within the context of those activities that could raise the economic competitiveness of the region.
- More intense cooperation and forming a network of all tourism interest groups in the region
- Emphasise the role of relevant institutions, especially the Ministry of Tourism, Ministry of Entrepreneurship and Crafts, Agency for Regional Development, Croatian Bank for Reconstruction and Development, Croatian Agency for Small Business and Investments, regional and local development agencies in programmes for encouraging entrepreneurship in tourism

In addition to state aid, opening up with Croatia's accession to the European Union are numerous opportunities for utilising European Union funds for co-financing development projects in eastern Croatia. Primarily available are Structural Funds (European Regional Development Fund and European Social Fund), the Cohesion Fund, and the European Agricultural Fund for Rural Development.

LITERATURE

Croatian Bureau of Statistics (2011): Statistical Reports, *Hotels and Restaurants in 2010*, <http://www.dzs.hr/>, (accessed 27 February 2013)

Croatian Bureau of Statistics (2012): *Statistical Yearbook 2012*, <http://www.dzs.hr/>, (accessed 27 February 2013)

Croatian Competition Agency (2012): *Annual Report on State Aid for 2011*, http://www.aztn.hr/uploads/documents/tn/godisnja_izvjesca/Godisnje_izvjesce_o_drzavnim_potporama_2011.pdf, (accessed 5 March 2013)

Ivanov, M. and Kovačević, M. (2008): *Credit Financing of Croatian Tourism*, in: 4th International Conference: An Enterprise Odyssey: Tourism – Governance and Entrepreneurship, Proceedings, University of Zagreb, Faculty of Economics and Business, 11-14th June, 2008, [CD-ROM], pp. 556-571.

Kovačević, M. (2006): *Crediting and Financial Aid for the Development of Croatian Tourism*-master's thesis, Faculty of Economics and Business, Zagreb.

Kušen, E. (2006): *Rural Tourism*, in Čorak, .S. and Mikačić, V., ur.: *Croatian Tourism: Blue, White, Green*, Institute for Tourism, Zagreb, pp. 167-212.

Marušić, Z. and Ivandić, N. (2012): *Tourist Activity of Croatian Population in 2011*, Croatian Bureau of Statistics and Institute for Tourism, Zagreb

Ministry of Regional Development, Forestry and Water Management (2010): *Regional Development Strategy of the Republic of Croatia, 2011-2013*, http://www.mrrsv.g.hr/UserDocsImages/STRATEGIJA_REGIONALNOG_RAZVOJA.pdf, (accessed 20 February 2013)

Ministry of Tourism (2013a): *Report on Implementation of "Incentives for Success" Programme*, <http://www.mint.hr/default.aspx?ID=4449>, (accessed 6 March 2013)

Ministry of Tourism (2013b): *"Development of Rural Tourism" Loan Programme*, <http://www.mint.hr/UserDocsImages/090422-program-krediti-s.pdf>, (accessed 7 March 2013)

Telišman-Košuta, N. et al. (2012): *Master Plan and Strategy for the Development of Tourism in the Republic of Croatia - Marketing Concept for Tourism Development* (Report 9), Institute for Tourism, Zagreb

Tihana Kraljić, PhD student

University J.J. Strossmayer in Osijek, Croatia
Doctoral program in Entrepreneurship and Innovativeness
Phone :+385 (0)48 691 136
E-mail address: tihana.kraljic@kc.t-com.hr

Ivana Bekić, B.Sc. Econ.

VERN' University of applied Sciences
Phone:+ (0) 91 122 2501 Fax: +385(0)1 38 82 813
E-mail address: ivana.bekic@gmail.com

Nerma Saracevic, PhD student

University J.J. Strossmayer Osijek Croatia
Doctoral program in Entrepreneurship and Innovativeness
Phone :+387 (0)32 651 471 Fax: +387 (0)32 650 704
E-mail address: nermasa@bih.net.ba

**IMPLEMENTATION OF MEASURES TO ENCOURAGE
ENTREPRENEURSHIP IN OSIJEK-BARANJA COUNTY
–SLAVONIA NOT NIPPED**

**PROVEDBA MJERA ZA POTICANJE PODUZETNIŠTVA U OSJEČKO-
BARANJSKOJ ŽUPANIJI-SLAVONIJA NIJE ZAKINUTA**

ABSTRACT

The Croatian Government has implemented measures to encourage entrepreneurship through the ministry in charge of the enterprise. In the mandate of the Government from 2008 by 2011 the ministry in charge of the issue was the Ministry of Economy, Labour and Entrepreneurship. The government that was formed in December 2011 founded a new ministry - the Ministry of Entrepreneurship and Crafts. Ministry of Economy, Labour and Entrepreneurship implemented measures to encourage entrepreneurship through annual Operational plans, and the Ministry of Entrepreneurship and Crafts through annual programs named Entrepreneurial impulse. The method in the paper is the method of analysis of paid support from the state level by county, as well as analysis of paid support of active businesses in every county. Normally the prevailing opinion is that, when it comes to incentives from the state level, eastern Croatia and Osijek-Baranja County is deprived. The analysis showed that was not the case with the implementation of measures to encourage entrepreneurship from the state level. Osijek-Baranja County is in the fourth place by the amount of paid support, and third by value of land that was owned by the Croatian Government, and which government has donated to local governments-cities and municipalities for the development of enterprise zones. This indicates that the Osijek-Baranja County as well as cities and municipalities on its territory were active in the implementation of measures to encourage entrepreneurship from the state level, and certainly in these processes played an important role supporting institutions for the development of entrepreneurship in the Osijek-Baranja County - business centers and incubators, and the Regional Development Agency of Slavonia and Baranja. The aim of this paper is to present the implementation of measures to encourage entrepreneurship from the state level in the Osijek-Baranja County since 2008 by 2012 year, and show that Slavonia in these processes has not nipped. The reason for this is the allocation of state aid in a transparent manner and with clear criteria that are applied consistently, and proactive regional and local governments.

Keywords: *encouraging entrepreneurship, support, Osijek-Baranja County, supporting institutions*

SAŽETAK

Vlada Republike Hrvatske provodila je mjere za poticanje poduzetništva kroz ministarstvo zaduženo za poduzetništvo. U mandatu Vlade od 2008. do 2011. to je bilo Ministarstvo gospodarstva, rada i poduzetništva, a Vlada koja je formirana u prosincu 2011. godine osnovala je novo ministarstvo – Ministarstvo poduzetništva i obrta. Ministarstvo gospodarstva, rada i poduzetništva svoje poticajne mjere provodilo je kroz godišnje Operativne planove poticanja poduzetništva, a Ministarstvo poduzetništva i obrta kroz godišnje programe pod nazivom Poduzetnički impuls. U radu je korištena metoda analize isplaćenih potpora s državne razine po županijama, kao i analiza isplaćenih potpora po aktivnim poslovnim subjektima u svakoj županiji. Uobičajeno prevladava mišljenje da je, kada se radi o poticajima s državne razine, istočna Hrvatska i Osječko-baranjska županija zaključna. Provedena analiza je pokazala da kod poticanja poduzetništva to nije bio slučaj. Osječko-baranjska županija na četvrtom je mjestu po iznosu isplaćenih potpora, a na trećem mjestu povrijednosti zemljišta koje je bilo u vlasništvu Republike Hrvatske, a koje je darovano jedinicama lokalne samouprave-gradovima i općinama za razvoj poduzetničkih zona. To upućuje da su Osječko-baranjska županija kao i gradovi i općine s njezinog područja bili aktivne u provedbi mjera za poticanje poduzetništva s državne razine, a zasigurno su u tim procesima značajnu ulogu i male potporne institucije za razvoj poduzetništva u Osječko-baranjskoj županiji- poduzetnički centri i poduzetnički inkubatori, ali i Regionalna razvojna agencija Slavonije i Baranje. Cilj ovog rada je prikazati provedbu mjera za poticanje poduzetništva s državne razine u Osječko-baranjskoj županiji od 2008. do 2012. godine, te pokazati da Slavonija u tim procesima nije bila zaključna. Razlog tome je dodjela državnih potpora na transparentan način i uz jasne kriterije koji se dosljedno primjenjuju, ali i proaktivnost regionalne i lokalne samouprave.

Ključne riječi: *poticanje poduzetništva, potpore, Osječko-Baranjska županija, potporne institucije*

1. Introduction

Encouraging entrepreneurship from the state level by the Croatia Government in the period since 2008 by 2011 was conducted through the ministry responsible for entrepreneurship in collaboration with local and regional governments, and supporting institutions: development agencies, entrepreneurial centres, business incubators and technology parks. Line ministry in charge of entrepreneurship from 2008 to 2011 was the Ministry of Economy, Labour and Entrepreneurship. A new government which was formed in December 2012 established a separate ministry responsible for entrepreneurship called Ministry of Entrepreneurship and Crafts. Ministry of Economy, Labour and Entrepreneurship implemented their stimulus measures through annual operational plans to encourage entrepreneurship, and the Ministry of Entrepreneurship and Crafts through annual programs named Entrepreneurial impulse.

2. Paid grants to entrepreneurs through annual Operational Plans for 2008, 2009, 2010 and 2011 and Entrepreneurial impulse for 2012 year

Ministry of Economy, Labour and Entrepreneurship under Operational plans for 2008, 2009, 2010 and in 2011 received a total of 20,383 grants amounting to HRK 901,836,728.00. Grants were given on the basis of Calls Publisher in accordance with the established criteria for each project, and the availability of funds in the budget. Six key areas in which the funds were approved: Competitiveness and Innovation, Entrepreneurial infrastructure, Education for entrepreneurship, Craftsmanship, Entrepreneurship promotion and encouragement of international competitiveness.

Most projects realized in the framework of the Competitiveness and Innovation Programme, namely: Strengthening the competitiveness of small businesses, Competitiveness Through Innovation, Gazelle, Women entrepreneurs, Entrepreneurship young beginners and people with disabilities, Entrepreneurship in culture, Clusters and Cooperative enterprises. In the area of entrepreneurial infrastructure projects implemented by the Construction zones and Entrepreneurial support institutions. Craftsmen have been realized through the Education Project in crafts, Additional training and retraining in trades and Crafts development. Encouraging international competitiveness and internationalization of projects carried out through the Strengthening of international competitiveness and internationalization of the Croatian economy.

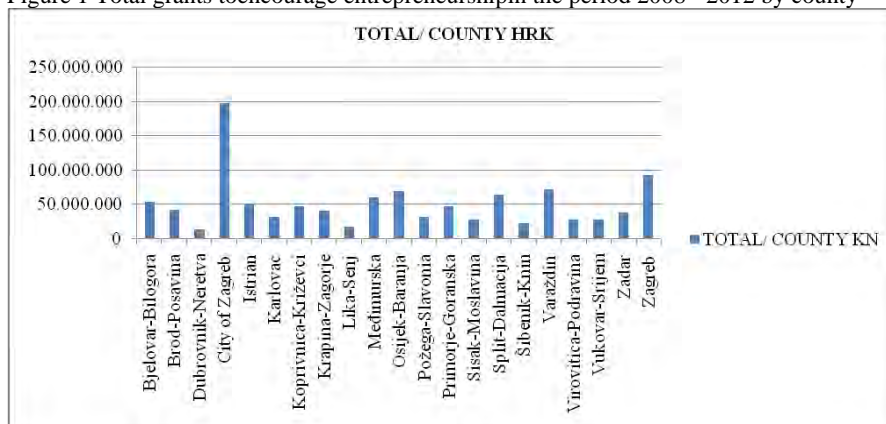
Ministry of Entrepreneurship and Crafts to encourage entrepreneurship in 2012 were provided by the Entrepreneurial impulse for 2012 year. Through it was granted a total of 2,469 grants in the amount of HRK 167,726,022.00. Published public call for 30 projects including: Gazelles, New technologies, Market positioning to success, Strengthening international competitiveness, Clusters in the establishment, Clusters operating, Franchising, Development and application of innovation for innovators and association, Development and application of innovation for small entities Management, Standardization and quality marks, Lifelong Education for crafts, IT competency artisans, Fine schools, Apprenticeship occupations, Furnishing practicum craft vocational school, Scholarships to students in the trades and professions, Entrepreneurship education, Entrepreneurship education for student unions, for entrepreneurs, Business incubators, Development agencies and business centers, Technological parks, Young entrepreneurs, start-up entrepreneurs, Entrepreneurship culture, Women entrepreneurs, The preservation of traditional arts and crafts, Social entrepreneurship and Cooperative entrepreneurship.

Table 1 Paid grants to encourage entrepreneurship in the period 2008 -2012

COUNTY	2008 OP	2009 OP	2010 OP	2011 OP	2012 EI	TOTAL/ COUNTY HRK
Bjelovar-Bilogora	17.046.026	15.377.313	9.518.720	7.608.674	3.499.326	53.050.059
Brod-Posavina	10.458.247	10.607.196	10.043.215	7.715.880	3.359.877	42.184.417
Dubrovnik-Neretva	2.998.080	1.793.590	4.823.500	2.187.830	1.440.411	13.243.411
City of Zagreb	35.739.418	39.571.734	48.592.917	38.072.872	35.744.530	197.721.471
Istrian	12.006.653	6.466.154	13.197.060	9.195.259	8.384.075	49.249.201
Karlovac	9.485.029	4.670.293	6.814.567	4.938.333	5.455.465	31.363.687
Koprivnica-Križevci	11.794.209	12.668.384	13.003.657	6.710.564	3.035.392	47.212.206
Krapina-Zagorje	10.486.235	8.235.409	7.649.100	7.209.062	7.369.068	40.948.874
Lika-Senj	5.848.422	1.927.851	4.899.110	4.266.531	181.932	17.123.846
Međimurska	12.585.119	13.489.394	15.687.040	11.115.366	7.052.811	59.929.730
Osijek-Baranja	19.701.213	11.403.959	15.421.008	10.741.813	11.167.446	68.435.439
Požega-Slavonia	6.417.553	6.366.164	6.827.171	7.214.036	4.443.519	31.268.443
Primorje-Goranska	9.431.815	9.669.431	11.861.065	7.931.429	8.163.011	47.056.751
Sisak-Moslavina	7.939.474	3.788.698	4.509.784	5.663.788	5.564.055	27.465.799
Split-Dalmacija	13.920.221	15.707.509	15.010.007	10.471.876	8.675.444	63.785.057
Šibenik-Knin	5.234.612	4.084.760	2.474.474	3.609.921	6.884.912	22.288.679
Varaždin	13.582.099	16.591.205	16.861.563	11.801.075	13.294.874	72.130.816
Virovitica-Podravina	6.291.601	5.090.258	7.339.212	3.572.891	4.498.910	26.792.872
Vukovar-Srijem	9.511.006	5.649.700	5.498.047	3.915.533	3.196.296	27.770.582
Zadar	9.319.880	11.832.502	7.752.489	4.104.273	4.524.957	37.534.101
Zagreb	16.115.631	18.945.863	21.644.110	14.511.994	21.789.711	93.007.309
TOTAL	245.912.543	223.937.367	249.427.816	182.559.000	167.726.022	1.069.562.750

Source: Register of grants Ministry of Economy, Labour and Entrepreneurship, Ministry of Entrepreneurship and Craft

Figure 1 Total grants to encourage entrepreneurship in the period 2008 - 2012 by county



Source: Authors

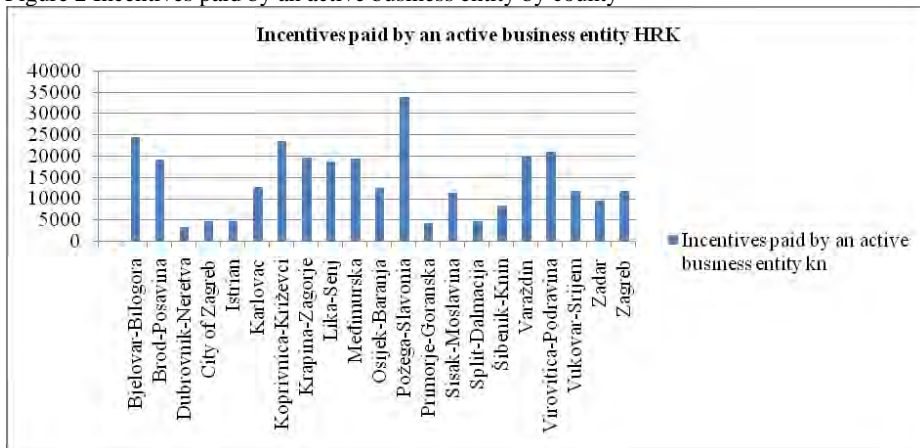
If we consider the grants paid by counties and in the context that we look at the Osijek-Baranja County, then it is in fourth place behind the City of Zagreb, Varaždin and Zagreb County with paid HRK 68,435,439.00 grants in the observed period. The largest amount of grant paid out in the City of Zagreb the HRK 197,721,471.00 or 18.5%. Although the Osijek-Baranja County is in high fourth place, one gets the impression that the city of Zagreb, with 18% of paid grants was favoured compared with other counties. But is it really so? To get a more realistic picture we compared total grants paid by the county with the number of active businesses in the county.

Table 2 Number of active business entity/county, Incentives paid/ an active business entity, Ranking

COUNTY	TOTAL/ COUNTY	%	Number of active business entity	%	Incentives paid by an active business entity	Ranking County
Bjelovar-Bilogora	53.050.059	4,9	2.171	1,69	24.435,77	2
Brod-Posavina	42.184.417	3,9	2.202	1,7	19.157,31	8
Dubrovnik-Neretva	13.243.411	1,2	4.189	3,3	3.161,74	21
City of Zagreb	197.721.471	18,6	43.112	33,4	4.568,22	17
Istrian	49.249.201	4,6	10.856	8,61	4.536,59	19
Karlovac	31.363.687	2,9	2.448	1,9	12.811,96	10
Koprivnica-Križevci	47.212.206	4,4	1.997	1,5	23.641,56	3
Krapina-Zagorje	40.948.874	3,9	2.073	1,6	19.753,43	6
Lika-Senj	17.123.846	1,6	918	0,7	18.653,42	9
Međimurska	59.929.730	5,6	3.090	2,4	19.394,73	7
Osijek-Baranja	68.435.439	6,4	5.492	4,3	12.460,93	11
Požega-Slavonia	31.268.443	2,9	920	0,7	33.987,43	1
Primorje-Goranska	47.056.751	4,4	11.310	8,7	4.160,63	20
Sisak-Moslavina	27.465.799	2,6	2.421	1,8	11.344,81	14
Split-Dalmacija	63.785.057	5,9	13.998	10,8	4.556,72	18
Šibenik-Knin	22.288.679	2,1	2.643	2,0	8.433,10	16
Varaždin	72.130.816	6,7	3.632	2,8	19.859,80	5
Virovitica-Podravina	26.792.872	2,5	1.274	0,9	21.030,51	4
Vukovar-Srijem	27.770.582	2,7	2.345	1,8	11.842,46	13
Zadar	37.534.101	3,5	4.002	3,2	9.378,83	15
Zagreb	93.007.309	8,7	7.837	6,2	11.867,71	12
TOTAL	1.069.562.750	100	128.930	100		

Source: Central Bureau of Statistics, Author

Figure 2 Incentives paid by an active business entity by county



Source: Authors

When we look into grants paid by an active business entity we get a completely different picture. In the first place with the HRK 33,987.43 paid by active support enterprise is Požega-Slavonia County, followed by Bjelovar-Bilogora, Koprivnica-Križevci and Virovitica-Podravina. Osijek-Baranja County with HRK 12,460.93 paid by active business entity located in 11 places, and the City of Zagreb with paid HRK 45, 68.22% per active business entity located just at 17th place. The city of Zagreb operates 43,112 active businesses or 33.4% of all active businesses operating in Croatia. Osijek-Baranja County with 5,492 active business entities account for only 4.2% of the total number of active businesses in Croatia.

3. Development of Enterprise infrastructure in Osijek-Baranja County

For Development Entrepreneurship in Croatia and for the successful implementation of incentive measures is of great importance the development of enterprise infrastructure. Under the entrepreneurial infrastructure refers to enterprise zones and supporting institutions.

3.1 Enterprise zones in Osijek-Baranja County

Table 3 The allocation of state land for the development of enterprise zones by county

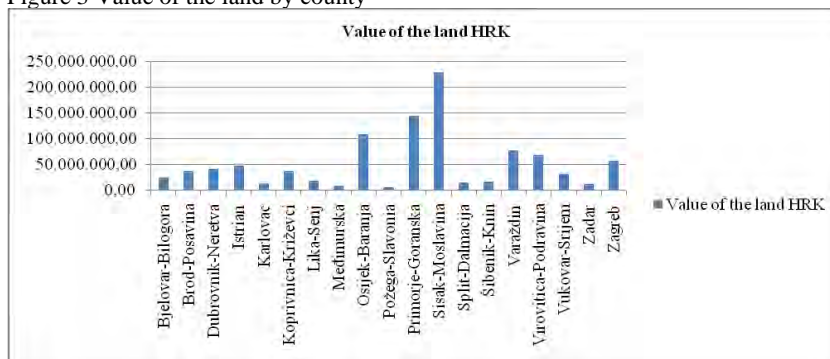
COUNTY	Total land area m ²	Value of the land HRK	Ranking County /by value
Bjelovar-Bilogora	1.019.435,98	24.189.400,46	12
Brod-Posavina	2.000.765,00	36.387.214,88	9
Dubrovnik-Neretva	175.487,00	41.590.419,00	8
City of Zagreb			
Istrian	431.048,25	46.574.768,77	7
Karlovac	201.505,79	12.870.900,04	16
Koprivnica-Križevci	1.148.633,00	36.061.943,00	10
Krapina-Zagorje			
Lika-Senj	312.412,57	16.857.853,48	13
Međimurska	589.492,00	7.731.062,14	19
Osijek-Baranja	3.675.706,50	108.640.254,77	3
Požega-Slavonia	258.598,00	5.208.859,00	18
Primorje-Goranska	314.965,00	144.009.330,21	2
Sisak-Moslavina	4.970.825,00	229.491.285,34	1
Split-Dalmacija	292.722,00	14.728.530,00	15
Šibenik-Knin	276.692,00	15.144.648,00	14
Varaždin	3.155.769,00	77.695.334,00	4
Virovitica-Podravina	3.509.120,00	67.398.332,19	5
Vukovar-Srijem	2.451.337,00	31.259.766,00	11
Zadar	594.416,00	10.474.959,00	17
Zagreb	1.793.648,00	56.619.443,01	6
TOTAL	27.172.578,09	982.934.303,29	

Source: Register of grants Ministry of Economy, Labour and Entrepreneurship, Ministry of Entrepreneurship and Craft

When we talk about the development of enterprise zones in the Osijek-Baranja County, we must first look at how the Osijek-Baranja County passed in the allocation of state land for the development of enterprise zones.

The process of allocation of public land owned by the city and the municipality was of crucial importance for the development of enterprise zones in Croatia. The government has given cities and municipalities ownership in land total area 27,172,578.09m²in the value of HRK 941,034,303.29.

Figure 3 Value of the land by county



Source: Authors

Krapina Zagorje County and the City of Zagreb did not get state land for the development of enterprise zones. In the first place according to the value of the obtained land is Sisak- Moslavina County with the amount of HRK 229,491,285.34. In the second place is Primorje-Goranska County with the amount of HRK 144,009,330.21. Osijek-Baranja County is again on high third place with the amount of HRK 108,640,254.77. This means that local governments-cities and municipalities in

the Osijek-Baranja County was very active, and successful in the presentation of its plans for the development of enterprise zones.

Table 4 Approved support for enterprise zones in the period 2008-2012 in Osijek-Baranja County

	City / Municipality	Name of the zone	Approved support for enterprise zones HRK
1.	Municipality Bizovac	Zone Small Business Sajmište	450.000,00
2.	City Valpovo	Zone Small Business Valpovo	620.000,00
3.	City Valpovo	Economic zone business purposes K-VI	2.000.000,00
4.	City Valpovo	Industrial Zone	500.000,00
5.	Municipality Erdut	Enterprise zone Bijelo Brdo Erdut	1.568.277,00
6.	City DonjiMiholjac	Industrial Zone Janjevci Donji Miholjac	3.450.000,00
7.	Municipality Petrijevci	Economic zone for small and medium businesses	300.000,00
8.	City BeliManastir	Industrial Zone Beli Manastir	2.900.000,00
9.	Municipality Antunovac	Zone Antunovac	500.000,00
10.	Municipality Semeljci	Business Zone Municipality Semeljci	450.000,00
11.	Municipality Kneževi Vinogradi	Enterprise zone MunicipalityKneževiVinogradi	3.907.918,00
12.	City Našice	Economic Zone Našice	1.650.000,00
13.	Municipality Koška	Zone Small Business Zadar	250.000,00
14.	Municipality Feričanci	Dračica 1	480.000,00
15.	Municipality Darda	Zone crafts SMEs	2.950.000,00
16.	City Osijek	Economic Zone Tenja	1.100.000,00
17.	City Osijek	Industrial Zone Nemetin	130.000,00
18.	Municipality Marijanci	Enterprise Zone Črnkovci	1.590.000,00
19.	Municipality Podgorač	Enterprise Zone Podgorač	200.000,00
20.	Municipality Bilje	Economic Zone Sjever	1.900.000,00
21.	Municipality Trnava	Business Zone Trnava	89.000,00
22.	Municipality Čepin	Enterprise Zone Vinogradi	500.000,00
	TOTAL		27.485.195,00

Source: Register of grants Ministry of Economy, Labour and Entrepreneurship, Ministry of Entrepreneurship and Craft

Except land cities and municipalities are receiving grants for infrastructural equipping zone through annual Operational plans of Ministry of Economy, Labour and Entrepreneurship and through annual programs Entrepreneurial impulse of Ministry of Entrepreneurship and Crafts. Between cities and municipalities developed a competition for grants and to attract investors. Cities and municipalities that have been successful in obtaining grant funding and which attracted investors to invest in their zone altered the economic picture. Putting into operation of enterprise zones is a long process, but the reward is development their community.

Twenty-two zone in Osijek-Baranja County in the period since 2008 by 2012 received a grant from the Ministry of Economy, Labour and Entrepreneurship and from Ministry of Entrepreneurship and Crafts. The total amount of the aid granted is HRK 27,485,195.00.

3.2. Supporting institutions in Osijek-Baranja County

Support institutions to foster entrepreneurship in Croatia are development agencies, business centers, business incubators and technology parks.

In the Osijek-Baranja County was established:

- one regional development agency- Development Agency of Slavonia and Baranja
- six business centers- Center for Entrepreneurship Belišće, Center for Entrepreneurship Osijek, Miholjac Business Center, Business Center BeliManastirLtd., Valpovo Business Center and Cooperative and Entrepreneurial Network Bilje.

- two business incubators- Business Incubator BIOS Ltd. Osijek and Business Incubator Osvit Donji Miholjac.

These institutions have played a very important role in the implementation of incentive programs for business development of national, regional and local levels. Ministry responsible for enterprise organizes annually National Conference for SME, where awards the best entrepreneurs and the best supporting institutions. Both business incubators from Osijek-Baranja County have received awards for best business incubator. Business Incubator BIOS Ltd. Osijek was awarded 2008th year and business incubator OsvitDonjiMiholjac was awarded 2011th year.

4. Conclusion

Analysis of the implementation of encouraging entrepreneurship at the state level by counties shows the position of Osijek-Baranja County in these processes. Contrary to expectations and the usual opinion it was shown that the Osijek-Baranja County has not been deprived. Just the opposite, research has shown that the Osijek-Baranja County at the top by paid grants by counties.

Osijek-Baranja County is in the fourth place by grants paid by counties behind the City of Zagreb, Varaždin and Zagreb County with paid HRK 68,435,439.00 grants.

Osijek-Baranja County is on high third place with the amount of HRK 108,640,254.77 according to the value of the obtained land for the development of enterprise zones.

Encouraging entrepreneurship in Croatia is conducted in a transparent manner and with clear criteria. This has given an equal opportunity to all counties, and Osijek-Baranja County and its cities, municipalities and entrepreneurs knowhow to use it.

REFERENCES

Ministry of Entrepreneurship and Crafts <http://poticaji.minpo.hr/objava.aspx> (accessed 15 January 2013)

Ministry of Economy, Labour and Entrepreneurship <http://poticaji.mingorp.hr/objava.aspx> (accessed 15 November 2012)

Central Bureau of Statistics <http://dzs.hr> (accessed 28 February 2013)

Osijek-Baranja County <http://www.obz.hr/hr/index.php?tekst=468> (accessed 18 February 2013)

Osijek-Baranja County <http://www.obz.hr/hr/index.php?tekst=469> (accessed 18 February 2013)

Anita Kulaš, B.Sc

University of Applied Sciences of Slavonski Brod
Dr. Mile Budaka 1, 35 000 Slavonski Brod, Croatia
Phone: 035-492-805 Fax: 035-492-804
E-mail address: anita.kulas@vusb.hr

Sanja Knežević, B.Sc

University of Applied Sciences of Slavonski Brod
Dr. Mile Budaka 1, 35 000 Slavonski Brod, Croatia
Phone: 035-492-805 Fax: 035-492-804
E-mail address: sanja.knezevic@vusb.hr

Anita Kedačić, M.Sc

Public Hospital „Dr. Josip Benčević“ of Slavonski Brod
Andrije Štampara 42, 35000 Slavonski Brod, Croatia
Phone: 035-201-172 Fax: 035-201-172
E-mail address: anita.kedacic@bolnicasb.hr

**FINANCIAL MANAGEMENT AND CONTROL AND FISCAL
RESPONSIBILITY OF BUDGET USERS IN THE FIELD OF PUBLIC
PROCUREMENT**

**FINANCIJSKO UPRAVLJANJE I KONTROLE I FISKALNA
ODGOVORNOST PRORAČUNSKIH KORISNIKA U PODRUČJU JAVNE
NABAVE**

ABSTRACT

The Fiscal Responsibility Act introduced accountability, transparency and stability at all levels of business monitoring. The emphasis is placed on the introduction to control in the budget execution process. Well-established system of financial management and control, which had a long-term effect of good financial management, is also one of the elements of its connectivity with fiscal responsibility. Internal procedures in the field of planning, budget execution, public procurement area, accounting and reporting area represent an efficient coordination of financial management and control in order to ensure fiscal responsibility.

Business processes that occur within the institutions / facilities of budget users in the health system, education system and social contributions and benefits are an integral part of the financial management and control. The same is required successful to define and incorporate and describe as internal controls in order to improve the activity of a specific business process. For the needs of undisturbed operation of almost all business processes an important role has public procurement process as a component that provides a more efficient realization of the financial savings.

Statement of fiscal responsibility for the budget year or the period in which headmasters or principals of institutions / facilities have performed the duties in the health system, education system and social contributions and benefits system confirm that they were in an institution provided legal, functional and purposeful utilization of budgetary resources as well as effective functioning of the financial management and control system within the budgetary resources apropos planned resources defined by financial plan. In addition to statement is attached the completed questionnaire on fiscal responsibility for the budget year that includes questions in the

field of planning financial plan, executing the same, the field of public procurement, and the field of accounting and reporting.

Acquiring information required to process topic of this paper was carried out by studying the literature and searching the Internet. Based on the collected data it is necessary to develop a model for the evaluation for introducing fiscal responsibility that should be adjusted to budget users in the Republic of Croatia in the context of further improving the business.

The aim of this paper is to emphasize the importance of implementing a system of internal financial controls as well as the contribution and efficiency of fiscal responsibility law, with an emphasis by increasing the efficiency in terms of controlling future consumption of resources, strengthening the monitoring system and controlling in the execution of a financial plan and in the field of public procurement as well as transparency and predictability of fiscal policy.

Keywords: *fiscal responsibility, financial management and control, transparency, responsibility, budget*

SAŽETAK

Zakonom o fiskalnoj odgovornosti uvodi se odgovornost, transparentnost i stabilnost na svim razinama praćenja poslovanja, a naglasak se stavlja na uvođenje kontrola u proces izvršavanja proračuna. Dobro uspostavljen sustav financijskog upravljanja i kontrola koji ima za posljedicu dugoročni rezultat za dobro financijsko upravljanje je također jedan od elemenata povezanosti s fiskalnom odgovornosti. Interne procedure iz područja planiranja, izvršenja proračuna, područja javne nabave, računovodstva i izvještavanja predstavljaju kvalitetnu koordinaciju financijskog upravljanja i kontrola, a u cilju osiguranja fiskalne odgovornosti.

Poslovni procesi koji se odvijaju unutar institucija/ustanova proračunskih korisnika u sustavu zdravstva, školstva te socijalnih davanja i naknada sastavni su dio financijskog upravljanja i kontrola. Iste je potrebno uspješno i kvalitetno definirati i opisati kao i ugraditi unutarnje kontrole u svrhu poboljšanja aktivnosti pojedinog poslovnog procesa. Za potrebe nesmetanog odvijanja gotovo svih poslovnih procesa važnu ulogu ima proces javne nabave kao komponenta koja osigurava efikasniju realizaciju uz financijske uštede.

Izjavom o fiskalnoj odgovornosti za proračunsku godinu ili razdoblje u kojem su obnašali dužnost čelnici odnosno ravnatelji institucija/ustanova u sustavu zdravstva, školstva te sustavu socijalnih davanja i naknada potvrđuju da su u radu ustanove osigurali zakonito, namjensko i svrhovito korištenje proračunskih sredstava kao i djelotvorno funkcioniranje sustava financijskog upravljanja i kontrola u okviru proračunskih sredstava odnosno planiranih sredstava utvrđenih financijskom planom. Uz Izjavu se prilaže popunjeni upitnik o fiskalnoj odgovornosti za proračunsku godinu koji obuhvaća pitanja iz područja planiranja financijskog plana, izvršavanja istog, područja javne nabave, područja računovodstva i izvještavanja.

Pribavljanje informacija potrebno za obradu teme ovog rada izvršeno je proučavanjem literature i pretraživanjem Interneta. Na temelju prikupljenih podataka potrebno je razviti model za ocjenu uvođenja fiskalne odgovornosti koji bi trebao biti prilagođen proračunskim korisnicima u Republici Hrvatskoj u kontekstu daljnjeg poboljšanja poslovanja.

Cilj ovog rada je ukazati na važnost implementacije sustava unutarnjih financijskih kontrola kao i doprinos i učinkovitost primjene zakona o fiskalnoj odgovornosti s naglaskom na povećanje efikasnosti u smislu kontrole buduće potrošnje sredstava, jačanje sustava nadzora i kontrola u izvršavanju financijskog plana i području javne nabave kao i transparentnost i predvidljivost fiskalne politike.

Ključne riječi: *fiskalna odgovornost, financijsko upravljanje i kontrola, transparentnost, odgovornost, proračun*

1. Introduction

With the entry into force of the Fiscal Responsibility Act it is introduced the obligation to giving the statement of fiscal responsibility⁴³ which represents an annual statement by which leaders of the budgetary and extra-budgetary users of the state budget, the budgetary and extra-budgetary users of local and territorial (regional) self-government, local self-governments and local territorial (regional) self-government confirming legal, functional and purposeful utilization of funds as well as the efficient and effective functioning of financial management system and control within the budgeted or founded funds⁴⁴. The legal and regular planning as well as the execution of the financial plan represents the basis for determining the responsibilities of budget users⁴⁵ in accordance with the Fiscal Responsibility Act.

Financial management and control implies a range of activities that budget users plans to take in order to resolve observed shortcomings in business processes based on self-assessment system⁴⁶. Business process of public procurement contains a range of procedures from planning to report which result undisturbed progress of all other business processes required for effective and economical operations budget users.

2. Connection between financial management and control and fiscal responsibility

The characteristic of a quality system of financial management and control within the organizational system means a coherent legislative framework and established financial reporting as well as reporting on invested or spent budget funds. Business processes such as reporting, planning and budget execution or financial plan, public procurement, accounting and reporting are closely associated with the application of the Fiscal Responsibility Act.

During the establishment of financial management and control budget users are required to introduce the plan to eliminate the weaknesses and imperfections that are attached to the statement of fiscal responsibility in accordance to Regulation on the preparation and delivery of the Statement of fiscal responsibility.

Through the Statement⁴⁷ of fiscal responsibility all budget users report responsible Ministry on their level of development of financial management and control in components of planning, budget execution / financial plan, public procurement, accounting and reporting.

⁴³ According to Regulation on the preparation and delivery of the Statement of fiscal responsibility and reports on application fiscal rules, Statement of fiscal responsibility shall be granted based on the questionnaire on fiscal responsibility. The statement is made by the forms from the Regulation. The same for the first time compiled and issued in 2012. for the year 2011.

⁴⁴ According to Regulation on the preparation and delivery of the Statement of fiscal responsibility and reports on application fiscal rules. (Official Gazette 78/2011)

⁴⁵ Functional associated institutions budget users in the health system are the Ministry of Health, the Croatian Institute for Health Insurance, County / City and health care institutions; in educational system is the Ministry of Science, Education and Sport, the County / City and institutions in education, and in the system of social benefits and compensation: Ministry of Social Affairs and Youth, Counties / city, social care center and social care institutions. Budget users are in the Register of budgetary users of state budget and in Register of budgetary users of local and regional government and are obliged to apply law on fiscal responsibility.

⁴⁶ Stepić D., Knežević M., Kozina D.: Plan uspostave i razvoja financijskog upravljanja i kontrola, Financije, pravo i porezi, TEB, Poslovno savjetovanje d.o.o., Zagreb, 3/12, 2012. str.87.

⁴⁷ By the Regulation on the preparation and delivery of the Statement of fiscal responsibility and report on the application of fiscal rules is regulated how and on which way to fill and submit the Statement of the Fiscal Responsibility (Official Gazette 78/11, http://narodne-novine.nn.hr/clanci/sluzbeni/2011_07_78_1648.html). By the same is prescribed layout and content of the statement, the procedures and timelines of assembling and delivery as well as methods and deadlines of reporting the Ministry of Finance on the detected irregularities previously performed by inspections of their content. In addition the Statement is submitted a completed questionnaire on fiscal responsibility, the plan to eliminate all the weaknesses and imperfections and reviews of internal auditors of the system of financial management and control for the areas that were audited (taxpayers who have established internal audit). The budget

Adopted business processes, written procedures or controls and applicable regulations within the health system, education, and the system of social benefits and compensation represent connection between financial management and control⁴⁸ and fiscal responsibility.

Considering connection between financial management and control, and fiscal responsibility, it is necessary to define and regulate those processes, which require written procedures in questionnaire on fiscal responsibility. The procedure of creating contractual obligations includes the process of making a financial plan as well as procurement plan. Activities listed in composite procedures should be focused to the development of control activities, systems of records and reporting, with the aim of ensuring lawful, dedicated and purposeful utilization of funds in order to achieve stated goals.

3. Business process of the public procurement

Public Procurement Act⁴⁹ regulates procedures for the award of public contracts and framework agreements for the procurement of supplies, works or services, legal protection in relation to those procedures and the competences of the central state administration body competent for the public procurement system. Public procurement as one of the key business processes which are implemented within the organizational units is associated with the process of planning and reporting process.

3.1. Fiscal responsibility in the field of public procurement

Questionnaire on fiscal responsibility in the field of public procurement contains questions that explicitly indicate the need for the separation of duties or responsibilities and authorities in the preparation and implementation of public procurement. In doing so, the emphasis is on the participation of various persons⁵⁰ in the development of technical specifications, selection of the best deals and monitoring the execution of public procurement. The reporting system of budget users in the field of public procurement in a transparent manner ensures timely and available information about the following:

- Elaboration and implementation of the procurement plan in accordance with the regulations on the public procurement
- Implemented public procurement published in Electronic Public Procurement in accordance with the Croatian Law on Public Procurement

users of the Ministry of Science, Education and Sports (Universities, colleges, universities, institutes, agencies) particularly college with the submission of originals to the Ministry, a copy of the relevant documents submitted to the University which performs formal control (if everything is full) and the Ministry will carry out over the year verification on selected sample. (<http://www.mfin.hr>)

⁴⁸ In accordance with the Article 5 of the Law on the system of internal financial control in the public sector, financial management and control represents a comprehensive system of internal controls established by them and which are responsible leaders of budget users and by which managing risk, provides reasonable assurance that the budgetary and other resources will be used properly, ethically, economically, efficiently and effectively, and in accordance with laws and other regulations. The same includes all business transactions, especially those which are related to revenues / receipts, expenditures / expenses, tendering procedures and contracting, recovery of the amount paid, assets and liabilities.

⁴⁹ The Public Procurement Act, Official Gazette 90/2011, Article 1

⁵⁰ The principle of separation of duties implemented in the Budget Act (Official Gazette, 87/2008) proceeds from the fact that individuals who prepared the technical specifications must be different from the individuals who make the decision on selection. From the above it follows that those who are in charge for the preparation of technical specifications can monitor the execution of public procurement. Applying this principle in compliance with the terms of the Public Procurement Act reduces conflict of interest and discrimination. In terms of control activities required by internal regulations (rules, instructions, directions, guidelines) to regulate the authority and responsibilities of the participants in order to prevent abuses.

- Register⁵¹ of concluded contracts and framework agreements, which imply public procurement contracts concluded in accordance with the conditions specified in the tender documents and with the selected bid.
- In accordance with the Public Procurement Act on the website (or in the official gazette or bulletin board or otherwise) must be available and transparent list of economic entities with whom the taxpayer making a declaration of fiscal responsibility or the client in a conflict of interests within the meaning of Article 13 Public Procurement Act (NN 90/11) or a statement that such entities do not exist.

In addition to the above, the taxpayers of the Public Procurement Act are also required to submit a report on Public Procurement for previous year, to the body responsible for public procurement system.

4. Conclusion

The importance and contribution to the establishment and application of financial management and control is also the starting point of increasing transparency and efficiency of operations by defining control activities for successful management and utilization of budgetary funds.

The application of the Fiscal Responsibility Act aims to balancing of the budget which will result in reducing deficit and stopping the growth of public debt in order to improve investment rating in Croatia.

In order to ensure fiscal responsibility it is necessary greater effectiveness of internal financial controls that permeates the entire organizational structure and also aims to achieve greater efficiency and effectiveness in its entire operations. Fiscal responsibility also requires connection and integration of business processes of public procurement with the existing processes in an environment with an emphasis on faster, more efficient and effective execution of business processes.

It is still necessary to undertake a number of activities aimed at developing and improving elements of all business processes in the field of public procurement in order to improve the operations that are inevitable in view of the forthcoming Croatian accession to European Union.

In order to make maximum use of limited financial funds the answer lies in a unified or joint public procurement, standardization of business processes, documents, information, goods and services as one of the requirements of rationalization.

REFERENCE

Maletić I., Jakir-Bajo I., Zorić A.: Primjena Zakona o fiskalnoj odgovornosti, Hrvatska zajednica računovođa i financijskih djelatnika, Sveučilišna tiskara Zagreb, 2011. godina

Zakon o sustavu unutarnjih financijskih kontrola u javnom sektoru (Narodne novine 141/2006)

Zakon o fiskalnoj odgovornosti (Narodne novine 139/2010)

Zakon o javnoj nabavi (Narodne novine 90/2011)

Uredba o sastavljanju i predaji Izjave o fiskalnoj odgovornosti i izvještaja o primjeni fiskalnih pravila (NN 78/2011)

⁵¹ Register of concluded contracts and framework agreements according to the Article 21 of Public Procurement Act contains the following information: Object of a contract, procurement registration number and number of announcement, types conducted procedure of public procurement, amount of the signed agreement, date of conclusion of the contract, the name of the tenderer with whom the contract was concluded, the final amount paid under the contract, explanation if it is paid more than the agreed amount.

Uredba o izmjeni i dopunama uredbe o sastavljanju i predaji Izjave o fiskalnoj odgovornosti i izvještaja o primjeni fiskalnih pravila (NN 106/2012)

Pravilnik o provedbi financijskog upravljanja i kontrola u javnom sektoru (Narodne novine 130/2011)

Pravilnik o utvrđivanju proračunskih i izvanproračunskih korisnika državnog proračuna i proračunskih i izvanproračunskih korisnika proračuna jedinica lokalne i područne (regionalne) samouprave te o načinu vođenja registra proračunskih i izvanproračunskih korisnika (Narodne novine 128/2009)

Strategija neovisnog razvoja unutarnje financijske kontrole u javnom sektoru (PIFC) u Republici Hrvatskoj za jedinice lokalne i područne (regionalne) samouprave, dostupno na :www.rijeka.hr/fgs.axd?id=31899 , access: 07.02.2013

http://narodne-novine.nn.hr/clanci/sluzbeni/2011_07_78_1648.html,access: 28.01.2013.

<http://www.mfin.hr/hr/proracun>, access: 28.01.2013.

<http://www.mfin.hr/hr/izjava-o-fiskalnoj-odgovornosti>, access: 02. 2013.

Zlatko Lacković, PhD.
Građevinski fakultet Osijek
Crkvena 21, Osijek
Phone: +385 91 22 40 721
E-mail address: zlackovic@gfos.hr

Ivana Šandrak Nukić, PhD.
Građevinski fakultet Osijek
Crkvena 21, Osijek
Phone: +385 91 22 40 752
E-mail address: isandrknukic@gfos.hr

ECONOMIC JUSTIFIABILITY OF SOLAR ENERGY USAGE IN SLAVONIJA AND BARANJA

EKONOMSKA OPRAVDANOST KORIŠTENJA SOLARNE ENERGIJE U SLAVOVNIJI I BARANJI

ABSTRACT

Solar energy use in Slavonija and Baranja region meets both natural and technical preconditions. However, it is important to manage solar energy investments rationally in order to meet also economic preconditions. Therefore, the initial research question on which this paper has been founded on is economic adequacy of investments into different usages of solar energy. At the beginning of the research authors have examined relevant literature that covers energy in general and especially solar energy scope. That survey indicated three main conclusions: energy needs of the mankind are growing, total world energy consumption comes mainly from environmentally harmful fossil fuels, renewables have a significant energy potential. Finally, analysis of investments into solar energy in Slavonija and Baranja region has been done. Both thermal collectors and photovoltaic systems have been analysed. Application of payback period method established current financial unacceptability of these investments but in conclusion of economic analysis they have been positively evaluated. Because of that and in order to manage solar energy investments rationally, authors of this paper strongly advise steadily implementation of incentives stipulated by valid Strategy of energetic growth of Republic of Croatia.

Key words: management, investment effectiveness, solar energy, thermal collectors, photovoltaic system

SAŽETAK

Za korištenje solarne energije u Slavoniji i Baranji postoje prirodni i tehnički preduvjeti ali važno je racionalno upravljati investicijama u solarnu energiju kako bi se ispunili i ekonomski preduvjeti. Zbog togaje osnovno istraživačko pitanje od kojeg se polazi u ovom znanstvenom radu ekonomska opravdanost ulaganja u različite načine iskorištavanja solarne energije. Na početku istraživanja napravljen je pregled relevantne literature koja se bavi pitanjima energije općenito i posebice solarne energije. Zaključci donešeni temeljem tog pregleda odnose se prije svega na rastuće energetske potrebe čovječanstva, štetne utjecaje trenutno većinski korištenih fosilnih goriva te ogromni potencijal obnovljivih izvora energije. U konačnici, provedena je analiza ulaganja u solarnu energiju na području Slavonije i Baranje. Analiza je provedena za dva osnovna principa

direktnog iskorištavanja solarne energije: za solarne toplinske kolektore i za fotonaponske sustave za proizvodnju električne energije. Metodom perioda povrata investicije utvrđena je trenutna financijska neprihvatljivost ovih projekata ali s aspekta ekonomske analize ulaganja u solarnu energiju imaju apsolutno pozitivnu ocjenu. Zbog toga autori ovog rada u smislu upravljanja investicijama u solarnu energiju preporučaju sustavno primjenjivanje poticaja predviđenih postojećom Strategijom energetskog razvoja Republike Hrvatske.

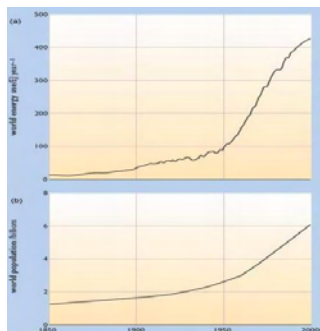
Ključne riječi: *menadžment, isplativost ulaganja, solarna energija, toplinski kolektori, fotonaponske ćelije*

1. Introduction

„Energy is physical dimension that describes interaction and state of particles of an element and their interaction with other particles or elements, i.e. ability of activity performance.“ (Labudović, 2002, 17). Important energy characteristic is that it can not either incur or vanish, which leads to the conclusion that quantity of energy is always constant in a closed system.

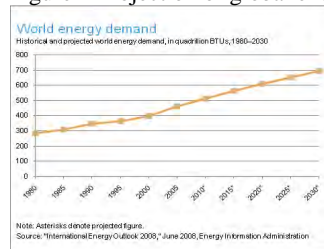
Global needs for energy are becoming bigger and bigger every day. Continuous rise of the population and the need for increasing efficiency and comfort have resulted in rising energy consumption and everlasting search for energy sources that would adequately satisfy the energy needs. Comparison of world's population increase and total energy necessities is presented with Figure 1. and projection of global energy needs is presented with Figure 2.

Figure 1 Comparison of world's population increase and total energy necessities



Source: www.our-energy.com

Figure 2 Projection of global energy needs



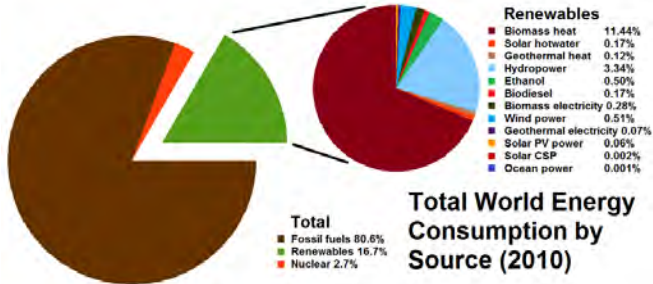
Source: www.kids.esdb.bg

2. Ways of meeting world's energy needs and related problems

Nonrenewable energy sources

Because of ever rising energy demand, scientists are continuously in search for new energy sources, that is new ways of energy usage, which would increase technological and financial efficiency and thus increase the use of alternative energy sources. Figure 3. Shows contribution of different energy sources in total energy consumption, as it was in 2010.

Figure 3 Structure of the world energy consumption, by sources



Source: www.en.wikipedia.org

Evidently, world energy consumption is currently met mostly by non-renewable energy sources, majority of which are fossil fuels. “Fossil fuels include energy sources that originate from organic matter (animal or vegetative) that has been subject of long-term procedures under high pressure and temperatures in depth of Earth. They include coals, oil and petroleum derivatives and natural gas and other gases extracted from it.” (Labudović, 2002, 36)

There are two major problems related to nonrenewable energy sources. The first is that their quantity is limited which shall lead to their extinction in time. The second reason lies in the fact that they emit huge amounts of carbon dioxide (CO₂) and thus pollute the environment. Despite those disadvantages there are, of course, reasons for which fossil fuels are still dominant energy source. Those reasons are tradition and their price. (<http://www.izvorienergije.com>)

2.2. Climate changes and the Greenhouse effect

Since it is not expected that fossil fuels shall reach the price that would lead to significant turn in favour of alternative fuels in the short-run, it is considered that only actual climate changes could seriously undermine that domination and put forward clean energy sources. As stated before, the biggest fault of fossil fuels is pollution, and especially global warming that comes out of it. Global warming is for sure one of the greatest challenges of the mankind ever. (www.izvorienergije.com)

Figure 4 The Greenhouse effect



Source: www.energis.ba and www.ajme-meni.site90.com

As shown in Figure 4., some of the reflected solar radiation is absorbed by the greenhouse gas molecules. The direct effect is the warming of the Earth's surface and the troposphere, so this determines temperature on Earth. If there was no greenhouse effect, temperature on Earth would be 30°C lower, so in that sense the greenhouse effect is a positive phenomenon that enables life existence. However, concentration of carbon dioxide has been increased in the last century so the greenhouse effect is being more and more expressed, which resulted in average temperature on Earth increase up to critical values.

2.3. Renewable energy sources

Upon definition, "renewable energy sources are those that are disposable in unlimited quantities. Although they are being disbursed during transformation processes, their quantities are only temporarily used up and can always be recovered or renewed." (Labudović, 2002, 25).

Currently, as shown in Figure 3., enormous amount of renewable energy is being obtained from water and biomass. Other renewable energy sources are negligible at present. The reason for that is their usage price and small quantities of energy that can be obtained from them due to technological ineffectiveness. Namely, potential of renewable energy sources is huge, but level of technology development today does not allow (or enable) us to rely only on them. Since people will be forced to fulfill all their energy needs in the future only from renewable energy sources, many studies are focused on invention of efficient ways of transformation of renewable energy sources into productive energy. In so doing, solar energy is one of the most interesting energy sources.

3. Solar energy

The Sun has been producing energy for 5 billion years and upon present estimations it shall continue producing it for the next 5 billion years. Solar energy is a term used only for the part of the energy produced at the Sun, the part that reaches the Earth. It has been calculated that the Earth receives enough energy to satisfy the total human energy need for the whole year, only in 71 minutes! (www.pmfbl.org)

The basic principles of direct solar energy exploitation are (www.izvorienergije.com):

- Solar thermal collectors (panels) – direct transformation of solar energy into thermal energy
- Photovoltaic (solar) cells - direct transformation of solar energy into electric power

3.1. Solar thermal collectors

Solar thermal collectors transform the solar energy directly into a thermal energy of water (or some other fluid). Because of that, for water heating there is no need to use expensive solar cells that would produce electric power which could later be used for water heating. Solar collectors are adequate for water heating during the period of sunny weather, and when the weather is bad, they can be used in a combination with electric water heater.

In south Croatia insolation is significant and it has been calculated that 1 m² of solar collectors saves up to 750 kWh per year. This means that an average household of 4-5 members needs approximately 4 – 6 m² of solar collectors for water heating. Under those conditions, payback period of initial investment is 7 years (www.ce.undp.hr). However, measurement under conditions regarding insolation in Slavonija and Baranja shows that in that region it is not possible to achieve the maximal savings of 750 kWh/m² per year.

Table 1 Calculation of energy savings out through use of solar hot water system (SHV) for the household of 4-6 members in the city of Osijek

Needed thermal energy for SHV	3845	kWh/year
Specific produced thermal energy with solar system / m2 of collectors' utility area	451	kWh/m2
Produced thermal energy with solar system	2102	kWh/year
Needed thermal energy from a conventional source	1743	kWh/year
Degree of power efficiency of the solar system	34	%
Solar coverage rate (energy savings)	55	% / year

Source: www.centar-energije.com

In order to decide on economic efficiency of solar thermal collectors usage in Slavonija and Baranja, beside the mentioned savings, one should also take into account total investment expenses needed. They include:

- Calculation, dimensioning and selection of an optimal system,
- Supply and installation of the equipment (solar collectors, storage tank, pipeline, isolation, control, pump, expansion container, solar fluid and other needed material),
- Hydraulic balancing of the system,
- Regulation of the system,
- Breaking-in by a professional,
- Guarantee for installed equipment,
- Functional guarantee

Since the price of such a system amounts around 30.000 kn (including VAT) at respectable supplier and calculation shows possibility of 2102 kWh/year energy savings, meaning 2207 HRK/ year financial savings (average price of 1 kWh is 1,05 HRK, including VAT), it arises the fact that payback period of that investment in Slavonija and Baranja would be 14 years. With 20 year life expectancy of the system, this is not appealing.

3.2. Photovoltaic cells

“Photovoltaic transformation of solar energy, i.e. light energy into electric power is done in a solar cell, whilst reversible electrochemical process of transformation related to charging and discharge of accumulator is done in the accumulator. Electric power is transformed into different types of energy in different electric devices: mechanical energy, thermal, light etc.” (Majdandžić, 2010, 407)

Solar photovoltaic systems can be divided in two basic categories: photovoltaic systems that are not connected to electrical network (so called off-grid), which are often referred to as stand-alone systems and photovoltaic systems connected to public electrical network, so called on-grid system.” (Majdandžić, 2010, 369).

Beside differences regarding open (on-grid) and closed (off-grid) systems, photovoltaic systems differ also in terms of integrated and non-integrated systems. “Integrated solar power plants are power plants located on buildings (on the roof, screens, shadows, balconies, terraces, balustrades, facades, windows, doors...) and infra structural objects (substations, bridge and similar objects) whilst nonintegrated solar power plants are located as autonomous constructions.” (Tarifni sustav, NN No. 63/2012). In Croatia, as well as in Slavonija and Baranja, far more present are integrated solar systems so this paper will focus primarily on them.

Table 2 Components of investment into photovoltaic system on the roof of a household in Osijek, with power of 9,55kWp

ITEM	PRICE IN HRK
SUPPLY AND INSTALATION OF EQUIPMENT	
Solar modules, max power 245W, guaranteed 90% of power for 10 years and 80% of power for 25 years	81.510,00
Solar inverter, max AC power 10.000VA	25.656,00
Distribution board for DC circle equipment installation	5.800,00
Distribution board for AC circle equipment installation	5.550,00
Set of wiring and fittings	5.810,00
Metal subconstruction for installation of solar modules	10.500,00
TOTAL without VAT	134.826,00
Techno-economic analysis of photovoltaic power plant	9.500,00
Concept design, main design and construction design of photovoltaic power plant	13.000,00
Authorisation needed for obtaining necessary approvals and contracts	10.000,00
Supervision during installation of photovoltaic power plant	15.000,00
Breaking-in and operation training	3.000,00
Typical testing of photovoltaic power plant	15.000,00
Maintenance and annual technical inspection	According to actual price list
TOTAL	200.326,00
TOTAL with VAT	250.407,50

Source: actual commercial offer

Price of the turnkey 10 kW solar power plant amounts from 110,000 HRK till 170,000 HRK, depending on built-in components, complexity of installation and investor's wishes. However, as shown in Table 2., price of technical components is approximately only one half of the total investment.

Regarding investment revenues, they can easily be calculated based on produced quantity of electric power and the price of 1 kWh of power. Produced quantity of electric power depends on many factors- insolation, shading, inclination, orientation, internal losses of the system etc.

It is estimated that the solar powerplant in Osijek will produce approximately 10.900 kWh of electric power annually (<http://enersynth.com>). But the price has been changed significantly. Until recently, subventioned buy off price of 1 kWh of power produced in solar powerplants up to 10 kWh of power was 2,63 HRK + VAT. Under those conditions, payback period of this investment in Slavonija and Baranja would be acceptable 7-8 years. However, in year 2012 a new Rate system for production of electric power from renewable energy sources and cogeneration was introduced (NN No. 63/2012). After it, agreement on electric power buy off is being concluded for the prolonged period of 14 years (previously the period was 12 years) but the subventioned buy off price is

diminished to 1,10 HRK /1 kWh. Because of that, payback period of concerned investments is increased up to 20 years, which makes these projects, from a financial point of view, unacceptable.

4. CONCLUSION

As presented in this paper, there is more than enough available energy to fulfill world's needs. The only problem is to find efficient ways of clean and safe exploitation of different energy sources. One of those sources is definitely solar energy, whose costefficiency cannot compete with traditional energy sources at the moment, but is expected that results of numerous scientific studies will reduce the price and increase the efficiency of this source in the future.

Justifiability of investment is generally assessed based on three types of analysis: technical, financial and economic. In doing, economic analysis evaluates contribution of the investment to economic welfare and quality of life in a region. This paper proved the adequacy of natural condition and technical feasibility of investments into solar energy in Slavonija and Baranja. However, its howed financial in efficacy of those investments. Finally, it must be emphasized that in terms of economic analysis, investments into solar energy have been positively evaluated, because decrease of fossil fuel utilization brings to decrease of environment pollution. It is expected that this should be the main reason for realisation of existent Strategy of energetic development of Republic of Croatia (NN No. 130/2009) in a near future. The Strategy plans stimulation of renewable energy sources usage and it is evident that the current key word of acceptability of these source and rational management of solar energy investments is - incentives. Although our reality today is far from systematic stimulation of investments into solar energy, economic recovery of the national economy will for sure lead to that, because beside the Strategy, we have all necessary natural preconditions that could make solar energy the area of so much needed investments expansion.

REFERENCES

Labudović B. i suradnici (2002):*Obnovljivi izvori energije*, Energetika marketing, Zagreb

Majdandžić, L.J. (2010):*Solarni sustavi – Teorijske osnove, projektiranje, ugradnja i primjeri izvedenih projekata*, Graphis, Zagreb

Strategija energetskog razvoja Republike Hrvatske (NN br. 130/2009) (pristup 5.11.2012.)

Tarifni sustav za proizvodnju električne energije iz obnovljivih izvora energije i kogeneracije (NN br. 63/2012) (pristup 9.11.2012.)

www.kids.esdb.bg (pristup 6.11.2012.)

www.our-energy.com (pristup 6.11.2012.)

http://www.izvorienergije.com/energija_sunca.html(pristup 5.11.2012.)

<http://www.en.wikipedia.org>(pristup 5.11.2012.)

www.energis.ba (pristup 7.11.2012.)

www.ajme-meni.site90.com(pristup 9.11.2012.)

<http://www.pmfbl.org> (pristup 5.11.2012.)

<http://www.ee.undp.hr/ee-savjeti/priprema-potrosne-tople-vode/priprema-ptv-solarnim-kolektorima> (pristup 5.11.2012.)

www.centar-energije.com (pristup 5.11.2012.)

(Error! Hyperlink reference not valid. rjesenja/fotonaponski-sustavi/mrezni-fotonaponski-sustavi/suncane-elektrane-do-10-kw) (pristup 9.11.2012.)

Dalibor Mesarić, dipl. ing. el.
Faculty of Electrical Engineering - Osijek
31000 Osijek, Kneza Trpimira 2b
Phone: 224-600; Fax: 224-605
E-mail address: dalibor2.mesaric@etfos.hr,

Mr. sc. **Franjo Ambroš**, dipl. geod.
Geoprem d.o.o. - Osijek
31000 Osijek, Trg Lava Mirskog 1/2
Phone: 250 900; Fax: 250 901
E-mail address: franjo.ambros@geoprem.hr

Dr. sc. **Milan Ivanović**, dipl. oec.
PANON - Think-tank for Strategic Studies, Osijek
31000 Osijek, Vijenac I. Meštrovića 19
Phone: 204-074; Fax: 224-605
E-mail address: milanivanovi4@gmail.com

DEVELOPMENT OF BROADBAND NETWORK IN SLAVONIA AND BARANJA

RAZVOJ MREŽE ŠIROKOPOJASNOG PRISTUPA INTERNETU NA PODRUČJU SLAVONIJE I BARANJE

ABSTRACT

This paper accentuates the importance of electronic communications for the future of total cultural development and offers a short overview of the Digital agenda for Europe. A special importance is given to the development of broadband access in Croatia and to the postulates of the Strategy for the development of broadband in Croatia in the time period from 2012 to 2015. After an analysis of the situation in Slavonija-Baranja region, basic indices for the implementation of this strategy in Slavonija-Baranja region (by counties) are given.

Key words: *Broadband network, Digital Agenda, Internet, Slavonia and Baranja*

SAŽETAK

U radu se ukazuje na važnost elektroničkih komunikacija za budućnost ukupnog civilizacijskog razvoja te ukratko razmatra Digitalna agenda za Europu. Posebno se ukazuje na značaj razvoja širokopojasnog pristupa u RH te na postavke Strategije razvoja širokopojasnog pristupa u RH od 2012. do 2015. godine. Nakon analiza stanja na području SB regije postavljaju se temeljne smjernice za provedbu ove strategije na području slavonsko-baranjske regije po županijama.

Ključne riječi: *Širokopolasni pristup, Digitalna agenda, Internet, Slavonija i Baranja*

1. Electronic communication – future of development

Modern information and telecommunication technologies (ICT), especially Internet have greatly changed the lifestyle of people in the last 20 years; information and data transfer has been sped up, their quality and reliability has been increased, business costs have been reduced. Business transactions have been sped up, access to global market has been enabled, new paths for investment, goods and services have been developed, and the amount of available information has been increased – both in public and in private sector. New ICT is the foundation for the development of economy and knowledge society; Information and knowledge have taken the place of capital as a foundation of individual and social growth and development. [5] An expansion and accumulation of understanding and knowledge depends on the setup of a developed communications network for a quick and efficient transfer of information. [21] The development of fast access networks today has the same revolutionary effect as the development of traffic network or electro-energetic grid 100 years ago. Services converge in the direction of a digital world, they are universally accessible on all equipment, be it personal computers, smart phones, digital radio or HD television. Forecasts state that digital content and applications will almost entirely be delivered via internet by year 2020. [7]

The development of faster cheaper, more reliable and higher quality public services and public services business – working of state and local government, health, education and culture – as well as business workings and encouragement of rural areas development depend on ICT infrastructure coverage of an area, i.e. optic cable network (broadband access) which enables fast internet. Investing in broadband access is definitely useful if the approach is responsible – as a series of studies show. According to the results of a study undertaken for the EU [11], an increase in number of broadband users influences the GDP growth, with the increase being more important in a country that is more developed. Estimates show that a GDP growth of 0,47% is possible in countries where broadband access is less developed, 0,63% in countries where broadband development is robust and 0,89% in countries that are most developed – where all possibilities of the knowledge society are being used. It is also expected that investments in broadband access in EU member states by year 2015 will create around a million new jobs and will boost the economy with up to 850 billion Euros [2]. Other studies [21] include presumptions that have been additionally explored, so four indicators, directly connected to gain from broadband access, have been shown: average income, computer users number, smart-phone users number and network coverage. Based on the estimates of direct and indirect gain from the development of broadband access, analysis show that in the time period from 2010 to 2019 Croatia could have direct gain measured at between 2.2 and 3.2 billion Euros. It has been also stated that, generally speaking, an increase in 10% in the number of broadband users enables an increase in GDP of 1.38% which manifests in an increase of jobs in network development and maintenance as well as an increase in general economic activity because of an increased usage of electronic services available through broad-band access. [10]

2. Digital agenda for Europe and Croatia

A series of documents and a number of strategies in the field of broadband access development have been put forth in order of the assurance of greatest gains possible for the development of economy and population of the European Union.

2.1 Digital agenda for Europe

After a series of EU recommendations, a document titled „Digital agenda for Europe“ [3] for the first time offers concrete measures and goals and recommended time frames for the fulfillment of goals in the development of broadband access. A following list of goals of the Digital agenda for Europe has been put forth:

1. Broadband access availability:

a) basic access: 100% of the EU population by 2013

b) fast access (30 Mbit/s or more): 100% of the EU population by 2020

- c) ultrafast access (100 Mbit/s or more): 50% of EU households by 2020
- 2. Common digital market;
- 3. Digital inclusiveness (an increase of internet usage to 75% of the EU population by 2015);
- 4. Public services;
- 5. Research and development (ICT expenses at 11 billion €);
- 6. Low CO2 economy.

EU member states in the last couple of years, independently of the European commission efforts in the development of broadband access, independently propose national plans and strategies of broadband access development. These plans and strategies are different in each member state, but the following common trends can be noticed [7]:

- plans and strategies refer to a time period of 3 to 5 years for basic broadband access, and 7 or more years for fast and ultrafast broadband access;
- the goals are set in relation to the coverage of a certain percentage of the population or households by broadband access of a certain or minimal speed;
- the goals are different for basic broadband access and fast or ultrafast broadband access;
- plans and strategies promote, for the purpose of realization of the stated goals, an implementation of new generation networks, with the usage of optic fiber technology based on FTTx standard in an immobile communications network as well as by assigning of available radiofrequency spectrum for the construction of mobile communications network;
- financial means for the realization of stated goals have been assured.

The availability of basic broadband access in national strategies of EU member states basically relates to a 100% coverage of the population with access speeds of 512 kbit/s up to 2 Mbit/s in a time frame ending in 2010. The availability of fast and ultrafast broadband access relates mostly to 100% coverage of the population with access speeds of 20 Mbit/s up to 100 Mbit/s in a time frame ending in 2015.g.

According to these indices, Croatia is among the lowest ranked EU countries, with 20,07% population coverage, the EU average being 27,16%.

2.2. The importance of broadband access in Croatia

Broadband services development enjoys a special importance in the economic development of Croatia and especially for the development of knowledge society in Croatia. Newest broadband services (Internet education, social networking, HD television, tele-working etc) ask for adequate transfer capacities (more than 20 Mbit/s) which can be achieved with the help of optic access infrastructure and adequate new generation wireless technologies.

The necessary environment is being created by implementation of priorities from the regional development strategy of Croatia which concerns the development and promotion of IT and electronic communications infrastructure. Local and regional governments confirm their development documents (especially county development strategies and development program plans) with this strategy in order to enable the preparation of projects which fit their needs for broadband access. It is therefore necessary to create adequate conditions for investment in cable and wireless networks of the new generations and above all to enable space conditions which do not limit the further development of these networks. Being that a slowed development of construction of electronic communications infrastructure and connected equipment in mobile communications network due to an absence of required space conditions, an encouragement of planning of these networks in the next time period is necessary. This includes a change in the urban development plans in a way which will not limit the future development of these networks. [7]

Based on an analysis of the state of development of broadband access in Croatia, stagnation in the number of broadband access connections in comparison with the EU countries is easily observed. An important disequilibrium both in number and density of broadband access by counties is observed. This is caused by unfavorable demographic structure, ignorance in terms of usage of

information and communication technologies present with some inhabitants, as well as insufficient infrastructure of broadband access in all Croatian regions. An analysis of the current technological availability shows the dominance of only one kind of access connected with the existing communications network of copper twisted pairs, which are sufficient for current needs but unfortunately do not enable any major quality advance in broadband access and access speed.

Therefore, the following key challenges of broadband access in Croatia can be noted [7]:

- Conforming development strategies and plans on local and regional level with this strategy;
- A lack of adequate space conditions which not only limit further development of electronic communications infrastructure, but render broadband access impossible;
- A lack of knowledge and usage of computers, Internet and broadband access as well as a lack of knowledge of the power of information and communication technologies;
- Inadequate and regionally unequal amount of personal computers and broadband access points as well as accessibility of broadband access infrastructure;
- Inadequate offer of electronic communications services and content, especially in Croatian language, which require broadband access;
- Unsatisfactory usage of information and communications technology among citizens and in the economy;
- personal computers and broadband Internet access are not financially available to all the households.

A growth analysis of the number of access points and their density in broadband access for Croatia is shown in figures 2 and 3;

Year	Fixed	Mobile	Subscribers
2004	23.000	-	23.000
2005	116.000	-	116.000
2006	251.800	-	251.800
2007	387.019	-	387.019
2008	524.683	158.524	683.207
2009	684.960	252.238	937.198
2010	803.823	328.389	1.132.212
2011	861.276	287.953	1.149.229

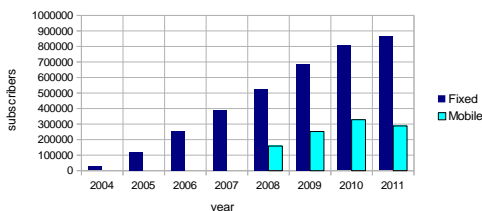


Figure 2
Number of broadband Internet access in Croatia
Source: HAKOM

Year	Fixed	Mobile	Subscribers
2004	0,52	-	0,52
2005	2,61	-	2,61
2006	5,67	-	5,67
2007	8,72	-	8,72
2008	11,83	3,57	15,40
2009	15,44	5,69	21,13
2010	18,12	7,40	25,52
2011	20,07	6,71	26,78

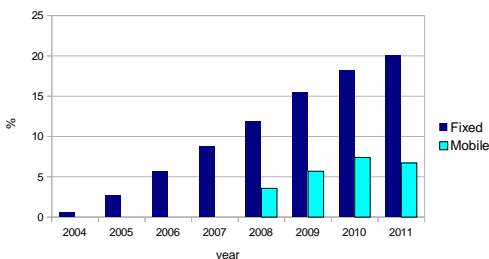


Figure 3
Penetration of broadband Internet access in Croatia
Source: HAKOM

An exponential growth of the number of connection points in the period from 2004 to 2011 can be noted. This at a rate of **147,3** or an index (base 2004 = 100) of **56611**. In the observed period an exponential growth of connection points of broadband Internet access can be observed; index (base

2004 = 100) is 5150, meaning that the yearly growth rate is **75,6**. But, as a comparison with EU countries has shown, Croatia lags in this area of technological development.

2.3. Broadband services

Basic service offered through broadband access is high speed internet connection, which in turn allows users to use a whole array of applications of educational, business, information and other natures. An entire set of electronic systems and internet applications which enables citizens to access a series of public services (such as: e-education, e-health and e-management) needs to be mentioned. Also, an important bundle of application for Internet business and commerce (e-business, e-commerce and e-banking). Apart from the basic services of high speed internet access, broadband internet access enables TV content distribution services in addition to basic public speaking service. Table 1 shows potential users of broadband access.

2.5. Development of broadband services

Following information thus stated – broadband services are an infrastructural condition of general development (economy, public administration, social services and a population's standard of living), that is a necessary condition (lat. *conditio sine qua non*). Here it should be emphasized that a development of broadband services also represents an opportunity for economic and technological development of local companies and new employment of local population.

Development of broadband services is a complex technological process and also an important investment operation so its realization must (by nature of things) be undertaken in a number of mutually dependent steps: 1. Construction of distribution network, 2. Organization of distribution of existing services, 3. Usage and education of users, 4. Development of new applications.

Each of the steps should include many number of business and administration subjects; therefore all activities must be well planned, coordinated and synchronized. Many of the business undertakings in each step can include local business subjects – which would then require special organization.

Table 1 An overview of potential groups of broadband access users

No	Groups of users	Potential users
1.	Private users	Households Vacation homes (temporary inhabited)
2.	Business users	Family farms, Silos and cooperatives, Manufacturers and free professions, SME, Large companies, factories and business systems, Hotels and tourist camps
3.	Local and regional government bodies	Administrative bodies of communities and cities, local committees, businesses operated by local and regional governments
4.	State administration units	State administration units (health, social security, personal registers,...); Ministry units (police, revenue service, firefighters, vessel control)
5.	Educational units	Kindergartens; Elementary schools; High Schools; Faculties
6.	Health units	Ordinations, Ambulances, Hospitals
7.	Other public units	Libraries, Museums, Sports institutions, Nature reserves,
8.	Social organizations	Political parties, citizen groups, Syndicates

3. Strategy implementation in Slavonia and Baranja

National strategy of broadband access development provided the necessary technical and administrative (legal) frame, and its execution in Slavonia and Baranja region has its specific that stem from the condition of geographic and demographic characteristic, as well as economic

developments. [6] The determination of real state and the potential for usage of broadband services is the first step in the execution of the national strategy.

3.1. Situation by counties

According to the number and the density of broadband access points in three counties of Slavonia, Požega-Slavonia, Virovitica-Podravina and Brod-Posavina counties are in the last place, Vukovar-Syrmia is in the middle and Osijek-Baranja is in the top tier of all counties in Croatia.

3.2. Project „Slavonian network“

At the end of 2012 (after a series of gatherings and preparation activities) Faculty of Electrical Engineering in Osijek initiated the „Slavonian network“ project, which deals with the development of broadband access to Internet in five counties of East Croatia. The basic frames of the project are given here; [6]

Problem description: The number and density of broadband internet access points in Croatia is significantly below the EU member nations average (HR=20,07%, EU average=27,16%), with these figures being even lower in five counties of Slavonia and Baranja region (with the exception of the city of Osijek). Such a condition in modern times renders impossible the social and economic development, the efficient functioning of public administration as well as inclusion of the region in modern communication both domestically and with other users in EU countries.

Goal of the project: Enable broadband internet access in 75% percent of communities in 5 counties of Slavonia and Baranja region by 2015.

Expected results: (1) Stated condition A₁-A₅, (2) Network register regulation by local administration units concerning distribution network, (3) Renewed urban development plans of local administration units, (4) Approving of local administrations units' decisions concerning payment of usage of distribution network, (5) Confirming relations between local administration units and distribution network users, (6) Unification of resources of local administration units by counties, (7) Initializing and developing the process of introduction (extension) of broadband access by counties, (8) Determining broadband access coverage of local administration units, (9) completion of financing studies for broadband access introduction (10) foundation of „Slavonian network“ consortium, (11) local administration units' funds reservation, by counties, (12) regional project application for Croatian and EU funds.⁵²

Final beneficiaries of project results: (1) Population of 5 Slavonia-Baranja region's counties, (2) Public services in 5 Slavonia-Baranja region's counties (health, education, social services, public administration). (3). Economy in five counties of Slavonia-Baranja

Economic benefit as result of project realization, an estimate: Economic benefit (direct and indirect) of project realization is: (1) more efficient functioning of public administration, (2) better business results of economic subjects, (3) increase in population living standard, (4) development of new businesses based on broadband access.

Finally – realization of the project – on this basis only – will contribute to a minimum 0,7% GDP growth in Slavonia-Baranja region, starting from 2015. Strategic foundation of this project lies in the Development strategy of broadband access development in Croatia from 2012. To 2015. The project is to be executed in 6 phases in the time period from January to June 2013.

3.3. „Slavonian network“ consortium

It has already been emphasized that this problem concerns: 1) important question of technological access of Croatia to European communication currents; 2) complicated technological process of broadband services development, 3) important investment operation 4) demanding process of state determination in local administration units 5) Important elements of urban development plans of

⁵² A₁ = Number of users ŠPP; A₂ = Density of users ŠPP, A₃ = Registry of distribution networks; A₄ = Ownership issues; A₅ = Urbanistic plans

local administration units. For the purpose of realization of this project, a unification of all social, expert and financial potentials in the region is needed; therefore a foundation of „Slavonian network“ consortium is being recommended, which would harmonize actions and coordinate the implementation of key stages of this project. The members of the consortium would be: five counties of Slavonia-Baranja region, Faculty of electro-technics in Osijek, The institute for strategic studies Panon Osijek, telecommunications service providers. The consortium would exist until the purpose of foundation has been fulfilled, i.e. by the end of 2015.

3.4. Master plan „The usage of broadband services in Slavonia-Baranja region“

Long-term project „development of broadband services usage in Slavonia-Baranja region is an important techno-economic and legal-administrative project with a complex technological and organizational structure and large financial means which needs to be realized in the next three years. The execution of such a project demands an integral encompassing of a number of technological, land-measuring, administrative, legal, urbanistic, marketing, organizational, educational and financial actions and processes as well as a whole array of business subjects and proceedings. All of this needs to be sufficiently explored and carefully planned so that the designated goal of the project can be reached. Therefore a creation of a project master plan encompassing the following details is necessary.

4. Conclusion

New ICT is the foundation of development of the economy and knowledge society; information and knowledge took the place of capital in becoming the foundation of individual and community development and growth. An expansion and accumulation of knowledge depends on the creation of a developed communications network for a fast and efficient transfer of data. The development of fast access networks has the same revolutionary effect that the development of traffic network or electro-energetic grid had 100 years ago. Services converge towards the digital world, they are universally accessible on any device, be it personal computers, smartphones, digital radio or HD television. Predictions show that by 2020 digital content and application will almost exclusively be transferred over the Internet.

The availability of basic broadband access in EU member states basically relates to a 100% coverage of the population with access speeds of 512 kbit/s up to 2 Mbit/s in a time frame ending in 2010. The availability of fast and ultrafast broadband access relates mostly to 100% coverage of the population with access speeds of 20 Mbit/s up to 100 Mbit/s in a time frame ending in 2015.g.

According to these indices, Croatia is among the lowest ranked EU countries, with 20,07% population coverage, the EU average being 27,16%.

National strategy of broadband access development provided the necessary technical and administrative (legal) frame,

The number and density of broadband internet access points of users in five counties of Slavonia-Baranja region (with the exception of the city of Osijek) are below Croatian average. Such a state renders social and economic development, efficient functioning of public administration, as well as inclusion of the region in modern communication both domestically and with other users in EU countries impossible.

At the end of 2012. (after a series of gatherings and preparation activities) Faculty of Electro-technics in Osijek initiated the „Slavonska mreža“ project - which deals with the development of broadband access to Internet in five counties of East Croatia whose goal is to enable broadband internet access in 75% percent of communities in 5 counties of Slavonia and Baranja region by 2015. The realization of this project will bring significant economic advantages: from a more efficient functioning of public administration, better business results of economic subjects, higher standard of living for the population up to a development of new business activities based on broadband access.

REFERENCE

- [1] Ambroš, F.: Problem imovinskopravnog uređenja infrastrukture, ETF, Osijek, 2012.
- [2] EC, Commission remarks €1bn for investment in broadband – MEMO EC, 2009.
- [3] EC, A Digital Agenda for Europe, COM(2010) 245, Brisel, May 19., 2010
- [4] HAKOM, Program razvoja Interneta i širokopojasnog pristupa Internetu na područjima od posebne državne skrbi, brdsko-planinskim područjima i otocima, Zagreb, 2010.
- [5] Ivanović, M., Keser, T.; Blažević, D.: *A Capitalization of Knowledge - Innovation Processes in Transition Countries*; ISSN 1330-3651 Technical Gazette, Vol.18 No.1,
- [6] Mesarić D.; Ambroš F.; Ivanović, M.: Slavonska mreža - ETF, Osijek, 2012.
- [7] OECD, Ministerial background Report DSTI/ICCP/IE(2007)3/FINAL: Broadband and the economy, 2008, <http://www.oecd.org/>
- [8] Vlada RH; Strategija razvoja širokopojasnog pristupa u RH od 2012. do 2015. g, Zagreb, 2011.
- [9] *Zoletić Huso* Praktična iskustva primjene mikrocijevnih sustava u izgradnji svjetlovodne mreže i FTTH kućnih instalacija (121)
- [10] Žuti, V.: Učinkovita ulaganja u svjetlovodnu mrežu na lokalnoj razini, ETF, Osijek, 2012.
- [11] * * * Strategija održivog razvitka Republike Hrvatske, Narodne novine, 30/09.
- [12] * * * The Impact of Broadband on Growth and Productivity, MICUS Consulting GmbH, 2008.
- [13] * * * The impact of broadband in Eastern and Southeast Europe, Frontier Economics Ltd, 2010.

Dr. Jozsef Poor, Profesor of Management

Institution: SzentIstván University

Postal Address: Tessedik S. u. 6, H – 2100 Gödöllő

Phone: +36 30383 7618

E-mail: poorjf@t-online.hu

Durdica Kontra-Čapo, PhD student

Institution: University of Pécs, Faculty of Business and Economics

Postal Address: Rákócziút80., H – 7633 Pécs

Phone: 091 574 3454

E-mail: kontra@email.t-com.hr

HUMAN RESOURCE MANAGEMENT IN TRANSITION**UPRAVLJANJE LJUDSKIM RESURSIMA U TRANZICIJI****ABSTRACT**

The current research is part of a long-term research cooperation – Central and Eastern European International Research Team (hereinafter CEEIRT) – that is composed of researchers from different universities from Central and Eastern European (CEE) Region and aimed at examining the changing of HR practices and roles in MNC subsidiaries. We seek to understand what trends have emerged in the certain HR practical applications and roles in our region in response to the socio-economic changes. In the research project we examined the HR functions and practical applications of Multinational Company (MNC) subsidiaries in Croatia.

Croatia's competitive advantages over other countries in the region are based on developed infrastructure, a highly educated workforce and proximity to raw materials and resources allow.

Persistent economic problems still remain and include a rather high labor cost, the slow progress of necessary coordination of economic activities and the government has done very little to improve the situation regarding climate of the foreign direct investments. The Croatian labor force is the second most expensive in the region. In order to avoid competition with countries with low operating costs (Romania and Bulgaria), Croatia should focus on higher value-added sectors and knowledge-intensive activities.

Foreign investors report high profitability and quality standard. Croatia's greatest strength is the relatively stable economy and excellent infrastructure. Last but not least, the proven ability of the country that high-tech industries are performing well and there is a high level of engineering and design skills.

In Croatian economy employees have extremely good attitude, which includes the low level absenteeism, high levels of motivation, labor productivity and accuracy.

As negative factors of Croatian economy include employment of unskilled workers at high costs compared to regional competitors. It should be remembered there is a shortage in the labor market of experienced professionals. Labor taxes are considered relatively high, which is illustrated with a significant difference between net wages and total labor costs of employment. The above findings are the results of our CEEIRT research.

We used same questionnaires. The mostly paper-based ones and a small part of the web-survey was supplied via a Web interface. The report's findings were the methods of descriptive statistics (frequency, distribution average) were based on use. Answers to a number of priority issues by the processing of data are visualized graphically. In several cases the personal interviews that were used to collect case-examples - while ensuring the anonymity – have been added to the analysis.

Keywords: Human resources, research, MNC=Multinational Companies, economy and technology

SAŽETAK

„Central and Eastern European International Research Team” (CEEIRT) osnovan je 2009. godine s ciljem provođenja trogodišnjeg istraživačkog programa na području ljudskih potencijala. Tim okuplja istraživače sa različitih sveučilišta i institucija Srednje i Istočne Europe, koji u zemljama u tranziciji istražuju promjene na području ljudskih potencijala uzrokovani ekonomskih promjenama u regiji.

Istraživanje koje smo proveli daje sliku o praksi i okruženju ljudskih potencijala u podružnicama MNC koji su prisutni u Hrvatskoj.

U usporedbi sa drugim zemljama regije Hrvatska ima značajnu prednost u infrastrukturnoj povezanosti, visokokvalificiranoj radnoj snazi i blizini sirovina i ostalih resursa. S druge strane, takva radna snaga je skupa za ulagače, gospodarske aktivnosti nisu zadovoljavajuće koordinirane, a vladine mjere nisu u dovoljnoj mjeri učinkovite.

Hrvatska je jedna od najskupljih zemalja jugoistočne Europe u pogledu cijene radne snage. Da bi stekla konkurentsku prednost pred drugim zemljama regije sa niskom cijenom rada (primjerice Rumunjska ili Bugarska), Hrvatska može iskoristiti ulaganje u one djelatnosti koji zahtijevaju visoku razinu stručnog znanja u područjima sa visokim stupnjem dodane vrijednosti.

Strani ulagači svjedoče o iznimno visokoj razini rentabilnosti i standardima kvalitete. Najveća prednost Hrvatske leži u relativno stabilnom gospodarstvu, iznimno dobro razvijenoj infrastrukturnoj mreži i dokazanoj sposobnosti upravljanja hi-tech tehnologijom, ali i raspolaganju visoke razine znanja na području inženjeringa i dizajna. U hrvatskom gospodarstvu prisutan je izuzetno dobar odnos zaposlenika prema radu, što podrazumijeva male vrijednosti izostanaka sa radnog mjesta, prisutnost visoke razine njihove motivacije, proizvodnosti i točnosti.

Negativna tendencija je visoka cijena zapošljavanja nekvalificirane radne snage u odnosu na konkurentne zemlje regije, nedostatak iskusne radne snage, osim toga porezi su relativno visoki što je razvidno iz velike razlike ukupnog troška rada u odnosu na isplaćenu neto plaću.

Navedeno razmatranje je rezultat istraživanja.

S ciljem pojednostavljivanja statističke obrade za on-line i osobno ispitivanje koristili smo iste upitnike. Obradu rezultata smo temeljili na metodi deskriptivne statistike (frekvencije, prosjek distribucije). Odgovore na neka pitanja smo i grafički prikazali. U nekoliko slučajeva su analizi dodani i osobni intervjui uz osiguranje anonimnosti sugovornika.

Ključne riječi: ljudski resursi, istraživanje, multinacionalne kompanije (MNC), tehnologija

1. Responder countries and the economic indicators

The following twelve countries took part in the Ceeirt research: Austria, Bulgaria, Czechoslovakia, Estonia, Croatia, Poland, Latvia, Hungary, Romania, Serbia, Slovakia, and Slovenia.

In the last decades the Central and Eastern European countries, also the ones in our research, benefited from the inflow of foreign capital. According to the Spiegel (2009) these countries became the stars of the capitalism, where the GDP growth well exceeded that of the developed countries’.

The global economic crisis took the countries of the region by surprise. The growth declined almost everywhere except for Poland. These countries had to face negative GDP growth for the first time in years accompanied with high inflation, and growing unemployment.

2. The foreign direct investment and the employment

In the mentioned countries the volume of the foreign direct investment (FDI) and the portfolio investment two typical categories of the foreign investments grew strongly and steadily. However

the data presented in the UNCTAD 2010 shows that between 2000 and 2003 a different tendency applies. From 2004 to 2007 again continuous FDI growth can be experienced. After that resulting from the global crisis in 2008 it declines rapidly. Nowadays compared to previous years slight growth can be observed. Currently the international companies employ over 80 million employees at their subsidiaries (Table 1).

Table 1 Foreign Direct Investment trends in the world

	Actual value											Forecast		
Year	1990	1996	1999	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
FDI	208	1,400	1,600	1,490	735	800	1,000	1,411	2,100	1,771	1,114	1,200	1,300-1,500	1,600-2,000

Source: UNCTAD (2010): *World Investment Report, 2010*. United Nations, Geneva.

3. HR practices of the region before and after the communist regime

The HR activity was under tight governmental control in the Central and Eastern European countries within the communist regime. One of the first major challenges of the HR departments of the countries in transition was to deal with the grand volume of layoffs following the privatization (Redman-Keithley, 1998).

In his book about the social responsibility of international companies in Eastern Europe Lewis (2005) says that the multinational companies in many ways redrew the map of the labor market of former socialist countries. The egalitarianism got abolished and the compensation became dependent of the importance of the work. The exceptionally high performance was awarded with exceptionally high payment. Along with the technical knowledge the importance of knowing foreign languages became emphasized. Although in a certain topic there was no progress for a long time: “Can a local be controlled by a local, can a local be controlled by a western, but can a local be controlled by someone coming from another Eastern European country” By now this question seems to be resolved. More and more Central and Eastern European faces the situation that in other countries of the region the locals become their subordinates. The multinational companies turned the local companies politics free. HR received a key role. In most cases these companies achieve better performance than the locals. International companies can utilize their resource based competitive advantage in contrast to the relatively weak and undeveloped or changing local institutional system.

CRANET (2006) coordinated by the University of Pécs, (Poór et al., 2007) and other researches (Karoliny et al., 2003) clearly prove that this function is far more than the mere recording of employee data. By now HR became an executive function (Karoliny et al, 2008) in the most countries of the region at their national companies, at the subsidiaries of the international companies and the local large companies.

4. The Western Balkan countries and the FDI

The Western Balkan countries received significantly less foreign working capital than the Central and Eastern European countries. Due to the political and economic instability of the countries in the Balkan they weren't attractive for the international investors. Up until the year 2000 only very low level of FDI inflow was realized. The only but substantial exception was Croatia to where from 1997 constantly large amount of foreign working capital arrived.

Between 1990 and 1996 the four Western Balkan countries (Serbia and Montenegro, Bosnia and Herzegovina, Albania and Macedonia) received only 900 million dollars of foreign working capital, which is only 2.7 percent of the total FDI inflow to the 27 transitional economies. However more than half of the amount received by the Western Balkan countries was targeted to Croatia. Table 2.contains data of the FDI inflow to the Western Balkan countries between 2000 and 2006.

Table 2 FDI inflow to the Western Balkan (million USD) (2000-2006)

Country\Year	2000	2001	2002	2003	2004	2005	2006	Total
Albania	143	204	135	178	322	265	300	1,547
Bosnia and Herzegovina	150	130	266	382	490	400	570	2,388
Croatia	1,085	1,407	591	2,025	899	2,000	1,200	9,207
Macedonia	175	441	78	96	156	97	200	1,243
Serbia and Montenegro	25	165	562	1,405	1,031	2,020	2,000	7,208

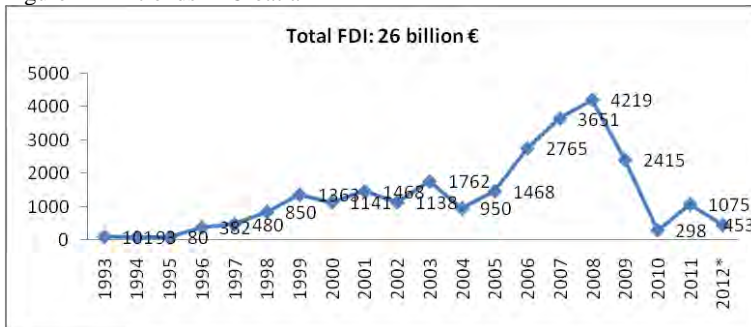
Source: EBRD, 2006

The increasing level of FDI is due to the effects of the globalization through the abolition of international trade barriers and the different investment incentive actions.

In these countries privatization focused on the service sector and so it wasn't typical in the production sector (Skuflic - Botrić, 2006). Despite the fact that the Western Balkan economies aren't ready for the new economic conditions required for the implementation of successful privatization processes, governmental steps are being taken to increase the low level of capital accumulation (Hunya, 2000). For this the transformation and the reformation of the outdated institutional system is required, which will in this way affect the taxation system, the trade policies, the corporate governance practices, the public administration etc.

The biggest investor for Croatia is Austria with close to 26% of the total FDI inflow. The second biggest investor is the Netherlands with 18% which is followed by Germany (11%) and Hungary (10%) between 1993 and 2010.

Figure 1 FDI trends in Croatia



Source: <http://www.hnb.hr/statistika/hstatistika.htm>

5. Foreign investments

Greenfield investments are still not recognized as an attractive FDI area in Croatia, particularly in the export oriented manufacturing sector. However, in that specific sector Croatia is the first in FDI stock comparing with all other SEE countries competing successfully with the new EU member states.

In comparison to the new members of the EU and the other Southeast European countries, Croatia has the fifth largest FDI stock and also the fifth largest FDI per capita (EUR 2,970). Over 60% of FDI in years 1993-2005 was in the form of equity investment, while 1999 huge privatization-related FDI inflow resulted in the equity investments representing almost 90% of total FDI. 10 foreign owned, legally independent subsidiaries participated in the questionnaire survey.

As the result of the trends in the number of employees and in the revenue reviewed above, the average productivity index has decreased from the level of 261 thousand Euros/person to the level of under 190 thousand Euros/person in the period examined which means a 30% decline.

The subsidiaries participating in the survey came to Croatia from 7 different countries. Three companies (34%) from Austria, 1-1 company from France, Germany, The Netherlands, Sweden and USA. If we take a look at the management culture of the companies, the highest proportions of companies in the sample analyzed belong to the so-called Germanic (67%) management culture.

The majority (40%) of the companies participating in the survey operates in the bank sector in Croatia while the second strongest sectors are the sectors of consumer goods and services with their 20%. Most of the (80%) of the respondents indicated that they were seeking growing and portfolio expansion during the period examined. Almost 40% of the companies surveyed were characterized by stability, efficiency improvements. Redundancies and rationalization were chosen by the same percentage (40%) while the number of staff of the companies participating in the survey decreased quite considerably.

The average number of employees served by one HR professional increased from 94 in 2008 to 98 in 2009 in the companies surveyed. The number and the composition of HR staff in the companies examined in the survey haven't changed with their 30 HR professionals and 10 HR admin (75-25%).

The HR staffs in the companies examined are very different. Two of the companies don't have any HR staff while we can state that in each company having a number of employees above 50 we can find at least one HR professional.

It is an interesting point the largest number of employees (217 persons) served by one HR professional we can find in a company operating in financial sector while this proportion is the smallest in a company operating in services sector where to 20 employees belong two HR professionals (one HR professional serves only 10 persons in those companies).

One of the results of human resource management actions is the age distribution of the labor force. The results of our survey in this respect do not confirm the common view that there is no room for employees over 45 years of age in multinational companies as almost one fifth of the employees of the subsidiaries participating in the survey fell within this age group. The proportion of employees under 25 years of age was much lower (around 7%) and the body consisted of the employees between 25-45 years of age – with a percentage over 74%.

Literature considers the relative weight of the training budget (compared to the entire annual labour cost) as an important indicator of modern and effective HR activity. None of the companies examined spent more than 5% of their annual labour budget on training employees and the relative weight of the training budget was under 3% in the majority of the companies.

The average number of days lost annually due to absence was under 10 in approximately 90% of the respondent companies and only one company reported that this number was 11 which result is really close to the average. The mean value of the absences increased from 5 to 9 almost doubled from 2008 to 2009.

From the somewhat completed list of HRM competency areas identified by one of the most known HR gurus (Dave Ulrich et al. in 2009), the respondents considered the following three to be the most

important: knowledge of foreign languages (50%); business knowledge (value chain, value creation) (30%) and change management, teamwork, HR services (20%).

Nowadays human resources are managed in many organizations with the involvement of external service providers. Besides traditional HR consultants, an increasing number of service providers appear who enter the market offering new services (e.g. labour leasing, outsourcing, interim managers, etc.)(Poór-Németh, 2010).

With regard to the key issues of the next 12-24 months, the interviewed HR managers considered improving efficiency most important. More than half (60%) of the respondents thought that this business expectation is the most important tasks HR professionals have to face. In many of the companies this is accompanied by company development (30%). To improve the business focus of the HR professionals the respondents put emphasis on measures and business performance.

From the personal characteristics of the interviewed professionals we examined demographic characteristics and also their professional qualifications and the characteristics of their positions held. The gender distribution of the interviewees shows a female dominance (70-30%) which result responds to the fact that HR is a female dominated profession. 60% of the respondents are below 40 years while another 40% are between the age of 40 and 54. Almost all the interviewees participating in the survey have university, college or equivalent qualifications, but none of them has PhDs. Except one respondent all (90%) of the respondents has a qualification in social sciences. The majority of the interviewee are top hR managers with the title of HR Director, HR manager or HR Department Head. Only one person has worked in his/her position for more than 15 years. However, the majority have spent longer time, typically 3-10 years in their positions.

REFERENCES

Cavusgil, S.T.- Knight, G.-Riesnerberger, J.R. (2008): International Business. Strategy, Management and the New Realities. Pearson-Prentice Hall, Uppers Sidle River (NJ).

CRANET (2011): International Executive Report 2005, CRANET Survey on Comparative Human Resource Management. CRANET-Cranfield University.

Farkas F.- Karoliny M.-né.-Poór J. (2009): Az emberierőforrásmenedzsmentmagyarésközép-keleteurópaisajátosságai CRANET kutatásalapján. Vezetéstudomány, 2009. 7-8., pp.3-11.

Fodor P.-Kiss T.- Poór J. (2010): A válsághatása a HR-re és a tudásmenedzsmentre – négykelet-európaiországszervezeteinekempirikusvizsgálataalapján. Vezetéstudomány. 2010. 10. szám, pp. 2-18.

Karoliny M.-né.- Poór J. (2010): Emberierőforrásmenedzsment. Complex Kiadó, Budapest.

Karoliny M.-né.-Farkas F.-Poór J. (2011): Varying importance of HR and its outcomes in different management cultureswith CEE focus. (unpublished manuscript), PTE KTK, Pécs.

Karoliny Zs. – Farkas F. – Poór J. (2009): In Focus: Hungarian and Eastern European Characteristics of Human Resource Management - An International Comparative Survey. Journal for East European Management Studies, No. 1. pp. 9-47.

Lewis, P.C. (2005). How the East was won. New York: Palgrave Macmillan.

Poór J. (2009): Nemzetköziemberierőforrásmenedzsment. Complex Kiadó, Budapest.

Poór J. (Szerk.) (2010): Menedzsmenttanácsadásikézikönyv. AkadémiaKiadó, Budapest.

Poór J.-Németh G. (2010): HR tanácsadás. In: Poór J.: Menedzsmenttanácsadásikézikönyv. AkadémiaiKiadó, Budapest.

Poór, J.- Karoliny, Zs. - Farkas, F. (2007): *Human Resource Management in Hungary in Light of Eastern European and Global Comparison* EBS (Estonian Business School) Review (2), No 23. pp. 19-36.

Poór, J.,-Engle, A. - Gross, A. (2010): Human Resource Management Practices of Large Multinational Firms In Hungary 1988-2005. *ActaOeconomica*, 4, pp: 427–460.

Poór, J.-Farkas, F. (Eds.) (2001): Nemzetközimenedzsment. KJK, Budapest.

Svetlik, I. et al., (2010): Human Resource Management in the Countries of the former Yugoslavia. *Review of International Comparative Management*, 11, (December), pp. 807-833.

Ulrich, D. - Allen, J.-Brockbak, W.- Younger, J.- Nyman, M. (2009): HR Transformation. New York: McGraw Hill.

Ph. D. Željko Požega

Faculty of Economics in Osijek
31 000 Osijek, Croatia
Phone: 00-385-31/224-454 Fax: 00-385-31/211-604
E-mail address: zpozega@efos.hr

Ph. D. Boris Crnković

Faculty of Economics in Osijek
31 000 Osijek, Croatia
Phone: 00-385-31/224-434 Fax: 00-385-31/211-604
E-mail address: bcrnko@efos.hr

Vjekoslav Leko, student

Faculty of Economics in Osijek
31 000 Osijek, Croatia
Phone: 00-385-31/224-454 Fax: 00-385-31/211-604
E-mail address: leko.vjekoslav@gmail.com

**ECONOMIC DEVELOPMENT OF SLAVONIA AND BARANJA - ANALYSIS
OF INVESTMENTS, IMPORTS AND EXPORTS FOR THE FIVE COUNTIES
IN EASTERN CROATIA**

**GOSPODARSKI RAZVOJ SLAVONIJE I BARANJE – ANALIZA
INVESTICIJA, UVOZA I IZVOZA ZA PET ŽUPANIJA ISTOČNE
HRVATSKE**

ABSTRACT

All analyzes were done in the work, which are related to the analysis of the current situation and trends in the economic development of Slavonia and Baranja, and five of its counties, the analysis of investments in new fixed assets by location of objects and purpose of the activity and the analysis of imports and exports, arguably show disturbing data and trends that if they remain such, will hardly bring to the expected economic recovery and development of the economy and living standards Slavonia - Baranja residents. Analysis in this paper clearly demonstrate the necessity of urgent changes in strategic economic policy and economic trends of local government, especially when it comes to investment and industrial production, as well as the necessity of urgent consideration to each of the branches of activity observed Slavonia - Baranja County should target long-term development in order to achieve strategic and competitive advantage over other counties.

Keywords: economic development, investments, import, export, Slavonia and Baranja

SAŽETAK

Sve analize koje su u radu rađene, a koje se odnose na analizu postojećeg stanja i trendova gospodarskog razvoja Slavonije i Baranje, odnosno pet njenih županija, analizu ostvarenih investicija u novu dugotrajnu imovinu prema lokaciji objekata i namjeni po djelatnostima te analizu uvoza i izvoza, nedvojbeno pokazuju zabrinjavajuće podatke i trendove koji će, ostanu li takvi, teško dovesti do očekivanog gospodarskog oporavka i razvoja privrede te životnog standarda slavonsko –

baranjskih stanovnika. Analize u radu nedvojbeno pokazuju nužnost hitnih promjena strateške ekonomske politike i ekonomskih tendencija lokalne uprave i samouprave, a posebno kada su u pitanju investicije i industrijska proizvodnja, kao i nužnost hitnog promišljanja koje grane djelatnosti svaka od promatranih slavonsko – baranjskih županija treba ciljano i dugoročno razvijati kako bi ostvarila strateške i konkurentske prednosti pred drugim županijama.

Ključne riječi: gospodarski razvoj, investicije, uvoz, izvoz, Slavonija i Baranja

1. Introduction

The work is divided into two parts. The first part gives an overview of investments in new fixed assets by location of objects and purpose of the Company for the five counties in eastern Croatian, as well as the display of exports and imports also separately for each of the five counties in eastern Croatia.

The second part shows the statistical analysis of the impact of variables of investments in new fixed assets, and the import and export of the variable Gross domestic product per capita (GDP p.c.), in the other words it presents the level of correlation of these variables related to variables which indirectly show the standard of living, and to try to explain to what extent the promotion of these variables can lead to economic growth and living standards.

2. Analysis of investment, imports and exports for the five counties of Eastern Croatian

Table 1 gives an overview of investments in new fixed assets by location of objects and purpose of the Company in the 2010th year in thousands of counties eastern Croatian and for activities: real estate, followed by professional, scientific and technical activities, then administrative and support service activities, public administration and defense, compulsory social security according to the following counties: Virovitica - Podravina, Požega - Slavonia, Brod - Posavina, Osijek - Baranja and Vukovar – Sirmium.

Table 1 Investments by sectors and regions

GROSS FIXED CAPITAL FORMATION IN NEW FIXED ASSETS, BY LOCATION OF OBJECTS AND PURPOSE, ACCORDING TO NKD 2007. ACTIVITIES, 2010, BY COUNTIES				
County of	Real estate activities	Professional, scientific and technical activities	Administrative and support service activities	Thousand kuna
				Public administration and defence; compulsory social security
Virovitica-Podravina	9751	1491	260	4057
Požega-Slavonia	4949	628	2034	1495
Brod-Posavina	41823	1223	4427	13431
Osijek-Baranja	337707	17463	15364	19285
Vukovar-Sirmium	13361	475	11055	15525
Republic of Croatia	3316791	567943	652770	742145

Source: <http://statistika.hzz.hr/> (accessed: 07. 04. 2013.)

Table 2 gives an overview of investments in new fixed assets by location of objects and purpose of the Company in the 2010th year in thousands of counties eastern Croatian and for activities: education, followed by health care and social welfare, then arts, entertainment and recreation, and other services to the following counties: Virovitica - Podravina, Požega - Slavonia, Brod - Posavina, Osijek - Baranja and Vukovar – Sirmium.

Table 2 Investments by sectors and regions

GROSS FIXED CAPITAL FORMATION IN NEW FIXED ASSETS, BY LOCATION OF OBJECTS AND PURPOSE, ACCORDING TO NKD 2007. ACTIVITIES, 2010, BY COUNTIES				
Thousand kuna				
County of	Education	Human health and social work activities)	Arts, entertainment and recreation	Other service Activities
Virovitica-Podravina	14 933	51 451	13 360	1 721
Požega-Slavonia	10 452	21 078	9 772	1 214
Brod-Posavina	29 292	23 812	12 838	4 887
Osijek-Baranja	63 812	48 446	23 906	4 168
Vukovar-Sirmium	26 683	71 714	34 936	4 631
Republic of Croatia	1135639	1216341	1051776	190751

Source: <http://statistika.hzz.hr/> (accessed: 07. 04. 2013.)

As can be seen in Table 2, it is almost incredible fact that the rule in health care investing significantly more than in education, and in the arts, entertainment and recreation invests equally as in the education sector. It also stands out by the fact that the Osijek - Baranja and Brod – Posavina are leading to the size of investment in education.

Table 3 gives an overview of investments in new fixed assets by location of objects and purpose of the Company in the 2010th year in thousands of counties eastern Croatian and for activities: transport and storage, followed by accommodation providers and preparing meals, then information and communication, and financial and insurance activities under the following counties: Virovitica - Podravina, Požega - Slavonia, Brod - Posavina, Osijek - Baranja and Vukovar – Sirmium.

Table 3 Investments by sectors and regions

GROSS FIXED CAPITAL FORMATION IN NEW FIXED ASSETS, BY LOCATION OF OBJECTS AND PURPOSE, ACCORDING TO NKD 2007. ACTIVITIES, 2010, BY COUNTIES				
Thousand kuna				
County of	Transportation and storage	Accommodation and food service activities	Information and communication	Financial and insurance activities
Virovitica-Podravina	1258	319	8577	10524
Pozega-Slavonia	59191	6589	10987	2044
Brod-Posavina	45716	20	32224	13818
Osijek-Baranja	442744	5174	74716	24703
Vukovar-Sirmium	32196	8365	30475	27734
Republic of Croatia	4039511	1436325	2401904	3133481

Source: <http://statistika.hzz.hr/> (accessed: 07. 04. 2013.)

As can be seen in Table 3, investment in information and communications recorded further significant growth, although still at not enough high rates when it comes to comparison with investments in transportation and warehousing and financial and insurance activities. This chart shows very clearly how the Osijek - Baranja County leads with the amount of investment in the transportation and warehousing sector and information and communication.

Table 4 gives an overview of investments in new fixed assets by location of objects and purpose of the Company in the 2010th year in thousands of counties eastern Croatian and for activities: Electricity, gas, steam and air conditioning, then the water supply, sewerage, waste management and remediation activities, followed by construction and wholesale and retail trade, repair of motor vehicles and the motorcycle according to the following counties: Virovitica - Podravina, Pozega - Slavonia, Brod - Posavina, Osijek - Baranja and Vukovar - Sirmium.

Table 4 Investments by sectors and regions

GROSS FIXED CAPITAL FORMATION IN NEW FIXED ASSETS, BY LOCATION OF OBJECTS AND PURPOSE, ACCORDING TO NKD 2007. ACTIVITIES, 2010, BY COUNTIES				
Thousand kuna				
County of	Electricity, gas, steam and air conditioning supply	Water supply; sewerage, waste management and remediation activities	Construction	Wholesale and retail trade; repair of motor vehicles and motorcycles
Virovitica-Podravina	13108	37487	46919	27867
Pozega-Slavonia	7939	20793	26353	15780
Brod-Posavina	32181	30862	67133	46438
Osijek-Baranja	117049	86164	268533	110333
Vukovar-Sirmium	23051	53425	155635	67575
Republic of Croatia	2576617	1763237	6086532	4162507

Source: <http://statistika.hzz.hr/> (accessed: 07. 04. 2013.)

As can be seen in Table 4, the investment in the construction sector, despite a further rapid decrease, are much higher than the investment in the energy sector and the trade sector, and also a disturbingly low level of investment in the energy sector can be observed. Also, this table shows how the Osijek - Baranja considerably ahead in the height level of investment compared to other counties.

Table 5 gives an overview of investments in new fixed assets by location of objects and purpose of the Company in the 2010th year in thousands of counties eastern Croatian and the total value of investments as well as in agriculture, forestry and fishing, followed by mining and quarrying and manufacturing according to the following counties: Virovitica - Podravina, Pozega - Slavonia, Brod - Posavina, Osijek - Baranja and Vukovar – Sirmium.

Table 5 Investments by sectors and regions

GROSS FIXED CAPITAL FORMATION IN NEW FIXED ASSETS, BY LOCATION OF OBJECTS AND PURPOSE, ACCORDING TO NKD 2007. ACTIVITIES, 2010, BY COUNTIES				
Thousand kuna				
County of	Value of gross fixed capital formation	Agriculture, forestry and fishing	Mining and quarrying	Manufacturing
Virovitica-Podravina	355089	23669	12853	75484
Pozega-Slavonia	284560	35375	119	47768
Brod-Posavina	512848	49346	654	62723
Osijek-Baranja	2424638	473318	4355	287398
Vukovar-Sirmium	1324428	469465	3488	274639
Republic of Croatia	42102373	1718368	804989	5104746

Source: <http://statistika.hzz.hr/> (accessed: 07. 04. 2013.)

As can be seen in Table 5, the total value of investments in the Osijek - Baranja County increased by several times compared to other counties. You can see that investment in manufacturing dominate in relation to the agricultural sector and the mining sector, as well as that of the Osijek - Baranja and Vukovar - Sirmium achieve significant growth rates of investment in the agricultural, forestry and fisheries, and it would be interesting to see what the social rate of return on such investments, or to what extent such investments are reflected in the standard of living for residents of these counties.

Table 6 gives an overview of exports and imports in the 2010th and 2011th year in thousands of euros and the counties of Eastern Croatian: Virovitičko - Podravina, Pozega - Slavonia, Brod - Posavina, Osijek - Baranja and Vukovar - Sirmium.

Tablica 6. Exports and imports by county

GROSS FIXED CAPITAL FORMATION IN NEW FIXED ASSETS, BY LOCATION OF OBJECTS AND PURPOSE, ACCORDING TO NKD 2007. ACTIVITIES, 2010, BY COUNTIES				
Thousand kuna				
County of	Export		Import	
	2010.	2011.	2010.	2011.
Virovitica-Podravina	735728 100 863eur	729343 97 944eur	735728 100 863eur	729343 97 944eur
Pozega-Slavonia	607332 83318eur	680124 91443eur	607332 83318eur	680124 91443eur
Brod-Posavina	931077 127 789eur	909327 122 436eur	931077 127 789eur	909327 122 436eur
Osijek-Baranja	2643653 362 441eur	3462485 465 406eur	2643653 362 441eur	3462485 465 406eur
Vukovar-Sirmium	1501391 206 552eur	1151711 154 880eur	1501391 206 552eur	1151711 154 880eur
Republic of Croatia	64891583 8905242eur	71234060 9582161eur	64891583 8905242eur	71234060 9582161eur

Source: <http://statistika.hzz.hr/> (accessed: 07. 04. 2013.)

As can be seen in Table 6, only the Osijek - Baranja and Pozega - Slavonia achieved the export growth in the 2011th year compared to 2010. year, and it is worrying that all five counties achieved a significant increase in imports in the period. Cheerful and encouraging information is that Virovitičko - podravska, Pozega - Slavonia, Osijek - Baranja have surplus in foreign trade.

If we consider only the Osijek - Baranja County most important partner countries in trade Counties are Germany (18.6%), BH (12.5%), Serbia (10.3%), Italy (9.9% share), and Slovenia (7.7%). It is a positive balance achieved with BiH, Serbia and Slovenia, while Germany and Italy with a negative trade balance. Of total exports of the county, which amounted to USD 406 million (a decrease of 3.5% compared to the same period last year) - Manufacturing industry accounted for 77.7% and production of machinery and equipment 19.3%, paper and paper products with 14.8%, food products 12%, production of chemical products 9.1%, wood processing 5%, manufacture of fabricated metal products, except machinery from 5.1%, manufacture of other non-metallic products to 5%.

To positive balance of trade with foreign countries contributed most manufacturing industry, which has made for \$ 105 million more exports than imports. Collection of waste and recycling of sorted materials also recorded a positive balance in the amount of \$ 23,000,000. The negative balance of trade recorded a trade in the amount of \$ 63 million, and agriculture (\$ 22 million), and construction (\$ 8.4 million) of the Osijek - Baranja County leads the size of investment, such as a significant discrepancy between the investment knowledge as opposed to investing in real estate and public administration

3. Analysis of the impact of the observed variables on the standard of living

In the analysis of the matrix of linear correlation observed the influence of variables: value of gross fixed capital formation, export and import on the dependent variable: GDP p.c.

Table 7 Matrix of linear correlation

Matrix of linear correlation

<i>variables:</i>	value of gross fixed capital formation	export	import	GDP p.c.
value of gross fixed capital formation	1,00	0,28	0,16	0,95
export	0,28	1,00	0,23	0,76
import	0,16	0,23	1,00	- 0,43
GDP p.c.	0,95	0,76	- 0,43	1,00

Source: authors

As can be seen in Table 7, the variable value of gross fixed capital formation has the largest and most significant positive impact on the dependent variable, GDP per capita and the standard of living five counties in eastern Croatian. Export variable has a significant positive impact, while import variable has a negative but not significant effect on the dependent variable, GDP per capita, and the financial situation of the inhabitants of Slavonia - Baranja County.

In the analysis of the matrix of linear correlation observed the influence of variables: value of gross fixed capital formation, export and import on the dependent variable: GDP p.c.

Table 8 Multiple linear correlation matrix

Multiple linear correlation matrix

constant:	1,16
square of coefficient:	0,89
standard error of regression:	1,4
number of observations:	4
degrees of freedom:	100
dependent variable:	GDP p.c.
variables:	coefficient:
value of gross fixed capital formation	0,93
export	0,69
Import	- 0,24

Source: authors

As can be seen in Table 8, the interaction of the observed variables, the variable value of gross fixed capital formation has again the largest and most significant positive impact on the dependent variable, GDP p.c. and the standard of living five counties in eastern Croatian. Variable export has a slightly smaller, but still significant positive impact, while import variable has the expected negative, still less an insignificant effect on the dependent variable, GDP p.c., and the financial situation of the inhabitants of Slavonia - Baranja County.

4. Synthesis of research results

All analyzes were done in the work, which is related to the analysis of the current situation and trends in the economic development of Slavonia and Baranja, and five of its counties, the analysis of investments in new fixed assets by location of objects and purpose of the Company and the analysis of imports and exports, arguably show disturbing data and trends that if they remain such, will hardly bring to the expected economic recovery and development of the economy and living standards Slavonia - Baranja residents. Analysis in this paper clearly demonstrate the necessity of urgent changes in strategic economic policy and economic trends of local government, especially when it comes to investment and industrial production, as well as the necessity of urgent consideration which of these observed branches of activity of Slavonia - Baranja County should target long-term development in order to achieve strategic and competitive advantage over other counties.

REFERENCES

Berger, Luckmann (1992): *Socijalna konstrukcija zbilje*, Naprijed, Zagreb.

Lauc (2000): *Metodologija društvenih znanosti*, Pravni fakultet u Osijeku, Osijek.

Maturana, Varela (1990): *Autopoiesis and Cognition*, Reidel Publ. co, Boston.

Požega (2012): Menadžment ljudskih resursa – upravljanje ljudima i znanjem u poduzeću, Ekonomski fakultet u Osijeku, Osijek.

Senge (2004): *The Fifth Discipline*, NewYork, USA.

Ulrich, Probst (2004): *The Selforganization system*, Verlag.

Zeleny (2001): *Autopoiesis – A Theory of Living Organization*, North Holland, New York, Oxford, USA.

Dalibor Pudić, M.Sc.

Perivoj 71, Zagreb

10000 Zagreb

Phone: + 385 98 494 166

E-mail: dpudic@hera.hr

Marko Martinović, MSCE

Veleučilište u Slavonskom Brodu

Dr.Mile Budaka 1

35 000 Slavonski Brod

Phone: +385 91 492 8010

E-amil: marko.martinovic@vusb.hr

Ivan Lakoš, MA

Ministarstvo znanosti obrazovanja i sporta⁵³

Donje svetice 38,

10 000 Zagreb

Phone: +385 95 797 9999

E-mail: ivan.lakosh@gmail.com

THE IMPACT OF PRICES RATES ON ENERGY CONSUMPTION – EXAMPLE AND REQUEST SLAVONIA AND BARANJA

UTJECAJ CIJENE ENERGENATA NA POTROŠNJU NA PRIMJERU SLAVONIJE I BARANJE

ABSTRACT

The Republic of Croatia in the past decade, have led to a significant increase in energy prices, and with them consequently to the rising cost of living. With increase in price, it can be assumed, that there have been more savings effects, households pay more account to the energy savings, and more positive import-export trade balance, especially as European than Croatian, face the situation of the lack of indigenous energy resources.

This paper analyses and shows the trend of general energy consumption and prices of energy sources in Slavonia and Baranja by households during last decade. The particular attention is put on nature gas as the most relevant energy consumption source.

This paper aims to show the trend of changes in price and energy consumption during last decade. Moreover, the paper will analyze the impact of consumers' behavior and their impact on energy efficiency through pricing policy, by taking into consideration that during last decade the Republic of Croatia gave more emphasis on social than market aspect on determination of prices.

Also work will show the share of energy costs within the total income of the population through the ten-year period and with the focus on social dimension of the price policy.

Keywords: *energy, natural gas, energy prices, energy consumption, energy efficiency, Slavonia and Baranja*

⁵³ The author's attitudes in the text does not refer to the opinions and conclusions of the Ministry of Science, Education and Sport, but are part of the personal views of the author

SAŽETAK

U Republici Hrvatskoj u posljednjih desetak godina došlo je su do značajnog porasta cijena energenata, a sa njima posljedično i do rasta troškova života. Porastom cijena, za pretpostaviti je, vidljiviji su i rezultati štednje te se vodi više računa o energetskej uštedi, a samim time i pozitivnijom uvozno izvoznoj trgovinskoj bilanci, tim više što i Europa, a tako i Hrvatska, nemaju dovoljno vlastitih energetskih resursa.

Ovaj rad se fokusira, prikazuje i istražuje kretanje ukupne potrošnje, potrošnje po kućanstvu, te cijene energenata u Slavoniji i Baranji u posljednjih deset godina, sa težištem na prirodni plin, kao najrelevantniji pokazatelj, a posebice odnos cijene i potrošnje prirodnog plina po domaćinstvu.

Cilj rada je prikazati trend promjene cijene i potrošnje energije kroz desetogodišnje razdoblje i analizom utvrditi ponašanje potrošača i njihov utjecaj na energetske učinkovitost kroz politiku određivanja cijena, tim više što je u proteklom desetogodišnjem razdoblju Republika Hrvatska više vodila računa o socijalnom aspeku određivanja cijena, nego o tržišnom.

Isto tako rad će prikazati udio troškova energenata na ukupne prihode stanovništva kroz desetogodišnje razdoblje i razmotriti situaciju sa socijalnog aspekta.

Ključne riječi: *energija, prirodni plin, cijena energenata, potrošnja energenata, energetska učinkovitost, Slavonija i Baranja*

1. Introduction

Europe is dependent on energy imports and member country's average import of primary energy is more than 50%. That is the reason European Union has set the goals based on the fact that until the year 2020., it will accomplish the ratios 20/20/20+10 (COM, 2008), which means achieving the producing 20% of energy from renewable sources, 20% of reducing CO₂ emission, 20% of reducing energy consumption and 10% of energy produced from biofuel.

Simultaneously in Croatia, 40% of the energy is spent on economic and housing facilities, 30% on transport and 30% in industry. Observing construction facilities, more than 50% of the energy is spent on heating.

Population, but entrepreneurs as well, do not have a need for saving, if the results of saving are not visible, so it could be concluded there are no savings by the low prices of energy, and the consequences are even worse if trading companies that provide energy supplies make losses. The best example is heating sector, which supplies more the 160,000 households in Republic of Croatia, which has lost 1.5 billion kuna (HERA, 2013) in the last 5 years. Slightly better situation is with the gas and electricity that survived, but did not manage to develop into the modern companies.

In the last ten years the prices of energy have been decided generally at the political level, primarily by the local government units and the Croatian Government. Prices are being delivered, depending on the political will and affection of voters, and even today is the same situation in many communal activities. Before the election it is generally sensitive issue and changes in energy prices are almost impossible, regardless of market conditions, and after the elections change in price is a common practice, and again which the worst, without special calculation is.

By keeping the price low, companies are forced to work with outdated technology which is generally not competitive, and consumption is irrationally high. Therefore, the development is limited, and the development of innovation disabled. Except underdeveloped technology, trading companies are also over dimensioned by the capacity of labor, where naturally an important role plays the fact there are still significant shares of social ownership of the state and local government. In order to protect the most vulnerable social strata of society, EU created the directives in the field of energy, introduced the concepts such as status of vulnerable customer and energy poverty. In some EU countries, the status of vulnerable customers or energy-poor households is defined for

those households which energy consumption is equal or exceeds 10% of total revenue (OFGEM, 2012).

In the 70's of last century there were the oil crisis and a significant increase in energy prices, so many countries have been forced to turn to alternatives, which means to renewable energy sources. It resulted with incurring of the entire industry and a large number of employees. So today, Denmark has the most developed wind turbine industry, in which are additionally 20.000 people employed. Germany has a strong solar industry in which are 45.000 people employed, in other words, in entirely sector of renewable energy there are over 200.000 employees, and that could be stimulated by taking the compensation for renewable energy from the citizens, so it additionally increased the price of energy that had been already imported. (Šimleša, D., 2010):.

2. Regulation of heat energy consumption by the price and reduction of the principle of collective consumption

In the case of low energy prices there is not enough taking care of consumption, and following the law of supply and demand curves, higher price reduces consumption. Consumption is higher per unit area in the case of collective consumption of what we could see in the heat sector and in joint boiler consumption sector where consumption per unit area is over 250 kWh/m² per year.

A few years ago at the consumer level in the common boiler room (mostly trading companies) the price was generally calculated per square meter of housing or economic object, regardless of insulation and energy that are used.

Subsequently, based on the general conditions for supply of heat, a decision about the obligation of installing calorimeter on each heat substation (which covers one or more objects) is made. Therefore there are noticeable differences in consumption depending on the degree of isolation of individual buildings. Although there is still the problem of pricing inside a single object because the accounting unit is designated per square meter of space, regardless of the exploited energy and as a result – consumption has not significantly changed.

When a particular building, which was not the obligation, started to equip heat consumption allocator and measure individual consumption, there was a significant drop in consumption, which ranged from about 150 kWh/m² per year. Therefore the psychological effect of self-management is the cheapest form of optimization of consumption and possible saving. On the other hand, as energy price directly affects and takes a significant place in the household budget, there is naturally, increasingly taking care of optimization of energy consumption, savings and investments that would result in the most relevant solution.

Depending on the distributive areas various technology systems are implemented. Accordingly, the final consumer price varies depending on the distribution.

Table 1 Example of the comparison of heat energy by the place of distribution (2011)

City	Distributor	Number of apartments	Price kn/kWh	Consumption kWh	Size m ²	Average size of the apartment m ²	Average annual consumption kWh/m ²
Zagreb	HEP Toplinarstvo	31	0,12	334.000	1629	53	205
Slavonski Brod	Brod-plin	35	0,23	137.200	1106	32	124
Vukovar	Tehnostan	30	0,23	198.406	1870	62	106

Source: HEP Toplinarstvo, Brod-Plin, Tehnostan, 2011

In this example it is obvious to see that in 2011 in the city of Zagreb where the price of energy was twice lower and consumption was higher more than 50% (compared to Vukovar and Slavonski Brod). Sizes of buildings are approximately equal and they are located in continental part of Croatia, so the weather and other conditions such as configuration of the building did not significantly affect the difference in consumption.

Isolation of an object can play an important role in consumption, but as this is about older buildings (over 30 years or more), they are on the same level, because the new buildings are mostly realized with the heat consumption allocators.

Consumption in Vukovar is a little bit lower than in Slavonski Brod, although the prices are the same. This difference can be attributed to a larger average size of the apartment, which naturally affects the size of the account and the potential cost savings, because the rooms are not necessarily heated, but only the rooms that are used for dwelling.

Table 2 Example of comparison of prices and heat energy consumption (2011)

City	Distributor	The average energy consumption per dwelling. kWh	Consumption kn	Consumption for 50 kWh m ²	Consumption for 50m ² kn
Zagreb	HEP Toplinarstvo	10.865	1.303,8	10.250	1.230
Slavonski Brod	Brod-plin	3.968	912,64	6.200	1.426
Vukovar	Tehnostan	6.572	1.511,56	5.300	1.219

Source: HEP Toplinarstvo, Brod-Plin, Tehnostan, 2011

From Table 2 is evident that for the same size of apartment and twice lower price, the consumption is roughly doubled.

3. Analysis of gas consumption

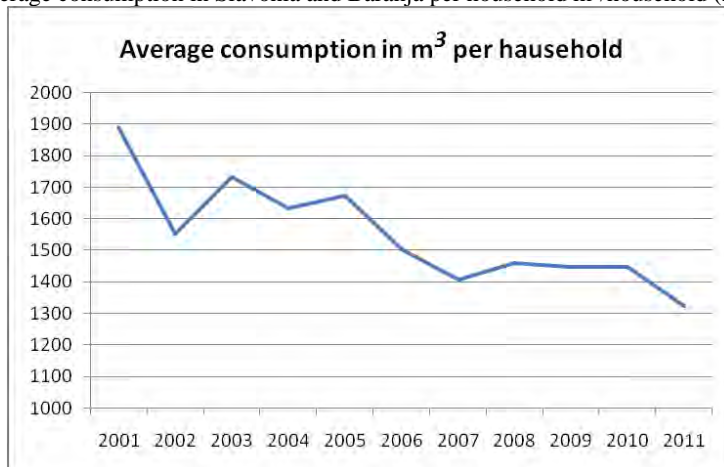
In this section is presented review and comparison consumer prices and consumer consumption for households in distribution areas of Slavonia and Baranja

Table 3 Total and average gas consumption per household in Slavonia and Baranja in recent 10 years (2001-2010)

Year	Number of households	Total consumption	Average consumption	changes in average consumption
		mil. m ³	m ³ /household	%
2001	66.934	126.500	1890	
2002	70.118	108.862	1553	-17,85%
2003	76.010	131.802	1734	11,69%
2004	81.505	133.221	1635	-5,74%
2005	88.378	148.050	1675	2,49%
2006	94.471	142.131	1504	-10,19%
2007	98.320	138.327	1407	-6,49%
2008	102.650	149.734	1459	3,68%
2009	106.137	153.664	1448	-0,75%
2010	108.921	157.600	1447	-0,06%

Source: HSUP, 2013

Figure 1 Average consumption in Slavonia and Baranja per household m³/household (2001-2011)



Source: HSUP, 2013

From displayed table it is possible to see almost continuous decrease from 2001. onwards. Certainly, one of the key corrective elements is the change of energy price in the same period.

Table 4 Number of households in Slavonia and Baranja sorted by distributors (2001-2010)

Number of households					
Year	HEP Plin, Osijek ¹	Brod-plin, Slavonski Brod	Plin projekt, Nova Gradiška ²	Plinara istočne Slavonije, Vinkovci	Prvo plinarsko društvo, Vukovar
2001	46.610	6.143	1.148	13.033	n.p.
2002	48.033	6.938	954	14.193	n.p.
2003	51.422	7.695	1.069	15.824	n.p.
2004	53.046	7.414	2.251	14.793	4.001
2005	55.492	8.285	2.574	15.406	6.621
2006	57.116	9.207	3.121	16.123	8.904
2007	59.305	9.925	3.424	16.134	9.532
2008	61.542	10.839	3.803	16.530	9.936
2009	63.499	11.609	4.014	16.899	10.116
2010	64.982	12.021	4.146	17.620	10.152

Source: HSUP, 2013

Table 5 Gas consumption in Slavonija and Baranja per each distributor (2001-2010)

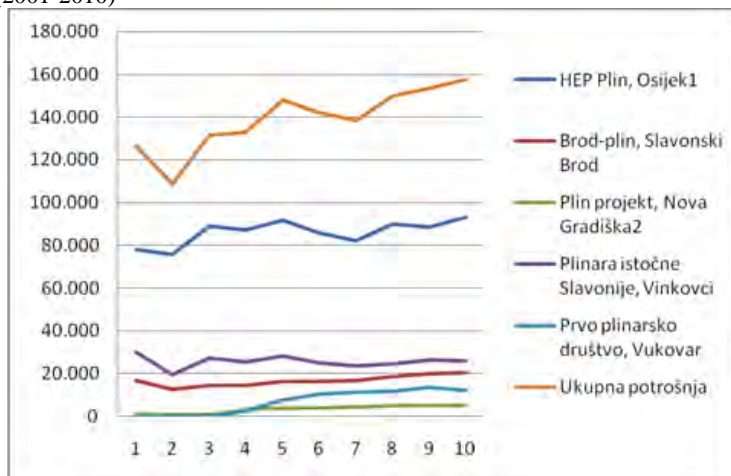
Consumption (mil. m ³)							
Year	HEP Plin, Osijek ¹	Brod-plin, Slavonski Brod	Plin projekt, Nova Gradiška ²	Plinara istočne Slavonije, Vinkovci	Prvo plinarsko društvo, Vukovar	Total consumption	The change (%)
2001	78.160	17.072	1.040	30.228	n.p.	126.500	
2002	75.953	12.745	655	19.509	n.p.	108.862	-13,9%
2003	89.057	14.783	556	27.406	n.p.	131.802	21,1%

Consumption (mil. m ³)							
Year	HEP Plin, Osijek ¹	Brod-plin, Slavonski Brod	Plin projekt, Nova Gradiška ²	Plinara istočne Slavonije, Vinkovci	Prvo plinarsko društvo, Vukovar	Total consumption	The change (%)
2004	87.169	14.680	2.973	25.619	2.780	133.221	1,1%
2005	91.698	16.488	4.059	28.135	7.670	148.050	11,1%
2006	86.118	16.238	4.205	25.287	10.283	142.131	-4,0%
2007	82.180	16.793	4.443	23.902	11.009	138.327	-2,7%
2008	89.868	18.982	4.914	24.407	11.563	149.734	8,2%
2009	88.412	20.140	5.266	26.430	13.416	153.664	2,6%
2010	93.169	20.650	5.553	26.118	12.110	157.600	2,6%

Source: HSUP, 2013

Table 5 and figure 2 show clearly increasing of total gas consumption from 24.6% (2001-2010), which can be attributed to significant increase in number of households in the given period in the amount of 62.7%. They also show that the energy operator “HEP Plin Osijek” holds the leading position in the share of overall gas consumption and practically dictates dynamics of changing of overall consumption, although some gas distributors as “Plinara istočne Slavonije Vinkovci” in the referenced observed period accomplished gas consumption declined to 13.6%.

Figure 2 Graphical representation of the overall consumption and gas consumption per each distributor (2001-2010)



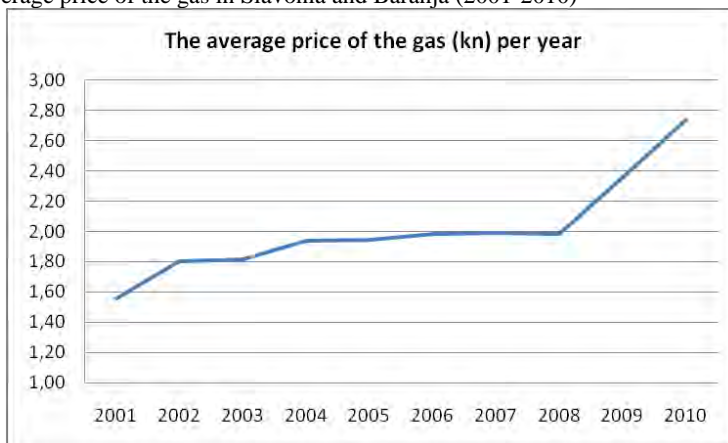
Source: HSUP, 2013

Table 6 Gas prices of some energy companies and the average price m³ per household (2001-2010)

Prices (kn/m ³)							
Year	HEP Plin, Osijek ¹	Brod-plin, Slavonski Brod	Plin projekt, Nova Gradiška ²	Gas Factory of Eastern Slavonia, Vinkovci	First Gas Society, Vukovar	Average price	The change (%)
2001	1,57	1,47	1,86	1,56	n.p.	1,56	
2002	1,77	1,92	1,98	1,83	n.p.	1,80	15,6%
2003	1,79	1,92	2,40	1,83	n.p.	1,82	0,9%
2004	1,90	2,01	2,50	1,97	2,00	1,94	6,9%
2005	1,90	2,01	2,50	1,97	2,00	1,95	0,3%
2006	1,90	2,04	2,50	2,10	2,10	1,98	1,9%
2007	1,90	2,04	2,50	2,10	2,10	1,99	0,1%
2008	1,90	2,04	2,50	2,10	2,10	1,99	-0,1%
2009	2,31	2,39	2,61	2,42	2,42	2,36	18,8%
2010	2,66	2,85	3,09	2,79	2,91	2,74	16,2%

Source: HSUP, 2013

Figure 3 Average price of the gas in Slavonia and Baranja (2001-2010)

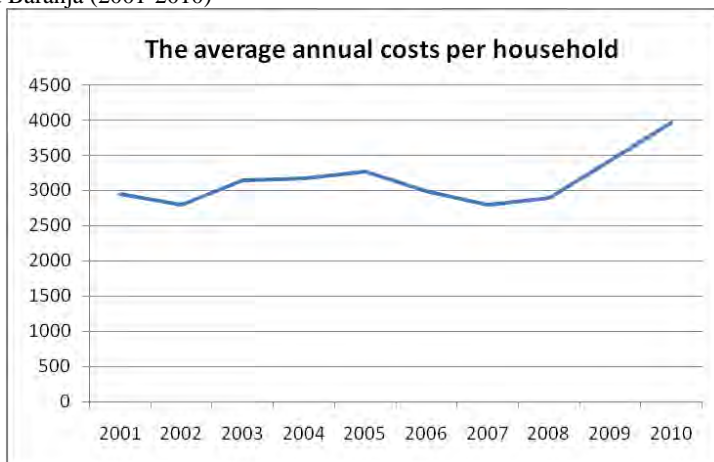


Source: HSUP, 2013

The presented data shows that consumption per household from 2001 until 2010 decreased from 1890 m³/year to 1447 m³/year, in other words by 24%. At the same time, the average price of the gas per m³ from 2001 until 2010 increased from 1.56 kn to 2.74 kn/m³, in other words by 75.6%. It means that the increasing in gas prices of 75.6%, consumption is reduced by 24%.

In 2001 the average household totally spent 2948 kn, while in 2010 it was 3964 kn, in other words 1017 kn or 34,5% more. Although the average household consumption declined by 24%, it paid the 34.5% more.

Figure 4 The product of the average price and the average gas consumption per household in Slavonia and Baranja (2001-2010)



Source: HSUP, 2013

A significant trend of increasing of average annual cost per household is noticeable only since the end of 2008 onwards, which is of course a result of a sudden increase in fuel prices in recent years. But in order to get comparable sizes and valid sizes in the overall calculation, it is necessary to include the changes average salary of work force in the reference period, as it is shown in Table 7.

Table 7 The average net incomes of employees in Republic of Croatia - Slavonia and Baranja county (2001-2010)

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
County	County average net income (kn)									
Požeško-slavonska	3.128	3.265	3.488	3.615	3.719	3.901	4.088	4.457	4.603	4.605
Brodsko-posavska	3.158	3.223	3.564	3.670	3.826	3.981	4.161	4.464	4.599	4.649
Osječko-baranjska	3.198	3.299	3.540	3.674	3.881	4.034	4.309	4.600	4.707	4.774
Vukovarsko-srijemska	3.245	3.403	3.633	3.755	3.892	4.006	4.203	4.501	4.563	4.630
AVERAGE	3.182	3.298	3.556	3.679	3.830	3.981	4.190	4.506	4.618	4.665

Source: DZS, 2013

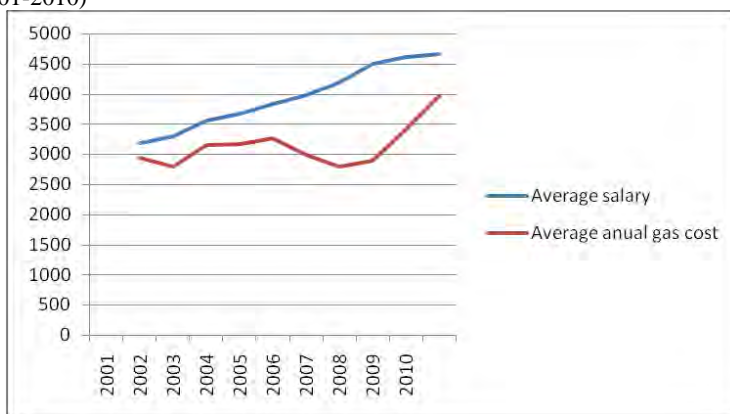
The average net salary in 2001 amounted 3182 kn, while it was 4665 kn in 2010, therefore net salary grew from 2001 until 2010 by 1483 kn, in other words 46.6 %. As the average annual salary in 2001 was 38187 kn, it turns out that the employees (if they cover the costs per household by themselves) should allocate 7.7% of their salary for gas, while in 2010 the average annual salary was 55974 kn and the employees are supposed to allocate 7.08% from their salary. Comparing these indicators it turns out that the consumers had no reason to save, unless it had happened on their account. If not sparing, the consumer would have to set aside an additional 1306 kn or 2.33% of annual salary.

Table 8 The average net monthly and annual income, average costs per household and the share of costs of gas of total revenues in Slavonia and Baranja (2001-2011)

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
The average salary (kn)	3.182	3.298	3.556	3.679	3.830	3.981	4.190	4.506	4.618	4.665
The average annual salary (kn)	38.187	39.570	42.675	44.142	45.954	47.766	50.283	54.066	55.416	55.974
Average annual costs (kn)	2.942	2.794	3.148	3.173	3.262	2.985	2.795	2.896	3.416	3.966
The share of annual salary	7,70%	7,06%	7,38%	7,19%	7,10%	6,25%	5,56%	5,36%	6,16%	7,08%

Source: DZS, 2013; HSUP, 2013

Figure 5 Comparison of trends in average annual salary and average costs of gas in Slavonia and Baranja (2001-2010)



Source: DZS, 2013; HSUP, 2013

It is interesting to notice that trends show even decrease of the share of overall gas costs in a few years from 2007-2009., which is most likely induced by the impending global economic crisis.

Figure 6 The share of household gas energy source costs in the average annual salary of employed persons in Slavonia and Baranja (2001-2011)



Source: DZS, 2013; HSUP, 2013

Some countries in EU have defined the poverty line, so the subsidized low price of the energy has only the citizens who consume the energy more than 10% (with ought the energy for transport) of the total annual income. Gas, as the cheapest source of energy in our case takes already over 7%, and if we add more water and electricity, we can say that the average household in which only works one family member (with no additional benefits from other members), would belong to energy poor households under such criteria.

4. Conclusion

In the above analysis, we compared current price and consumption in the heating industry considering to the current consistent price of gas, multi-year price of gas and the impact on consumption in Slavonia and Baranja, so it is shown how the price of the energy affects on the consumption. It is also possible to see wrong decision about keeping energy prices low, because from one side we are giving a bad message that the saving is not important, so the significantly more energy sources, that are anyway imported, are consumed. Resources that cannot be recovered should be rationally used. Some European countries such as Denmark have introduced additional levies on energy taxes, and from them encouraged the development of renewable energy sources and energy efficiency.

This work should stimulate the new thinking about the price of energy and how to manage energy policy. Additional analysis can be made by comparing the costs of heating in continental Croatia and Dalmatia, where it would be possible to conclude that the consumption of heating may be assumed at least twice as small and would make about 3% of the average net salary.

REFERENCE

COM.(2008)772 : *Communication from the Commission of 13 November 2008 - Energy efficiency: delivering the 20% target* [Not published in the Official Journal], <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52008DC0772:EN:NOT> (accessed 28.04.2013)

OFGEM.(2012):*Discussion paper : Energy Affordability: helping develop Ofgem's Vulnerable Consumers "Strategy*, Contact: Claire Tyler, Senior Manager, Reference: 49/12, Publication date: 30 March 2012

HERA. (2013): *Analiza Data Analysis and financial statements of companies, Department for thermal energy*, The Croatian Energy Regulatory Agency, podatci poslani na zahtjev (sent 30.01.2013)

Šimleša, D. (2010): *Uloga države u razvoju obnovljivih izvora energije*, Socijalna ekologija, Vol. 19 (2010.), No. 2, pp 109-126

HEP Toplinarstvo, Brod-Plin, Tehnostan(2011), *Consumption and the energy price in the three residential buildings in different areas of distribution (Zagreb, Slavonski Brod, Vukovar)*, data sent on request (sent 20.03.2013)

HSUP. (2013): *Consumption and gas prices in Slavonia and Baranja*, Croatia Gas Association (HSUP), data sent on request (sent 22.01.2013)⁵⁴

⁵⁴HEP Gas (areas: Slatina, Požega, Osijek, Valpovo, Našice, Donji Miholjac, Đakovo, Beli Manastir); Gas project (areas: Nova Gradiška, Donji Andrijevići, Garčin); no data

DZS.(2013): *Net and gross wages by county, data 1994-2010*, Central Bureau of Statistics, data sent on request (sent 12.02.2013)

Nerma Saračević, PhD student

University J.J. Strossmayer Osijek Croatia
Doctoral program in Entrepreneurship and Innovativeness
Phone :+38732651471 Fax: +38732650704
E-mail address: nermasa@bih.net.ba

Katarina Štavlić, univ. spec.oec.

University of Applied Sciences in Požega
Vukovarska 17, 34 000 Požega
Phone: 00385 98 16 27 149
E-mail address: kstavlic@vup.hr

Ljiljana Kuček, M.Sc., PhD student

ICES Doctoral Study, University of Osijek
Phone: 00385 98 1697427
Fax: 00385 01 4920624
E-mail address: lkucek@inet.hr

Drago Ceganec, univ. spec. oec.

VERN University of Applied Sciences in Zagreb
Trg bana Josipa Jelačića 3, 10000 Zagreb
Phone: 00385 091 482 5909, 00385 01 37 03 621
E-mail address: drago.ceganec@zg.t-com.hr, drago.ceganec@vern.hr

**A COMPARISON OF SOCIO-CULTURAL ATTITUDES AND
ENTREPRENEURIAL ACTIVITIES BETWEEN REGIONS IN CROATIA**

**USPOREDBA SOCIOKULTURNIH STAVOVA I POKAZATELJA
PODUZETNIČKIH AKTIVNOSTI IZMEĐU REGIJA U HRVATSKOJ**

ABSTRACT

This paper analyses the results of the comparison of different socio-cultural attitudes and attitudes about entrepreneurial activities between regions in Croatia. Three hypothesis tested in this research are related to six regions in Croatia. One of the regions is the region of Slavonia and Baranja. Data source for this research was the GEM research (Global entrepreneurship monitor) because entrepreneurial development in some region or country depends on a lot of factors which are very well explained in the Conceptual frame of GEM research. With this research it is proved that the indicators of entrepreneurial activity do not differ on regional level in Croatia ,that there are significant differences in attitudes that depend on socio cultural matters between the regions in Croatia and that there are differences in perception and the fear of failure toward entrepreneurial activity between regions in Croatia.

Key words: *Socio-cultural attitudes, Regions, Entrepreneurial activities*

SAŽETAK

U radu se analiziraju rezultati usporedbe različitih društveno-kulturnih stavova i stavova o poduzetničkim aktivnostima među regijama u Hrvatskoj. Tri hipoteza testirane u ovom istraživanju odnose se na šest regija u Hrvatskoj. Jedna od regija je regija Slavonije i Baranje. Izvor podataka

za ovo istraživanje je GEM istraživanje (Global Entrepreneurship Monitor), jer poduzetnički razvoj neke regije ili zemlje ovisi o puno faktora koji su jako dobro objašnjeni u konceptualnom okviru GEM istraživanja. Istraživanje u ovom radu je pokazalo da se pokazatelji poduzetničke aktivnosti ne razlikuju na regionalnoj razini u Hrvatskoj, da postoje značajne razlike u stavovima ovisnosti o društveno kulturnim pitanjima između regija u Hrvatskoj, te da postoje razlike u percepciji i strahu od neuspjeha prema poduzetničkim aktivnostima između regija u Hrvatskoj.

Ključne riječi: društveno-kulturni stavovi, regije, poduzetničke aktivnosti

1. Introduction

In the last decades entrepreneurship has been the topic of lot of research because of its driving force on the national economies. Entrepreneurship is the phenomenon that has to be seen from many research fields, such as psychological, sociological, economic, cultural, political etc. The development of entrepreneurship depends on historical development, existence of social, economic and financial structure that support entrepreneurship and on entrepreneurial tradition in the country. In the 90 ies in almost all parts of the world a more dynamic entrepreneurial activity was noticed thanks to the establishment of the entrepreneurial support structure, educational structure as well as more dynamic research activities all over the world. That is not a surprise because entrepreneurship is considered the main wheel of economic growth. That is the reason why it became an important discipline at universities and business schools. Also, thanks to the fact that it was recognize on behalf of the governments as an active factor in employment its great contribution to national economy was awaked (Kukec, 2009). These were best emphasized in 2003, in the document “Green Paper “of the European Commission which spoke about the future of entrepreneurship in Europe and pointed that building an entrepreneurial society involves everybody. Positive attitudes towards entrepreneurial initiative and failure can help develop entrepreneurial ventures. Furthermore, entrepreneurship can be applied to achieving social and societal objectives.

Considering all of this, it is not surprising that there is a lot of literature analysing entrepreneurial activities and entrepreneurial framework in general. But the importance of equal regional development in each country plays an important part in the research which is the subject of scientific research as well as governmental policies. In the political and economic frame of EU equal regional development has great importance, which can be seen in Articles 158 to 162 of the Treaty establishing the European Community (EC) (Title XVII), established by the Single European Act as “Economic and social cohesion, as defined by Article 158, is needed for the Community’s ‘overall harmonious development’ and requires a reduction of the ‘disparities between the levels of development of the various regions’, i.e. the ‘backwardness of the least favoured regions’, which include rural areas.”

As result of these policies national and regional entrepreneurial development are equally important on the level of each country. Given that entrepreneurship is a very significant factor of regional development, it is necessary to approach its development systematically, with measures of regional politics, which means to create conditions for the development of entrepreneurial activity on the regional level.

In this article we try to identify the differences in entrepreneurial activities and socio-cultural attitudes regarding entrepreneurial activity in six Croatian regions. As it will be shown in the analysis, there are significant differences between the regions in regard to the level of entrepreneurial activity, as well as socio-cultural attitudes towards entrepreneurship.

GEM database is the only source based on which analysis can be performed to confirm that there are differences between regions.

1.1. Contextual background and literature review

How does national culture relate to levels of entrepreneurial activity? This question is motivated by the observations of economists (e.g., Schumpeter, 1934), sociologists (e.g., Weber, 1930), and psychologists (e.g., McClelland, 1961) that countries differ in levels of entrepreneurial activity. Entrepreneurial activities are considered an important source of technological innovation (Schumpeter, 1934) and economic growth (Birley, 1987). Therefore, understanding the influence of national culture on entrepreneurship is of considerable theoretical and practical value (J.C.Hayton, G. George, Shaker A. Zahra, 2002.)

In the literature culture a set of shared values, beliefs and behaviours is usually defined. It is not conscious and it is deeply implanted in the life of every individual. Political, institutional, social and historical environment create the culture and beliefs which strongly influence all individual and group decisions and behaviour. That means that culture strongly influences a degree to which a country or region considers entrepreneurial initiative, risk taking as a desirable carrier and by that strongly influences on self-confidence of the individual and on their decision to start the enterprise. (J.C.Hayton, G. George, Shaker A. Zahra, 2002)

The influence of culture on entrepreneurship has been of great interest of the scientists for the past years and the liaison between national, regional, organisational, institutional etc. cultures has been determined as an important factor in entrepreneurial activity, and the encouragement of innovation and in risk-taking. That is one of the reasons of our interest in socio- cultural factors in entrepreneurial development of Croatian regions and risk-taking culture in the same way as well.

It is not questionable that differences in Croatian regions on the sociological, economic, political, geographical, historical etc. aspects are on one hand the fortune for Croatia in general but the importance of coherent economic development in this moment of adhesion of the EU is of great importance too, not only to adhere to EU policies but to establish a good position in order to benefit from as many EU funds for regional development as possible.

Along with GEM, Polona Tominc and Miroslav Rebernik (2007) had a great influence by establishing the factors that might determine the growth aspirations of the early stage of entrepreneurs in different countries including (amongst others): (1) opportunity recognition, (2) cultural support for entrepreneurial motivation, and (3) self-confidence in skills, knowledge and experience, needed for entrepreneurship.

One of the defining characteristics of an entrepreneur is the specialization in judgmental decision-making (Casson, 2005), which is not culture-neutral. An individual's personal perceptions and judgments about the existence of opportunities, about the acceptance of entrepreneurial behaviour in society and about her/his skills are often formed on the basis of shared norms and values in the relevant society; they are often biased, but nevertheless influence the individual's entrepreneurial plans and actions.

Some other authors like Liao and Welsch (2003) claim that a higher degree of motivation for entrepreneurship can be expected in those societies where entrepreneurship is socially acceptable behaviour. Some researchers like Hofstede (2004) claim that dissatisfaction with society and with life in general can be a strong motivation for entrepreneurship, because people are attracted to self-employment and entrepreneurship because they expect that it will provide not only the financial compensation but also social status and respect.

On one hand one important dimension of culture is also the extent to which a culture stigmatizes⁵⁵ entrepreneurial failure and this problem is associated with environmental dynamism which can

⁵⁵ Meaning of the Greek word Stigma (mark, sign) evolved its form from Antic times toward nowadays but always meant a combination of fear, prejudice and ignorance that affect the individual in a negative way exposing him/her to social insecurity or disapproval of the community.

moderate the relationship between culture, stigma, and entrepreneurial risk-taking by affecting the dimensions of stigma. According to N. L. Damaraju, J. Barney and G.Dess (2010), it has been suggested that in collectivistic cultures and in cultures with high levels of fear of insecurity, the fear of stigma associated with entrepreneurial failure leads to relatively low levels of entrepreneurial activity (Hofstede, 1980; Hofstede et al, 2002; Hayton, George and Zahra, 2002; McGrath, 1999). On the other hand, in cultures characterized as more individualistic, with less fear of insecurity there are lower levels of stigma associated with business failures and it is generally more conducive to entrepreneurial activity (Begley and Tan, 2002; Lee, Peng and Barney, 2007).

The important impact on growth of entrepreneurship also leads to the discussion that a higher level of motivation for entrepreneurship also depends on self-confidence in one's own skills and competences to lead an entrepreneurial activity. Authors that were dealing with this field are Shave and Scott, who in 1991 claimed that the person should have the capacity, skills, knowledge and motivation to turn opportunities to sustainable business. Psychology literature dealing with this theme of self-efficacy states that an individual with high self-efficacy for a given task in this case of entrepreneurial activity will also set and accept higher goals. (Bandura, 1997; Baron, 2000)

On the other hand, it is logical that in all circumstances failure is met with socio-psychological consequences. People who fail are often labelled as losers and this has a big impact on self-esteem and self-confidence, which can have great consequences on entrepreneurial behaviour.

1.2. Croatian facts

So, it is not surprising that the facts quoted in a paper by S. Letinić and K. Štavlić (2011) showed that the accession to the European Union imposes some new favourable developmental opportunities for Croatia. Each of the regions in Croatia has certain advantages which should be used in order to achieve better levels of competitiveness. The implementation of comparative analysis of indicators of Croatian entrepreneurs, on the regional level, has shown that there are great differences in regional development. Such a situation has, with other key factors of regional development, influenced on long-term tendency of negative indicators of entrepreneurial activity on the global level of Croatia.

Table 1 The main macroeconomic indicators and indicators of entrepreneurial activity in Croatia for 2010

Indicators	Croatia
The number of entrepreneurs in the private sector, % of total number of entrepreneurs	97,9
The number of small and medium entrepreneurs, % of total number of entrepreneurs	99,4
TEA 10	5,53
TEA 10 male	7,15
TEA 10 female	3,91
TEA opportunity	3,52
TEA necessity	1,78
SUSKIL 10 male	62,62
SUSKIL 10 female	43,92
GDP per capita (USD)	13.750
GDP, real growth rate in %	-1,4
Unemployment rate	17,4
Average monthly paid off net earnings (KN)	5.343

Source: own work of the authors

We can conclude looking at the data in Table 1 that this statement is based on data among which the Index of entrepreneurial activity points lack of entrepreneurial spirit and environment in Croatia. Also, we can see a high percentage of 97.9% of private entrepreneurs, and small and medium businesses 99.6 compared to the total number of enterprises in Croatia in 2010. Small and medium-sized enterprises are considered to be a generator of economic growth and development, to promote employment and production and it can be concluded that the factors that affect the operations of enterprises and a large number of entrepreneurs do not necessarily mean the economy is in the phase of growth. Some of the factors are high taxes, the existence of gray market, a large number of outstanding claims, etc.

In Croatia there are high tax rates and non-fiscal taxes and the share of grey market in Croatian GDP is 30.1%. By avoiding paying taxes the share of grey market increases, and there is also a great insolvency in business making. The amount of unexecuted payment bases in Croatia in 2011 was as high as 36.7 billion kn. Almost 85% of unexecuted obligations go to entrepreneurs blocked longer than 360 days. This is the reason why Croatia is positioned badly in the Index of global competitiveness and business sophistication.

Also, the Table shows that in terms of reduced economic growth and high unemployment in the Republic of Croatia, there are a large number of small and medium enterprises. They constitute 99.4% of the total number of entrepreneurs. Entrepreneur men are more active than women, and 62.62% of the male population is considered to have the necessary skills and abilities to become entrepreneurs, while there is a lower percentage of women who agree with this statement.

Beside all this it is important to mention that except the different historical context of some Croatian regions, different influences and in some parts different culture and underdevelopment direct our research into the hypothesis we made, but one study has given us a broader perspective of the situation in Croatian regions.

According to GEM classification there are six regions in Croatia: 1. Zagreb Region, 2. Northern Croatia, 3. Slavonia and Baranja 4. Lika and Banovina, 5. Istria, Primorje and Gorski kotar and 6. Dalmatia. The indicators of entrepreneurial activities on the national level of Croatia are analyzed in the paper, taking into consideration the results of referent research. The paper focuses on national and regional entrepreneurial framework that influences attitudes, beliefs and behaviours of the people in Croatia regions.

Before our analysis if there are differences in attitudes connected with socio-cultural matters between regions and if there are differences in entrepreneurial activities among the regions in Table 2, there are a some macroeconomic indicators for the whole country and for the regions.

Table 2 The main macroeconomics indicators for Croatian Regions

GEM REGION	Size in km2 2010	Population 2010	Total persons in employment 2010	% of employment from whole population	Average Unemployment rate in 2010.	GDP per capita in 2007. (EUR)	Average monthly gross earnings in 2010 (Kn)	Average monthly paid off net earnings in 2010 (kn)
ZAGREB & SURROUNDING	3718	1.122.113	428.464	38,18 %	12,6 %	12.063	8.307,50	5.611,00
LIKA & BANOVINA	12219	349.015	74.289	21,29 %	24,76 %	7.688	7.031,00	4.982,33
SLAVONIJA & BARANJA	10448	766.063	145.716	19,02 %	27,68 %	6.370	6.439,75	4.618,00
ISTRA, PRIMORJE, GORSKI KOTAR	6403	518.458	152.605	29,44 %	10,85 %	11.820	7.513,00	5.243,00
NORTH CROATIA	9613	762.539	168.266	22,07 %	19,76 %	7.617	6.221,16	4.444,00

GEM REGION	Size in km2 2010	Population 2010	Total persons in employment 2010	% of employment from whole population	Average Unemployment rate in 2010.	GDP per capita in 2007. (EUR)	Average monthly gross earnings in 2010 (Kn)	Average monthly paid off net earnings in 2010 (kn)
DALMATIA	12943	896.593	197.467	22,03 %	18,48 %	8.456	7.189,50	5.056,25

Source: CBS Croatian

In Table 2 the differences between the regions according to their area, population and the macroeconomic indicators are shown. According to the presented data we can conclude that the most developed regions are: Zagreb and surroundings, and Istria, Primorje and Gorski Kotar, while the less developed are Slavonia and Baranja region and Northern Croatia. The existence of regional differences in entrepreneurial activities will be further analyzed and shown through the following tables.

2. Research question and hypothesis

As we have described in the previous section, the growth of entrepreneurial activities can be the consequence of socio-cultural differences that have an impact on entrepreneurial activities and risk-taking attitudes in some economies. Based on that the research questions arise, trying to prove if there is a connection between socio-cultural differences in Croatian regions and the differences in entrepreneurial activities and risk-taking attitudes as well.

Comparing the differences in attitudes regarding entrepreneurial careers, status, reputation and a possible start-up in the next six month on entrepreneurial activity in six Croatian regions we have made the first hypothesis.

The second one regards the connection between indicators of entrepreneurial activities and the regions, what means we tried to find out if there is a difference in entrepreneurial activities on the regional level.

With the third hypothesis we tried to prove if there are differences between the perception and courage of/for entrepreneurial activities on the regional level in Croatia.

H1: The indicators of entrepreneurial activity differ on the regional level in Croatia

H2: There is a difference in socio-cultural attitudes between regions (career, status, media coverage, perception of opportunity)

H3: There is a difference in personal attitudes (suskil, fear of failure) between regions

We predicted that more developed regions have a higher level of entrepreneurial activity and a higher proportion of positive socio-cultural attitudes on entrepreneurial activity.

3. Methodology

3.1. Data

Entrepreneurial development in some region or country depends on a lot of factors which are very well explained in the Conceptual frame of the GEM research (Global entrepreneurship monitor) which was the base for this research as well.

GEM is a set of comprehensive research which started in 1999 and until 2010 covered over 175 000 surveyed people from 59 economies. Participating countries cover over 52% of the world's population and 84% of the world's GDP. (GEM 2010)

This is broad, comparable and standardized data about entrepreneurial activities and whole framework, institutional, sociological and cultural factors that influence it.

Data source in the GEM study was a randomly chosen sample of the adult population aged 18 to 64, where the sample size was 2000 respondents in Croatia and a minimum 36 experts.

Postulates tested in this research are related to six regions in Croatia: 1. Zagreb Region, 2. Northern Croatia, 3. Slavonia and Baranja 4. Lika and Banovina, 5. Istria, Primorje and Gorski kotar and 6. Dalmatia. The time framework for the research is the year 2010.

The six regions correspond to different counties as shown in Table 2.

Table 3 Allocation of Croatian counties by GEM report

ALLOCATION OF CROATIAN COUNTIES IN GEM REGIONS			
ZAGREB AND SURROUNDING	SLAVONIA AND BARANJA	NORTH CROATIA	
City of Zagreb County of Zagreb	County of Slavonski Brod-Posavina County of Osijek-Baranja County of Požega-Slavonia County of Vukovar-Sirmium	County of Bjelovar-Bilogora County of Krapina-Zagorje County of Koprivnica-Križevci County of Međimurje County of Varaždin County of Virovitica-Podravina	
LIKA AND BANOVINA	ISTRA, PRIMORJE, GORSKI KOTAR	DALMATIA	
County of Karlovac County of Lika-Senj County of Sisak-Moslavina	County of Istria County of Primorje-Gorski kotar	County of Dubrovnik-Neretva County of Split-Dalmatia County of Šibenik-Knin County of Zadar	

Source: GEM Croatia

3.2. Variables and methods

Table 4 Variables

Variable code	Description	Categories	Frequency
Entrepreneurial activity			
TEA 10	Involved in Total early-stage Entrepreneurial Activity	Yes=1 No=0	1=5,53% 0=94,47%
Social attitudes			
Equall10	In my country, most people would prefer that everyone has a similar standard of living.	Yes=1 No=0	1=73,04% 0=22,94%
NBGOOD10	In my country, most people consider starting a new business a desirable career choice.	Yes=1 No=0	1=60,59% 0=30,17%
NBSTAT10	In my country, those successful at starting a new business have a high level of status and respect.	Yes=1 No=0	1=44,69% 0=44,44%
NBMEDI10	In my country, you will often see stories in the public media about successful new businesses.	Yes=1 No=0	1=38,09% 0=53,93%
OPPORT10	In the next six months, will there be good opportunities for starting a business in the area where you live.	Yes=1 No=0	1=19,61% 0=64,17%
Personal attitudes			
SUSKIL10	Have the knowledge, skill and experience required to start a new business.	Yes=1 No=0	1=50,09% 0=44,44%
FRFAIL10	Fear of failure would prevent you from starting a business?	Yes=1 No=0	1=38,91% 0=60,97%

Source GEM Croatia 2010

I/ To prove the first hypothesis we analyzed the indicators of entrepreneurial activities in Croatia regions.

II/ To confirm the second hypothesis we analyzed the variables by which the differences in attitude depending on socio-cultural matters between the regions were described. The perception of socio-cultural differences between the regions is measured on the sample of the adult population between 18-64 years old, which answered the following questions:

- Do most people in your country prefer that everyone have a similar standard of living?
- Do most people in your country consider starting a new business a desirable career choice?
- Do those successful at starting a new business have a high level of status and respect?
- Do you often in your country see stories in the public media about successful new businesses?
- In the next six months, will there be good opportunities for starting a business in the area where you live?

III/ To prove the third hypothesis we analyzed variables by which the difference in perception of entrepreneurship and courage to start the entrepreneurial activity was examined. The perception of entrepreneurship and the courage to start it on the regional level was measured on a sample of the adult population between 18-64 years old, who answered the following questions:

- Do you have the knowledge, skill and experience required to start a new business?
- Would the fear of failure prevent you from starting a business?

The methodology used for proving these hypotheses is the chi square and descriptive statistics.

4. Results and discussion

The first hypothesis: We tested whether the indicators of entrepreneurial activity differ on a regional level in Croatia?

Table 5 presents indicators of entrepreneurial activity by region. Through the results of chi-square test we can see that there are no regional differences in the presented indicators of entrepreneurial activity.

Table 5 Indicators of entrepreneurial activity in Croatian Regions

	Zagreb region mean (in %)	Northern Croatia mean (in %)	Slavonia mean (in %)	Lika and Banovina mean (in %)	Istria and Kvarner mean (in %)	Dalmatia mean (in %)	Chi – square (significance)
TEA 10	7.06	4.61	3.95	6.04	6.01	5.18	3.920 (0.560)

Source: own work of the authors

Although there are no differences in the TEA index, it can be observed that the TEA is higher in those regions with higher GDP.

The second hypothesis: We tested whether there is a difference in the socio-cultural attitude between regions (career, status, media coverage, perception of opportunity)?

Analyzing the differences in socio-cultural attitudes between regions (the results are shown in Table 6) we can conclude that there are differences between regions in attitudes that everyone should have a similar standard of living, in perception of stories in the public media about successful new businesses and about attitudes that there will be good opportunities for starting a business in the area where they live. There are similar attitudes about considering that starting a new business is a desirable career choice and that successful entrepreneurs have a high level of status and respect.

Table 6 Percentage of adults that answered YES to the five questions – Cultural and social attitudes about an entrepreneurship

	Zagreb region mean (in %)	Northern Croatia mean (in %)	Slavonia mean (in %)	Lika and Banovina mean (in %)	Istria and Kvarner mean (in %)	Dalmatia mean (in %)	Chi – square (significance)
Most people in	72.59	74.91	74.49	82.21	81.70	73.23	9.553

	Zagreb region mean (in %)	Northern Croatia mean (in %)	Slavonia mean (in %)	Lika and Banovina mean (in %)	Istria and Kvarner mean (in %)	Dalmatia mean (in %)	Chi – square (significance)
your country prefer that everyone has a similar standard of living							(0.088)
Most people in your country consider starting a new business a desirable career choice	65.92	66.46	70.58	72.03	64.84	65.50	3.610 (0.606)
Those successful at starting a new business have a high level of status and respect?	48.47	53.48	51.62	54.76	41.95	49.78	7.141 (0.210)
You often see stories in the public media about successful new businesses in your country?	37.10	47.85	46.40	34.95	40.74	41.67	12.182 (0.032)
In the next six months, there will be good opportunities for starting a business in the area where you live	25.17	23.67	16.95	9.72	26.93	29.74	24.174 (0.002)

Source: own work of the authors

There are significant differences in some attitudes depending on socio-cultural matters between the regions in Croatia and we are partially confirming our second hypothesis.

It was observed that a balanced lifestyles is one of the most important reasons for the region to have a higher standard of living.

At least two regions of Northern Croatia and Slavonia, which also have the same number of people, have developed relatively the same attitude.

In contrast, the regions of Lika & Banovina and Istria & Kvarner consider a similar standard of living very important. These two regions have the lowest number of inhabitants and this can be assumed to be in respect to the same social and cultural attitudes. The number of inhabitants and attitudes of a balanced standard of living should be investigated in future research.

Surprising results of the chi-square test show that attitudes considering starting a new business as a desirable career choice and about being successful at starting a new business have a high level of status and respect, and, noticeably, that there are no significant differences between regions, but the attitude of the high level of status and respect for people who are starting a business is very low.

Comparing the attitudes about writing stories in the public media about successful new businesses confirms that there are differences between regions. The lowest percentage of positive responses is in the region of Lika & Banovina, but a low percentage of positive responses is in the most developed region of Zagreb. Comparing them to the region of Slavonia, we can conclude that in the least developed region, there is a higher level of promotion of entrepreneurial activities.

According to the results obtained regarding good opportunities for starting a business in the area where they live, we confirm that there are differences between regions.

The lowest level of expectations of good opportunities to start a new business is in the regions of Lika & Banovina and Slavonia.

This is an important indicator as to the measures to be taken for raising level of entrepreneurial activity in these regions

Third hypothesis: We wanted to determine whether there is a difference in personal attitudes (suskil, fear of failure) between regions?

For testing the third hypothesis there are following results in Table 7.

Table 7 Percentage of adults who answered on these two questions

	Zagreb region mean (in %)	Northern Croatia mean (in %)	Slavonia mean (in %)	Lika and Banovina mean (in %)	Istria and Kvarner mean (in %)	Dalmatia mean (in %)	Chi – square (significance)
Fear of failure could prevent you from starting a business	34.15	44.54	38.93	45.26	40.43	38.12	10.330 (0.066)
Has knowledge, skill and experience required to start a new business	54.49	48.91	49.40	49.41	57.64	57.99	8.632 (0.124)

Source: own work of the authors

We can also see a relationship between the claims that the fear of failure has an influence on becoming an entrepreneur and having the necessary knowledge, skills and experience to run it.

There is a connection between the fear of failure and the region, and there is no relationship between suskil and regions. The data indicate that in the observed regions that have a higher percentage of people with knowledge simultaneously have a smaller percentage of people who believe that their fear of failure prevented them from starting ventures.

Our results suggest that there are differences between regions in entrepreneurial activities and attitudes that everyone should have a similar standard of living, in perception of stories in the public media about successful new businesses and about attitudes that there will be good opportunities for starting a business in the area where they live. There are similar attitudes about considering that starting a new business is a desirable career choice and that the successful entrepreneurs have a high level of status and respect.

5. Conclusion

In this paper we compared different socio-cultural attitudes and attitudes about entrepreneurial activities between regions in Croatia. We set three hypotheses with which we proved that the indicators of entrepreneurial activity are do not differ on the regional level in Croatia, that there are significant differences in attitudes depending on socio-cultural matters between the regions in Croatia and that there are differences in perception and the fear of failure toward entrepreneurial activity between regions in Croatia.

Further aspects of the research should be focused on determining the cause of significant differences in the second and third hypothesis, i.e. to determine why the attitudes about social and cultural issues between regions vary by county, and why there are significant differences in the perception of the fear of failure towards entrepreneurial activities between regions. Determining these answers will provide guidance for further action in terms of creating a better environment for the growth of entrepreneurial activities.

As each country aspires to a balanced development, it is suggested that each region in the country has a balanced growth and development. In this sense, ministries and institutions have the greatest roles. Various programs for the development and policies for the implementation of the programs coordinated with regional characteristics and estimated differences encourage entrepreneurial activity, raise the level of knowledge and skills, with the aim of strengthening the entrepreneurial knowledge and reducing the fear of failure. By the aforementioned measures a balanced growth and development would be achieved in the long term through regional development agencies and institutions of higher education and research.

Entrepreneurial activity is shaping many factors including family environment and a larger culture in which businesses increase the quality of their formal and informal education, work experience and their exposure to the media. Policy intervention in any of these areas are likely to have the effect of two stages: a direct effect, such as the educational policy of introducing entrepreneurship education in schools, to promote a change in attitudes in the short term, and an indirect effect in which a change in individuals attitudes will impact a wider social and cultural attitudes in this economy. in the long run. Croatia could have a role in this context in three ways: as a catalyst (for the collection and dissemination of good practices) in all counties, as a platform provider to stakeholders to discuss issues, and as a promoter mobilizing resources to improve entrepreneurship education in Croatia.

REFERENCES

- Bandura, A., (1997) *Self-Efficacy: The Exercise of Self-Control*, Freeman, New York
- Baron, R., (2004), *The Cognitive Perspective: A Valuable Tool for Answering Entrepreneurship's Basic "Why" Questions*, Journal of Business Venturing 19, pp. 221–239
- Brown T.E. and Ulijn J.(eds.), *Role in Entrepreneurship: Self-Employment Out of Dissatisfaction', Innovation, Entrepreneurship and Culture*, Cheltenham, UK: Elgar
- De Pillis, E. (1997), *What's achievement got to do with it? The role of national culture in the relationship between entrepreneurship and achievement motivation*, University of Hawaii, Hilo School of Business
- Damaraju, N.L. et al: (2010) *Stigma and entrepreneurial risk taking*, Summer Conference 2010 On "Opening Up Innovation: Strategy, Organization and Technology" at Imperial College London Business School, June 16 - 18, 2010
- Hofstede, G. et al: (2004), *Culture's role in Entrepreneurship: Self-Employment Out of Dissatisfaction'* in T. E. Brown and J. Ulijn (eds.), *Innovation, Entrepreneurship and Culture*, Cheltenham, UK: Elgar
- Hwang H., Powell W., (2005) *"Institutions and entrepreneurship*, The handbook of Entrepreneurship research", Kluwer Publishers, 5, pp 179-210
- Hayton J.C. et al: (2002) *National Culture and Entrepreneurship: A Review of Behavioral Research*, Entrepreneurship: theory and practice, Vol 26
- Kucek Lj., Challenges for Franchise Development in the Croatian market", Faculty of Economics, University of J. J. Strossmayer, Osijek, Croatia, Master thesis
- Letinić S., Štavlić K. (2011), *Entrepreneurial Activity - Indicator of Regional Development in Croatia*, World Academy of Science, Engineering and Technology pp 77

Liao, J. and Welsch H., (2003), '*Social Capital and Entrepreneurial Growth Aspiration: A Comparison of Technology and Non-technology-based Nascent Entrepreneurs*', Journal of High Technology Management Research 14, pp 149–170

Pheifer S., Šarlija N., (2005) **Benchmarking Entrepreneurial framework conditions among GEM countries**, 6th International conference of Enterprise in transition, Bol

Shaver, K. G. and Scott L.R., (1991), '*Person, Process, Choice: The Psychology of New Venture Creation*', Entrepreneurship Theory and Practice 16(2), pp 23–45

Tominc P., Rebernik M., (2007) *Growth aspirations and cultural support of entrepreneurship a comparison of post socialist countries*, Small business economics pp 28

Wennekers S. et al: (2005) *Uncertainty avoidance and the rate of business ownership across 22 OECD countries*, 1976-2000, paper prepared for the International Workshop on Entrepreneurship and Culture, Max Planck Institute of Economics in Jena

D. Kelley, N. Bosma, J. E. Amorós, (2010) *GEM 2010 Global report* www.gemconsortium.org (accessed May 2012)

Maria Styblińska, PhD.
Institute of Computer Science
University of Silesia
Ul. Bedzińska 39, 41 200 Sosnowiec
Phone: 0048 32 3689 716
e-mail: maria.styblinska@us.edu.pl

Ivana Čandrlić-Dankoš, M.Sc.
Osijek – Baranja County
Department of Economy and Regional development
Stjepana Radića 4, Osijek
Phone: 031/221-897 Fax: 031/221-880
E-mail: ivana.candrlic-dankos@obz.hr

CHALLENGES OF MAKING THE PROGRAM AND PLANS OF ENERGY EFFICIENCY IN FINAL USE OF OSIJEK-BARANJA COUNTY

IZAZOVI IZRADE PROGRAMA I PLANA ENERGETSKE UČINKOVITOSTI U NEPOSREDNOJ POTROŠNJI NA PODRUČJU OSJEČKO-BARANJSKE ŽUPANIJE

ABSTRACT

Candidacy for full European Union membership, acceptance of Agreement on Energy Community, signing and ratification of Kyoto Protocol and United Nation Framework Convention on Climate Change, but also a high instability of energy prices on world market, have set the need to accept Energy Development Strategy of Croatia. The Strategy is the result of the need for harmonization of legislation with the EU acquis in the field of energy and commitment to energy sector. According to "Adjustment and Upgrade Strategy of Croatian Energy Development" by Ministry of Economy, Labour and Entrepreneurship and UN Development Program, the goal of Strategy, in the time of uncertain conditions of global energy market and with limited domestic resources, is to build a sustainable energy system, balanced system of relation between environmental protection, competition and secure energy supply that will enable secure and available energy supply to Croatian citizens and its economy. National Program of Energy Efficiency (2008-2016) and National Action Plan of Energy Efficiency (2008-2010) are increasing the responsibility and obligations of local and regional governments in terms of energy savings in end-use. The Act on Energy Efficiency in Final Consumption defines a number of obligations of public sector whereby developing of Program and plans of energy efficiency in final consumption represent the most demanding. Osijek – Baranja County is amongst the first ones to accept the Program of energy efficiency in final consumption for the period of 2013-2015. The Plan of energy efficiency in the County for 2013 was passed on the 31st session of County council on 4th April 2013.

This essay presents the challenges in the making of planned documents, especially the lack of data collection system of energy consumption, incompatibility of jurisdiction of certain energy distributor with County administrative-territorial division; questionable consumption in base year to define savings; lack of overall energy balance sheet as well as indicator of energy efficiency on the local level. Professional literature, legislation and experience in collecting, analyzing data to produce these documents, were used as a background in this work.

Key words: SEAP(Sustainable Energy Action Plans), energy balance, energy efficiency, indicators

SAŽETAK

Kandidatura za punopravno članstvo u Europskoj uniji, prihvaćanje Sporazuma o Energetskoj zajednici, potpisivanje i ratificiranje Kyotskog protokola te Okvirne konvencije UN o promjeni klime, ali i velika nestabilnost cijena energije na svjetskom tržištu, nametnule su potrebu usvajanja Strategije energetskog razvoja Republike Hrvatske. Strategija nastaje kao potreba za usklađivanjem legislative s pravnom stečevinom Europske unije na području energetike i preuzimanjem obaveza u energetskom sektoru. Prema "Prilogbama i nadogradnji strategije energetskog razvoja Republike Hrvatske" Ministarstva gospodarstva, rada i poduzetništva i Programa ujedinjenih naroda za razvoj, cilj Strategije je u neizvjesnim uvjetima globalnog energijskog tržišta i uz oskudne domaće energijske resurse izgraditi održivi energetski sustav, sustav uravnoteženog razvoja odnosa između zaštite okoliša, konkurentnosti i sigurnosti energijske opskrbe, koji će hrvatskim građanima i hrvatskom gospodarstvu omogućiti sigurnu i dostupnu opskrbu energijom. Nacionalni program energetske učinkovitosti (2008.-2016.) i Nacionalni akcijski plan energetske učinkovitosti (2008.-2010.) podižu razinu odgovornosti i obveza jedinica lokalne i područne (regionalne) samouprave u pogledu uštede energije u neposrednoj potrošnji. Zakonom o učinkovitom korištenju energije u neposrednoj potrošnji definira se čitav niz obveza u nadležnosti javnog sektora, pri čemu izrada Programa i Plana energetske učinkovitosti u neposrednoj potrošnji predstavljaju najzahtjevnije. Osječko-baranjska županija je među prvim županijama usvojila Program energetske učinkovitosti u neposrednoj potrošnji na području Osječko-baranjske županije za razdoblje od 2013.-2015. godine, te je u postupku usvajanje Plana energetske učinkovitosti na području županije za 2013. godinu. Rad prezentira izazove u izradi ovih planskih dokumenata, poglavito u pogledu nepostojanja sustava prikupljanja podataka o energetskoj potrošnji, neusklađenosti nadležnosti pojedinih distributera energentima sa županijskim upravno-teritorijalnim ustrojem, upitnom potrošnjom u baznoj godini na osnovu koje treba definirati uštedu, nepostojanju cjelokupne energetske bilance kao ni indikatora energetske učinkovitosti na lokalnoj razini. U izradi rada korištena je stručna literatura, zakonska regulativa i osobna iskustva u prikupljanju, analiziranju podataka za izradu ovih dokumenata.

Ključne riječi: Plan i Program energetske učinkovitosti u neposrednoj potrošnji, energetska bilanca, indikatori energetske učinkovitosti

1.Introduction

The Act on Energy End –use Efficiency [1], [2] regulates the area of efficient energy consumption in final consumption, making plans and programs for improving energy efficiency and their implementation, energy efficiency measures and especially the actions of consumers as well as the consumer rights in implementing measures of energy efficiency. Statutory County and big cities obligations for creation of programs and plans for energy efficiency in final consumption is the reflection of strategic orientation of country to direct energy politics to rational management of resources on local and regional level. Meaning of the law above all is raising overall energy efficiency in all sectors of production: industry, traffic, services, agriculture and in households. Program of energy efficiency in final consumption of the County is planned document for the period of three years, which regulates politics for upgrading energy efficiency of overall consumption in the County. On the other hand, the plan is an operational document that defines activities and measures on an annual basis. Program and plan of energy efficiency in final consumption are planned documents, which reflect existing condition, set goals as well as measures and activities how the same will be realized. The importance of energy to the overall system success, especially the economy, is reflected on the complexity of the consideration of this issue.

Professional studies and analysis must be based on precise information as well as databases, which make timely possible analysis, issue consideration and business decision making.

Although the experiences of Croatia, as well as Osijek-Baranja County in the field of energy efficiency is still work in progress, creation of these planned documents has identified a number of flaws that the legislator did not foresee, that are the basis for their creation. The biggest challenge in creation of Program was data gathering. Basic problems of creation of planned documents are based on:

- a) lack of obligation of systematic data collection, recording and analysing of building sector in institution such as Central bureau of statistics,
- b) lack of detail database for traffic sector,
- c) having no regular statistic reports for municipalities and small towns for public lighting sector, and their rare (every four years) follow-up for cities
- d) lack of proper infrastructure of public lighting especially in small towns and municipalities
- e) problem of coding systems of buyers in energy supply companies that is not compliant with territorial organization of Counties,
- f) series of reorganizational changes in energy supply companies that prevent real tracking by time series
- g) limited ability of County to influence distributors of fossil fuels, diesel etc. which prevents systematic verification of submitted data, but also the impact on their delivery, even in situation when the County is willing to allocate substantial resources to obtain the same. Mainly to the fact that these data are considered confidential and therefore there is no legal obligation of their submission to Counties and big cities.

Identified problems helped to define basic challenges that lie ahead of Croatia in order to create quality data as a basis for creation of timely as complete as possible business decisions.

"In order to enhance energy efficiency it is necessary to strengthen the legislative and regulatory framework. Institutional capacity to implement and monitor energy efficiency must be strengthened, and it is necessary to clearly define the duties and authorities of individual institutions in matters of energy efficiency.

Further efforts are needed in the establishment of a uniform system of collecting, processing and storing of data for the calculation and monitoring of energy efficiency in accordance with the methodology adopted in the EU. Systematic monitoring of the effects of energy efficiency policy is necessary to ensure its continuous improvement. Also, the software-oriented activities of the Fund is based on a national program and plan of the energy efficiency, it is necessary to promote innovative ways of financing energy efficiency, (e.g. contracting by performance results) and to ensure greater involvement of energy suppliers in the implementation of energy efficiency measures in their customers."⁵⁶

Success effects of measures and activities as well as goals in observed period are reflected in the balance sheet.

2. Energy balance sheet

Balance sheet from the aspect of economics is a systematic overview of assets and liabilities on a certain day or for certain period. Analysis of balance sheet of a legal entity shows its successfulness. It shows forms and proportions of assets (tangible, intangible) as well as the funding sources of its origin. Detail analysis raises the question of successful management that is to say successfulness of legal entity. Consequently balance sheet in mature companies is used as a basis for business decision.

⁵⁶Kasunović Peris, Miličević Pezelj, Milidrag Šmid i Šeperić: „ Analiza zakonodavnog okvira na području energetike i socijalne skrbi, iz perspektive energetskog siromaštva i energetske učinkovitosti“, CENEP, Zagreb, 2011. page. 11.

Energy is a basis of economy development; it is a starting point of its successfulness. The importance and role of energy on one side, and on the other side limited energy sources are making greater demands on a review of the energy planning issue, energy balancing but also making strategic decisions based on analysis.

*Energy balance*⁵⁷ is a statistics of special form that follows the flow of energy from its start up in energy economy of observed area to its sale to immediate consumers, in other words transformation into usable energy in consumer facilities or appliances. Energy balance sheet is used as a basis to plan the future, as a base for prediction of development, as well as a basis for elimination of negative and stimulating positive changes.

Rulebook on energy balance sheet [3] regulates content and method of data delivery, which are government, bodies of local and regional self-government and energy entities required to deliver to ministry responsible for energetics to determine proposal of energy balance sheet. According to the Rulebook annual energy balance sheet includes analysis of the exploitation of primary energy sources, energy transformations, usage of transformed forms, import and export of primary and transformed forms of energy as well. Annual energy balance sheet is created in three phases: collection and preparation of energy balance sheet for the next year – estimated energy balance sheet; monthly monitoring the performance of characteristic values of predicted energy balance and making the final realization of energy balance sheet at the end of the calendar year.

Annual energy balance⁵⁸ is a statistical report which examines the realization, that is to say realized quantities. Central bureau of statistics publishes it in accordance with methodology for data collecting for preparation of annual statistical energy balance sheet of UN and EU. It contains detail data of production, import, export, consumptions and reserves of certain types of energy made out of different sources.

Tables for Croatia are made on the data obtained through statistical surveys, by surveys of Energy institute “Hrvoje Požar”, administrative sources and assessments of Energy institute. Production, import, export and changes in reserves are shown by energy sources and consumption sectors and spending by energy sources and consumption sectors.

Based on the Rulebook anticipated energy balance sheet is displayed in four basic tables that show total required energy, energy transformation input, production of transformed forms of energy and structure of energy consumption. The table “total required energy” will define production of primary energy forms, import and export of energy forms, changes in storage and total required amount of energy forms. Table “energy transformation input” will show input of energy to hydroelectric power plants, thermal power plants, public heating plants, industrial electric power plants, refineries and NGL plants. In the table “the energy transformation output” production of transformed forms of energy in hydroelectric power plants, thermal power plants, public heating plants, industrial electric power plants, refineries and NGL plants will be shown. In table “the energy consumption structure” the gross available amount of energy forms, energy transformation input, energy for power plants, transport loss and distribution of energy, non-energy consumption and immediate energy consumption will be determined.

Balance sheet alone in its basis is a statistical document which reflects successfulness of the system, however, successfulness alone is measurable only through defining and monitoring of energy efficiency indicators.

⁵⁷Božo Udovičić, Energetske pretvorbe i bilanca, Građevinska knjiga, Beograd 1988.g.

⁵⁸Central Bureau of Statistics : Energy statistic for 2010

3. Energy efficiency indicators

Energy efficiency indicators are showing efficiency of energy transformation. Besides that, they are used for analysis of price change of energy sources and represent the mechanism for measuring the effects of energy efficiency policy. We can divide them into **indicators that follow trends of energy efficiency, comparison indicators and diffusion indicators.**⁵⁹

Four types of indicators are following trends of energy efficiency:

- intensity of energy consumption and CO₂ emissions with indicators measured in monetary units
- technical-economic ratios or unit consumption that connect energy consumption or CO₂ emissions with activity indicator measured by physical terms
- progress index of energy efficiency, ODEX, for various sectors
- energy savings that reflect variations of ODEX in quantities of energy savings compared to the situation without the progress of energy efficiency

Comparison indicators can be divided into two groups that represent comparison of performances between the countries:

- custom indicators
- criteria or targeted indicators

Diffusion indicators represent supplement to existing energy efficiency indicators:

- advances of efficient technologies to the market
- diffusion of energy efficient customs
- advances of OIE to the end user

In our analysis of energy efficiency trends we had at our disposal ODYSSEE base [10] and MURE project results [11].

By analyzing energy indicators Gelo, Tomislav (2010)⁶⁰ states how connecting the measures of economic and energy policy serves implementation of overall economic policy to use energy in energetic and economically optimal manner. Relations of energy consumption and level of GDP is very often used as an indicator of aggregated energy efficiency of the economy. Energy efficiency indicators can be analyzed on the level of companies (household) or at the country level (macro level). "Energy efficiency indicators are reflected as a relation (two variables, energy consumption divided with indicators of activity) or as a quantity (variations in consumption in relation to specific explanatory variable)". Given their purpose, they are divided on descriptive and explanatory indicators.

3.1. Descriptive indicators

Descriptive indicators (energy intensity, unit consumption and specific consumption) are describing the state of energy efficiency and its movement.

Energy intensity reflects the ration of energy consumption in energy units in regard to countries income in monetary units. Primarily it is connected to relationship between consumption of energy and GDP. Advantages of this indicator are simplicity of calculation and interpretation as well as its purposefulness in the context of first indications of business decision making. According to

⁵⁹H. Božić, B. Vuk, D. Novosel, Indikatori energetske učinkovitosti, Energija 05/09, str. 452-479, Hrvatska elektroprivreda d.d. Zagreb, Listopad 2009.

⁶⁰Tomislav Gelo: "Energetski pokazatelji kao indikatori razvijenosti zemlje", Zbornik Ekonomskog fakulteta Zagreb, godina 8, br 1., 2010. str. 212.

Panayotou, T (1993)⁶¹ it showed that in early phases of economic development level of energy consumption increases per income unit and in later phases of development level of energy consumption per income unit decreases.

Changes in GDP structure lead to decrease of energy intensity in manufacturing sector as well as the immediate growth of energy intensity in households.

Energy efficiency significantly affects the decline of energy intensity but it is also a basis for its decrease in the future.

Unit and specific consumption are descriptive indicators that by themselves have exclusively significance as a statistical data. Their analysis represents the basis for making most important macro energy-economic indicators, and is based on analysis of unit and specific consumption in ratio to demographic-economic variables. As the most important indicators Gelo, T (2010) states: “
- TPES/GDP (Millions of tons of oil equivalent/gross domestic product, Mtoe-USD) energy intensity of primary (final) energy supply shows the consumption of primary (final) energy (TPES) per 1000 units of GDP

- TPES/population (Mtoe per resident) - total primary energy supply per resident
- oil consumption/population (Mtoe per resident) – oil consumption per resident
- electric energy consumption/ population (kwh per resident) – power consumption per resident
- electric energy consumption/GDP (kwh/GDP) – net or gross consumption of electric energy, excluding the transit losses and distribution in case of net consumption, per 1000 GDP units this indicator shows energy intensity of electric energy consumption.”

3.2. Energy efficiency and economic efficiency

Theoretical base for analysis of economic efficiency is a concept of Pareto efficiency, which is based on the maximum that shows when the allocation of the resources in the society is where none of the individuals can benefit without worsening the state of another individual.

Gelo, T (2010) states that economic efficiency is the usage of energy that results, in combination with other inputs, with the lowest production cost and maximal allocation of resources presuming the cost efficiency of all inputs.

The Act on Effective Use of Energy in Final Consumption NN152/2008 [1] defines energy efficiency as a relation between energy consumption and achieved performance in services, goods and energy. For expression of efficiency of energy usage in final consumption it is necessary to show energy balance sheet and energy efficiency indicators on the level of local

4. Adoption of planning documents on the level of regional government

The Act on Efficient Use of Energy in Final Consumption has proscribed sectors that must be covered by planned documents that are concerning energy efficiency. By assigning assumed obligations to units of regional government that must list and provide measures within the program that are related to building sectors, public lighting, traffic and infrastructure. Planning on regional level assumes planned documentation that interferes with sectors that are not in the direct jurisdiction of units of local government or its jurisdiction is limited. Exception to this is the sector of public lighting that is in full jurisdiction of units of local government since 2007. At the same time, the law is not envisioning the obligation and responsibility of units of local government for

⁶¹Panayotou T, (1993) Empirical Tests and Policy Analysis of Environmental Degregation at Different Stages of Economic Development, Working Paper WP 238 Technology and Employment Programme, International Labour Office, Geneva.

participation in carrying out measures. Even if such obligation would be prescribed, it is questionable whether personnel of units of local government would be able to manage such enforcement of measures, without prior systematic education in the field of energy efficiency. Education is the most important component of successful implementation of measures of energy efficiency. The significance of education is well known since 1995 from World energy congress where the fourth E was introduced, that is education in energy analysis (until then there were only 3E – energy, ecology and economy)⁶²

Since the Law prescribes the obligation to adopt the plan as an annual document that will represent operative elaboration of program as well as commitment to report about implemented activities on annual basis, we could see the disproportion between obligations and responsibilities on one hand, and jurisdiction on the other. Planned documents are not just legal obligation but a base for business decision making. Measures and activities include a number of business subjects, and only their synchronized participation can deliver desired results.

In line with the above, after the team of Faculty of Electrical Engineering created the studies of Program and Plan of energy efficiency in final consumption [12],[13], those documents were then used as basis for official documents viewed by the working bodies of the County departments and, representatives of different legal subjects have analyzed these documents, and came to conclusion that it is necessary to put the Program of energy efficiency in final consumption to proceedings of public discussion. The meaning and purpose of such actions was to inform the public about the significance and the role of such planned documents, to introduce them with obligations that will result from its implementation as well as to prompt them to actively participate in their creation but also in a creation and to assume personal role in achieving common goals. To public discussion representatives of units of local government, representatives of various associations, state associations Universities, faculties and representatives of economy subjects that have influence to overall successfulness of energy efficiency were invited.,

After the public discussion, Program of energy efficiency was changed and adapted to objections and proposals of interested parties. With this approach, the County has proven its maturity in business decision making but also opened the possibility to all the interested parties to, thorough, active participation contribute to the quality of the adopted document. After that, the Program was forwarded to passing procedure to the County assembly. Assembly working bodies have considered this document and gave it a positive feedback, after which it was considered by Assembly itself. Program of energy efficiency in final consumption in the area of Osijek-Baranja County for the period of 2013-2015 was adopted on December 12th 2012.

Plan of energy efficiency in final consumption in the area of Osijek-Baranja County in 2013 was passed by the County assembly on its 31st session held on April 4th 2013.

Earlier described procedure of passing of Program of energy efficiency in final consumption shows complexity of acceptance of such documents on one hand and on the other the problem of time needed for amendments and adaptations of such documents.

5. Conclusion

Planning in energetics has a strategic role for the development of units of local government; units of regional governments as well as the State, and special attention needs to be paid to it. Strategic meaning imposes the need for systematic approach not just in passing and adopting of these planned documents, but also to fully consideration of the energy-planning problem. Serious planning is possible only when there are insured systematically guided and methodologically well placed

⁶²Božo Udovičić, Razvitak i energetika.- temeljne odrednice, Multigraf, Zagreb, 1998.

databasis, that will give enough amount of quality data for argumentative business decision making. Subsequently in the future periods it is necessary to invest significant efforts primarily into editing and defining obligations of all the legal subjects whose actions have a direct impact on creation of planned documents, as well as in enforcing all the measures and activities that they contain. The Law needs to prescribe obligations and responsibilities of data delivery but also commit state institution (Central Bureau of Statistics) to systematically managing data on the County level. Even though it is technically possible to organize data collecting within the counties as a units of local government, the need for unified overall data basis on a national level calls for the keeping exactly to State office, whereas the need to divide and managing by County is a basis for planning on the level of counties.

Furthermore, the law prescribes the obligation of monitoring of consumption but also implementing measures and activities of building sector, traffic and public lighting. The question of jurisdiction over the traffic sectors and public lighting imposes the need for higher involvement of municipalities and cities in planning procedures. Quality planning is basing on awareness as a prerequisite for business decision making. Following the stated, it is necessary to invest significant efforts in education of employees of units of local government. As it is questionable whether they can, due to limited financial resources, and lack of staff to plan and implement measures and activities that are expected of them, it is necessary to provide quality infrastructure that will enable it.

The role and significance of energetics in development of County economies imposes the need of serious involvement of Universities, faculties, municipalities, cities, state institution and all other participant that have direct impact to business decision making in energetics. Just by synchronized actions will be possible to achieve the effects that are stated in the program as well as secure rational disposal of assets and allocate resources by the principles of sustainable development to maximize the effects.

REFERENCE

1. Act on energy efficiency in the final energy consumption, NN 152/08
2. Regulation of Energy Balance, NN 33/03
3. Central Bureau of Statistics, Energy Statistics 2010.
4. Kasunović P., Miličević P., Milidrag Š. i Šeperić: "Analysis of the regulatory framework in the energy sector and social welfare, from the perspective of energy poverty and energy efficiency" CENEP, Zagreb, 2011. p.p. 11.
5. Tomislav Gelo: "Energy indicators as indicators of the development of the country ", Proceedings of the Faculty of Economics in Zagreb, year 8, number 1., 2010. p.p. 212.
6. Božo Udovičić, Energy Conversion and Balance, Building Book, Beograd 1988..
7. Panayotou T, (1993) Empirical Tests and Policy Analysis of Environmental Degregation at Different Stages of Economic Development, Working Paper WP 238 Technology and Employment Programme, International Labour Office, Geneva.
8. H. Božić, B. Vuk, D. Novosel, Indicators of energy efficiency, Energija 05/09, p.p. 452-479, HEP Zagreb, October 2009.
9. http://www.odyssee-indicators.org/registred/definition_odex.pdf
10. <http://www.muredatabase.org/aboutmure.html>
11. <http://bib.irb.hr/prikazi-rad?&rad=601789> 21.04.2013.
12. <http://bib.irb.hr/prikazi-rad?&rad=601792> 21.04.2013.
13. Božo Udovičić, Development and energy - the fundamental determinants, Multigraf, Zagreb, 1998.
14. Program of energy efficiency in the final energy consumption on Osijek-Baranja County in 2011-2013;



Graditeljstvo

Architecture

Ivanka Netinger, Ph.D. in Civil Engineering

Faculty of Civil Engineering Osijek
Crkvena 21, 31 000 Osijek
Phone: 031-540-082 Fax: 031-540-071
E-mail address: nivanka@gfos.hr

Martina Vračević, M.Sci. in Civil Engineering

Civil Engineering Institute of Croatia
Drinska 18, 31 000 Osijek
Phone: 031-253-125 Fax: 031-253-109
E-mail address: martina.vracevic@igh.hr

Robert Bušić, the first year student of graduate study level

Faculty of Civil Engineering Osijek
Crkvena 21, 31 000 Osijek
Phone: 031-540-070 Fax: 031-540-071
E-mail address: robert.busic@gmail.com

**BRICK AND MORTAR OF SUFFICIENT DURABILITY – THE
INVESTIGATION AND RESULTS****OPEKA I MORT DOSTATNE TRAJNOSTI-ISTRAŽIVANJA I REZULTATI****ABSTRACT**

Historical buildings are subjected to processes of deterioration which threaten the future of the architectural heritage of many cities around the world. When repairing damaged buildings, it is necessary to pay attention to ensure their sufficient durability by using building materials of sufficient durability. This paper analyzes the durability properties of brick produced in two ways (handmade and machine-made) and fired at two temperatures (1000 °C and 1050 °C). Water absorption, initial rate of water absorption, net and gross dry density and saturation coefficient were monitored on the final products. The goal of this research paper is to find out the optimum ways of making and firing temperature of bricks that will result in bricks of sufficient durability intended for use in historic buildings.

Keywords: brick, durability, water absorption, initial rate of water absorption, net and gross dry density, saturation coefficient, compressive strength.

SAŽETAK

Povijesne građevine podvrgnute su procesima propadanja koji predstavljaju prijetnju budućnosti arhitektonske baštine mnogih gradova diljem svijeta. Prilikom sanacije oštećenih objekata, potrebno je obratiti pažnju na osiguranje dostatne trajnosti konstrukcije, i to upotrebom građevinskog materijala dostatne trajnosti. U ovom radu su analizirana trajnosna svojstva opeke proizvedene od tri različite sirovine, izrađene na dva načina (strojno i ručno) te pečene na dvije temperature (1000 °C i 1050 °C). Na gotovim proizvodima praćeni su upijanje vode, kapilarno upijanje vode, bruto i neto volumna masa te koeficijent zasićenja. Cilj istraživanja je iznalaženje optimalnog načina izrade i temperature pečenja opeke koji će rezultirati opekama dostatne trajnosti namijenjene za ugradnju u povijesne građevine.

Ključne riječi: opeka, trajnost, upijanje, kapilarno upijanje, bruto volumna masa, neto volumna masa, koeficijent zasićenja

1. Introduction

Nowadays, the durability of buildings has become one of the most important problems of construction engineering. Often the basic properties of buildings become weaker from the designed ones after a few years already. Historical buildings are subjected to processes of deterioration which threaten the future of the architectural heritage of many cities around the world. There are many causes for the deterioration of the architectural heritage that manifest themselves in a complete or partial demolition of facilities, additions and reconstructions, change of purpose and similar. Most significant mechanisms of masonry building deterioration are (Radić, 2010.):

- salt crystallization,
- water solubility,
- damages due to the impact of freezing/thawing,
- biological factors and
- mechanical damages.

In order to prevent or moderate aggressive impacts from the polluted atmosphere and other mechanisms which damage building elements, the maintenance and protection of such buildings includes, besides mechanical and chemical cleaning, implementing various preservatives and replacing certain specific parts or whole surfaces inside of the building. Unfortunately, in practice many reconstructions of buildings are being carried out not taking into account that the construction material is a part of the construction into which it is placed and that the construction properties directly depend on the properties of the material which is placed into it, as well as on the mutual interaction of the materials in the construction. When it comes to mortar, lime mortar and lime-cement mortar, although less solid, is considered to last longer than cement mortar. This type of mortar is porous, it loses water quickly and is less subjected to damages due to freezing/thawing (Boynton, 1989.)

The durability of brick is much more complex and depends on many parameters in the brick production process. The goal of this research is to find out the optimum ways of making and firing of brick, which will result in brick with sufficient durability intended for use in historical buildings. With this goal, series of bricks have been produced implementing two ways of production and fired at two different temperatures in an electric kiln. During the drying and firing process, shrinkage has been monitored as an important parameter which has to be taken into account during the mould-making for machine-made bricks and handmade bricks in the initial stage of the production of this building element. In brick samples, the durability properties have been tested and preliminary conclusions have been reached on the optimum process of producing brick intended for the recovery of historical buildings. Although it is not a durability parameter, the compressive strength of the brick was monitored as well.

2. Durability of bricks

2.1. The impact of the production process on the durability of bricks

Normal brick for brickwork construction from nowadays manufacturing is not suitable with its measurements and appearance for the recovery of historical buildings. Therefore, smaller series of bricks are produced for this purpose in specialised factories/manufactories in one of the two following ways:

- machine-made, with hand finishing of the brick surface in order to obtain the appearance of an „old“ brick, or
- handmade.

The main difference between machine and hand manufacturing lies in the porosity of the manufactured brick. The total volume of pores is bigger in machine-made bricks in comparison to handmade bricks. At the same time, during the machine-making process, pores of 0,1 μm up to 1 μm in diameter - medium pores (Larsen, 1995.) are formed. Pores obtained this way are parallel with the direction of the raw material extrusion, they are horizontal and not visible on the bare surface of the product and they turn the homogenous raw material into an anisotropic final product. The result of the above mentioned is a product with less resistance to the freeze-thaw processes. Pores with a diameter bigger than 1 μm (coarse pores) are easily filled with water and emptied, which enhances the durability properties of the brick (Kung, 1985.). Fine pores (of less than 0,1 μm in diameter) have a very low impact on the resistance of the brick to freeze-thaw cycles because water freezes in them only at very low temperatures. Actually, medium pores are most subjected to the freeze-thaw effects because they are mostly filled with water, which dries up slowly in the pores. Therefore, the aim of brick manufacturing is to obtain the smallest proportion of medium size pores. But in handmade production the distribution of pores is mostly in the interval between 0.1-10 μm (Larsen, 1995.) (with a smaller proportion of pores in the range of 0,1-1 μm than in cases of machine-made bricks), and the pores are evenly placed on the cross section, which results in smaller deviations of the new product characteristics and in longer durability of the bricks.

After being manufactured, bricks are properly dried. The way of drying the brick has to be adequate in order to allow a complete loss of moisture in the product with minimum mechanic defects such as cracks.

Besides the production process, the size and system of pores which will be formed in the kiln is affected by the temperature of firing. According to (Ikeda, 2004.), for samples fired at a temperature of 900 $^{\circ}\text{C}$ the largest amount of pores of 0.1-0.5 μm and those of 100 μm in diameter is created. At 1000 $^{\circ}\text{C}$, pores of 1-2 μm in diameter are mostly created and at the same time the amount of created pores of 100 μm is reduced. At 1100 $^{\circ}\text{C}$, the growth of pores of 1-2 μm in size is quickly reduced, whereas at 1200 $^{\circ}\text{C}$, the growth of pores of 0,1-0,5 μm in size increases. With regard to the previously described effect of the size of pores on the brick resistance to freeze-thaw cycles, the firing temperature of bricks between 1000 and 1100 $^{\circ}\text{C}$ will result in the size and system of pores that will ensure the durability of bricks.

2.2 Durability parameters of bricks

Parameters for assessing the durability of bricks can be divided into indirect and direct. Into the category of indirect parameters can be included: water absorption, initial rate of water absorption, soluble salt content, pores structure and the saturation coefficient. The direct parameter, and the only parameter for assessing the durability of bricks according to the European legislation, is considered to be their resistance to freeze-thaw cycles. And while other here mentioned terms are explained in standards that these properties cover or are already explained in the text, the saturation coefficient is a quite unexplored parameter. The saturation coefficient represents the amount of absorbed water in a sample, which has been strained for 24 hours, and the amount of absorbed water after sinking in boiled water, which lasts for 5 hours (Kung, 1985.). Actually, the saturation coefficient determines the correlation of pores that are easily filled with water and the total volume of pores. Regarding all the above mentioned, the saturation coefficient becomes the indicator of free space in the volume of pores, which remains free after they are filled with water and it can also serve as accommodation for the volume of water caused by freezing.

According to that, materials with a higher water absorption refer to a higher proportion of pores with a larger diameter. Higher initial rate of water absorption indicates bigger surface pores, i.e., it defines liquid movements (water and salts) inside the material. The initial rate of water absorption is inversely proportionate to the diameter of the pores, that is, the smaller the diameter of the pores, the higher the initial rate of water absorption. In terms of the saturation coefficient (K_u), it is

considered that its value of less than 0,88 ensures the resistance of the product to freeze-thaw cycles (Radonjanin).

3. Experimental part

3.1. Properties of raw material

In order to make samples of brick, raw materials from a clay pit in the area of eastern Slavonia: Grabovac (Kuševac) were used. The raw material was mechanically homogenized, properly „fabricated“ and of sufficient quality in order to achieve an even shrinkage and necessary plasticity. Properties of raw materials are shown in Figure 1 and in Tables 1 and 2. The grain size distribution of raw materials is determined according to ASTM D 422, the liquid limit, the plastic limit and the plasticity index according to BS 1377 and the moisture of samples according to ASTM D 2216.

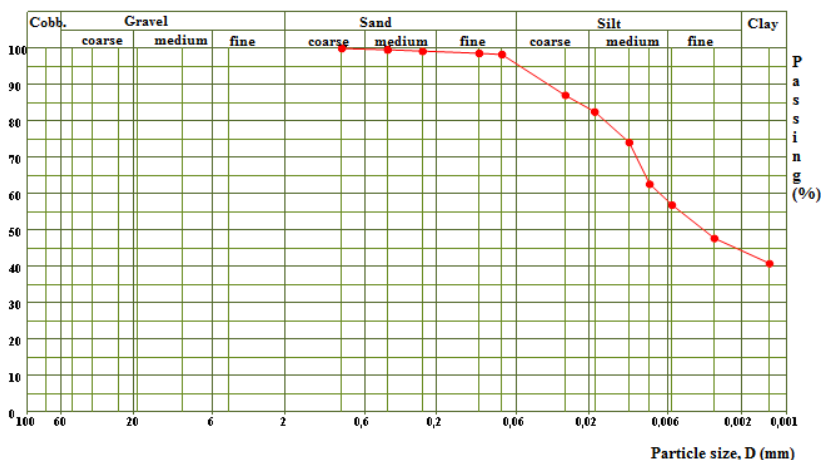


Figure 1 The grain size distribution of raw material (Bušić, 2012.)

Table 1 Test results of particle size distribution (Bušić, 2012.)

Raw material	Description of particles (form, solidity)	Grain (mm)	C_u	C_c	G(%)	S(%)	M(%)	C(%)
Grabovac (Kuševac) - D	round, solid and durable	0,85	-	-	0,00	4,27	51,38	44,35

Abbreviations in the Table: C_u – coefficient of uniformity, C_c – coefficient of curvature, G – gravel, S – sand, M – mould powder, C – clay.

Table 2 Liquid limit, plasticity limit, plasticity index and moisture of raw material (Bušić, 2012)

Raw materials	Sample description		Liquid limit (%)	Plasticity limit (%)	Plasticity index (%)	Moisture (%)
	Sample preparation	Passing through the sieve 0,425				
Grabovac (Kuševac) - D	naturally humid	100 %	57,33	16,02	41,31	36,6

3.3. Brick manufacturing

Samples of bricks with measurements of 12,5/6/3 cm are prepared by machine and by hands, then rolled in sand in order to prevent a rapid moisture loss from the raw material. Samples have been dried during the period of circ. 45 days on a flat surface which was sand-coated and was lying on the floor of a room due to a lower air flow and in order to be protected from a rapid loss of moisture and the too bright sun. During the drying process, shrinkage has been monitored on brick samples and a higher level of shrinkage was noticed on final products that were hand-made bricks in comparison to machine-made bricks. On machine-made bricks, a higher level of shrinkage during the drying process in the direction of brick extrusion through the mould in the production process has been noticed as compared to the direction perpendicular to the direction of brick extrusion. This impact of the direction in the brick production process on the level of its shrinkage during the drying process has not been noticed on handmade bricks. After the drying, samples of bricks were fired in an electric kiln with an increase in temperature of 45 °C/h until reaching a target temperature (1000 °C or 1050 °C) and after reaching it they were kept at the same temperature during a period of 30 min. Shrinkage of bricks has been monitored after the firing process and it has been noticed that a higher firing temperature causes higher shrinkage of samples on machine-made and handmade bricks. Then again, on machine-made bricks a higher level of shrinkage during the firing process in the direction of brick extrusion through the mould in the production process has been noticed as compared to the direction perpendicular to the direction of brick extrusion. This impact of the direction in the brick production process on the level of its shrinkage during the firing process has not been noticed on handmade bricks.

Figures 2 to 7 show the process of manufacturing brick samples. Regarding the two ways of manufacturing bricks and two different firing temperatures, 4 types/series of bricks were produced.



Figure 2 Machine-made brick



Figure 3 Mould for handmade bricks



Figure 4 Sand-coating of newly made bricks



Figure 5 Bricks after the firing process



Figure 6 Machine-made bricks

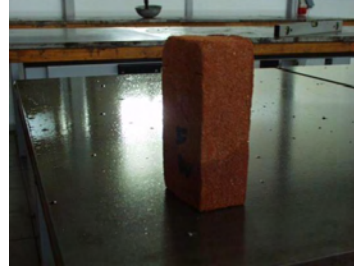


Figure 7 Handmade brick

3.3. Testing of brick properties

Brick properties are tested in accordance with a variety of standards HRN EN 722, and they refer to determining measurements, net and gross density, absorption and initial absorption, compressive strength. The saturation coefficient was determined for each series of bricks as well. The testing of all properties has been carried out on 10 samples from each series of bricks, except determining the saturation coefficient, which has been carried out on 5 samples from each series of bricks.

3.4. Test results and analysis of results

The results of testing the durability properties of bricks are shown by Figures 8 to 13, with average results in all measured values per individual property.

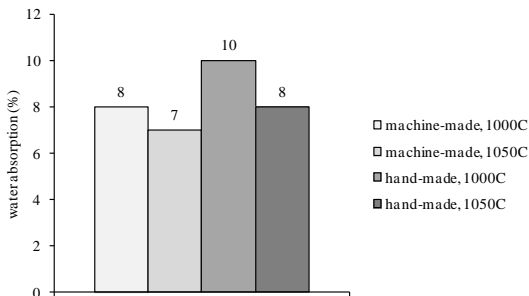


Figure 8 Results of water absorption testing

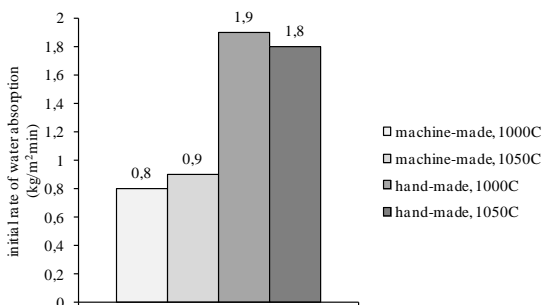


Figure 9 Results of initial rate of water absorption testing

It can be seen from Figure 8 that a handmade brick has higher levels of water absorption and clearly noticeable initial rate of water absorption unlike machine-made bricks (Figure 9). Such results indicate a higher proportion of pores on handmade bricks in comparison to machine-made bricks, which confirms higher values of gross and net dry density in machine-made bricks (Figure 10 and 11). Regarding higher levels of water absorption in handmade bricks, it is assumed that pores of

larger diameters have been formed during that type of brick production process. Higher initial rate of water absorption in handmade bricks indicates that pores of smaller diameters are formed, which is opposite to the above mentioned. In both ways of manufacturing bricks, water absorption and initial rate of water absorption have slightly higher values at brick firing temperatures of 1000 °C in comparison to brick firing temperature of 1050 °C. The assumption is that at lower firing temperatures larger pores develop that are then filled with water and tend to lose water quickly which is favourable for the resistance of bricks to frost-thaw cycles and there are indications here that these large pores have been developed in handmade bricks at lower temperatures, which then suggests a longer durability of these bricks.

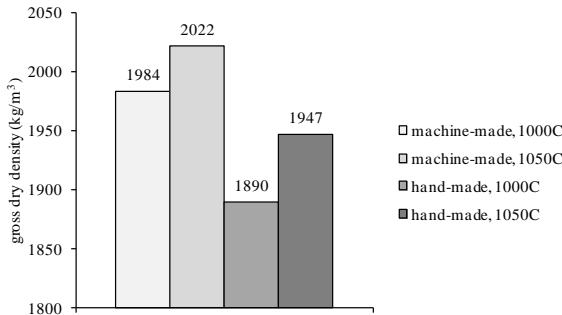


Figure 10 Results of gross dry density testing

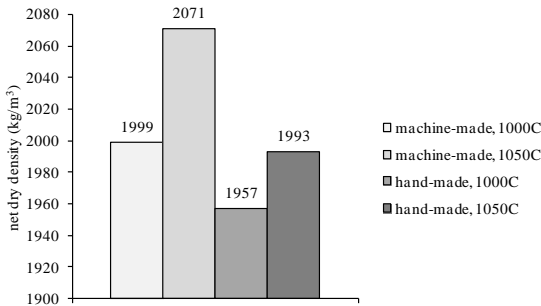


Figure 11 Results of net dry density testing

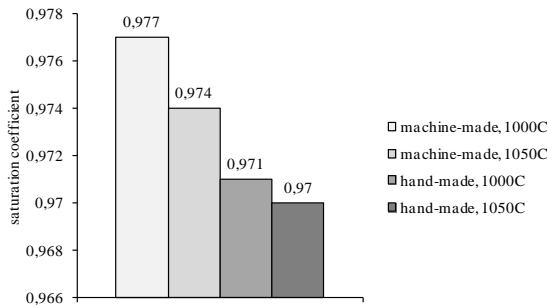


Figure 12 Results of saturation coefficient testing

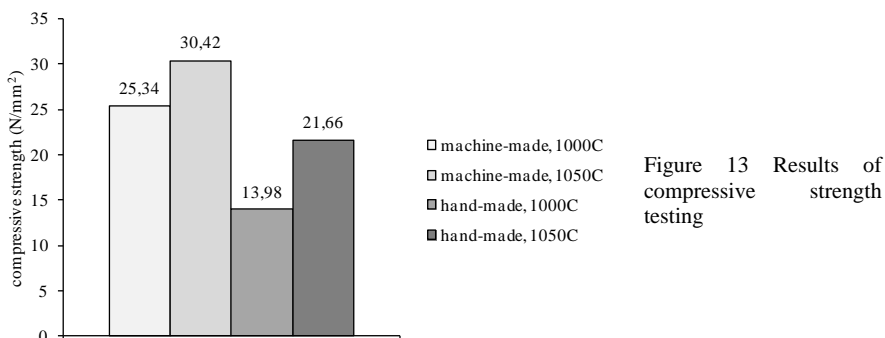


Figure 13 Results of compressive strength testing

In the saturation coefficient (Figure 12) no rules for behaviour in relation to the firing temperature and the type of brick production process have been noticed, but values considerably above the limit which ensures the resistance of bricks to frost-thaw cycles have been observed. Furthermore, compressive strengths (Figure 13) are higher in machine-made bricks than in handmade bricks and generally higher at bricks fired at higher temperatures.

Taking into account that results according to all here observed properties indicate different conclusions, the final conclusion about the resistance of brick to frost-thaw cycles regarding the type of the manufacturing process and firing temperature will be possible to reach after the testing of resistance of bricks to frost-thaw cycles and after having insight into the proportion of pores of certain size in the total pore system.

4. Conclusion

The goal of this research paper is to find out the optimum ways of making and firing temperature of bricks that will result in bricks of sufficient durability intended for use in historic buildings. Given the fact that the results of the investigation presented in this paper do not unambiguously point out the optimum way of manufacturing and firing brick with the aim of reaching her sufficient durability, the final conclusion on the resistance of brick to freeze-thaw cycles with regard to the ways of its production process and firing temperature will be possible to reach after the testing of resistance of bricks to freeze-thaw cycles and after having insight into the proportion of pores of certain size in the total pore system.

Acknowledgments

The authors would like to thank for the funds for the project “*Development of investigation and analysis techniques for the assessment and lifetime expectancy of historical structures*”, financed from the pre-accession fund Hungary-Croatia IPA Cross-border Co-operation Programme 2007 – 2013.

LITERATURE

Boynton, R.S., Gutschick, K.A.: Durability of mortar and masonry - Masonry mortar technical notes (1989), Arlington: National Lime Association

Bušić, R.: Influence of production method and firing temperature on properties of clay brick – final paper (2012), Osijek: Faculty of Civil Engineering

HRN EN 771-1:2011 Specification for masonry units -- Part 1: Clay masonry units

HRN EN 772-11:2011 Methods of test for masonry units -- Part 11: Determination of water absorption of aggregate concrete, autoclaved aerated concrete, manufactured stone and natural stone masonry units due to capillary action and the initial rate of water absorption of clay masonry units

HRN EN 772-13:2003 Methods of test for masonry units -- Part 13: Determination of net and gross dry density of masonry units

HRN EN 772-16:2011 Methods of test for masonry units -- Part 16: Determination of dimensions

HRN EN 772-3:2003 Methods of test for masonry units - Part 3: Determination of net volume and percentage of voids of clay masonry units by hydrostatic weighing

HRN EN 772-7:2003 Methods of test for masonry units - Part 7: Determination of water absorption of clay masonry damp proof course units by boiling in water

Ikeda, K., Kim, H-S., Kaizu, K., Higashi, A.: Influence of firing temperature on frost resistance of roofing tiles, *Journal of the European Ceramic Society*; Vol. 24 (2004), pp. 3671-3677

Kung, J.H.: *Frost Durability of Canadian Clay Bricks* (1985), Ottawa: National Research Council Canada

Larsen, P.K.: *Moisture physical properties of bricks*-Technical report (1995), Holzkirchen: Technical University of Denmark

Radić, J.: *Trajnost konstrukcija 1* (2010), Zagreb: Jadrin Radonjanin, V., Malešev, M.: Notes in lectures



**Turizam i
hotelijerstvo**

**Tourism and
Hospitality industry**

Professor Mato Bartoluci

Faculty of Economics & Business Zagreb
Trg J.F.Kennedyja 6
10000 Zagreb
Phone: 01/238-3471
Fax: 01/233-5633
e-mail: mbartoluci@efzg.hr

Assistant Professor Zvezdana Hendija

Faculty of Economics & Business Zagreb
Trg J.F.Kennedyja 6
10000 Zagreb
Phone: 01/238-3269
Fax: 01/233-5633
e-mail: zhendija@efzg.hr

Vanja Budimski, MA, teaching and research assistant

Faculty of Economics & Business Zagreb
Trg J.F.Kennedyja 6
10000 Zagreb
Phone: 01/238-3270
Fax: 01/233-5633
e-mail: vbudimski@efzg.hr

**EVALUATION OF THE POSSIBILITIES OF RURAL TOURISM
DEVELOPMENT IN EASTERN CROATIA**

**VALORIZACIJA MOGUĆNOSTI RAZVOJA RURALNOG TURIZMA
U ISTOČNOJ HRVATSKOJ**

ABSTRACT

Based on numerous former researches of tourism development in Eastern Croatia, the aim of this paper is to critically analyze various development possibilities of this region. Also, the aim is to evaluate the potential types and special interest tourism, which have the biggest opportunities for future tourism development.

The emphasis in this paper is put on various forms of rural tourism which could be developed jointly with urban tourism, by using a common strategy. Namely, urban tourism in Eastern Croatia has reached a certain development stage, especially in the biggest cities.

Even though this area is rich in various attractive natural resources, alongside cultural and historical heritage of high value, the former tourism development was far behind other regions, especially Adriatic region. According to the official tourism data, this region (consisted out of five counties), disposes with modest 0.7% in the total number of Croatia commercial accommodation facilities, and its share of overnight stays 0.5%, which is far below the real potentials.

In this paper the reasons of inadequate tourism development are analyzed, the critical evaluation of the development of the existing tourism capacities is provided and the potentials of future tourism development in this region are analyzed. By using the SWOT analysis, the strengths, weaknesses, opportunities and threats of the future urban and rural tourism development in Eastern Croatia are analyzed.

Therefore, the aim of this paper is to critically analyze the former tourism development and to provide certain guidelines for its future development in this region. The main hypothesis in this paper is that rural tourism in Eastern Croatia can be successfully developed jointly with urban and other special interest tourism, and that it could be economically sustainable. After the Republic of Croatia joins the EU, new market possibilities will occur, as well as the new sources of financing the development of various forms of rural and urban tourism. This is pointed out in the new Strategy of tourism development in Croatia, in which the rural tourism is treated as one of the strategic directions of tourism development in Croatia. This paper points out the authors' understandings that rural tourism together with urban tourism can be the driver of the total tourism development in Eastern Croatia.

For the purpose of this paper the method of desk research was used. All relevant scientific and professional papers by domestic and foreign authors related to the research topic were studied. The results were interpreted by using the methods of comparative analysis, economic analysis and the method of description.

Key words: *rural tourism, economic sustainability of rural tourism, Eastern Croatia*

SAŽETAK

Polazeći od brojnih dosadašnjih istraživanja o razvoju turizma na području Istočne Hrvatske u radu se kritički analiziraju različite mogućnosti razvoja te se daje ocjena potencijalnih vrsta i oblika turizma, koje imaju najveće potencijale za budući razvoj turizma.

Težište se stavlja na različite oblike ruralnog turizma koje je moguće razvijati zajedničkom strategijom s urbanim turizmom koji je već danas dosega određenu razinu razvoja poglavito u većim gradovima ove regije.

Iako je područje Istočne Hrvatske bogato raznolikim atraktivnim prirodnim resursima, kao i kulturno-povijesnom baštinom visoke vrijednosti, dosadašnji razvoj turizma obilato je zaostajao za drugim regijama, posebno jadranskom turističkom regijom. Prema službenim statističkim podacima za 2011. godinu ova regija, koja obuhvaća pet županija, raspolaže sa skromnih 0,6% komercijalnih smještajnih kapaciteta u kojima se ostvaruje 0,5% noćenja u Hrvatskoj, što je daleko ispod stvarnih mogućnosti.

U radu se analiziraju razlozi neadekvatnog razvoja turizma, daje se kritička ocjena razvoja postojećih turističkih kapaciteta, te se analiziraju potencijali budućeg razvoja turizma u ovoj regiji. Pomoću SWOT analize valoriziraju se snage, slabosti, prilike i prijetnje budućeg razvoja urbanog i ruralnog turizma u regiji Istočna Hrvatska.

Stoga je cilj ovog rada kritički analizirati dosadašnji razvoj turizma te dati određene smjernice za budući razvoj u ovoj regiji.

Polazna hipoteza u ovom radu je da se ruralni turizma u regiji Istočne Hrvatske može uspješno razvijati zajedno s urbanim i ostalim komplementarnim oblicima turizma te da može biti ekonomski održiv.

Ulaskom Hrvatske u EU ostvarit će se nove tržišne mogućnosti kao i novi izvori ulaganja u različite oblike ruralnog i urbanog turizma.

Na to upućuje nova Strategija razvoja turizma u Hrvatskoj u kojoj se ruralni turizam tretira kao jedan od strateških pravaca razvoja hrvatskog turizma.

U radu se prezentiraju spoznaje autora da ruralni turizam zajedno s urbanim turizmom može biti pokretač razvoja ukupnog turizma u Istočnoj Hrvatskoj.

U radu je primijenjena metoda istraživanja za stolom tzv. desk research pri čemu je proučena sva relevantna domaća i strana stručna i znanstvena literatura o temi istraživanja, a rezultati su interpretirani korištenjem metode komparativne analize, ekonomske analize te metode deskripcije.

Ključne riječi: *ruralni turizam, ekonomska održivost ruralnog turizma, Istočna Hrvatska*

1. Introduction

Economic development of the Eastern Croatia during the last 20 years is more and more left behind the economic development of the other Croatian regions, especially of the City of Zagreb and its surrounding and coastal regions of Istria and Kvarner. This can be analyzed through several economic indicators, such as the size of the GDP, unemployment rate, etc. The same trend is noticeable in the field of tourism and complementary activities (agriculture, industry, construction, etc.). In this paper the area of Eastern Croatia is treated as a unique, recognized region with certain characteristics, even though it is not officially defined as a region. The former tourism development in this region has resulted with modest results in relation to the overall tourism development in the Republic of Croatia. Even though this region has a 22% share in the total area of the country, in the context of tourism it has a modest 0.7% share in commercial accommodation capacities and registers only 0.5% of the total number of overnight stays, which is far below its real potentials. There are numerous reasons of poor tourism development of this area. During the last 50 years investments in tourism development have mainly been focused on coastal Croatia, while investments in rural tourism were left behind. Therefore it is not surprising that today more than 85% of tourism turnover is registered in coastal region and the rest is registered in the city of Zagreb and its surroundings, as well as in the north-west part of Croatia.

The growth potentials of this region are known for a long time. They arise from its rich natural resources - rich valleys, forests, rivers, lakes, favorable climate. Besides that, this area is rich in cultural heritage, traditional religious celebrations, culinary tradition, etc. This cultural richness has affected the development of cities and villages in urban areas, where urban tourism is being developed. This is encouraged also with new road infrastructure which has connected eastern part of Croatia with its other parts, as well as with neighboring countries.

All of these potentials can be considered as drivers of development of special interest tourism, like rural, gastronomy, wine, cultural, sports, health, religious, eco, hunting and fishing, etc. (Bartoluci, 2013:192-210). All these forms can be developed within the scope of urban and rural tourism and excursions. After Croatia joins the EU, new market potentials will occur, which should lead to new investments, employment and encouraging the total economic development of this region. Based on the SWOT analysis presented in the paper, certain guidelines for tourism development in this region are given.

2. Analysis of tourism development in the eastern Croatia for the period from 2002 to 2012

Even though this area is rich in attractive natural resources, as well as in the cultural heritage of high values, its present tourism development has been left far behind other regions, especially Adriatic region, where, for years now, more than 85% of Croatia tourism turnover is registered. According to the official statistic data for the year 2012, Eastern Croatia, consisting out of 5 counties (Brod-Posavina, Osijek-Baranja, Požega-Slavonia, Virovitica-Podravina and Vukovar-Srijem) is taking 22% of the whole Croatian territory (CBS, 2011) and disposes with only 0.7% of commercial accommodation capacities in which only 0.5% of overnight stays in Croatia is registered, which is far behind the real potentials (BIST, 2013). Out of 805,489 beds (the number statistically registered in Croatia in August 2012), the entire Eastern Croatia had only 5,286 beds, despite the dynamic growth trend during the last decade and 85% increase in volume (Table 1).

Table 1 Number of tourist arrivals and overnight stays in the Eastern Croatia in years 2002 and 2012

	2002.	2012.	Change index 2012./2002.
Eastern Croatia			
Tourist arrivals	96.440	149.332	154,8
Total number of overnight stays	213.331	312.806	146,6
Average stay (in days)	2,2	2,1	
Domestic tourists, overnight stays	158.938	218.983	137,8
International tourists, overnight stays	54.393	93.823	172,5
Share of international in the total number of overnight stays (%)	25,5	30,0	
Share of overnight stays during July and August (%)		17,0	
Number of beds	2.859	5.286	184,9
Share of Eastern Croatia in total number of overnight stays in Croatia (%)	0,48	0,50	
Share of Eastern Croatia in total number of beds in Croatia (%)	0,38	0,66	

Source: BIST, 2013

Due to the shorter stay of tourists in this region (2.1 days) in relation to the average stay in Croatia (5.3 days in 2012), its share in total tourism turnover is even more modest in relation to accommodation supply, and results in only 0.5%. Namely, in Eastern Croatia 149,322 tourists have registered 312,806 overnight stays in commercial accommodation capacities in 2012 (BIST, 2013). During the last decade the growth of tourism turnover in this region did not follow the dynamics of increase in accommodation capacities. The number of overnight stays has been increased by 47% during the period from 2002 to 2012 (BIST, 2013).

In the structure of accommodation capacities in this region hotels predominate with 2,294 beds (43.4% of total number) and they are the most used type of accommodation in the region, since they are annually used 80 days in average (182,792 overnight stays or 58.4% of total tourism turnover in 2012). Hotels are followed by lodgings (18.1%), rooms for renting (7.2%), private rooms (5.1%), resorts (4.8%), rural households (4.1%) and mountain homes, hunting lodges and similar types of accommodations. However, with the exception of hotels, all other capacities are in average underused. For instance, rural households are used only 31 days, private rooms 46 days, rooms for renting 59 days, etc. This affects the low average annual utility of all capacities in the Eastern Croatia (around 59 days), which is 19 days less than the relatively low accommodation utility in Croatia (78 days).

In relation to highly seasonal character of Croatian tourism, directed mainly to July and August, during that peak season, in Eastern Croatia only 17% of total overnight stays is registered. In this region tourism turnover is evenly distributed through the whole year, with the lowest share in February (4.3%), and the highest in September (11.6%) and May (10.9%). Such dynamics clearly stresses different motives of tourist arrival in this region, where urban, business, transit, health, rural, gastronomy, wine, hunting and fishing motives predominate, even though there is a lack of primary researches which would argue those results. Such situation is confirmed by significantly higher share of domestic tourists, with the share of 70% in the total number of overnight stays, in relation to their modest 8% share in total tourism turnover in Croatia. Among the meager number of international tourists in this region, the ones from Germany (3.9%), Italy (3%), Bosnia and Herzegovina (2.6%), Slovenia (2.5%) and Austria (2%) predominate.

The accommodation offer is geographically distributed in 88 out of 998 settlements of this region (CBS, 2011), with less than 20 beds in half of those settlements, which stresses the low level of quality of that offer (BIST, 2011). Two thirds of accommodation capacities is concentrated in countries' centers and bigger urban areas – Osijek, Vinkovci, Vukovar, Slavonski Brod, Orahovica, Lipovac, Bizovac (due to the health tourism), Požega, Đakovo and Našice. In those towns 38% of this region's inhabitants live (CBS, 2011). The hotel offer, predominately of the highest quality, is also concentrated in those 10 towns (23 out of 38 hotels are located there). Due to the fact that accommodation capacities are mainly concentrated in bigger towns of this region, they attract more tourists and register 70% of total overnights in this region (BIST, 2013). This data stresses out the fact that urban tourism is the most developed type of tourism in this region, regardless the motives of tourist arrivals in those towns, which for sure are primarily related to business activities, even though there is not much primary research to confirm this, either.

Rural tourism is developed outside the urban centers, as this area is rich in natural and cultural characteristics, with small number of inhabitants, where agricultural activities predominate and social structure and customs are partially preserved (Ružić, 2012:217). During the last couple of decades, in this region, as well as in the rest of the Croatia, the development of rural tourism was stimulated in the Eastern Croatia (Horwath Consulting, 2009:20-27), but also in some other Croatian regions. However, the offer of this special interest tourism is still not developed enough, is unevenly distributed, almost in its initial phase of development (Kušen, 2006:168). At the same time, rural tourism in some other European countries has been developed much more successfully, thanks to the public support of its development (Krajnović, Čičin-Šajn, Predovan, 2011:33). In Croatia, rural tourism faces undeveloped domestic demand and unfavorable business environment, is being developed much too slowly, with the exception of few counties (Strategija razvoja turizma RH do 2020. Godin 2013:9). The biggest tourism receiving, but also tourism generating rural tourism markets in Europe are France, Germany, Austria, Great Britain and Italy. Altogether they make around 80% of total rural tourism market in Europe (Horwath Consulting, 2009:27).

It should be emphasized that official statistic data do not provide the realistic insight into the current state of rural tourism and therefore it is necessary to consult various sources of data, if one wants to analyze the real state (data published by the CBS, Croatian Chamber of Economy -CCE, internet sites of tourism boards of the counties, etc.). Namely, CBS registers data only for rural households which provide accommodation services (starting from the year 2004), while the Department of Tourism of the CCE additionally registers tourist rural family households that provide food and beverages, and also the same-day visitors. Besides, it should be mentioned that in that offer also wine cellars, tasting rooms and similar object are taken into account. However, primary research conducted in Bjelovar-Bilogora County pointed out that a certain number of such objects is moonlighting. As the main reasons for such state they named unfavorable economic situation caused by economic crises and recession in the country (Tominac, 2011:26). Due to the unequal criteria, it is extremely difficult to determine the realistic level of rural tourism offer development in a certain area.

Rural tourism in Eastern Croatia accounts for 33 rural households with 219 beds, or 4.1% of total accommodation capacities. Compared with the year 2004, when the first three rural households in Osijek-Baranja County started their business, their number in this region has been increased by 73 times, which empathizes a dynamic growth trend (Table 2). Even though this type of accommodation in Croatia at the beginning has been dynamically developed in Istria, during the last couple of years their number in Istria has been decreased, while at the same time in Eastern Croatia it has been increasing. For a long period of time rural tourism in Istria county was the most developed and the only one competitive on the European tourism market, if the number of accommodation facilities, their arrangement and equipment, exterior design, the level of services, presentation and promotion are taken into account (Kušen and Hendija, 2005:19). However, the

case of Istria proves that all that is not enough for rural tourism to be developed, even though this region has started with development and evaluation of agritourism households, using subsidies and incentives provided by public sector. Namely, most of the Istrian agritourism households today is either closed or is doing business at the edge of profitability (Krajnović, Čičin-Šajin, Predovan, 2011:31). Statistic data go in favor of this statement, as the number of households has decreased from 16 in 2009 to 9 in 2012 (BIST, 2013). In Croatia there are also large spatial differences in the level of development of tourist rural family households. It is quite symptomatic that the biggest number of those households is concentrated in two most developed counties in terms of tourism (Istra and Dubrovnik-Neretva). This emphasizes the fact that rural tourism demand consists mostly of international tourists in the search for authentic products (Jelinčić, 2007:287), while in the Eastern Croatia domestic guests predominate, mostly same-day visitors and excursionists.

The similar experiences with developing rural tourism have been registered on Cyprus, where the development of this special interest has been stimulated using the EU funds, with the goal to decrease the dependence on “sun and sea” product, which is a situation quite similar to the one in Croatia. Namely, even today Croatia is a typical example of mature tourism destination with only one product dominating (“sun and sea”), with high seasonal character of business operations (Strategija razvoja turizma u RH do 2020. god., 2013:19). Using the case of Cyprus, Sharpley has proved that in all those countries in which rural tourism is competing with leisure tourism, it has weak chances to become developed. By conducting market research he has proved a weak economic profitability of investing solely into rural tourism due to the low utilization of those capacities, weak interest shown by the demand (especially international), relatively high prices in relation to some other accommodation capacities which tourists traditionally find more attractive, and which are located in coastal tourism destinations, as well as numerous other reasons (Sharpley, 2002:236). The research has confirmed that on Cyprus these objects are mostly used during weekends in warmer part of the year, which is certainly not enough for them to be economically profitable. On the other has, economic and broader social positive effect of rural tourism development are unquestionable and scientifically proved through numerous researches (UNWTO, 2004:14; Fleisher, Pizam, 1997:368; Franić, Grgić, 2002:133, Kušen, 2006:170 and other authors).

Table 2: Rural tourism offer development in Eastern Croatia in the years 2007 and 2012 (based on various data sources)

				Eastern Croatia	Istria County	Other counties	CROATIA IN TOTAL
Tourist rural family households	2007	CCE		58	64	230	352
No. of beds	2007	CCE		192	253	441	886
Food services	2007	CCE		49	47	192	288
Tasting rooms	2007	CCE		5	35	167	207
No. of rural households	2007	CBS		5	17	10	32
No. of rooms and apartments	2007	CBS		16	68	55	139
No. of beds	2007	CBS		35	189	131	335
No. of rural households	2012	CBS		33	9	45	87
No. of rooms and apartments	2012	CBS		100	45	131	276
No. of beds	2012	CBS		219	103	298	620
Wine cellars/tasting rooms	2012	Internet		68	NA	NA	NA

Note: NA=not available

Source: CCE: Mišćin, Mađer, 2008:12; CBS; BIST, 2013; statistic data for August in the analyzed years; Internet: sites of five tourism boards of Eastern Croatia

In the year 2012 in the Eastern Croatia 33 rural households were officially registered for providing the accommodation services (BIST, 2013). However, according to the data published by the CCE, in the year 2007, 54 rural households have been providing food services or wine and other drinks tasting (CCE, 2008). By analyzing the internet sites of all five tourism boards in this region, it was determined that on the wine roads, in wine cellars, tasting rooms and similar objects such services are being offered in 68 facilities. Namely, the range of rural households engaged in rural tourism in Eastern Croatia is somewhere between 33 households (that provide accommodation services, additional to other services) to 58 rural households, according to the data published by the CCE and/or 68 wine cellars. All this stresses the nonsystematic state of rural tourism in this region.

One of the main advantages of rural tourism development is that simultaneously it is possible to develop some other special interest tourism, like cultural, adventure, sports, hunting, fishing, religious, health, gastronomy, wine, eco, shopping, etc. (Ružić, 2009:17; Kušen, 2006:171). Special opportunities are provided by excursions (both non-stationary and stationary), which are related to religious motives, weddings, fairs, culinary ceremonies and similar events, but also family celebrations. For rural tourism to be more intensively developed, special programs should be created and promoted, together with some authentic tourism products of this regions, which should be branded (ham, wines, etc.) and promoted on the EU market.

In the Croatian tourism development strategy it is highlighted that, globally, the growth trend of rural tourism is very dynamic (in average, 6% rate annually). Also, even more optimistic are stands about the development of gastronomy and wine offer in Croatia. The available researches point out that around 160,000 of Croatian inhabitants visit wine roads, where 61% of them buy local wines, and 63% local food products. Unlike mentioned special interest tourism which are barely recognized even in the terms of domestic tourism demand market, urban tourism has a power to attract significant number of international tourists (Strategija razvoja turizma u RH do 2020. god., 2013:9).

3. SWOT analysis of rural tourism development in the Eastern Croatia

In Eastern Croatia it is possible to list numerous natural and social resources which make it recognizable, unique and, above all, abundant region not only in terms of Croatia, but also internationally. Ministry of Culture of the Republic of Croatia (2013) has protected numerous intangible cultural properties in this region, in order to preserve traditions not only in folklore, but also traditional characteristics in crafts, language, gastronomy, etc. About 20% of total number of protected intangible cultural properties in Croatia is located on its very east. Also, out of 8 preventively protected intangible cultural properties in Croatia, two of them (25%) are located in this region (Ministry of Culture, 2013). When it comes to financing the protection of these properties, the same Ministry has allocated 23.8% of total financial resources intended for this purpose to this region. This data clarifies that the institutions have recognized the importance of this region and its heritage, while at the same time local authorities have become actively involved in the process of applying for the resources allocation and creating high quality projects.

As for the tangible heritage, a little more than 13% of the total number of protected tangible goods in Croatia is located in this region (Ministry of Culture, 2013). This refers to the churches, archaeological sites, monasteries, schools, etc. All these properties are located across this region, creating an unquestionably crucial part of cultural tourism offer. However, all of these properties could and most definitely should be included into the offer of other special interest tourism which should be more actively developed in this region. Also, when it comes to state supports to these goods, around 18% of total resources are relocated into this region (Ministry of Culture, 2013). Cultural heritage of this region is an extremely high potential for tourism development because it can be integrated into different forms of tourism offer and can be used as a strong pull factor in

order to attract different market segments. If incorporated into the offer correctly, these resources should have influence of lengthening the average stay of tourists in this region.

On the other hand, natural resources in this region are equally attractive and also have high level of quality. Many of the resources are officially protected at national level. To name just an example, Nature Park Kopački rit registered 32,111 visitors in 2011 (CBS, 2012), predominately domestic tourists. There are numerous other natural beauties in this region which could be used more actively in tourism offer of this region and which could increase the attractiveness of tourism product, like valleys, forests, rivers, etc. They could be used primarily in sports and health tourism, but also in many other special interest tourism. However, all the potentials of this region are elaborated through SWOT analysis, whose results are listed in Table 3.

Table 3 Analysis of urban and rural tourism development possibilities in Eastern Croatia

RURAL AND URBAN TOURISM IN EASTERN CROATIA	
STRENGTHS	WEAKNESSES
Natural predispositions of development due to the traditional focus on agriculture Tradition of living in villages Climate preferences Diversity and richness of natural and especially social resources in cities Distinct hospitality of local community Ecological preservation of destinations Entrepreneurial activity in creating new activities Developed and rich authentic gastronomy and wine offer	Scrapped rural tourism offer Weak level of education of local entrepreneurs involved in rural tourism development Dependence on domestic guests and excursionists Preservation of environment Lack of ideas for diversification and enriching products
OPPORTUNITIES	STRENGTHS
Possibilities of using EU funds for rural tourism development after Croatia becomes a member of the EU, since it stimulates the development of rural tourism Distinct differentiated offer intended for individuals, not mass tourism demand market Foreign capital interest Introducing European standards Constant growth of tourism demand, new segments and new markets Repositioning the Croatian tourism, recognizable image Increasing service quality Increased interest of individual guests Healthy food and high quality wines Competitiveness of new products Connection between rural tourism and other types of tourism, especially urban tourism	Fierce competition with already developed rural tourism destinations in competitive environment (Hungary, Slovenia, Austria, etc.) Conflict of interest between providing services to tourists and original agriculture production Impossibility of fast adaptation to variable tourism needs Slow construction of tourism infrastructure, due to the lack of financial resources Weak economic effects due to the lack of demand in order to cover initial investments

Source: authors' research

Therefore Croatian rural tourism needs to be estimated based on objective possibilities of its future development and demand trends on both domestic and international tourism market, rather than on the critical volume of the existing offer (Kušen, 2006:168). Rural tourism development needs to be bided with urban tourism development and its accommodation and other capacities which are not being used enough. This requires special development concept with determined goals, stakeholders, investment plans and development projects for each site.

4. Conclusion

Based on the conducted research it is possible to stress out the state and determinants of tourism development in the Eastern Croatia.

The analysis has showed that tourism in this region is significantly lagging behind the development in other areas in Croatia, especially tourism in Adriatic region. Urban tourism is the most developed type of tourism in this region, with the biggest number of hotels and other accommodation capacities, even though they also achieve relatively modest economic effects. The main motive of tourist arrivals are business, health, gastronomy, wine, hunting and fishing tourism, which create recognizable special interest tourism. In other parts of this region, where 38% of inhabitants live, around one third of accommodation capacities is located, which certainly cannot be enough to attract significant tourist arrivals, or economic effects.

Even though during the last couple of years several incentives were used to stimulate the rural tourism development, it is still quite weakly developed, compared with some other European countries and in relation to the potentials of its development. The advantages of rural tourism can be found in the possibilities of special interest tourism development, which is also emphasized in the new Strategy of Croatian tourism development. The future rural tourism development should be estimated based on objective possibilities of his future development and demand trends, on both domestic and European market.

Rural tourism development could potentially be more intensively related to urban tourism development by additional tourism offer, since urban tourism has high quality accommodation and other capacities which are relatively poorly used. In order to develop tourism of Eastern Croatia more intensively, it is necessary to create development concept with clearly defined goals, possibilities and investment plans at regional, but also national level.

LITERATURE

BIST. (2013). Online informacijski sustav Instituta za turizam koji koristi podatke DZS o turističkom prometu i kapacitetima u Republici Hrvatskoj. Zagreb. Internet: www.iztzg.hr/bist [14.3.2013.].

CBS. (2012). Posjetitelji važnijih turističkih znamenitosti i atrakcija u četvrtom tromjesečju 2011. Available at: <http://www.dzs.hr> [22.3.2013.]

CBS. (2011). Popis stanovništva, kućanstava i stanova 2011. godine. Available at:

Fleisher, A., Pizam, A. (1997). Rural tourism in Israel. *Tourism Management*. Vol. 18. No.6. str. 367-372.

Franić, R., Grgić, Z. (2002). Agroturizam na obiteljskom poljoprivrednom gospodarstvu u Hrvatskoj – Pretpostavke i izgledi razvitka: Studija slučaja. *Agriculturae Conspectus Scientificus*. Vol. 67, No.5, str. 131-141.

HGK: Mišćin, L., Mader, B. (2008). Aktualno stanje turizma na ruralnom prostoru Hrvatske. Sektor za turizam Hrvatske gospodarske komore. Zagreb.

Horwath Consulting (2009). Strategija razvoja ruralnog turizma Splitsko-dalmatinske županije za Turističku zajednicu Splitsko-dalmatinske županije. Zagreb.

<http://www.dzs.hr/Hrv/censuses/census2011/results/censustabsxls.htm> [14.3.2013.].

Jelinčić, D.A. (2007). Agroturizam u europskom kontekstu. *Stud.ethnol.Croat.* Vol.19. Zagreb. pp.269-291.

Krajnović, A., Čičin-Šajin, D., Predovan, M. (2011) Strateško upravljanje razvojem ruralnog turizma – problem i stranputice. *Oeconomica Jadertina.* str.30-45.

Kušen, E. (2006) Ruralni turizam. U: Čorak, S., Mikačić, V.: Hrvatski turizam – plavo, bijelo, zeleno, Znanstvena edicija Instituta za turizam, Zagreb, pp.167-189.

Kušen, E., Hendija, Z. (2005) Konkurentnost hrvatskog ruralnog turizma, Institut za turizam, Zagreb.

Ministarstvo turizma RH (2013) Strategija razvoja turizma RH do 2020. godine, Ministarstvo turizma i Institut za turizam, Zagreb.

Ministry of Culture. (2013). Izvod iz registra kulturnih dobara Republike Hrvatske br. 01/2011. Available at: http://narodne-novine.nn.hr/clanci/sluzbeni/2011_08_92_1957.html. [21.3.2013.]

Ministry of Culture. (2013). Lista preventivno zaštićenih kulturnih dobara. Available at: <http://www.min-kulture.hr/default.aspx?id=3646>. [20.3.2013.]

Ministry of Culture. (2013). Lista zaštićenih kulturnih dobara. Available at: <http://www.min-kulture.hr/default.aspx?id=3650>. [20.3.2013.]

Ministry of Culture. (2013). Odobreni programi zaštite na nematerijalnim kulturnim dobrima u 2013.godini. Available at: <http://www.min-kulture.hr/userdocsimages/Odobreni%20programi%20u%202012.godini/Nematerijalni%202012%20%20odobreni%20-%201.6.2012..pdf>. [20.3.2013.]

Ministry of Culture. (2013). Odobreni programi zaštite na nepokretnim kulturnim dobrima u 2012. godini. Available at: <http://www.min-kulture.hr/userdocsimages/Odobreni%20programi%20u%202012.godini/Nepokretni%202012%20-%20odobreni.pdf>. [20.3.2013.]

Mišćin, L., Mader, B. (2008) Aktualno stanje turizma na ruralnom prostoru Hrvatske, Sektor za turizam HGK, Hrvatske gospodarske komore, Zagreb.

Ružić, P. (2009) Ruralni turizma, Institut za poljoprivredu i turizam, Poreč.

Ružić, P. (2012) Analiza posebnosti i percepcije ruralnog turizma Istre. *Ekonomska misao i praksa.* Godište XXI. Br. 1. Dubrovnik, pp. 217-238.

Sharpley, R. (2002) Rural tourism and the challenge of tourism diversification: the case of Cyprus. *Tourism Management.* Vol.23. pp. 233-244.

Tominac, S. (2011) Analiza razvoja seoskog turizma u Hrvatskoj s posebnim osvrtom na Bjelovarsko-bilogorsku županiju, Diplomski rad na diplomom studiju, Ekonomski fakultet Sveučilišta u Zagrebu.

WTO (2004) Rural tourism in Europe: Experiences, Development and Perspectives, Madrid.

Mirna Jurlina, univ.spec.oec.

polaznica poslijediplomskog doktorskog studija "Management"

Ekonomski fakultet u Osijeku

099/2142424

icepack99@gmail.com

Dino Vida, univ.spec.oec.

polaznik poslijediplomskog doktorskog studija "Management"

Ekonomski fakultet u Osijeku

091/6136207

dino.vida@gmail.com

DEVELOPMENT LEVEL OF HEALTH TOURISM IN OSIJEK-BARANJA COUNTY

RAZVOJNA RAZINA ZDRAVSTVENOG TURIZMA U OSJEČKO BARANJSKOJ ŽUPANIJI

ABSTRACT

The importance of tourism in continental Croatia is not sufficiently evaluated and has not utilized available resources. Especially model of tourism such is medical tourism. Seen in historical terms, tourism and travel in the form of vacation, as the branch began to develop in a way very similar to the spas and thermal baths as we know them today. Medical tourism can be divided into: medical tourism, prevention tourism, wellness tourism and plastic surgery.

The purpose of this research paper is to explore the level, the assumption of improvement and development of health tourism in the Osijek-Baranja County and to determine whether there is economic potential in the region.

The goal of the research is to determine the level, accommodation volume and opportunities of medical tourism in the Osijek-Baranja County.

Research results indicate that there is considerable scope for further improvement of operations for this segment of travel and we hope that this would encourage the development of the county, and the Croatian mainland region.

This original research paper is based on bibliographic literature, research of offers and potentials of the region that can be seen from the footnotes in research paper.

Keywords: *health, tourism, health tourism, development, treatment*

SAŽETAK

Značaj turizma u kontinentalnoj Hrvatskoj nije dovoljno valoriziran te nisu iskorišteni dostupni potencijali. Posebice model turizma kao što je zdravstveni turizam. Gledano u povijesnim okvirima turizam odnosno putovanja u formi odmora, kao grana se počeo razvijati upravo kroz lječilišta slična obliku toplica odnosno termalnih kupelji kakve danas poznajemo. Zdravstveni turizam možemo podijeliti na slijedeće oblike: medicinski turizam, preventivski turizam, wellness turizam i plastična kirurgija.

Svrha rada je istražiti razinu, pretpostavke unaprijeđenja i razvoja zdravstvenog turizma na području Osječko-baranjske županije te utvrditi da li postoji prepoznatljivost ovog gospodarskog potencijala u našoj regiji.

Cilj istraživanja je odrediti razinu, smještajne kapacitete i mogućnosti zdravstvenog turizma u Osječko-baranjskoj županiji.

Rezultati dobiveni istraživanjem upućuju da postoji znatan prostor za daljnje unaprijeđenje poslovanja za ovaj turistički segment te se nadamo da će se time potaknuti razvoj na županije, ali i regije kontinentalne Hrvatske.

Ovaj izvorni znanstveni rad je temeljen na bibliografskoj literaturi, istraživanju ponude i potencijala regije što se može vidjeti iz fusnota u samom znanstvenom radu.

Ključne riječi: *zdravstvo, turizam, zdravstveni turizam, razvoj, liječenje*

1. Introduction

Croatia is traditionally tourist-oriented country with an increase in tourist traffic that only confirms the potential of this industry as an active generator of economic development. With an attractive tourist potential, a unique natural and cultural-historical heritage, our country can create a distinctive identity of tourism offer that will result with increase of market competitiveness.

Travel and tourism has grown today into a major global industry in which many countries see the possibility of settlement of the growing problem of unemployment, increase exports and stimulate investment. Considering that tourism is growing almost twice as fast as the growth of world gross product many countries give priority in economic development to tourism industry.

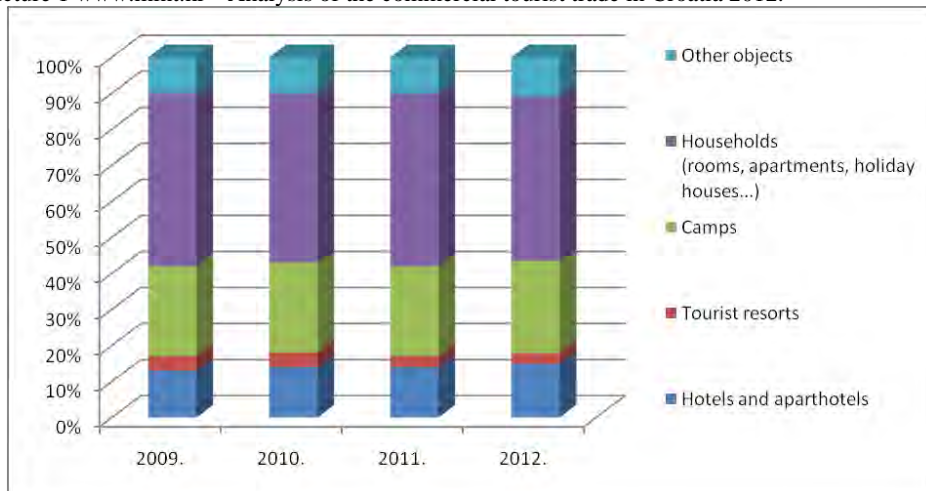
Tourism is one of the strategic goals of economic development in Croatia. The tourism industry provides significant funding - about \$ 6-7 billion a year⁶³. Notable is the fact that about three quarters of overnight stays are concentrated in a short summer season, June-August of total number that can be made over the year.

2. Tourism in Croatia

The Republic of Croatia in 2012, disposed of 800 000 beds, which is 55 000 less (6%) than the year before. The reason for the fall was created with private accommodations. The average occupancy rate was 71.3 days. Tourists, on average, stayed in Croatia 5.3 days. The total number of available capacity is 46% in private accommodation, 26% in camps, and only 15% in hotels.

⁶³ Central Bureau of Statistics

Picture 1 www.mint.hr "Analysis of the commercial tourist trade in Croatia 2012."



Source: <http://www.mint.hr/UserDocsImages/2012-turist-p-analiza.pdf> , pp. 2

The global economic crisis, comparing data, has not affected Croatian tourism. So in year 2012 Croatia recorded 11.8 million tourist arrivals, which is 3.3% more than the year before. We achieved 62.7 million overnight stays or 4% more than the year before. Foreign tourists make up to 88% of the total tourist trade, so it recorded 10.4 million foreign tourist arrivals (+4.5%), which accounted for 57.5 million nights (an increase of 5% compared to 2011). Domestic tourists decreased tourist trade by 4% in arrivals and 7% in overnight.

Table 1 Tourist trade in Croatia 2009.-2012.

Year	Arrivals (in 000)	Index	Overnights (u 000)	Index	Lenght of stay (in days)
2009	10.270	-	54.988	-	5,4
2010	10.604	103,25	56.416	102,6	5,3
2011	11.456	108,03	60.354	106,98	5,3
2012	11.835	103,31	62.743	103,96	5,3
Rate of change 2009.-2012. (in %)		+4,7		+4,5	

Source: Central Bureau of Statistics, <http://www.mint.hr/UserDocsImages/2012-turist-p-analiza.pdf>, pp.2

According to data of WTTC⁶⁴, Croatia is ranked among the countries with the lowest daily earnings in the region. Low daily value per tourist is the result of inherited mass tourism that is inappropriate for Croatia.

Global trends indicate that the upgrading of accommodation is imperative in the global tourism market and the consequent positioning of destinations not only defines the quality of accommodation, but to build on the tourism product, and supporting facilities that destination has to offer. With the main motive such as bathing, relaxation, culture, a new motivation appears for the trip, which includes outdoor activities, the need for experiences, emotions, recreation and health. Tourists want to experience moments that are different from their everyday environment and the usual circumstances. Experience and emotions become the main motive for tourists to travel.

⁶⁴ WTTC – World Travel & Tourism Council –www.wttc.org

Consequently, this creates new market segments and niche markets, and reduces physical, cultural and passive rest in favor of spending time with active and growing need for a variety of intense pleasure (feeling, beauty, peace, happiness, joy, health ...).

3. Tourism in Osijek- Baranja County

By geographical features Osijek-Baranja county belongs to continental tourism type. In Croatia this kind of tourism has not been paid enough attention to. But lately attitude toward this type of tourism is changing under the influence of events in the global tourism market. Specifically, global trends are increasingly showing tourist interest in "eco-tourism", "rural tourism", "rustic tourism", "educational tourism", "health tourism".

Share in the overall continental Croatian tourist trade is still negligibly small. Low share is the result of disproportionate funds reallocation, poor accommodation, low share of private investment, lack of attractive content.

Table 2 Tourist stay in Croatia by county

	2009	2010	2011	2012	Rate of change 2008-2012 (%)
Total Croatia	54.988,432	56.416,379	60.354,275	62.743,057	4,5
Primorsko-goranska	10.989,353	10.938,291	11.741,692	11.973,931	3,0
Ličko- senjska	1.519,841	1.618,941	1.697,107	1.824,036	6,3
Zadarska	5.831,138	6.223,824	6.481,067	6.783,072	5,2
Šibensko- kninska	3.463,655	3.783,823	3.975,122	4.139,536	6,1
Splitsko- dalmatinska	8.813,208	9.364,032	10.250,215	10.517,880	6,1
Istarska	17.887,063	17.731,881	19.095,401	19.877,368	3,6
Dubrovačko-neretvanska	4.225,474	4.538,026	4.775,161	5.188,091	7,1
Zagreb	1.047,937	1.085,597	1.183,125	1.245,669	6,0
Zagrebačka	69,804	62,198	66,502	67,703	-0,7
Krapinsko- zagorska	159,056	145,411	153,406	161,811	0,8
Sisačko- moslavačka	100,995	87,385	87,317	82,303	-6,4
Karlovačka	269,419	282,083	269,291	303,522	4,3
Varaždinska	121,017	116,601	118,597	115,008	-1,7
Koprivničko- križevačka	28,126	20,075	25,351	29,037	4,1
Bjelovarsko- bilogorska	31,835	23,981	30,468	31,924	2,4
Virovitičko- podravska	39,219	34,323	32,917	29,262	-9,2
Požeško- slavonska	19,623	18,786	23,627	19,299	1,1
Brodsko- posavska	38,901	31,951	33,127	35,585	-2,3
Osječko- baranjska	187,422	159,261	173,892	168,122	-3,1
Vukovarsko- srijemska	78,033	68,383	62,394	60,538	-8,0
Međimurska	67,313	81,526	78,856	89,360	10,4

Source: Central Bureau of Statistics, <http://www.mint.hr/UserDocImages/2012-turist-p-analiza.pdf>, pp.4

Thanks to the natural and cultural diversity, and abundance and ecological preservation of natural resources, tourism Osijek-Baranja county occupies an increasingly important place in the economic structure of the county.

Osijek-Baranja County is continental county located in the Pannonian lowlands, in the northeast Croatian, covers part of the Podunavlje and Podravlje region. Situated on the fertile soil constitutes an attractive and distinctive tourism image through the Pannonian lowlands between the rivers Sava, Drava and Dunav, forests, gentle hills, ponds, streams and wetlands. County is located in Euroregion Dunav-Drava-Sava, bordering with Hungary and Serbia, and near the Bosnia and Herzegovina. Through the geographical location of Osijek-Baranja county is associated in euroregional cooperation with other regions that touches the Dunav. In the near future, the county

will go through the corridor "Vc" which expects a significant increase in transit guests from the fields: Polish, Czech, Slovakia, Hungary, Germany and the Ukraine.

Today County is recording about 174,000⁶⁵ overnight stays and based on these data is in the top continental counties and relevant indicators, but also the rate of growth. Existing units are mainly related capacities of the cities Osijek, Beli Manastir, Donji Miholjac, Đakovo, Našice and Belišće who in tourist centers developed primarily for the needs of business and transit tourism.

Table 3 Statistics of visits and the overnight stays number from 2005 to 2011 in the Osijek-Baranja County

	TOURISTS			OVERNIGHT STAYS		
	domestic	foreign	total	domestic	foreign	total
2005.	47.783	14.868	62.651	113.063	30.711	143.774
2006.	59.162	17.151	76.313	125.098	38.265	163.363
2007.	65.118	19.606	84.724	137.252	39.604	176.856
2008.	69.765	19.621	89.765	151.414	37.512	188.926
2009.	58.870	19.512	78.382	139.741	47.681	187.422
2010.	52.465	19.284	71.749	118.283	40.978	159.261
2011.	56.573	21.124	77.697	127.704	46.188	173.892

Source: *Material for the session of Osijek-Baranja County "Status information and tourism development opportunities in the Osijek-Baranja and work of County Tourist Board"* http://www.obz.hr/hr/pdf/2012/26sjednica/06_infomacija_o_stanju_i_razvojnim_mogucnostima_turizma_na_po_drucju_obz_i_radu_turisticke_zajednice_zupanije.pdf, pp. 22

4. Health tourism

Health tourism is one of the oldest forms of tourism, and its offer is based on natural and health factors which are different kinds of medical, preventive and wellness programs. In health resorts is offered a healthy diet, exercise, peace, spiritual programs, etc.

Although there is no universal definition that could describe the term „Medical Tourism“ this description can help us to understand our tourism segment: *„Medical tourism should be seen as the ‘healing treatment’ segment of the overall health tourism market, while fitness and wellness holidays should be seen as the ‘prevention’ segment“*⁶⁶

Croatia has the potential to become an important destination for health tourism, which could be raised to a higher level through the use of European funds, primarily in the continental part of the country and especially the Osijek-Baranja County that is known for the leading role when talking about financing projects with money from EU funds.

Health tourism is recognized worldwide as a very important form of tourism that entails rapid development and placement of supporting activities while in Croatia is only wellness tourism significantly developed. 10 years ago, this service is offered only in five hotels while today it is hard to find a four-star hotel that does not offer wellness (today there are about 90).

Croatia has natural resources that should be used for investing and further developing this kind of tourism as a major tourism product of continental Croatia. If we take into consideration that our country possesses healing resources such as thermal water, optimum climate, air, herbs - it is evident that our resources are unexploited. For comparison, in Germany, is generated from health tourism over 100 million overnight stays in total income €30 billion. Neighbour Slovenia reaches 3

⁶⁵ Source: Central Bureau of Statistics

⁶⁶ Wachowiak H. (2012.): *ITB World Travel Trends Report 2012/2013*, pp 23

million overnight stays and about €200 million total income. With 12 million stays and around 7 billion euros Croatian Tourism in revenues overnight stays participates only with 200 000 nights and less than one million euros.

Initiator of medical tourism is today's way of life. Rapid and stressful pace of life, environmental pollution and unhealthy diet - every day in the each of us. Osijek Baranja County has the potential of health tourism development through ecotourism. Kopački Rit Nature Park with its unspoiled nature and the environment is a great potential for the development of ecotourism, rural, hunting, fishing, picnic and health tourism. Tourists want to know and experience different worlds from their everyday environment, and for the urban guests, Osijek-Baranja County is a real discovery. Specifically, in order to activate the rural area and its autochthony is necessary to link tourism and ecological agriculture through the production of healthy food. Development of rural tourism contributes selfemployment and development of domestic entrepreneurship and marketing of local, healthy agricultural products whose quality is far above the industry produced food. Health tourism in a rural environment requires the active participation of the whole family, walks through unspoiled nature and direct contact with domestic animals.

In addition to the intact nature and the homemade health food Osijek-Baranja County can emphasize its quality medical services and professional staff. Add to that affordability of prices relative to European destinations, a large number of tourists would exactly satisfy specific medical needs in our county.

In the evaluation of thermal sources and the development of health and recreational excursion tourism developed Bizovac spa. Located at the sources of termomineral salt hyperthermia, where the water temperature is almost 96 degrees Celsius - which makes it one of its kind hyperthermia in Europe. Old complex of Bizovac spa, swimming pools, accommodation capacity, and a new hotel Termia, have a total of 300 accommodation units. With a newly built complex, "Aquapolis" with 8 pools represent spa and recreation tourist capacity, which could be a strong basis in the future for the further development of health tourism.

But, unfortunately, for many years the spa fails to privatize the course of 2011 and recorded 135 416 swimmers which is a significant reduction compared to the previous year due to permanent disinvestment in the complex. Bizovac community decreased by 6% overnight stays.

Table 4 Bizovac spa

Year	number of bathers
2007	Cca 190 000
2008	Cca 180 000
2009	Cca 160 000
2010	Cca 158 000
2011	Cca 135 416

Source: *Bizovačke toplice d.d., Internal materials Bizovačke toplice d.d.*

Reliable facts and figures about the market are rare, especially in our country, but the latest estimates put the worldwide medical tourism market at anywhere between \$40 billion and \$60 billion at present⁶⁷, and with annual growth rates of about 20% a year.

5. Conclusion

Research results indicate that there is considerable scope for further improvement of operations for this segment of travel and we hope that this would encourage the development of the county, and the Croatian mainland region.

⁶⁷ Wachowiak H. (2012.): *ITB World Travel Trends Report 2012/2013*, pp 23

Position of the county and its natural resources provide an opportunity for transformation of the economy towards tourism branches and hiring larger numbers of people. If we include in this story organic food production and additional tourist contents we get a complete picture of high quality tourist offer, which does not necessarily contain a common form of Croatian tourism - the sun and the sea through the three summer months.

REFERENCES

Edgell L. David, Sr Maria DelMastro Allen Ginger Smith Jason R. Swanson(2008.): **Tourism Policy and Planning Yesterday, Today and Tomorrow**, Elsevier Linacre House, Jordan Hill, Oxford OX2 8DP, UK 30 Corporate Drive, Suite 400, Burlington, MA 01803, USA,

Jennings Gayle, Norma Polovitz Nickerson (2006.): **Quality Tourism Experiences**, Elsevier Butterworth–Heinemann30 Corporate Drive, Suite 400, Burlington, MA 01803, USA Linacre House, Jordan Hill, Oxford OX2 8DP, UK

Klarić Z., Kušen E.(2004.): **Sustav obilježavanja i interpretacije turističkih atrakcija Osječko-baranjske županije**, Institut za turizam, Zagreb

Martinetti, J. P. i ostali (2007.): **Agenda za održivi i konkurentni europski turizam**, 11. Hrvatski turistički forum, Bol,

Marušić Zrinka, Čorak Sanda, Hendija Zvezdana, Ivandić Neven (2008.) **Stavovi i potrošnja u Hrvatskoj – TOMAS Ljeto 2007**, Institut za turizam, Zagreb,

Skupina autora (2002.): **Strateški marketinški plan hrvatskog turizma 2001.-2005.**, THR, Barcelona i Horwath Consulting Zagreb, Zagreb,

Skupina autora (2003.): **Strategija razvoja Hrvatskog turizma do 2010.**, Ministarstvo turizma Republike Hrvatske, Zagreb

Wachowiak H. (2012.): **ITB World Travel Trends Report 2012/2013**, pp 23

Skupina autora (2005.): **Stavovi i potrošnja turista u Hrvatskoj**, TOMAS Ljeto 2004., Institut za turizam

Štoković, I.: **Benchmarking u turizmu**, Ekonomski pregled, 55 (1-2), 2004.

Ministarstvo turizma RH: **Analiza komercijalnog turističkog prometa u 2012. godini** <http://www.mint.hr/UserDocsImages/2012-turist-p-analiza.pdf> (accessed February 2013)

Ministarstvo turizma RH: **Turizam u brojkama 2011.** <http://www.mint.hr/UserDocsImages/2011-turizamubrojkama.pdf> (accessed February 2013)

Internal materials Tourist Bureau Osijek-Baranja County

Internal materials Bizovačke toplice d.d.

World Travel & Tourism Council: **Travel & Tourism Economic Impact Croatia** http://wtcc.org/site_media/uploads/downloads/croatia2013.pdf (accessed March 2013)

Jelena Kljaić Sebrek

Center for civil initiatives

B. Adzije 22, Zagreb, Republic of Croatia

Doctoral candidate at Faculty for tourism and hospitality management Opatija

Phone: +385 47 423 164

E-mail address: jelena@cci.hr

Draženka Birkić

Karlovac University of Applied Sciences

Trg J.J.Strossmayera 9, Karlovac, Republic of Croatia

Phone: +385 44 886 555; Fax. +385 44 886 499;

E-mail address: drazenka@topterme.hr

Mateja Petračić

Karlovac University of Applied Sciences

Trg J.J.Strossmayera 9, Karlovac, Republic of Croatia

Phone: +385(0)47/843-542

E-mail address: mateja.petracic@vuka.hr

**TOURIST FAMILY FARMS IN FUNCTION OF DEVELOPMENT OF
TOURIST DESTINATION EASTERN CROATIA****TURISTIČKA SEOSKA OBITELJSKA GOSPODARSTVA U FUNKCIJI
RAZVOJA TURISTIČKE DESTINACIJE ISTOČNA HRVATSKA****ABSTRACT**

Although area of Eastern Croatia is rich in various attractive natural resources, valuable cultural and historic heritage, present level of tourism development is underdeveloped comparing to the tourism development of other Croatian regions.

This paper analysis possibility of tourism development in the region of Eastern Croatia through the development of tourist family farms in the region. Further, this paper provides an overview of present situation in tourist family farms, critical analysis of the current development stage and analysis of potentials of future development of tourist family farms.

Rural farms are insufficiently valorised as potential of tourist development of rural areas despite the comparative advantages of rural areas such as location, natural resources, local population and tradition.

Initial hypothesis of the paper is: Tourism in Eastern Croatia can be founded and successfully developed on development of tourist family farms and can significantly contribute to the overall development of the region.

The paper presents author's cognition that tourism development at rural family farms can be a segment of recognition of Eastern Croatia as a tourist destination through the development of tourist supply at family farms. Purpose of the paper is to determinate level of perception of Eastern Croatia as a tourist destination of tourist family farms.

Methodology applied in this paper is desk research where all relevant domestic and foreign expert and scientific literature about the research theme has been studied. The results of the research have been interpreted by using methods of comparative analysis, economic analysis and descriptive methods. Primary research method is also applied through the survey in regional centers of the

Republic of Croatia. Survey refers to the development possibilities of eastern Croatia as recognized tourist destination of tourist family farms in the Republic of Croatia.

Key words: *rural tourism, tourist family farms, tourist supply, Eastern Croatia, tourist destination*

SAŽETAK

Područje istočne Hrvatske bogato je raznolikim atraktivnim prirodnim resursima, kulturno povijesnom baštinom visoke vrijednosti, no ipak dosadašnji razvoj turizma zaostaje za turističkim razvojem drugih regija. U ovom radu se analiziraju mogućnosti razvoja turizma u regiji istočna Hrvatska kroz razvoj turističkih seoskih obiteljskih gospodarstava te regije. Kritički se analizira dosadašnji razvoj turističkih seoskih obiteljskih gospodarstava, daje se prikaz njihova postojećeg stanja, te se analiziraju potencijali budućeg razvoja turističkih seoskih obiteljskih gospodarstava. Seoska gospodarstva nedovoljno su iskorištena kao potencijal u svrhu turističkog razvoja ruralnih područja usprkos komparativnoj prednosti ruralne sredine kao što su položaj, prirodni resursi, lokalno stanovništvo i tradicija.

Polazna hipoteza rada je razvoj turizam istočne Hrvatske može se temeljiti na razvoju turističkih seoskih obiteljskih gospodarstava te uspješno razvijati i značajno doprinijeti cjelokupnom razvoju regije.

U radu se prezentiraju spoznaje autora da razvoj turizma na seoskim obiteljskim gospodarstvima može biti segment prepoznatljivosti istočne Hrvatske kao turističke destinacije upravo kroz razvoj ponude turističkih seoskih obiteljskih gospodarstava te je ujedno i cilj ovog rada utvrditi u kojoj mjeri se istočna Hrvatska kroz razvoj turističkih seoskih gospodarstava percipira u javnosti kao turistička destinacija. U radu je primijenjena metoda istraživanja za stolom tzv. desk research pri čemu je proučena sva relevantna domaća i strana stručna i znanstvena literatura o temi istraživanja, a rezultati su interpretirani korištenjem metode komparativne analize, ekonomske analize te metode deskripcije. Također je u radu primijenjena metoda primarnog istraživanja putem anketnog upitnika u regionalnim centrima Republike Hrvatske. Istraživanje se odnosi na mogućnosti razvoja istočne Hrvatske kao prepoznatljive turističke destinacije turističkih seoskih obiteljskih gospodarstava u Republici Hrvatskoj.

Ključne riječi: *ruralni turizam, turistička seoska obiteljska gospodarstva, turistička ponuda, istočna Hrvatska, turistička destinacija*

1. Introduction

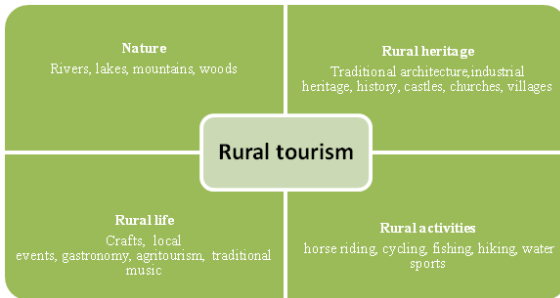
Rural area is going through numerous demographic, social and economic changes. On one hand it is affected by the depopulation trend, but at the same time, citizens of big urban areas find their vacation place in rural areas where they can enjoy natural sites, traditional dishes, rural heritage or sport activities. The increase of demand for this type of holiday resulted in intense yearly world increase of rural tourism up to 11% (Katica, D., Cukrov, S., 2010, 21.); especially on tourist family farms that present basic unit of rural tourism. Croatia is influenced by the same trend followed by intense development of rural tourism, especially development of tourist supply on tourist family farms. This phenomenon is also notable in eastern Croatia which is rich in natural resources and cultural and historical heritage values. Rural farms are insufficiently valorised as potential of tourist development of rural areas despite the comparative advantages of rural areas such as location, natural resources, local population and tradition.

2. From Rural tourism to tourist family farms

By researching foreign and domestic literature on rural tourism and by analysing the actual situation in Croatian rural tourism, the authors profiled three main terms on which development of family

tourist farms is based: rural tourism, agritourism and tourist family farms. According to the World tourist organisation, rural tourism is based on natural resources, rural heritage, rural lifestyle and rural activities i.e. activities in rural area such as demonstrated in the picture below.

Picture 1 The concept of rural tourism



Source: WTO, *Strategy of rural tourism development of Split-Dalmatian County*, Horwath and Horwath consulting, Zagreb, 2009

The importance of rural tourism is visible through the interaction of agriculture production, production of traditional products, presentation of tradition, domestic gastronomy and tourist services where the role of tourist family farms is irreplaceable.

The distinguishing feature of rural tourism products is effort to offer a personalised service to the guests and to bring closer physical and human characteristics of the rural area and to provide as much as possible participation in activities, tradition and lifestyle of local people. (Horwath and Horwath Consulting Zagreb (2009), *Strategy of development of rural tourism in Split-Dalmatian County for Tourist board of Split- Dalmatian County*, 7).

Tourism has emerged as a popular rural development strategy, due to associated entrepreneurship opportunities and its ability to bring in dollars, generate jobs, and support retail growth (Wilson et al., 2001, 134). The demand for touristic utilization of rural areas has increased in recent years (Gartner, 2004, 155) due to the inherent qualities that many rural settings possess. These qualities include: personalized attention and genuine interaction with the customer, enthusiasm for sharing local culture/heritage, and overall authenticity of character.

A subordinate term to rural tourism is agritourism and is associated to the village ambience and its surroundings and its activities (agriculture, events, gastronomy, ethnology etc.). More narrow term is tourist family farm that is associated to a certain farm and activities on that farm. A production of farm products is organized on the farm and served and sold to the farm guests (Williams, 1995; Hill et al. 1996; Swarbrooke, 1996). Brscic, Franic and Ruzic provide the following definition of tourist family farm: Tourist family farm is a small economy unit settled in a tourist attractive area that provides authentic product or a service, where all family members are included in farm work. Family farm that provides tourist product or a service obtains a status of Tourist family farm. Tourism on a family farm presents a supplement service of the farm (Bršćić, Franić and dr., 2010, 33).

3. Rural tourism in Europe

The roots of rural tourism in Europe are found in 18th century in France through different forms of peasant cooperatives with aim to improve agriculture, but also in humanism and renaissances' influence that encouraged returning to the nature (Geić, 2011, 369).

The share unit of tourist family farms within family farms in Europe is as following: Austria is leading with share of 8%, followed by France (6%), Ireland and Germany (3%). Italy's share is only

0, 3 % (Bacac, 2011, 175). In Croatia, there are only 0, 1% tourist family farms within family farms.

France is associated with the early beginnings of agritourism in Europe. In 2011 there were 44.000 Tourist family farms (French: gites) registered with 450.000 beds with average income of 1, 2 billion dollars (Bacac, 2011, 176). In France, there are few different types of tourist family farms: Rural holiday house, Bed and breakfast, large farms, camps and farm specialised for children. Each of these types in divided in several theme sub types.

Austria's A distinguishing feature of Austrian Tourist family farms (German: Urlaub am Bauernhof) is bi-seasonality, summer and winter season. In 2011, there were 15.500 tourist family farms registered with 170.000 beds. The average occupancy is 108 days per year. (Bacac, 2011, 180).

Slovenia: Agritourism in Slovenia has been developing intensively for the last 30 years. In 2011, there were 630 tourist family farms registered (Bacac, 2011, 185).

4. Development of tourist family farms in Eastern Croatia

In Croatia, there is 92% rural territory. Tourism on family farms, associated to distinctively rural areas, started developing more intensively in 1998. when 32 tourist family farms were registered. Number of registered tourist family farms is continuously increasing and today there are 688 registered tourist family farms. (State administration office, Department for economy, 2013). Eastern Croatia includes five counties: Virovitica-Podravina, Pozega - Slavonija, Brod - Posavina, Osijek- Baranja and Vukovar-Srijem County. The area of eastern Croatia makes 22% of the territory of Croatia with 19% of total population (Central bureau of statistics, 2013). Population density is lower than average in Croatia⁶⁸ and is 73 people/km² (Central bureau of statistics, 2013). According to OECD⁶⁹ 98,5% of eastern Croatia is rural territory. Region of eastern Croatia is predominantly oriented to agriculture and industry, and is underdeveloped comparing to the rest of Croatia. GDP per capita is 30% lower than state average (Central bureau of statistics, 2013).

Together with agriculture⁷⁰ and industry, tourism is becoming widely spread economic activity in eastern Croatia. Eastern Croatia is developing in tourist sense and acquires main characteristics of developed tourist destination on the map of Croatian tourism. However, share of tourism and hospitality in the overall income of eastern Croatia is still rather low-less than 2% (Central bureau of statistics, 2013). Tourist family farms belong to the subjects of Croatian economy whose status and development is regulated by state law and monitored and supported by the measures of the state policies that are, comparing to the competition surroundings, slowly adapting to the market conditions in developing new and insufficiently developed product on Croatian market. Family tourist farms grew in a new tourist product and we witness their quantity and quality development every year primarily because of its natural developmental preconditions for traditional orientation on agriculture and village life. Disposable researches prove that about 160.000 people visit wine roads and 61% of them buy local wine and 63% buy local food. (Strategy of tourism development of Republic of Croatia till 2020, 2013). In spite of positive development trends, analysis show that development is not well balanced in all parts of eastern Croatia due to small size of family farms, low educational level of local entrepreneurs, and large number of legislative rules. Considering this, developmental estimation of tourist family farms should be based on objective possibilities of the future development and investments in supporting infrastructure and development of other specific tourism forms such as hunting, fishing and health tourism. It can be said that this tourism

⁶⁸ Population density in Croatia is 78 people/km² (Central bureau of statistics, 2013)

⁶⁹ The most often used definition used by international organisations in distinguishing rural and urban areas is the one from OECD: Rural regions are the ones with population density up to 150 people / km². European Union defines rural area as the one with population density up to 100 people/ km² (Strategic programme of rural development of Istria county 2008-2013, p.7.)

⁷⁰ Agriculture is primary economic activity in many counties like Virovitica-Podravina where agriculture share makes 23% of GDP, the share of GDP in Eastern Croatia is 13%, and on national level only 5%. (Central bureau of statistics, 2013)

form is insufficiently valorised due to a lack of system approach to the development of this form of tourism. What is more, it is insufficiently and inadequately included in the Strategy of development of Croatian tourism till 2020. Table 1 shows that in some counties of Eastern Croatia there are much more tourist family farms comparing to other counties with less tourist family farms and with recent date of registration. In Vukovar-Srijem County it is confirmed that most family farms were registered for tourism activities in 2010 and 2011 which witnesses of the beginning of rural tourism in this area. (Sudraić, Zmajić, Nedić, 2012, 229). The same situation is in Pozege - Slavonija County.

Table 1 Number of registered tourist family farms in counties of Eastern Croatia in 2012

County:	Number of registered Tourist family farms	Number of beds	Registered tasteries
Brod - Posavina	7	26	2
Osijek-Baranja	56	281	4
Pozege-Slavonija	11	40	2
Virovitica-Podravina	19	33	1
Vukovar-Srijem	19	59	7
Total Eastern Croatia	112 (16%)	439 (33%)	16 (8%)
Total 2012. Croatia	688	1345	208

Source: Made by authors (data collected from Counties departments of The State administration offices)

As shown in the table, there are 112 tourist family farms registered in eastern Croatia which makes 16% of number of registered tourist family farms in Croatia. Eastern Croatia is characterised by unequal distribution of tourist family farms. There are 50% of registered tourist family farms in Osijek - Baranja County, followed by 17% in Vukovar - Srijem county and Virovitica - Podravina County. At this point it is appropriate to say that official statistic data does not provide overall insight in the development of tourist family farms, therefore is it necessary to combine data from different sources.⁷¹ Namely, Central bureau of statistics gathers data only from the tourist family farms that provide accommodation. On the other hand Department for tourism of the Croatian commerce chamber collects data on the rural tourism subjects providing other services, like catering, serving food and beverages to the visitors. What is more, tourist family farms include tastery services, wine cellars etc. that should be included in integrated monitoring system. Statistics about arrivals and overnight stay is monitored only for Osijek- Baranja and Vukovar – Srijem County and is shown in the table 2.

Table 2 Arrival and overnight stay in tourist family farms in Osijek - Baranja and Vukovar -Srijem County

		Arrivals			Overnight stay		
		2012	2011	2010	2012	2011	2010
Tourist family farms-total tourists	Osijek-Baranja	2377	2697	1963	5930	6880	4618
	Vukovar –Srijem	268	240	81	792	998	81
Tourist family farms-domestic tourists	Osijek-Baranja	1868	2104	1525	4674	4611	3550
	Vukovar –Srijem	203	231	75	570	989	75
Tourist family farms-foreign tourists	Osijek-Baranja	509	593	438	1256	2269	1068
	Vukovar –Srijem	65	9	6	222	9	6
Total		2645	2937	2044	6722	7878	4699
Domestic		2071	2335	1600	5244	5600	3625
Foreign		574	602	444	1478	2278	1074

Source: Central bureau of statistics, 2013

⁷¹ Central bureau of statistics, Croatian commerce chamber, Croatian farmer, Eco-Ethno group and State administration office who solely provided data on registered tourist family farms in Croatia

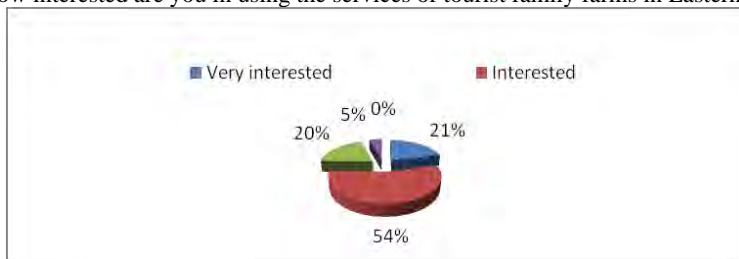
Arrival and overnight stay data in 2010 and 2011 in Osijek- Baranja County and Vukovar-Srijem county is increasing and in 2012 has dropped for 10% as a result of economy recession. Very interesting point is that there is significant number of arrivals and overnight stay of foreign tourists. Also, length of stay at tourist family farms is increasing and in 2010 it was 2,3 days, in 2011 2,7 days and in 2012 2,5 days. Unfortunately, share of overnight stay at family tourism comparing to the overall overnight stay in Osijek- Baranja County farm is rather low and is around 0,3%.

5. The analysis of the results of the empiric research of the role of tourist family farms in tourism development in eastern Croatia

The method of primary data collection is used in the empiric part of this paper through the method of online poll and method of interview with the leading experts in the field of rural tourism in Croatia. Occasional sample is used for the purpose of survey and questionnaires have been directed to the persons of different age and from different parts of Croatia: from Northwest Croatia there were 33% respondents, from Central Croatia 40% and from Coastal Croatia 27%. There were 250 questionnaires sent and 90 people from Croatia approached the survey, which makes 36% return rate and is considered to be representative sample.

The purpose of this research is to confirm the hypothesis: Tourism in Eastern Croatia can be founded and successfully developed on development of tourist family farms and can significantly contribute to the overall development of the region. In the conducted survey among the respondents there were predominantly women (70%) as potential tourists, middle and high education level (67%) and between 25 and 30 years old (24%). Tourist family farms are now suppliers on the market and respondents have following perception of them: 63% of the respondents consider tourist family farms a modern form of tourism and that it is not expensive 60%. Also, 74% of the respondents consider tourist family farms interesting and unique form of tourism. There are 76% of respondents who finds it attractive tourism form.

Picture 3 How interested are you in using the services of tourist family farms in Eastern Croatia?

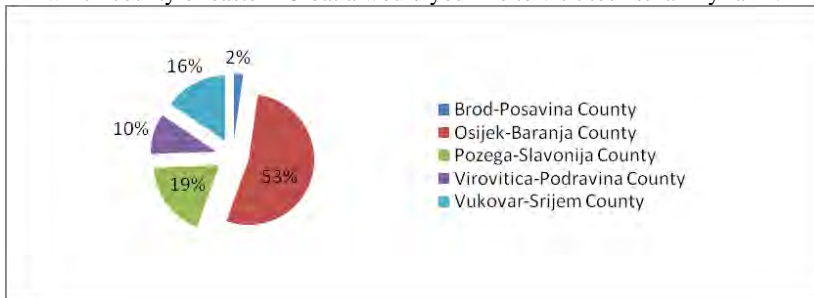


Source: Authors analysis

From the graph above it is visible that there is a high level of interest for visiting tourist family farms in eastern Croatia (21% of very interested and 54% interested). There are no respondents who are not interested at all in visiting Tourist family farms in eastern Croatia. The interested respondents expressed basic motives for visiting tourist family farms: attractiveness of the area, new experiences, natural sites, holiday in the nature, escaping for urban areas, homemade food and gastronomy. Among 12 given factors that can influence the development of the rural tourism in Eastern Croatia, the respondents selected 5 most important: natural sites (33%), enjoying gastronomy (23%), healthy food (17%), pure water and air (14%) and mentality of local population (11%).

The respondents expressed their opinion about the counties they would like to visit as following: Osijek- Baranja County (53%), Pozega - Slavonija (19%), Vukovar-Srijem (16%), Virovitica-Podravina (10%) and Brod - Posavina (2%).

Picture 4 In which county of eastern Croatia would you like to visit tourist family farm?

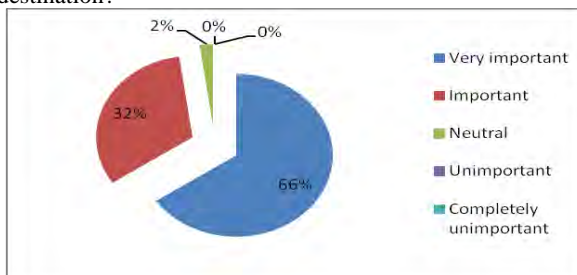


Source: Authors analysis

It is very interesting that more respondents chose Pozega - Slavonija County than Vukovar-Srijem what is not followed by the tourist supply of Pozesko-slavonska County. In that county there are only 11 tourist family farms registered with 40 beds and 2 tasteries. Even 70% of respondents said that they plan to visit tourist family farm in eastern Croatia within next 2 years. Only 27% of respondents expressed that they have no attention to visit tourist family farm in eastern Croatia because of one of the reasons: insufficient tourist supply, distance, lack of finances etc.

The perception of the respondents about the role of tourist family farms for the development of eastern Croatia as a tourist destination is visible in the picture 5.

Picture 5 How important is the development of tourist family farms for the development of eastern Croatia as a tourist destination?



Source: Authors analysis

The respondents in this survey confirm that development of tourist family farms is very important for Eastern Croatia as a tourist destination (66%) and exactly through the development of tourist family farms they perceive it as a tourist destination. They especially perceive Osijek - Baranja County (that has the most tourist family farms) and Pozega - Slavonija County being important for development of tourist destination eastern Croatia through the development of tourist family farms.

6. Conclusion

The results of the survey showed that development of tourist family farms is significantly behind the development of tourist family farms in other parts of Croatia. Rural farms are insufficiently valorised as potential of tourist development of rural areas despite the comparative advantages of rural areas such as location, natural resources, local population and tradition. According to this research there are 112 tourist family farms registered in eastern Croatia, which is 16% of total number of tourist family farms registered in Croatia, with 439 beds which is insufficient for stronger economic impacts of this segment.

The development of tourist family farms is successfully supported by numerous measures that were fruitful, but still inadequate comparing to the competitive surroundings (Hungary and Slovenia and Austria).

Development of tourism in eastern Croatia can be founded on the development of tourist family farms, but due to the small size of rural tourist farms, low educational level of local entrepreneurs and complex legislation and in spite of competitive advantages of eastern Croatia is not successfully developing. Unfortunately share of overnight stay on tourist family farms comparing to the total overnights stay in Osijek- Baranja county and Vukovar-Srijem county is extremely low and is around 0, 3 % and it is essential for the growth and development of tourist family farms to foster development of designed and organised rural tourist destinations in Croatia.

The development of tourist family farms can be intensively bounded to the agriculture development and development of specific tourism forms such as: cultural tourism, religious tourism, event tourism, hunting and fishing tourism that could contribute to the increase of number of arrivals and overnight stays. The survey showed that tourist family farms can be and is a recognition segment of eastern Croatia as tourist destination through the development of the supply of tourist family farms. According to the survey results, eastern Croatia through the development of tourist family farms is perceived in public as a tourist destination, especially Osijek- Baranja County which has the largest number of registered tourist family farms and beds.

There are neither precise definitions of tourist family farms nor adequate balanced parameters for measuring economic impacts of this tourism form. Therefore it is required to implement integrated monitoring system within Croatian Chamber of Economy and Central Bureau of Statistics.

REFERENCES

Baćac, R.(2011), Handbook for practising rural tourism, Ministry of tourism of Republic of Croatia, Zagreb

Brščić, K., Franić, R., Ružić, D. (2010): Why Agrotourism – owner's opinion, *Journal of Central European Agriculture*, Vol 11 No 1, p 31-42(http://hrcak.srce.hr/index.php?show=clanak&id_clanak_jezik=84642)

Central bureau of statistics, (2011), Population census, 2011: Available: [http://www.dzs.hr/Hrv/censuses/census2011/results/censustabsxls.htm\(20.03.2013\)](http://www.dzs.hr/Hrv/censuses/census2011/results/censustabsxls.htm(20.03.2013))

Croatian chamber of Economy, Sector for tourism, (2002), Tourism on tourist family farms, Zagreb

Gartner, W.C. (2004), “Rural tourism development in the USA”, *The International Journal of Tourism Research*, Vol. 6 No. 3, pp. 151-164.

Geić,S, (2011), Management of selective tourism forms, University in Split, Split

Horwath and Horwath Consulting Zagreb(2009), Strategy of development of rural tourism in Split-Dalmatian County for Tourist board of Split- Dalmatia County, Zagreb

Hurst, J.L., Niehm, L.S., and Littrell, M. (2009), „Retail service dynamics in a rural tourism community: Implications for customer relationship management“, *Managing Service Quality*, Vol.19, No.5, pp.511-540.

Katica, D., Cukrov, S., (2010), Rural tourism-30 months later, 2. Croatian congress on rural tourism, Hrvatski farmer d.d. Mali Lošinj, 21st-25th April 2010, pp.19-28

Ministry of tourism of Croatia (2013), Strategy of tourism development in Croatia till 2020.

Mišćin, L., Mader, B. (2008): Actual situation of tourism on rural area of Croatia, Sector for tourism, Croatian chamber of economy, Zagreb.

Sudarić, T., Zmaić, K., Nedić I. (2012,) Conceptual framework of development of rural tourism in eastern Croatia, 47. Croatian and 7. international symposium of agronomy experts, Faculty of Agronomy in Zagreb, Opatija ,str.(227-230)

University of Zagreb, Faculty of agronomy for Istria County, Strategic programme of rural development of Istria county 2008-2013, Zagreb

Wilson, S., Fesenmaier, D.R., Fesenmaier, J. And Van Es, J.C., (2001), “Factors for success in rural tourism development“, Journal of Travel Research, Vol.40, No.2, pp. 132-138.

WTO (2004) Rural tourism in Europe: Experiences, Development and Perspectives, Madrid

Biljana Lončarić, PhD.

Tourist Board Slavonski Brod
Trg pobjede 28/1, 35.000 Slavonski Brod, Croatia
Phone: 00 385 35 447 721 Fax: 00 385 35 447 721
E-mail address: info@tzgsb.hr

Berislav Bolfek, PhD.

University of Applied Science of Slavonski Brod
Mile Budaka 1, 35.000 Slavonski Brod, Croatia
Phone: 00 385 35 492 807 Fax: 00 385 35 492 804
E-mail address: berislav.bolfek@gmail.com

**RESTORATION OF THE BROD FORTRESS
BY THE EU FUNDS****OBNOVA TVRĐAVE BROD
SREDSTVIMA IZ EUROPSKIH FONDOVA****ABSTRACT**

General researches show that cultural tourists have above average income and education, and that they are middle-aged and elderly. In this sense it is possible to say that the frequent link between tourism and cultural sector is conditioned by efforts to increase the attractiveness of tourist destinations. Tourism potential of the Brod Fortress is not nearly used up. Devastated during the Homeland war, and because of the large area occupied (approximately 33 hectares), for the reconstruction of the Brod Fortress is needed almost 100 million euros. By initial budget of the Ministry of Tourism, the city of Slavonski Brod has approached making the project documentation required for applying fortress revitalization towards the European Union. As the European Regional Fund regulations provide for the possibility of applying for individual stages of nominated buildings recovery, under the condition that each phase of the project is feasible in terms of creating separate functional units with their own values, the city authorities are negotiating with the authorized ministries to carry out the Brod Fortress restoration candidacy successively, since the expenditure cover of full restoration in the near term would not be possible. The purpose of the primary questionnaire research which will be conducted will be to find out the views and opinion of local inhabitants about it if it is realistic to expect that the relevant European institutions would recognize cultural, touristic and economic potentials of the Fortress and give financial help in fortress rebuilding based on the previously made feasibility studies. The research results will show what is the impact that political lobbying may have on the development of local communities projects that have strategic importance in the European context.

Key words: Brod Fortress, European funds, cultural tourism, revitalization, political lobbying

SAŽETAK

Općenita istraživanja pokazuju da su kulturni turisti iznad prosječnih primanja i obrazovanja te srednje i starije životne dobi. Stoga niti ne iznenađuje učestalo povezivanje turističkog i kulturnog sektora uvjetovano nastojanjima da se poveća atraktivnost turističkih odredišta. Turistički potencijal brodske tvrđave nije niti približno iskorišten. Devastiranoj tijekom Domovinskog rata, a i zbog velike površine koju zauzima (približno 33 ha), za obnovu tvrđave Brod potrebno je gotovo 100 milijuna eura. Korištenjem inicijalnih sredstava Ministarstva turizma, grad Slavonski Brod

je pristupio izradi projektne dokumentacije potrebne za isticanje kandidature revitalizacije tvrđave prema Europskoj uniji. Pri izradi tehničke dokumentacije, ali i financijskih studija očekuje se pomoć i Ministarstva regionalnog razvoja i fondova Europske unije. Kako propisi Europskog regionalnog fonda predviđaju mogućnost apliciranja za pojedinačne faze obnove kandidiranih objekata, pod uvjetom da svaka faza predstavlja izvediv projekt u smislu stvaranja zasebnih funkcionalnih cjelina s vlastitim vrijednostima, s resornim ministarstvima su u tijeku pregovori da se isticanje kandidature vrši sukcesivno, obzirom da pokrivanje izdataka cjelovite obnove u kratkom roku ne bi bilo moguće. Iako trenutno zanemareni potencijal, tvrđava Brod mogla bi vremenom postati prepoznatljiva u međunarodnim okvirima, i to i u turističkom smislu. Svrha primarnog istraživanja koje će se provesti putem anketnog upitnika bit će utvrditi stavove i mišljenje lokalnog stanovništva o tome je li realno za očekivati da će mjerodavne europske institucije prepoznati kulturno-turističke, ali i gospodarske potencijale tvrđave te financijski pomoći obnovu tvrđave temeljem prethodno izrađenih studija izvedivosti. Rezultati istraživanja pokazat će kakav utjecaj političko lobiranje može imati na razvoj projekata pojedinih lokalnih sredina koji imaju strateški značaj u europskim okvirima.

Ključne riječi: tvrđava Brod, europski fondovi, kulturni turizam, revitalizacija, političko lobiranje

1. Introduction

General researches show that cultural tourists have above average income and education, and that they are middle-aged and elderly. In the world's leading economies, the cultural industry makes from 3 to 6% of gross social product. More than 50% of tourist activities in Europe are conditioned by the cultural heritage, while cultural tourism constitutes 40% of international tourism trends.⁷²

Urban tourism, as a special form of modern tourism, is closely associated with cultural tourism. In this sense, cities are often the ultimate or casual goals of trips for many tourists who visit them for various reasons. According to Pender and Sharpley⁷³ cities can act as part of international and national networks, a tourist "door" and be the center of regional tourism development.

2. Cultural tourism in the Croatian context

2.1. Strategic plans for the development of Croatian tourism

Serious systematic approach to the development of cultural tourism in the Croatian level was started ten years ago and since then conferences on the topic of cultural tourism have been organized, while the awareness of cultural, and tourism professionals of the potentials that culture can bring the tourist economy have been strengthening. Cultural tourism sectors operate at the Croatian Chamber of Commerce, as well as the Croatian National Tourist Board, in the Office for Cultural Tourism. Today, the share of Croatian culture and touring sectors in total Croatian tourism is about 2%, which is far from the share of this sector in Spain, France and Italy as the leading cultural destinations. However, in the last five years the average annual growth rate of receptive tourism in sector of touring in Croatia is higher than 100%, which is much more than the overall growth.⁷⁴ Tourism Development Strategy of Croatia⁷⁵ talks about brownfield projects such as construction of facilities for cultural tourism in terms of conversion and / or renovation of various currently unused industrial or military facilities in the public domain, including the area of the continental as well as

72 OECD (2009): The Impact of Culture on Tourism, pp. 20

73 Pender, L., Sharpley, R. (2005): The Management of Tourism, Sage Publications, London, pp. 164

74 Strategic Marketing Plan for the Croatian tourism for the period from 2010 to 2014 (2009), THR and Horwath Consulting, Zagreb, pp. 293.

75 Tourism Development Strategy for the Croatian Republic to 2020 (2009), Institute for Tourism, Zagreb, pp. 40.

coastal Croatian destinations with rich cultural and historical heritage and more than a thousand castles, and manors.

2.2. Cultural tourism in the region of Slavonia

In the area of cultural tourism within the region of Slavonia as tourist attractions can be included monuments like forts, fortresses, old city cores, castles, religious buildings, archaeological sites, individual buildings, memorial areas and specific architecture where parks and parkways dominate. Highest value among the tourist monuments in the Osijek-Baranja County has Đakovo Cathedral, the most important sacred building of the region, in the Brod-Posavina County - Brod fortress, in the Vukovar-Srijem County - royal town of Ilok with Odelschalchi family castle dating from the 18th century, in the Požega - Slavonia County - monuments such as old town of Požega, medieval fort in Kaptol and castle in Kutjevo, while in the Virovitica-Podravina County there are no cultural and historical resources of national importance.⁷⁶

As in the region of Slavonia, market attractiveness and competitive position of the sector of cultural tourism are at a fairly low level, the strategy for the product of culture and touring should go in the direction of increasing market share and strengthen the competitive position of the sector. The main objective of this product should be to create from the region of Slavonia as one of the leading cultural tourism destinations for domestic tourists, but also to make the region an integral part of international itineraries with cultural content. The operational objectives should relate to the development of cultural products at the regional level based on experiences and perceptions, creating opportunities for the sale of cultural products in the region through the Internet and specialty products, as well as the promotion of cultural products in the region as a whole.

2.3. The Brod Fortress as a backbone for the development of cultural tourism in Slavonski Brod

The most significant object in cultural – touristic sector of Slavonski Brod is the Brod Fortress. Although, as a military fortress on the border, the Brod Fortress was never able to prove and demonstrate its combat power, there are many preserved fortifications reminiscent of the bygone times and the everyday military life took place within.

The Brod Fortress is mostly visited by the organized tourist groups as a part of the cultural tours as well as students on a field trip⁷⁷. Major obstacle to increasing the number of visitors to the fortress complex is the lack of restaurants, shopping, sports and leisure as well as entertainment facilities.

3. European funds in a function of cultural - touristic development of the Brod Fortress

3.1. Initial activities of the Ministry of Tourism on the project of reconstruction of the Brod Fortress

The Ministry of Tourism approved in 2011 to the Tourist Board Slavonski Brod, except technical assistance, initial funding for making the project documentation required for candidacy the fortress to the European Union. Data from the Pre-feasibility Study of "TeamDC" from Bratislava financed by these means⁷⁸ indicate that the complete restoration of this unique monument of the Croatian military fortification architecture would cost almost 100 million euros.

76 Lončarić, B. (2012): Marketing in tourism of Slavonia and Baranja, Ph.D. thesis, Faculty of Economics in Osijek, Osijek, pp. 74-80

77 According to data from the Tourist Office of The Tourist Board Slavonski Brod, the Brod Fortress was in 2012 visited by 4800 tourists in organized groups that used the services of tourist guides while sightseeing the fortress.

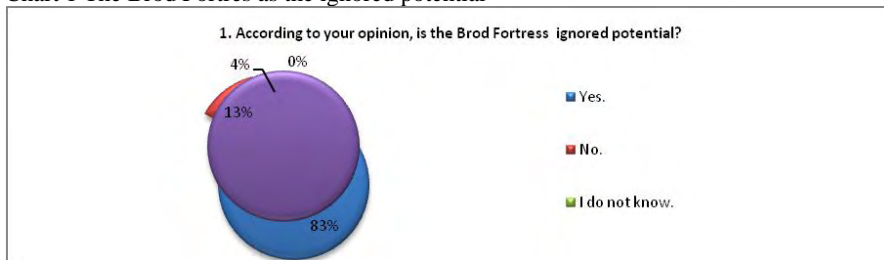
78 Pre-feasibility study for the Brod Fortress (2012), TeamDc, Bratislava, pp. 31

As the European Regional Fund regulations provide for the possibility of applying for individual stages of recovery nominated buildings under condition that each phase of the project is viable, and that in the way to create a separate functional units with their own values, the representatives of the city authorities Slavonski Brod have been negotiating with the representatives of the Ministry of Tourism and the Ministry of Regional Development and EU Funds to perform the Brod Fortress candidacy to EU funds successively. The reason for this lies in the inability to meet expenditures for the complete reconstruction of the fortress in a relatively short time.

3.2. The results of the primary research

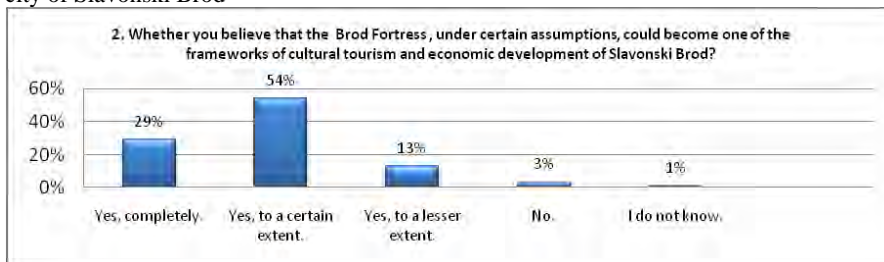
Although currently ignored potential, the fortress could eventually become recognized internationally, in terms of tourism. In order to determine the attitudes and opinions of local residents, but also visitors of the website of the Tourist Board Slavonski Brod from other areas, whether is realistic to expect that the relevant European institutions would recognize the cultural, touristic and economic potential of the fortress and give the financial help to rebuilding the fortress, in February 2013, on a sample of 353 respondents, there was conducted primary research, under previously developed feasibility study. The research results presented below show the impact that political lobbying may have on the development of projects of local communities that are of strategic importance in the European context.

Chart 1 The Brod Fortres as the ignored potential



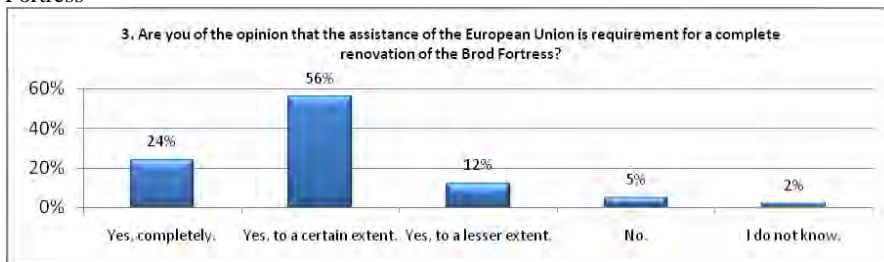
Source: Independently derived research, Slavonski Brod, February 2013

Chart 2 The Brod Fortress as the framework of cultural tourism and economic development of the city of Slavonski Brod



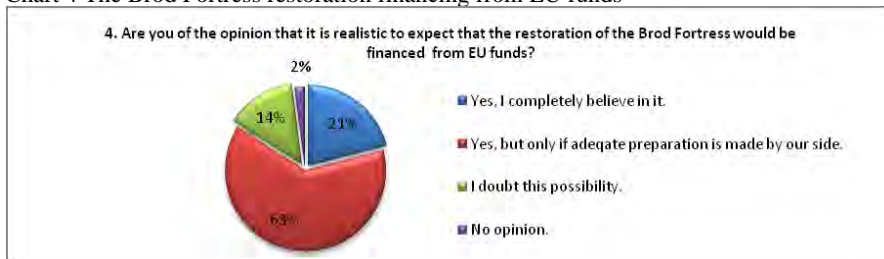
Source: Independently derived research, Slavonski Brod, February 2013

Chart 3 Assistance of the European Union as requirement for a complete renovation of the Brod Fortress



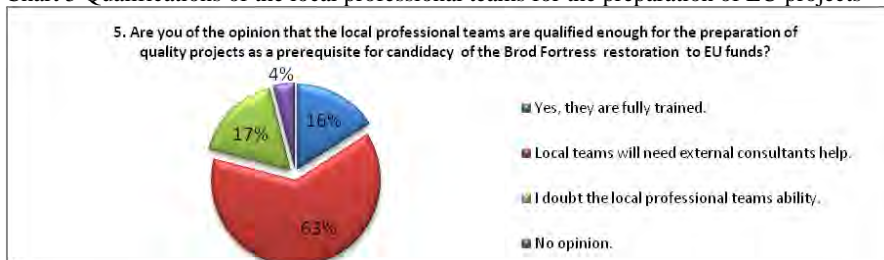
Source: Independently derived research, Slavonski Brod, February 2013

Chart 4 The Brod Fortress restoration financing from EU funds



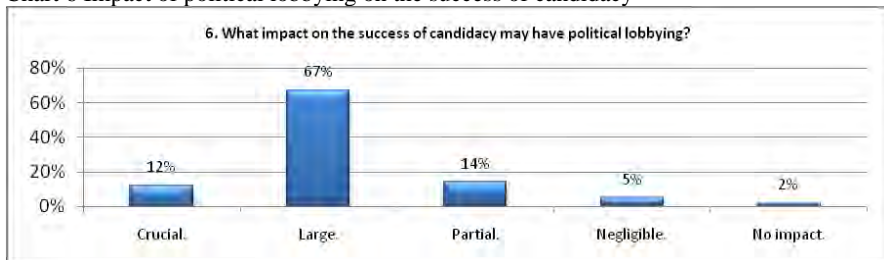
Source: Independently derived research, Slavonski Brod, February 2013

Chart 5 Qualifications of the local professional teams for the preparation of EU projects



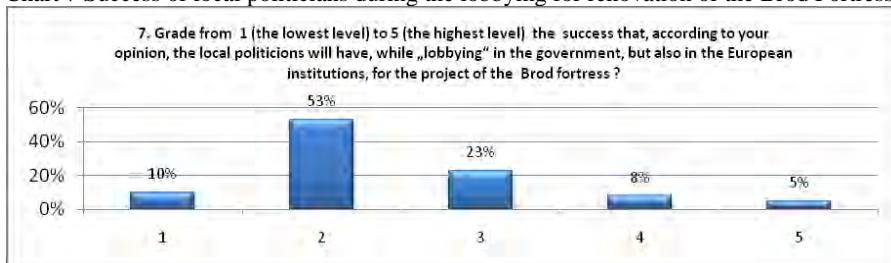
Source: Independently derived research, Slavonski Brod, February 2013

Chart 6 Impact of political lobbying on the success of candidacy



Source: Independently derived research, Slavonski Brod, February 2013

Chart 7 Success of local politicians during the lobbying for renovation of the Brod Fortress



Source: Independently derived research, Slavonski Brod, February 2013

4. Conclusion

Results of this study show that more than 80% of respondents believe that the Brod Fortress is ignored potential, but that, under certain assumptions, it could become the backbone of cultural tourism and economic development of Slavonski Brod. Approximately the same number of respondents is of the opinion that the assistance of the European Union is a prerequisite for the full restoration of the fortress, but that the local professional teams are not sufficiently trained for the preparation of quality project that is prerequisite for candidacy of the fortress reconstruction to the EU Funds.

It was also found that the political lobbying would be of great importance in occasion of candidacy of the fortress reconstruction to EU funds, while the success of local politicians while "lobbying" in the government as well as the European institutions, was given an average mark of 2.45.

REFERENCES

Loncaric, B. (2012): *Marketing in tourism of Slavonia and Baranja*, Ph.D. thesis, Faculty of Economics in Osijek, Osijek

OECD (2009): *The Impact of Culture on Tourism*

Pender, L., Sharpley, R. (2005): *The Management of Tourism*, Sage Publications, London

Pre-feasibility study for the Brod Fortress (2012), TeamDc, Bratislava

Strategic Marketing Plan for the Croatian tourism for the period from 2010 to 2014 (2009), THR and Horwath Consulting, Zagreb

Tourism Development Strategy for the Croatian Republic to 2020 (2009), Institute for Tourism, Zag

Sanja Rašetina, M. Econ.

Institution: Faculty of economics in Split

Postal Address: Matice hrvatske 63, 21 000 Split, Croatia

Phone: + 385 (0)98 165 84 34

E-mail address: sanja.rasetina@st.t-com.hr

BENEFITS OF IMPLEMENTING STRATEGIC PLANNING TO DEVELOPMENT OF SMALL HOTEL COMPANIES IN OSIJEK-BARANJA COUNTY

PREDNOSTI PRIMJENE STRATEŠKOG PLANIRANJA U RAZVOJU MALIH HOTELSKIH PODUZEĆA OSJEČKO-BARANJSKE ŽUPANIJE

ABSTRACT

The competitiveness of tourism market forces hotel companies to adopt strategic management and smaller entities to opt market niches where they realize their personalized offer. Therefore, the purpose of this research is to point out advantages of using appropriate development strategies. Desk research method will be used for gathering information on business performance for hotels in Osijek-Baranja County and possibilities of strategic planning, case study method for hotel Waldinger and in-depth interview method for its employees. Also SWOT method and Porter's competitiveness model are used for the analysis of business environment. Results should provide an insight into possibilities and limitations of small hotel companies's market expansion, and the need for differentiated products and optimal market positioning. Hotel Waldinger is used as an example of good practice where a company successfully identified its strategic factors and focused business on profitable strategic units, applying social responsibility.

Given that hotel companies represent an important component of tourism in eastern Croatia, the object of research is improving and increasing their competitiveness. This paper's focus is their organization and development strategies, and the contribution will be reflected in guidelines for appropriate strategies, implementation and controlling. While gathering information, restrictions were manifested in dividing small, medium and large hotel's performances data. Regarding hotel Waldinger and the questionnaire for its employees, there is a possibility of recent data absence because they were collected a year ago.

The hotel industry represents an important determinant of tourism in Osijek-Baranja County and companies have recognized the need for business specialization. Stated is achievable with implementation of correct developmental strategies, generating increased business efficiency. Therefore, this study is about the possible use of the mentioned concept.

Keywords: *Strategic planning, small hotel companies*

SAŽETAK

Pod pritiskom konkurencije na tržištu, hotelska poduzeća se odlučuju na primjenu strateškog menadžmenta, a manji gospodarski subjekti se opredjeljuju za određene tržišne niše gdje mogu realizirati svoju individualiziranu ponudu. Stoga će svrha ovog istraživanja biti ukazivanje na prednosti primjene koncepta odgovarajućih razvojnih strategija. Radi prikupljanja informacija o rezultatima poslovne uspješnosti hotelskih poduzeća u Osječko-baranjskoj županiji te mogućnostima strateškog planiranja koristit će se metoda desk istraživanja, metoda studije slučaja za hotel Waldinger, a metoda dubinskog intervjua za nekolicinu njegovih zaposlenika. Također je

korištena SWOT metoda i Porterov model konkurentnosti radi analize poslovnog okruženja. Rezultati istraživanja će pružiti uvid u mogućnosti i ograničenja tržišne ekspanzije malih hotelskih poduzeća Osječko-baranjske županije te nužnost ulaganja u razvoj diferenciranih proizvoda te optimalnog pozicioniranja na tržištu, a hotel Waldinger je istaknut kao primjer dobre prakse za poduzeće koje je uspješno identificiralo strateške faktore i usmjerilo poslovanje na profitabilne strateške jedinice, uz primjenu društveno odgovornog poslovanja. Obzirom da poslovanje hotelskih poduzeća predstavlja važnu komponentu turističkog sektora istočne Hrvatske, predmet istraživanja je usmjeren na njihovo unaprjeđenje i povećanje konkurentnosti. Fokus rada je na njihovoj organizaciji i nužnosti primjene optimalne razvojne strategije te će se doprinos očitovati u danim smjernicama za odabir strategije, odgovarajući način njezine implementacije te provedbu kontrole poslovanja. Prilikom prikupljanja informacija o poslovanju hotelskih poduzeća, ograničenja su se očitovala u potrebi dodatne kategorizacije podataka za male, srednje i velike hotele. Vežano za informacije o hotelu Waldinger te anketno ispitivanje zaposlenika postoji mogućnost nedostatka novijih podataka obzirom da su prikupljeni prije godinu dana. Hotelijerstvo predstavlja važnu odrednicu turističkog poslovanja u Osječko-baranjskoj županiji, a hotelska poduzeća su prepoznala nužnost specijalizacije poslovanja. Navedeno je ostvarivo provedbom odgovarajuće razvojne strategije koja generira povećanu efikasnost poslovanja. Stoga će u radu biti riječ o mogućnostima primjene spomenutog koncepta.

Ključne riječi: *Strateško planiranje, mala hotelska poduzeća*

1. Applying strategic management in hotel companies

The necessity of managing tourism development is triggered by the exponential growth of population, production and trade, which requires the use of basic management functions, by which the system must be handled in a way to ensure their growth and development under different external and internal circumstances (Buble et.al., 2005). Different economic conditions and new technologies have caused changes in the tourism supply and resulted with emergence of customized and more independent tourism markets, which was well prepared for a new generation of travelers, with a significantly different type of travelling culture.

The tasks of modern strategic management include a much broader area than finding and creating new markets. Under today's pressures, tourism managers in charge of strategic economic processes must be prepared for any diverse influences that are a result of strategies, policies and types of management they choose.

Under pressure from market competition, hotel companies are adopting strategic management, and a smaller business entities are opting for specific market niches where they can implement their personalized offer. Business strategy as well as the determination of basic long-term company objectives, adjusting directions of business activity and the determination of the concept and selection of resources in the hotel industry is realized due to the specifics of the tourism industry, which is characterized by the value of tangible, immediate sales on site, the level of product quality and a large number of participants.

When applying strategic management, it is crucial to look at the totality of business and all its parts in order for the organization to be shifted to the desired goal, and setting strategy (defining the mission, objectives, strategies and policies of companies) its application (determination systems, processes, structures and resources to produce a given strategy) alongside control and development strategies (comparison of initial and resulting state) represent the basic levels of strategic planning. Business strategy highlights the level of strategic business units and aims at competitive advantages, providing an answer to the question of how to compete in each selected market, with different models used to possible alternative business strategies. Benefits of applying the concept of appropriate business strategies are evident to business performance. In enterprises that have decided

to apply certain strategies, faster market growth and development was noted including realization above-average long-term profits (Tipurić, 2012.). It also reduces the risk of impact of external factors, such as price competition and risk profile generated due to their ability to adapt to the business environment.

2. The hotel industry in Osijek-Baranja County

According to the State Statistics Office, in 2010. hotels and private accommodation facilities in family tourist farms in Osijek-Baranja County recorded 71,749 tourist arrivals, of which 52,465 were domestic and 19,284 foreign visitors.

In 2011. Osijek-Baranja County realized 77,697 tourism arrivals, which is 8.3% more compared to 2010., and 173,892 overnight stays, which is however an increase of 9.2%. According to these results, which have been increasing steadily since 2004., where Osijek accounts for nearly 75% of all nights, Osijek-Baranja County has for the first time broke out in the first place of all continental counties by achieved arrivals and overnight stays.

During 2011., overnights were realized in nine hotels of Osijek, available with a total of 382 rooms with 702 beds, while there were 149 rooms with 321 beds in private accommodation (rooms for rent, guest houses and apartments). The ratio of private and hotel accommodation in Osijek is roughly at the level of EU countries. By types of facilities, hotels in 2011. realized 74.5% of all nights, rental rooms 17.6%, guesthouses 7.4% and apartments with only a 0.5%.

In general, carriers of tourism in the Osijek-Baranja County are cities of Osijek, Donji Miholjac, Đakovo, Našice, Belišće, Beli Manastir, Valpovo and municipalities Bilje, Bizovac, Draž, Erdut; with the total of 16 hotels out of which three with four stars (Tourist Board of Osijek-Baranja County, 2012.).

Table 1 Hotels and other accommodation facilities in Osijek-Baranja County

	<i>Name of object</i>	<i>Category</i>	<i>Location</i>	<i>Number of beds</i>
1.	Hotel Osijek	****	Osijek	260
2.	Hotel Waldinger	****	Osijek	31
3.	Hotel Patria	****	Beli Manastir	80
4.	Hotel Blaža	***	Đakovo	46
5.	Hotel Đakovo	***	Đakovo	50
6.	Hotel Silver	***	Osijek	50
7.	Hotel Vila Ariston	***	Osijek	21
8.	Hotel Millennium	***	Osijek	20
9.	Hotel Drava	***	Osijek	18
10.	Hotel Villa Valpovo	***	Valpovo	20
11.	Hotel Slavona	***	Donji Miholjac	13
12.	Hotel Central	**	Osijek	60
13.	Hotel Mursa	**	Osijek	260
14.	Hotel Park	***	Našice	100
15.	Hotel Termia	**	Bizovac	205
16.	Hotel Toplice	*	Bizovac	90
TOTAL (HOTEL CAPACITY IN OBC)				1324
Total (other accommodation facilities)				cca 800
Total (accommodation capacity in OBC)				cca 2150

Source: Tourist Office of Osijek-Baranja County (2012) Information on the status and tourism development opportunities in Osijek-Baranja County, Osijek, June

2.1. Hotel Waldinger

Hotel Waldinger, Osijek's first small family four-star hotel, owned by hotelier Berislav Mlinarević, is situated in the center of the city. Today it contains 23 rooms and one presidential suite, two restaurants, a cafe and pastry shop, a multipurpose hall for conference tourism, an open terrace and

a private parking area under video surveillance for hotel guests and a guesthouse with 7 units, located next to the hotel building. This richly decorated hotel offers its guests a chance for recreation in a small wellness center with fitness room and sauna, and fine gastronomic delights, and a monthly exhibition display in the hotel cafe built in the classic Viennese style (www.waldinger.hr).

Hotel Waldinger seeks to position itself in the minds of potential customers as a central area in the heart of Slavonia and secessionist center of Croatia generally, and its promotional campaigns are based on highlighting the superior quality of service that can match the European standards. An atmosphere of warmth, simplicity and elegance, and the spirit of ancient times are the fundamental determinants of its recognizable organizational company culture, whose slogan, "Feel special" highlights a sense of uniqueness that the hotel wants to offer to visitors including adoration and appreciation towards Osijek's history and tradition.

Like most applicable structural form in small family company, the hotel also serves Waldinger initial functional organizational structure, whose characteristics are effective and clear objectives successful at comparison with market competitors, liability is determined hierarchical control of a manager who is also the owner of the hotel and the business culture is subject to minor changes, in line with current trends.

A precondition for the correct selection of the strategy is to analyze the situation, meaning the evaluation of internal and external factors in order to achieve the desired goal and the need to choose the optimal strategy by identifying main strengths, weaknesses, threats and opportunities ranked according to importance.

Table 2 SWOT analysis

STRENGTHS	WEAKNESSES
Highly qualified employees High quality products and services Special access to public relations Encouraging the creation of brand	Underutilization of marketing Underdeveloped networks in international markets
OPPORTUNITIES	THREATS
The increase in demand for goods and services New segments of customers Historically famous office building Location of the hotel	Unfavorable business climate for investment and development Use of substitution products

Source: Rašetina, S. (2011) *The business profile of the hotel company Waldinger, Faculty of economics in Split, April.*

Combining traditional and defensive strategies hotel Waldinger strives to maintain current market share and to feature their products in a recognizable form. Accommodation in this small hotel combines the comfort of a hotel with an individual approach to every guest, rooms and suites are modernly equipped and tastefully decorated in an atmosphere of harmony and elegance.

In the observed example of a hotel company, from the perspective of business strategy, there is a focus on strategic business units or divisions, and the competitive advantage of the synergic effect. According to the life cycle model, hotel Waldinger is situated in a growth phase which is the fundamental determinant of progression meaning the development of innovative products and competitive tendencies building a brand of loyalty to its guests and visitors. The current market is seeking to expand additional activities with designed products and it is advisable to use a strategy of market penetration if it intends to increase the number of visitors from other market segments, increasing the level of quality of service, additional hiring of local tourism agencies, and improving the marketing mix with a focus on promotional activities. This manner contributes to the improvement of the market position of the hotel, but at the same time it will also increase costs, which will in the long term be settled by the increased financial capital achieved with positive business results, so further investment in research and development is recommended.

Hotel Waldinger's level of social responsibility is also laudable, since the applied management methods of operation, communication and task performance is at a higher level of business ethics. In fact, employees are provided with continuous professional skill development and training, ensuring a balance between work and leisure, establishing equal pay and conditions for the improvement of women, and as far as environmental awareness, rational use of resources is ensured and there is waste management through separate collection and recycling. Hotel company is also very integrated in the urban community through sponsorship of local cultural events and book releases on local historical themes which proves The mayor's acknowledgment and thanksgiving of Tourist Board Osijek to Hotel Waldinger for contributing to the local community (Rašetina, 2011.).

Since the presence of a larger number of competitors in the market of small hotels reduces prices of tourism products and services and profits, it is necessary to create barriers to entry of new competitors. Threats occur in the form of competition costs and expenses or substitutions of current products, but the hotel companies that can afford it, take a strong position on the market. On the other side of the bargaining power of customers is the affected level of demand and consumption of tourism products and services, but if buyers are scarce or realize great influence on the process of producing high-quality services, they will have significant bargaining power, which will impact on reducing product cost. Small numbers of suppliers or excessive dependence on their quality also increases their power, but in this case, as opposed to customers, changes in price of the product is conditioned in accordance with the bargaining power of suppliers. Opposing forces among competitors require additional investment funds for marketing of the hotel enterprise or price reductions compared to the competition. Once you define the force, it is necessary to decide which one is the most important. The purpose of identifying the market structure and competitive advantages results in selection of strategies according to environmental influences. If the hotel performs a successful analysis of the environment, optimal positioning in relation to the aforementioned powers, and the selection strategy based on competitive advantages is possible and hotel companies will find themselves able to achieve above average earnings.

Referred is actually an explanation of the business environment through the so called Porter's model of competitiveness by category:

- *The entry of new competitors:* ZOO hotel is the only new blood potential competitor whose entry into the market is caused by the profit realized and the number of overnight stays despite high market entry barriers such as marketing and product differentiation, and the demand for initial capital.
- *Buyers:* City political and business elite, and occasional guests put pressure on by demanding an exclusively higher level of quality hotel products and services.
- *Intensity of rivalry:* There is weak level of competition since a small number of family-run hotels is present - competitors equal in size and power (Silver Hotel and Hotel Villa Ariston), the products are poorly differentiated, and the production capacity is not increased in leaps and bounds.
- *Suppliers:* The number of suppliers has put pressure on the hotel company to vary the level of its price range and the quality of its products and services and have a relatively unique product that can compete with their competitors.
- *Threat of substitutes:* Services and products of other 4-star hotels.

2.1.1. Possibilities of applying strategic planning

When implementing new business strategies, strategic changes are analyzed in various ways, but without a significant concentration in human resources and organizational structure and the impact of the business environment. By choosing the continuity strategy, Waldinger hotel would continue with the use of already used strategies by which he has successfully acted due to good market share and respectable reputation among the guests, but it is possible to introduce an occasional change.

The strategy of routine changes would introduce minimal changes since the the basic intention is to attract new tourism market segments, so as to attract the attention of targeted customers - visitors

and achieve positive positioning in the minds of consumers. This change of market approach refers to the introduction of a more dynamic business with a focus on distribution channels and promotion, with the need to find additional investment funds. The new business plan and operational objectives change should not affect the needs of tourists, but only on the strategy of positioning, and continued differentiation is desirable on the tourism market secession and traditional folk characteristics of a "special feeling" directed towards every guest.

Controlling as one of the main functions of management plays an important corrective role and relates to counseling in the adaptation of business strategies and changes or evaluation of cost control through the setting and monitoring standards of performance and performance measurement. This in a hospitality facility, such as hotels Waldinger performs control function comparisons achieved as planned by the criterion of basic hotel services (indicators of efficiency of accommodation, food and beverages) and supporting hotel services (indicators of the efficiency of procurement, storage, inventory and materials and maintenance).

The control of an individual basis is also applicable according to the results achieved by each employee in the workplace, performing the assigned tasks. While quality control is performed by an integrated approach entrusted to all employees of the company with different preventive and corrective methods, such as planning and designing high quality products and services, forecasting and correcting errors and shortcomings, and continued work on the growth and development of the aforementioned qualities, which proved to be an exceptional success when in just six years of existence Waldinger hotel was voted the best small hotel in the world, for which it received the prestigious award of the International Tourism Organization Trade Leaders Club - the Golden Bull for quality, competition from small hotels hundred countries worldwide. How much is a tribute indeed valuable, it is reflected in the fact that hotel Waldinger was the only croatian representative among the 80 winners of the 33.rd Awarding ceremony, in competition of a hundred countries worldwide. In addition, the prestigious prize was awarded by a tourist organization composed of associations of businessmen from 120 countries with more than 14 000 members.

3. Conclusion

One of the main goals of the Croatian hotel industry for the next few years is to achieve accelerated growth in quality and content rich hotel accommodation (Tourism Institute, 2011.), and the desired improvement and competitiveness depends on the organization of each hotel enterprise and the consistency to the application of a chosen development strategy. The fact is that for the past few years, the Croatian hotel industry recorded a slight price increase but occupancy rate has stagnated (Čizmar, 2011.). Economic operators should continually exert control of their products and services, and analyze business performance of hotel companies with the strategic selection of basic activities that produce the best results compared to the competition, and focus their resources to their further improvement if they have adequate personnel and resources. Of course, the selection strategy depends on the level of the relevant department or function in which it is planned to introduce the desired changes.

In brief, the application of strategic management and specifically strategic planning provides the hoteliers an answer to crucial and fundamental questions of business success such as how to adapt to the changing conditions of the external and internal environment companies, the redistribution of resources, product positioning of the business portfolio in comparison to the competition, all in order to survive on the market.

REFERENCES

Buble, M., Cingula, M., Dujanić, M., Dulčić, Ž., Gonan Božac, M., Galetić, L., Ljubić, F., Pfeifer, S., Tipurić, D. (2005): *Strategic management*, Sinergija, Zagreb

Čizmar, S. (2011): *Hotel industry in Croatia*, Faculty of economics in Zagreb

Institute of Tourism (2011): *Croatian tourism in numbers*, Vol. 5, No.1

Rašetina, S. (2011): *The business profile of the hotel company Waldinger*, Faculty of economics in Split, April, 2011.

Tipurić, D. (2012): *Strategic options*, Faculty of economics in Zagreb

Tourist Office of Osijek-Baranja County (2012): *Information on the status and tourism development opportunities in Osijek-Baranja County*, Osijek, June

www.waldinger.hr (accessed 10 March 2011.)

Sanja Rašetina, M. Econ.

Institution: Faculty of economics in Split

Postal Address: Matice hrvatske 63, 21 000 Split, Croatia

Phone: + 385 (0)98 165 84 34

E-mail address: sanja.rasetina@st.t-com.hr

TOURIST VALORISATION OF CULTURAL AND HISTORIC RESOURCES IN OSIJEK-BARANJA COUNTY

TURISTIČKA VALORIZACIJA KULTURNO POVIJESNIH RESURSA NA PODRUČJU OSJEČKO-BARANJSKE ŽUPANIJE

ABSTRACT

Since the key to the success of Croatian tourism lies in the assessment and reconstruction of its comparative advantages, the aim of this paper is to indicate the presence of valuable cultural and historical resources of Osijek-Baranja county, and emphasize the importance of their tourism evaluation regarding the economic development. Desk research methods will be used for gathering information on the structure of eastern Croatia's tourism supply, the inductive-deductive method for explaining established insights and the case study method for Tvrđa as an example of adequately valorised monument. Research results show that Osijek-Baranja county is an outstandingly rich region, regarding the availability and quality of resources, emphasizing the need for a sustainable evaluation of cultural heritage, given that existing attractions have an exceptional potential for expansion of tourism. Research results also point to potential benefits and harms of intensive use of resources and emphasize the need for balanced regional tourism development in the eastern Croatia.

For further tourism development, it is necessary to orientate on tourism forms that explore specific local resources using principles of sustainable development. The object of study relies on eastern Croatia's micro-locations, perceived as resources valuable for cultural tourism development. The contribution is reflected in emphasizing the importance of conducting proper assessment of attractions and applying the results to similar regions. Previous secondary research show inadequate use of cultural and monumental heritage in Osijek-Baranja county. It is desirable to conduct new studies to redefine the using of these resources to enrich literature related to the mentioned topic.

This research will help establish the presence of valuable resources for tourism development and demonstrate their role in the region's cultural identity. Regarding valorization of cultural heritage, the example of good practice could be repeated in other attractions.

Keywords: *Cultural heritage, attractions, tourist valorisation*

SAŽETAK

Budući da ključ uspjeha hrvatskog turizma leži u vrednovanju i obnovi njezinih komparativnih prednosti, cilj rada je ukazati na prisutnost vrijednih kulturno povijesnih resursa Osječko-baranjske županije u ulozi turističkih atrakcija te naglasiti važnost njihove turističke valorizacije u funkciji ekonomskog razvoja. Metoda desk istraživanja će se koristiti prilikom prikupljanja informacija o strukturi ponude turizma na istoku Hrvatske, dok će se za objašnjavanje utvrđenih spoznaja koristiti induktivno-deduktivna metoda. Također će se upotrijebiti metoda studije slučaja za osječku Tvrđu kao primjer adekvatno valoriziranog spomenika. U konačnici će rezultati

istraživanja pokazati da je Osječko-baranjska županija po raspoloživosti i kvaliteti kulturno povijesnih resursa iznadprosječno bogata županija, uz isticanje potrebe za provođenjem održivog procesa valorizacije kulturne baštine, obzirom da postojeće atrakcije posjeduju izniman potencijal za proširenje turističke ponude županije. Rezultati istraživanja će ujedno ukazati na moguće koristi i štete intenzivnog korištenja kulturnih resursa te istaknuti važnost ravnomjernog regionalnog turističkog razvoja u kontekstu ulaganja u turizam istočne Hrvatske. Za prostor Osječko-baranjske županije je neophodna orijentacija na oblike turizma koji će iskorištavati specifične lokalne resurse po principu održivog razvoja. Predmet istraživanja se oslanja na mikro-lokacije istočne Hrvatske, percipirane kao skup vrijednih potencijala za razvoj kulturnog turizma. Doprinos rada se očituje u isticanju važnosti provođenja primjerene valorizacije nad odabranim atrakcijama te primjenjivanju rezultata na sličnim regijama. Analizom rezultata sekundarnih istraživanja je utvrđeno neadekvatno korištenje kulturne i spomeničke baštine Osječko-baranjske županije. Poželjno je provođenje novih istraživanja u svrhu redefiniranja načina korištenja resursa te obogaćivanja literature povezane s temom istraživanja. Istraživanjem će se ustanoviti prisutnost vrijednih resursa za razvoj turističkog sektora istočne Hrvatske te prezentirati značaj njihove uloge za unaprjeđenje turističke ponude i kulturnog identiteta regije. Također je istaknut primjer dobre prakse valorizirane spomeničke baštine koji bi se mogao ponoviti na primjeru drugih atrakcija.

Ključne riječi: *Kulturno naslijeđe, atrakcijska osnova, turistička valorizacija*

1. Tourism as a driving force of development for the continental regional economy

Tourism as a socioeconomic and cultural-civilizational phenomenon is realized in the space that has the appropriate attractive force based on certain attributes tourist attraction within the natural or anthropogenic resources (Geić, 2011.).

Given the complexity of the social sciences, the phenomenon of tourism needs a multidisciplinary approach, taking into account a number of internal and external factors affecting a particular phase of the life cycle of its products and services. So by his presence, the destination can benefit through multiplying effects, infrastructure, employment, local population, expansion of developmental possibilities or may experience damage due to inflation seasonality, economic fluctuations, demonstration effect, degradation of culture and general destruction of resources (Geić, 2002). This leads to one of the main comparative advantages of Croatian tourism, which is the cultural and historical heritage in the role of popular tourist attraction, which requires adequate and tourist valorization and revitalization, according to the principle of sustainability and respect for the carrying capacity of a given location (Jadrešić, 2001.). The above mentioned entails careful and rational use of heritage as a segment of tourism at the local, regional and national level and long-term evaluation and preservation of these basic elements of tourism by the phrase "leaving something for generations to come."

1.1. The structure of tourism supply in Osijek-Baranja County

Regional Plan of Osijek-Baranja County determined that tourism in the county must strategically develop a on the basis of natural and cultural resources, ecological diversity and preservation of natural resources. Kopački Rit and other protected areas as well as areas of thermal springs near the village Bizovac are a significant the backbone of eco and health tourism in addition to the cultural and historical form of culinary and wine tourism. Linking tourism and agriculture through organic health food specific offers of rural and agro tourism were created, and of the newer forms of tourism growth recorded crusing and congress tourism. Osijek-Baranja County invested significant efforts in the expansion and presentation of tourist offer, which is particularly applicable to the development of rural tourism, which also includes a project of establishing and subsidizing and promoting wine routes, events and tourist significance for the development of tourism of family farms.

Holders of tourism in the Osijek-Baranja County are cities of Osijek, Donji Miholjac, Đakovo, Našice, Belišće, Beli Manastir, Valpovo and municipalities Bilje, Bizovac, Draž, Erdut that stand out due to certain tourist attractions, activities but also tourist employees and local authorities of this area that put the existing valorized resources in the function of tourism (www.tzosbarzup.hr).

Eastern Croatia is considered to be inadequately utilized in terms of tourism since it has exceptional potential for the development of several different selective forms of tourism thanks to its natural basis and historical development as well as human resources. Osijek as a regional economic, commercial, cultural center of the eastern Croatia is characterized by valuable and unique historical sites, sporting and hunting activities, the habitat of endemic plants and animals, culinary delicacies, rich culture and history - from prehistorical culture of Vinodol and the nature park Kopački Rit, to the complex of fortress "Tvrdća". University of Osijek and secondary education system are also important resources that can generate staff potentials capable of sustainable and economically advantageous management of all tourism resources (Tourist Board of Osijek-Baranja County, 2012.)

An indispensable segment of Osijek-Baranja County tourism offer is a large number of equally attractive locations. So we face Beli Manastir as a medieval center of Baranja with the Catholic convent from the 13th century and folklore performances of handicrafts and gastronomy - Baranjski bećarac. Then there is the monumental Đakovo cathedral which was built under the auspices of Bishop Josip Juraj Strossmayer in the 19th-century and the manifestation of Đakovački vezovi, Lipicaner horses bred on farms with tradition of since 1506. year and exceptional potentials for the development of wine tourism, and Ilok with historic urban core with a variety of valuable buildings from the 18th and 19th century, which also contributes to the rich cultural fund of the region. Following Našice with horticultural monuments in possession of the historic Castle Pejačević, Vukovar as a symbol of Croatian national pride, severely damaged in the war, the world's relevant prehistoric archaeological site Vučedol, Vinkovci with pre-Romanesque church containing graves of the kings Koloman and Ladislav, the province Erdut with the remnants of eneolithic bronze culture and the famous vineyard culture (Guinness record for the world's largest barrel of 75 000 liters), Slavonski Brod with archaeological finds from the Neolithic, Iron and Bronze age, Baroque monastery from 1694. and the mansion of Ivana Brlić Mažuranić where the famous children's author wrote most of her fairy tales, Požega in famous Valis Aureae with one of the most beautiful squares in Croatia and Kutjevo with wine cellars from the 1232. years, Surduk Festival in Zmajevac that combines wine, art and tourism, and many other cities, towns, rural municipalities and attractive sites.

1.1.1. Potential to expand tourism offer

Of the recent activities and projects of Tourist Board of Osijek-Baranja County, the emphasis and considerable efforts were noted on further improvement of tourism offer which is reflected through the continuous financial support for various projects, as well as through major tourism projects such as the construction of the port for cruise ships in Batina and Aljmaš, making the tourist wine routes, which include tourist offer of 4 vineyards (Đakovo Feričanci, Erdut and Baranja) from the area and recover the castle of Eugene of Savoy in Bilje and marketing tourist function, a project of setting tourist signs for the entire county, project of making Ethno-track village Karanac in collaboration with the tourism entrepreneurs of ethno village, new product development (historic tourist trail park Donji Miholjac, support for sport and fishing society Drava in designing tourism offer of fishing tourism, development of bike trails in the Osijek-Baranja County as part of international bicycle paths) then participation in trade fairs and special presentations at home and abroad (Ethno-Eco Croatia, Days of Wine and Tourism, Baranja bećarac, Fair of old customs and crafts, Đakovački vezovi, Straw Land Art Festival, etc.).

In particular, the development of the city of Osijek, from the perspective of the tourism industry, should take into account the evaluation and rehabilitation of the natural and cultural resources, usability of contents offering solutions to the problem of seasonality (spa, ski resorts and the development of selective forms of tourism such as rural, hunting, event and many other). Also, segmentation of the market demand should be conducted in order to start with creation and promotion of specific tourist products based on the principle of planning and organizing development management of tourism destinations.

This should be feasible if the tourism policy and practice to introduce changes such as improving infrastructure, increasing capacity utilization, education, tourism workers, then the establishment of destination management organization, guidance on appropriate strategies and promotion of tourism products and of making a recognizable image and identity of the city.

But the main competitive advantage of Osijek and entire Slavonia area is considered urban and tourist insaturated and environmental tidiness in areas, archaeological zones, nature reserves, preserved traditional gastronomy, ethnology and ethnography and the mentality of its inhabitants with genuine hospitable and friendly character. All this greatly affects the loyalty and the return of the visitors, but for the further destination development it is desirable to study the example of the development of foreign tourist regions such as the application of specific local policies offering variety of contents in tourist products and the creation of integrated tourism products, micro locations of all areas of Slavonia, which will give sort of synergistic effect.

Unifying and improving the tourism supply Ministry considers a priority and assumption of the successful future development of inland tourism, which is best accomplished by forming high-quality integrated products. These products should be a combination of tangible and intangible aspects of selected tourism offer natural, cultural and historical resources, which make the development of selective forms of tourism in the eastern Croatian (www.kongres-rural-turizma.org). The fact is that the immaterial part of the offer are the anthropogenic elements and human factors such as the kind and educated caterers, hospitable host or travel agent service. Indicated could be improved through continuous education and training of personnel, resulting in and raises the level of quality of services provided. It should also increase the number of additional features that allow visitors to gain a truly authentic experience of life in continental Croatia and gain insight into the customs and traditions of the original and preserved environment as it is to survive. Unfortunately, these areas are still not considered attractive enough so most investments go into coastal areas, although it is possible to develop a large number of selective forms of tourism based on long-forgotten historical tales and traditions.

Modern visitors enjoy the most innovative products and services so several new attractions to existing classical selective offer and gastronomic tourism could be initiated, for example workshops on decorating flasks or preparing sausage Kulen, participating in the process of catching fish and making fish stew following traditional recipes, or a long-run experience of taking a tour to wine production facilities and "adopting" vines in order to receive regular information about the progress of vines and finally be presented with a bottle of wine made from concerned grapes only if you return to the destination next year. Also it is preferable to point out prominent and well-known brands that carry „Croatian Creation“ label (sausage Kulen from Belje manufacturers, pear brandy from Požega, Slavonian jewelry) and the sign of „Croatian Quality“ (Đakovo kitchen furniture, Osijek beer) to educate visitors about the local values and improve the recognizability of Slavonia and Baranja as tourist destination regions.

2. Valorisation

Attraction base is the main appealing element of the destinations and the key assumption of its tourism development. Attractiveness of each destination consists of natural and cultural heritage, and of that it is possible to improve the efforts of the community, while tourist attractions are considered as individual sites, events or manifestations that amplify its attributes attractive power.

The process of evaluation for croatian tourist attractions include:

- a) identification (recognition) of main attractions,
- b) systematization of the identified by type of attraction,
- c) ranking the identified by the importance within a particular types,
- d) touristification level assessment of the main attractions (Kušen, 2002.).

Identification of the main attractions is made based on a variety of sources, such as materials of competent institutions dealing with the protection of natural and cultural heritage by organizing tourist activities and the promotion of Croatian tourism, and all other materials that deal with tourism attraction base, from the numerous studies on the national and regional level to tourist brochures and indigenous monographs. To begin the process of evaluation its attractions should be separately ranked according to the attractions appeal to the *international market* (targeted attracts foreign visitors), *national* (domestic travel targeted tourists and foreign ones visit them during the journey undertaken with a different purpose), *regional* (county) and *local* (cities and municipalities), followed by an assessment of their touristification degree (Institute of Tourism, 2011)., meaning tourist orderliness, availability and marking certain attractions through three levels - *level A* means complete tidiness, good transport accessibility and marked units certain attractions that are generally not required to be investments other than routine maintenance, while *level B* indicates a satisfactory level, and *level C* with low arrangement and marked units attractions, while still allowing access to the attraction, at which both require additional funding and which need better fitting to give a substantial boost to tourism development and contribute to reducing seasonality and / or steady dispersion in tourism demand. There is also a fourth degree of turistification defined as *zero*, which include sites unequipped and incompatible with tourism (castles as hospitals, prisons, etc.).

Table 1 Main croatian cultural - historical attractions of international significance*

Region	Attractions	Turistification degree
Ancient and prehistoric heritage		
All macro regions	Archaeological sites dating from the Roman period (Salona, Narona, područje Dunavskog limesa)	B
	Hušnjakovo, Vindija, Vučedol, and other paleontological and prehistoric sites	B
Baroque heritage		
Continental Croatia	Fortress Tvrđa and town center in Osijek	B
	Old town Ilok	B
	Baroque parts of town Varaždin and other continental cities of Croatia (Samobor, Čakovec, Karlovac, Požega, Đakovo, Vukovar)	B
	Dvorci i palače (Trakošćan, Veliki Tabor)	B
Other cultural-historical heritage		
Continental Croatia	Memorial sites (Vukovar, Jasenovac)	B
All macro regions	Forts (Nehaj/Senj, Knin, Klis, Slavonski Brod)	B
	Birth places of famous people (Tesla, Tito, Marko Polo)	B

Source: Institute of Tourism: Master Plan and Development Strategy of Croatian Tourism, Report 03, Zagreb, 2011.

*The original tabular display was shortened for this article

2.1. Example of „Tvrđa“ as an adequately valorised monument

Within the interrelations of culture and tourism, special importance should be given to the evaluation and revitalization of cultural and civilizational heritage as an essential component of the tourist attractions. In this context it is necessary to analyze the evaluation and rehabilitation of monuments and cultural heritage of the superstructure and the role of cultural heritage as a factor in improving tourism promotion. As an example of the above mentioned monuments, ethnology and ethnographic elements, cultural institutions and cultural events, as in the city of Osijek, best describes an example of the complex evaluation of the Fortress Tvrđa.

The complex of the Fortress belongs to most significant old Croatian city centers and has the greatest harmony Baroque military buildings preserved until today (www.aoot.hr). Tvrđa was built in the 18th century by transformation of current elderly historic city that stood on the key strategic crossing over the river Drava, on the border with the Ottoman Empire and was designed and built by Prince Eugene of Savoy in year 1712, modeled by the Dutch military fortifications. Tvrđa had four gates: New (South), Water (Northern), Imperial (East) and Valpovic (Western), but to this day the only preserved is the Water Gate, with a memorial tablet to the builder of fortresses, General Johann von Stephan Beckers. Tvrđa also preserved St. Trinity square, beautiful aristocratic and civic buildings, the building of the Museum of Slavonia, the old high school, post office, orphanage, church of St. Michael with valuable inventory, former taverns now transformed into bars and nightclubs, and a Franciscan monastery (Slavonia's first faculty in 1735.). Due to the rapid development of war technology and expensive maintenance of existing military facilities, in the late 19th and early 20th centuries, Tvrđa has become unfit for the military, the public and town administration have required the demolition of the walls because they interfered with economic development and transport links between the Upper and Lower Town. So they remain to this day preserved only in parts of Charles and Eugene bastions with the Water tower.

Nowadays in Tvrđa there are numerous institutions of which is most important to mention the Agency for reconstruction of Tvrđa, established by the Ministry of Environmental Protection, Physical Planning and Construction, Osijek-Baranja County and the City of Osijek, whose activities include tasks related to the protection, renewal and revitalization of the Osijek Fort, like making plans and programs of reconstruction of architectural heritage, organizing and implementing supervision of construction works, monitoring implementation of investment programs, organization and performance of marketing and other promotional activities, and coordinating the work of the participants in the restoration of monuments.

As the largest fully preserved baroque composition from the 18th century in Croatia, historic town of Osijek, Tvrđa is already third time nominated for entry into the UNESCO World Heritage List, but the criteria are very high and demanding, which is why the agency was established, although the problems and needs of reconstruction and revival of the Tvrđa have been present for some time. The agency aims to carry out extensive and complicated work on the restoration and revitalization of Tvrđa, with the use of current research for the restoration plan from 1976., based on a study of historical events, urban development, stages of development, archaeological research, complex analysis of the current physical condition of individual buildings, the original purpose of the research, with the following principles:

- a) *Protection* includes conservation approach intended to prevent the devastation and decay of individual buildings.
- b) *Renewal* means architectural restoration and constructive empowerment of individual buildings for continued daily use in accordance with the monumental protection regime.
- c) *Revitalization* implies revival of area by entering contents related to needs of modern living.

Restoration of Tvrđa will be carried out in accordance with spatial planning documents and the Programme protection plans, restoration and revitalization of Tvrđa, while on international cooperation in the reconstruction project, one of the most important activities of the Agency will be the re-establishment of active cooperation with the Committee for Cultural Heritage of the Council of Europe. The main objectives of the reconstruction projects the systematic restoration of monuments by the principles of ICOMOS, the preservation of multifunctionality enabling optimal unfolding functions (inhabit, work, leisure, transport), providing conditions for the traditional functions (city government, culture), the introduction of new active contents within the urban structure will be to arouse interest in people of Osijek and the wider community, the establishment of internal social and economic balance in the space of the historic center in a way to restore social life and stop the negative socio-economic processes, adoption and implementation of economic

measures that will encourage the management of core and will , while preserving the overall historical value, become the generator of its renewal and revitalization, etc. (www.aoot.hr).

3. Conclusion

Regarding the availability and quality of natural and cultural resources, Osijek-Baranja County is outstandingly rich county, but according to many economic indicators, there is a developmental stoppage compared with an average for Croatia (Tourist Board of Osijek-Baranja County, 2012). In that sense, the latest development strategy of Osijek-Baranja County states the goals for development of the tourism sector, according to unification and promotion of tourism, from the preservation of natural and cultural heritage, improving knowledge and professional skills of human resources in the tourism industry, the development of new tourism products with the growth of all continental forms of tourism, with an emphasis on cultural, ecological and rural tourism.

Tourism in Osijek-Baranja County has to develop much faster based on the existing resources and a specific variety of space. However, long-term tourism development is required to be based on the active protection of natural and cultural heritage. Of great importance is the implementation of proper resource inventory according to the criteria and the significance of attractive force for the development of the local tourism economy, which is necessary to establish a new strategy for tourism development at the local and regional level, and with respect for the principles of sustainable development. Given that the greatest potential for growth show just certain types of specialized selective tourism, it is necessary to implement new ways to use these vast resources (principles of sustainable development for destination management), which also improves the existing concept of development and strengthen the attractive factors of Croatia's inland tourism. Since Croatian tourism development strategy predicts the development of tourism throughout the country with the intention of harmonizing regional, economic and social development, it is necessary to pay special attention to the plans of evaluation valuable tourism resources and tourism outside the Adriatic region, and this opportunity should be taken to 'learn while traveling 'with an emphasis on regional cooperation and coordination that would encourage the simultaneous development of several selective forms of tourism.

REFERENCES

Geić, S. (2002): *Tourism and cultural heritage*, University of Split

Geić, S. (2011): *Management of selective forms of tourism*, University of Split

Jadrešić, V. (2001): *Tourism in interdisciplinary theory and application*, Školska knjiga, Zagreb

Institute of Tourism (2011): *The Master Plan and Development Strategy of Croatian Tourism*, Zagreb

Tourist Office of Osijek-Baranja County (2012): *Information on the status and tourism development opportunities in Osijek-Baranja County*, Osijek, June

<http://www.aoot.hr/?o=db&izb=9&jez=hr&str=1> (accessed 01 August 2012.)

<http://www.kongres-seoskog-turizma.org/zakljucak-kongresa.php> (accessed 02 August 2012.)

Stjepan Vidaković, Master of Arts in History and Philosophy
Republike 69, 31208 Petrijevci, Croatia
Phone: +385 98/518-685
E-mail address: stjepan.vidakovic7@gmail.com

HISTORY OF OSIJEK AND ITS AREA AS THE BASICS FOR THE DEVELOPMENT OF TOURIST POTENTIALS IN THE OSIJEK-BARANJA COUNTY

POVIJEST OSIJEKA I OKOLICE KAO OSNOVA ZA TURISTIČKI RAZVOJ OSJEČKO-BARANJSKE ŽUPANIJE

ABSTRACT

The purpose of this work is to explain the development of Osijek and its area, as much as it is to emphasize its historical and cultural potentials. Due to the numerous layers of history, this area indeed possesses such potentials. The core of the work is Osijek's history in the context of the Austro-Hungarian history, so that the historical context, in which Osijek became a macro-regional centre of the Slavonia region with its current potentials, can be understood in a better manner. These potentials put Osijek not only on the national, but also on the regional tourist map level, so it is crucial to understand how they occurred. Bearing in mind also the potentials of its corresponding county as a whole, the work assumes the presentation of the history of the area as a micro-region. This analysis, due to the limitations of the proposed work, does not strive to present minor aspects of its history, but it is rather presented in an understandable and meaningful manner of the historical circumstances in which the most relevant historical facilities in the Osijek region, were erected, namely castles, churches and a plethora of monuments. As each of the aspects is considered individually, none of these facilities were popular enough to attract larger numbers of people (receptive tourism) so far, but perceived as a whole, Osijek and its surrounding area do possess substantial contents to become a well-known and elaborate tourist destination. Therefore, it is rather substantial to conduct a historical analysis of the region which can enable a better understanding of the development of the spaces in the 18th and the 19th centuries. Furthermore, the once geographically united space can thus be merged and united in culture and history using the means of tourism. The work consists of two main chapters: the history of Osijek as a city, and the history of its surrounding and corresponding geo-political area. It is written in the manner that chronologically follows the development of Osijek and its area, so that the origins of the current state could be understood in an easier fashion. The literature referred to in the analysis is limited to the contemporary sources in the Croatian language, and it encompasses relevant titles in the area of history and economics.

Keywords: *Osijek, Osijek-Baranja County, Đakovo, Baranja, Slavonian castles*

SAŽETAK

Svrha ovog rada je prikazati razvoj Osijeka i okolice, te staviti naglasak na povijesne i kulturne potencijale koje ovaj prostor, zahvaljujući svom povijesnom razvoju, posjeduje. Povijest Osijeka, potkrijepljena osnovnim povijesnim kretanjima u Habsburškoj Monarhiji (a nakon 1867. Austro-Ugarskoj Monarhiji), čini okosnicu rada. Važnost ovakvog pristupa je u prikazu povijesne pozadine uspona Osijeka na razinu današnjeg makro regionalnog središta Slavonije i razvoja svih onih povijesnih i kulturnih sadržaja koji taj grad čine prepoznatljivim ne samo u regionalnom nego i

nacionalnom okviru. No imajući u vidu ne samo povijesne i kulturne potencijale Osijeka, nego i potencijale koje nudi cijela županija, u radu se prikazuje povijest osječke okolice u onoj mjeri koliko je potrebno da bi se razumjela geneza nastanka najznačajnijih povijesnih sadržaja, poput dvoraca, crkava ili spomenika, koji se nalaze u blizini Osijeka. Zasebno gledani, svaki od tih sadržaja samostalno nema toliku privlačnu snagu, ali promatrani zajedno tvore iznimno atraktivnu cjelinu, koja bi se mogla turistički iskoristiti. Važnost povijesne analize leži u tome što se iz nje razabire i uočava duh vremena koji je oblikovao ovaj prostor, najviše u razdoblju 18. i 19. stoljeća, te koji geografski odvojene jedinice, povezuje u jedinstveni kulturni i povijesni prostor. Rad će stoga biti podijeljen na dvije glavne cjeline od kojih će jedna biti posvećena povijesnom razvoju Osijeka, dok će druga biti posvećena povijesnom razvoju osječke okolice. Rad je pisan tako da kronološki prati razvoj Osijeka i njegove okolice, čime se osigurava lakše razumijevanje geneze sadašnjeg stanja. Prilikom istraživanja uglavnom je korištena postojeća povijesna i ekonomska literatura na hrvatskom jeziku.

Ključne riječi: Osijek, Osječko-baranjska županija, Đakovo, Baranja, dvorci Slavonije

1. Introduction

We can trace the history of Slavonia from prehistory all the way to the present time, but the present Slavonia, in fact, owes its cultural and historical development primarily to its 18th and 19th century history, which followed the banishment of the Ottomans from these lands. The great Turkish war was took place from 1683 until 1699 and it had reaped significant success for the Habsburg Monarch, which managed to liberate its territories which had been ruled by the Ottomans from the 16th century. As the Republic of Venice and the Polish–Lithuanian Commonwealth joined forces with them forming the Holy League, initiated by the pope Innocent XI⁷⁹, the three allies led separate war operation on separate battlefields. Therefore, after the war, the Republic of Venice claimed the territory of Dalmatia, whereas the Hasburg Monarchy annexed Slavonia (Hanák, 1995., 90.; Zöllner, 1997., 173.).

Even during the war operations, when it became obvious that war against the Ottomans will end successfully for Habsburg Monarch, the focus of interest shifted to the question of the organization of the liberated territories. The Hungarian and the Croatian nobility wished to assure the return of the liberated territories and put it under the control of both the Hungarian and Croatian Parliament. However, Vienna quickly dismissed this option. The Austrian court put all the newly-liberated territories under their control, namely under the control of the Court Chamber (Šidak 1959., 1003.). The Court Chamber was in charge of governing the newly-liberated territories. Until the mid 18th century it has either distributed the lands to the nobility and the veteran generals, or sold them to load the state Treasury. Consequently, the major part of Slavonia will go to the hands of the foreign nobility and these families will affect the development of Slavonia in the following period via the large estates that they gained. They will also be one of the most crucial figures in the creation of the recognizable historical symbols in these areas.

2. Osijek in the 18th and the 19 century

After the retreat of the Ottomans, the foundations of Turkish Osijek were but a site of fire. Yet the imperial military experts and constructors decided as early as 1691 to engage in the reconstruction of the Osijek fort. Like centuries before, Osijek had an important strategic role and it was decided that the fort which would be erected should provide the stabilization of that territory and prevent Slavonia from being subdued again to the Ottomans in potential future wars. The remaining population of the Ottoman Osijek was relocated a mile westwards where they would expand as a

⁷⁹ Because of this role of the pope Innocent XI and his financial aids during the war, the Emperor Leopold I gave his nephew Livio Odescalchi estates in Srijem (Syrmia).

community and eventually become the Upper Town. Short after, eastwards from the fort, on the location of the former Mursa, another settlement will rise. It would become the Lower Town (Mažuran 1996., 9.-17.). These were the foundations of the present Osijek, set at the beginning of the 18th century.

Unlike the rest of Slavonia, Osijek began its recovery as soon as the beginning of the 18th century. Although the post-war conditions were extremely severe, in 1702 there was already between 3000 and 3500 inhabitants in Osijek. Still, it is crucial to point out that its recovery was not the result of the natural increase, but rather the result of immigration mostly from the German countries (Mažuran 1996., 25.). Furthermore, Osijek was the crossroads of the General-command for the whole Slavonia from 1687-1783 (Živaković-Kerže 1996, 13), so army and commandment staff were continually stationed in the city. Concerning the fact that it had been decided that a new military fort and base would be erected, there was a need for the labour power and craftsmen. All these factors have influenced the rapid development of the city, which would make it the biggest city in Croatia by the 1850s.

After years of planning and preparation, 1709 began the building of the fort of Osijek. The construction was rather successful, so that by the 1719 most of the walls and the facilities were erected, and by 1721 the fort was completed (Mažuran 1996, 27-29). At the end of construction, the fort was a military and urban formation that would not be found neither in Slavonia nor Croatia. The Baroque architecture style gave it its recognizable signature of the time in which it was created. The main square, richly decorated with the votive column to the plague before the Holy Trinity makes one of the most beautiful squares in Croatia.

On the other hand, the Upper and the Lower Town had their own developing dynamics. Although both settlements were literally villages at the very beginning, the vicinity of the fort combined with the military needs positively affected their growth and gave boost to the continual arrivals of new immigrants into both settlements. In the 18th century, both witnessed growth and development. The additional positive boost was the construction of the hard road across Baranja. The very Emperor Joseph II emphasized on its importance to the centre. During that period, under the patronage of the jezuits the Osijek gymnasium and post-service were founded, a German theatre was running, manual trade was blossoming, and all was followed by the increase in population (Mažuran 1996, 44-47). As the settlements around Osijek were separate administrative units, all the municipalities were united on 2 December 1786 by a decree by the Emperor Joseph II into a singular municipality which would be pronounced a free royal city in 1809.

Now united, Osijek witnessed intense economic growth in the 19th century, which led to shaping of the contours according to a proper Central European city. The transportation network that connected it with other cities of the Monarchy contributed to its further development. The importance of Osijek was not reduced only to its surrounding region; it was important as a city for the whole Habsburg Monarchy. By the second half of the 19th century, almost all the transportation of goods and commodities coming from the Ottoman Empire, Bosnia and the Principality of Serbia went through the city so that great number of agricultural goods was stored there, to be transferred later on to the other parts of the Monarchy (Živaković-Kerže 1999, 12). Such atmosphere benefited the growth of production and economics, which was reflected on the architectural development of the city. New streets, business facilities and residential buildings were built. Alongside Zagreb, at the end of the 19th and the beginning of the 20th century Osijek became the leading industrial centre of the Croatian lands. In 1910 there were 25 enterprises with 2057 workers and together with Zagreb, Osijek was constituting the third of the factory production in the northern Croatia (Živaković-Kerže 1999, 60). Inside the very city, in 1890 36.7% of the working population had belonged to the various industrial branches, while in 1910 that number increased 39.7% (Karaman 1981, 111). Due to this factors and the wealth of the city, in that period, Osijek got the

representative parts in the Upper Town. The Street of the European Avenue, St. Peter and Paul's church, The Županijska Street and a series of other representative facilities now reflect the affluence of the city and its citizens. Tenders to the architectonic projects applied from Zagreb, Sarajevo, Vienna, Prague, Budapest and other European cities.

In the wake of the First World War and the dissemination of the Habsburg Monarchy, creation of the new state formation and establishing new international relations, Osijek began to stagnate. The traffic network and the economic relations were changed, so the city began to lose its importance that it used to have centuries before. Osijek and Slavonia, once on the crossroads of the worlds, were now immersed into the new political formation which set other paths as their priority, leaving Osijek aside. Throughout the 20th century Osijek continued to grow, yet its recognizable contours had been established in the two preceding centuries.

3. Big estates in the Osijek-Baranja County

Unlike Osijek, which was granted the title of the free royal city and by 1809 was under the rule of the Court Chamber, the bigger part of the civil Slavonia was governed by the aristocracy. Castles emerged on their real estates, as the residences of the noble families, as well as the estate centres often surrounded by vast parks which became recognizable points of almost every manor. In the following text we will discuss the existing ones in the Osijek-Baranja County

3.1 Bilje/Belje

The first and most famous owner of the Belje estate was Eugene of Savoy – the commander-in-chief of the imperial army in the war against the Ottomans. As a token of appreciation, the Emperor Leopold I granted him the Belje estate (Sršan 1993, 88.; Šćitaroci 1998, 74.). The estate was extremely big and in 1851 it had 94.443 acres. The owner had built a hunting mansion, where he did not reside often due to the bad infrastructure in Baranja that assumed crossing the marshland. Following the death of Eugene of Savoy, the mansion was owned by the Court Chamber and from 1780 the House of Habsburg (Šćitaroci 1998, 79). In the mid 19th century, gardens were built around the mansion, spreading over eight hectares. Today, the mansion is uncared-for and in decadent condition, but its revitalization and reconstruction would undoubtedly contribute to the cultural offer of Baranja.

3.2 Valpovo

The Valpovo estate was the biggest estate in Slavonia. The Emperor Charles VI gave it to the baron Peter Hilleprand de Prandau as a gift for borrowing him 100,000 guildens to fight the Ottomans in the war. His descendants owned it until 1945 when it was nationalized (Šćitaroci 1998, 309, Martinčić 2009, 15). On the medieval foundations of the Valpovo fort a Baroque-Classicism castle was built and it became one of the most representative castles in Slavonia. Unlike other castles, this one is special for its well-preserved fragments of the medieval fort with which it is fused into a unique historical and architectural whole.

3.3 Donji Miholjac

Donji Miholjac was a part of the Valpovo estate until 1831 when the first division took place and from which emerged the Donji Miholjac estate. For a short period of time, the two feudal possessions had been joint, but after the death of Peter Hilleprand de Prandau they were separated for good. The Hungarian noble family of Mailáth von Székhely eventually took over the estate (Šćitaroci 1998, 132; Ham 1998, 52). Next to the smaller castle, the building of the new castle took place at the beginning of the 20th century, which was one of the last built castles in Slavonia. It was

constructed in the very specific Tudor style, which makes it unique compared to the other, predominantly Baroque or classicist castles in Slavonia. Its construction was triggered by the visit of the Emperor Francis Joseph II who had promised to pay another visit to Donji Miholjac. Following this, the duke Ladislav Mailáth decided to construct a more lavish castle. The Emperor never came back, yet Ladislav Mailáth kept good relations even with his heir Ferdinand who had spent some time in the castle just three months prior to his assassination in Sarajevo.

3.4 Našice

The estate of Našice had had several owners before it came into the possession of the Pejačević dukes in 1734. It will remain their property until 1945 (Šćitaroci 1998, 212; Martinčić 2009, 13). In less than two centuries as they possessed the property, the Pejačević family erected two castles in Našice, one of which had one of the biggest garden complexes in Slavonia. Two governors came from their lineage - Ladislav i Teodor Pejačević, but also the important female composer Dora Pejačević. Their Big Castle is one of the most significant castles in Slavonia. Today it is the home to the county museum and the local gallery.

3.5 Đakovo

Unlike the other aforementioned properties owned by the aristocracy, Đakovo was returned to the clergy after the Ottomans had left the area. As such, it initially became the centre of the Đakovo estate on which a humble Baroque cathedral was erected in the 18th century (Maković 2005, 15). With the arrival of Josip Juraj Strossmayer, an Osijeker, as the new bishop, a series of substantial changes took place. The estate was modernized and used for the economic purposes, that enable Strossmayer to set the ground for his politics and patronship (Živaković-Kerže 1997., 18.). The most important and representative symbol of Đakovo is the cathedral, finished in 1882 (Maković 2005, 115). Apart from the cathedral, the biggest contribution of the bishop to the city was the boost to develop the Đakovo stud farm, which is still running.

4. Conclusion

The key present issue of the present situation is that there is no systematic development plan to utilize the historical and cultural potentials in the Osijek-Baranja County. In the strategic documentation of the county, tourism is generally perceived through the development of rural and recreational tourism, while the investments into other potentials are rather negligible.⁸⁰ Accepting the artificially imputed interpretations of Slavonia as a rural area rich only in its natural resources and potential, the possibility of further development of other tourist potentials of this area are unnecessarily limited. Such condition is manifested into the big deficit in understanding and comprehending the historical heritage of Slavonia. Although the investments into the historical edifices are demanding and expensive, their long term cost effectiveness are unquestionable. Castles, garden complexes, churches and similar formations with the function of the economic development are paving the way to the development of the local industry, various culture manifestations and stronger identification of the local population with such recognizable symbols that are to be found within their own community.

The advantage of the historical locations in the Osijek-Baranja County is that they are all in relatively good conditions and would not require excessive investments. Naturally, in the long term perspective, it is necessary to invest a lot in order to get them back into a representative shape, like,

⁸⁰ (2011.) Development Strategy of the Osijek-Baranja County 2011-2013 (Županijska razvojna strategija Osječko-baranjske županije 2011-2013), pp 70; <http://www.obz.hr/hr/pdf/strategija/2011/%C5%BDupanijska%20razvojna%20strategija%20Osje%C4%8Dko-baranjske%20%C5%BEupanije%202011.%20-%202013.pdf>, (accessed 8 Mart 2013.)

for example, the Eltz castle in Vukovar. In such condition, they would undoubtedly contribute to the tourist potentials of the whole county. Therefore, different perception of Slavonia and shifting the focus on its cultural and historical values will not occur unless the intellectual and the political elites put effort into changing the existing and perpetuating stereotypes about Slavonia.

None of the enlisted edifices individually have such historical and cultural importance to attract masses for more than a day. However, by networking the municipalities, the city and their corresponding county potentials in creating a general supply, this region possesses an enormous value. As the biggest city in Slavonia, Osijek, with the existing lodging facilities provides a centre from which any of the points can be accessed and reached within an hour. In that respect, the Osijek-Baranja County could enhance its tourist contents and general supply, eventually becoming a target destination which has a lot more to offer than just food and entertainment.

REFERENCE

- Ham, J. (1998.). *Upoznajte Donji Miholjac*, Donji Miholjac: centar za kulturu and Društvo ljubitelja starina, Donji Miholjac
- Hanák, P. (1995.). *Povijest Mađarske*, Barbat, Zagreb
- Karaman, I. (1981.). *Uloga grada Osijeka u razvitku kapitalističke privrede Slavonije do Prvog svjetskog rata*, in: Roglić. J., ed.: Osijek kako polarizacijsko žarište, JAZU, Osijek
- Maković, Z. (2005.). *Slavonija & Baranja*, IBL d.o.o. Osijek, Osijek
- Martinčić, J. (2009.), ed.: *Obrti i obrtnici Osječko-baranjske županije 1872. – 2007.*, vol 1, Hazu, Zagreb-Osijek
- Mažuran, I. (1996.). *Osijek u 18. stoljeću*, in: Martinčić, J. ed.: Od turskog do suvremenog Osijeka, Hazu, Osijek
- Sršan, S. (1993.). *Baranja*, Matica hrvatska, Osijek
- Šćitaroci M. (1998.). *Dvorci i perivoji Slavonije*, Šćitaroci, Zagreb
- Šidak, J (1959.). *Poglavlje XLI – Hrvatska*, in: Đurđev, B., Grafesnauer B. and Tadić J., ed.: Historija Naroda Jugoslavije, Školska knjiga, Zagreb
- Zöllner, E. (1997.). *Povijest Austrije*, Barbat, Zagreb
- Živaković-Kerže, Z. (1996.). *Urbanizacija i promet grada Osijeka na prijelazu stoljeća (1868.-1918.)*, Društvo za hrvatsku povjesnicu Osijek, Osijek
- Živaković-Kerže, Z. (1997.). *Kratak prikaz đakovačkog vlastelinstva u doba biskupa Josip Jurja Strossmayera*, in: Bijelić, B. ed.: Zbornik Muzeja Đakovštine 4, Rečnertisak, Đakovo
- Živaković-Kerže, Z. (1999.). *S tradicionalnih na nove puteve*, Grafika d.o.o., Osijek

Andrzej Zalewski, Hab. Ph.D. Eng. Dipl.

Lodz Technical University (Poland)

Faculty of Civil Eng., Architecture and Environmental Engineering

Al. Politechniki 6, 90-924 Lodz

Phone/ Fax: +48 426313592

E-mail address: andrzej.zalewski@p.lodz.pl

TOURISTIC BICYCLE ROUTES IN EASTERN POLAND

TURISTIČKE BIKIKLISTIČKE RUTE U ISTOČNOJ POLJSKOJ

ABSTRACT

This article is related to the Touristic Bicycle Routes in Eastern Poland as an instrument of regional development. The project and its implementation are carried out in the framework of the Operational Programme for Cohesion "Development of Eastern Poland" of European Union for the years 2007-2013. Development of infrastructure for long-distance tourist cycling in very attractive conditions of landscape, nature and in area rich in monuments of material culture is intended to increase tourism in these areas, as well as increasing the number of cycling tourists. As a result, the proposed Tourist Bicycle Routes (length 2390 km) and the development of cycling tourism should influence in to socio - economic development of Eastern Poland.

Key words: *long-distance cycling tourism, Operational Cohesion Programme "Development of Eastern Poland", Touristic Bicycle Routes in Eastern Poland, infrastructure conditions and using of bicycles in Poland.*

SAŽETAK

Ovaj članak se odnosi na turističke biciklističke staze u istočnoj Poljskoj kao instrument regionalnog razvoja. Projekt i njegova provedba se provode u okviru Operativnog programa za kohezijsku "Razvoj istočnoj Poljskoj" Europske unije za razdoblje 2007 - 2013. Razvoj infrastrukture za dugo-udaljenost biciklizam turista u vrlo atraktivnim uvjetima krajolika, prirode i na području bogatom spomenika materijalne kulture je namijenjen za povećanje turizma na ovim prostorima, kao i povećanje broja biciklističkih turista. Kao rezultat toga, predložene Turističke biciklističke staze (duljina 2390 km) i razvoj biciklističkog turizma trebali utjecati na društveno - gospodarskom razvoju istočne Poljske.

Ključne riječi: *međugradskim Cikloturizam, Kohezijski Operativni program "Razvoj istočnoj Poljskoj" Iznajmljivanje turističke rute u istočnoj Poljskoj, infrastrukturne uvjete i koriste bicikala u Poljskoj.*

1. Introduction

The purpose of this paper is to show the project of Touristic Bicycle Routes in Eastern Poland, as well as their potential impact into socio – economic development of these regions contained of Eastern Poland.

At the beginning of the twenty-first century in Europe observed the dynamic development of cycling, including long-distance tourism, which is an instrument of strategy of Intelligent Tourism 2020 (smart, sustainable and growth-oriented) (EIT, 2007, ECF, 2011).

The development of bicycle tourism is an important component of sustainable tourism, the objectives of which are:

- promote sustainable and environmentally friendly tourism
- to highlight the importance of cycling, benefits and regional economic impact
- promote the development of transnational tourism cycling routes (e.g. EuroVelo Cycleways Network Greenways) (ECF, 2011, Greenways, 2012)
- promote cultural tourism (cultural routes).

The European Union promotes the development of long-distance cycling routes also in different countries, spending on these activities considerable financial resources. Such solutions must also Bicycle Trails project in Eastern Poland implemented under the Operational Cohesion Programme "Touristic Bicycle Routes in Eastern Poland" (MRD, 2012). This is one of the first project of this scale in Poland and Europe. The project is scheduled for the years 2013 to 2014. Total investment cost of EU funds near by 61 000 000 € (MRD, 2012).

2. Socio – economic and transportation background in Poland

2.1. Socio-economic aspects

Poland is a country located in Central Europe and occupies an area 312 685 km² and a population of 38.6 million people. National income per capita GDP/capita is \$8890 (CSO, 2012). The demographic structure there is a small percentage of women - 51.7%, compared to men, which is 48.3% of the total population. The urbanization rate is 60.9%, indicating that the numerical superiority of the population living in cities compared to rural residents. The structure of urban areas in terms of quantity is dominated by the city under 10 000 inhabitants, which is 502 and the city numbering 10 - 50 thousand inhab., which is the 315. Spatial structure is complemented by the 47 cities with more than 50000 - 100000 inhab., 22 cities numbering 100 - 200 thousand. inhab. and 17 the largest urban centers, with more than 200 thousand. population. From the standpoint of use bicycles as a means of everyday transportation and recreation center of the structure of urban areas is of great importance because cycling has a different character depending on the size of the urban area. In general, population growth is associated with increased space for the urban center, and this in turn greatly prejudice the transport behavior of inhabitants, including the increase in the average length of travel and modal choice.

Poland is a country where, from 1990. there is a dynamic development of private cars. Number of passenger cars in Poland in the years 1990 - 2010 increased by 227% and per 1000 inhabitants was 451 (CSO 2012). This significant increase in the number of registered vehicles increased by only minimal length of the street, caused a significant increase in traffic congestion and had implications for the use of the bicycle. On the one hand household equipment in the car encourages its use in place of other means of transport, including bicycles, on the other hand creates a premise for the use of bicycle as a means of recreation imported in car to a place of rest.

2.1. Climatic conditions for development of tourist cycling

Bicycle in Polish cities and metropolitan areas are seasonal means of transport. The greatest use of the bicycle has a place in the spring - summer between June – September. Usage of bike is almost zero in the winter during the months December - February. In the month of April is a significant increase in the use of the bicycle and fall in November. Seasonality of use bicycles is associated with changes in temperature.

During the winter, when the average temperature during the day is below 0°C, cycling, at least in large cities and large is practically nil. This is also the lack of operability of the existing cycling

infrastructure. In small towns, where the bicycle is often the only means of transportation, inhabitants enjoy the bike throughout the year.

In the April follows a significant increase in use of the bicycle, which is inherent in the temperature of at twenty degrees Celsius, which promotes the use of the bicycle. A significant decrease in the use of the bicycle is in the November, resulting in the deterioration of weather conditions, including the lowering of air temperatures and rain and even snow. Research of Zalewski (Zalewski, 1993) indicates that there is a strong correlation between average monthly temperature and relative use of the bicycle. The use of the bicycle is moved on a monthly basis in relation to the average temperature for the month. This can be interpreted as meaning that, in March cyclists "waiting" for better weather (higher temperature), while in November, even though the temperature is already relatively low, "with momentum" still use the bike.

2.2. Legal conditions for cycling and development of infrastructure and road safety

Some of the most important determinants of use bicycles as a means of locomotion are legal considerations. They are included in the Act on Road Traffic (Act of Polish Parliament, 2012) which was amended in 2011. Changed regulations adapt the Polish law to European solutions. It include the following:

- Admission of bicycles in the opposite direction to the existing traffic
- Create „contra – flow” bicycle lanes
- Create locks for bicycles at intersections
- Preference for the bicycle as priority traffic on the carriageway
- Significantly enhanced ability to use the sidewalks by cyclists, if no bike paths and atmospheric conditions are bad
- The possibility of cyclists riding side by side
- The possibility of using an electric bike.

A very worrying in terms of pedestrian safety is the permission of bike traffic on the sidewalk, because the regulations are very soft and practically there are no penalties for rampaging bikers. The solution is a significant reduction in pedestrian and road safety are expected to confirm that the statistics of road accidents.

Risk of injury for cyclists in Poland is among the highest in European countries (2nd place - 251 deaths per year). In 2011 by National Police (NPH, 2012), happened to 1714 road accidents with cyclists, which is 5,7% of all accidents. 1631 people were injured and 152 killed. Accident statistics show that cyclists in Poland are the most vulnerable of all the European countries in terms of the number of deaths per 100 accidents. This ratio in Poland is 10.3 persons/ 100 accidents, while in countries that are leaders in Germany and Britain is about six times lower than 1.6 and not killed in 100 accidents (NRTSB 2009). Somewhat more satisfactory for the Polish are statements of accidents with cyclists in relation to the population. So the statistics are ahead of Poland, Hungary, Romania, Belgium, Slovenia, the Netherlands and the Czech Republic, where it should be noted that the two discussed above rates do not include the use of the bicycle (cyclists transportation work), and therefore do not show the actual risk of this group of road users. In the Polish case, where the use of the bicycle is relatively small, the index related to the risk of accidents in transport would be even higher.

2. Brief characteristics of Eastern Poland

Area of Eastern Poland referred to in this paper makes five provinces located along the eastern border of Poland: Warmia - Mazury, Podlasie, Lubelskie and Podkarpackie and the Świętokrzyski

region (CSO 2012). Separating this area occurred in the early the years 2000 - small for the needs of one of the Operational Programmes of the European Union, aimed at economic and social development of the least developed region in Poland. This area occupies totally 99 039 km², which is inhabited by 8152600 inhab. (Zalewski, 2012) This represents approximately 31.7% of Polish territory and 21.1% of the total population. The average population density of the area is 82 persons/km² and is well below the Polish average of 123.4 persons/km². The most similar average population density are in Podkarpackie and Świętokrzyski regions, where the figure are respectively 118 and 108 persons/ 1 km².

The same is true with urbanization rates, which for the area of Eastern Poland is equal 51.3%, with 60.9% of the national average. The most urbanized region in the analyzed area is the Warmia – Mazury - 60%. In Podkarpackie Voivodeship most of the population lives in rural areas, as much as almost 60%. The values of these indicators reflect aspects of the historical development of these regions.

According to data for 2010 in the Eastern Poland is almost 100000 beds of different categories. The largest accommodation is located in the province of Warmia - Mazury and there are 38 736 seats, representing almost 39% of the accommodation capacity of the whole area (Zalewski, 2012) This high percentage of beds in the Warmia - Mazury is due to the development of tourism development in this attractive tourist destination in the region.

In terms of economic development of the region forming the area of Eastern Poland are well below the national average. If we assume an average value of GDP in Poland for 100 (\$8890), the GDP in the Analyzed regions is 67.2 - 77.6% (CSO, 2012). The lowest GDP is in the provinces of Lublin and Podkarpackie, Which amounts to 67.2% and 68.5%. The total length of the road network in the eastern English is 116 063 km, Which corresponds to the density of the road network of 117 km/ 100 km² and is significantly lower than the national average of 79.6 km/100 km² (CSO, 2012). The total length of existing roads and bike trails is in the five provinces 2429 km (CSO, 2012) ,but they are in bad technical standards and badly maintained. Projected Touristic Bicycle Routes in Eastern Poland should bring the development of a further network bike than 2000 km. Data on the economic development of the regions that make up the Eastern Poland are showed in Table 1.

Table 1 Data concerning economic development of the Polish Eastern Area

	Name of voivodeship					Total Eastern Poland
	Warmińsko-mazurskie	Podlaskie	Lubelskie	Podkarpackie	Świętokrzyskie	
Population [thous.]	1427	1191,5	2161,8	2099,5	1272,8	8152,6
Surface [km ²]	24173	20187	25122	17846	11710	99039
Density of population [people/km ²]	59	59	86	118	108	82
Urbanization rate [%]	60	59,5	46,6	40,6	45,4	51,3
Number of beds [1]	38736	11006	18742	21349	9492	88325
GDP [100%= \$8890] [%]	73,8	73,7	67,2	68,5	77,6	100
Total length of public roads [km]	22569	24195	34013	18370	16916	116063
Total length of existing bicycle trails [km]	909,4	151,5	244,2	873,1	250,5	2428,7

3. Project of Touristic Bicycle Routes in Eastern Poland

3.1. Basic assumptions of project

The connections between regions have been established by regional authorities in the initial phase of work and were so called „fixed points” that should be carried out the cycle route. After selection of route corridor, which was indicated by the local provincial authorities on the basis of the results of the Authoring Team, multi-criteria analysis for the three route options in each province was effectuated. The 30 factors analyzed ranked in six main groups of criteria: environment, natural resources, landscape - natural, cultural values, transportation and economics.

In the selected variant searched optimal route cycling and its possible functional forms - technical according to the following criteria:

- tourist attractions - sightseeing,
- topography of the site,
- its management and
- spatial barriers.

Following design criteria for the location of bike in the cross section of road was taken into consideration:

- Safety - cycling on the road was adopted by max. $AADT^{81} \leq 1000$ vh/ day, recommended bike lanes max $AADT \leq 2000$ vh/ day
- Maintaining cohesion of connection
- Availability of land demarcation lines of roads and streets.

The sections of the route run in the general traffic, where car traffic volume is estimated as <1000 vh/h going through urban areas, traffic calming zones and reduce of speed permitted to 30 km/h is planned.

The area for 5 ÷ 10 km from the planned route axis depending on the phase of the project was analysed as the bicycle route corridor and there have sought to safe the location of bicycle road. Forecast cycling traffic was done for the year 2025, ie 10 years from the planned route dedication to service. The forecast made by Polish (Zalewski, 2012) using the method recommended by the European Cyclists' Federation (ECF, 2011)

Following basic technical assumption was taken into consideration in project of Touristic Bicycle Routes in Eastern Poland:

1. Total length near by 2000 km
2. Width – min. 2,5 m (exceptionally – 2m)
3. Pavement – bitumic (min. 20% of total length), other sections in ground broken or stone paved
4. Adaptation of existing shoulder and foot paths
5. Maximal vertical slope – 5% (slope > 5% on 3% of length)
6. Ratio of mean elongation < 1,2 in all voivodeships
7. Access to train station < 80 km
8. Income from one day tourist – 16€/day
9. Income from multiday toursit – 32€/day

4.1. Description of the routes

The proposed cycle route with a total length of 2028 km is through very attractive sightseeing areas (MRD, 2012, Zalewski, 2012). During the tour are located a numerous sites which are natural attractions and sightseeing in Europe and the world, such as the three National Parks: including the Valley of Biebrza and Bialowieza and National Park Roztocze. Moreover, all the way in all

⁸¹ AADT – Avarage Annual Daily Traffic [vh./d]

provinces are located numerous historical heritage material in the form of churches, orthodox churches, cemeteries, castles, palaces and manor houses and forts defense. Informative description of the Tourism Bicycle Routes in Eastern Poland by provinces and major touring - natural attractions is showed in Figure 1 and Table 2. The main centers of tourist services located on the route are listed in bold in Table 2.

Bicycles traffic in planning Touristic Routes of Eastern Poland will be carrying out on roads in general approximately 59% of total length. For this purpose, it is assumed the use of existing roads primarily auto traffic at low flow below 1,000 vh/d and unsurfaced roads. Existing and planned bicycle facilities in the form of bicycle paths and pedestrian - cycle itineraries will be located outside the roadway is a total of 873 km, which represents almost 41%. The largest use of Touristic Bicycles Routes of Eastern Poland is expected in cities, where is due to the concentration of settlement, exactly in: Białystok – 4666 bikes/d (AADT) and Rzeszów and Chełm – 3140 bikes/d in 2015.



Fig. 2 Planned itinerary of Touristic Bicycle Routes of Eastern Poland

Designers expect that the implementation of Touristic Bicycle Routes of Eastern Poland will generate „induced” cycling traffic. The proposed bicycle route is planned mainly along of district roads (52.1%), municipal (23.5%) and other local low-traffic area (8.6%). Along the roads is the biggest intensities of traffic carried is only 0.8% of the entire designed cycling itinerary. Along the national road cycling route is conducted outside of the carriageway as a two-way bicycle path or pedestrians – cycles itineraries. The technical characteristics of the proposed solution by province is shown in Table 3

Table 2 Informative description of the cycling routes by provinces and major attractions touring - natural

Name of voivodship	course of the route ⁸²	The main sightseeing tourist attractions
Warmia - Mazury - Length 432 km	Border with Pomerania Region - Elbląg – Tolkmicko – Frombork - Braniewo- Lidzbark Warmiński – Bartoszyce – Górowo Hławieckie – Sepopol - Korsze – Węgorzewo – Goldap – Border with Podlasie Region	Baltic Coast The Mazurian Lake District - The Gorawskie Hills and Sepopol Lowland The Szeskie Hills
Podlaskie - Length 592 km	Border with Warmia-Mazury Region - Sejny – Suwałki – Augustów - Goniądz – Łomża – Tykocin – Choroszcz – Białystok – Supraśl – Białowieża – Hajnówka – Border with	The Suwałki Lake District The Biebrza Valley – Swamp Land – National Park

⁸² Bold – biggest cities in region and main centers of cycling tourism

Name of voivodship	course of the route ⁸²	The main sightseeing tourist attractions
	Lublin Region (Gnojno - river Bug, connecting by ferry)	The Valley of Narew River The Białowieża Forest – National Park – UNESCO World Heritage Site and Biosphere Reserve
Lubelskie - Length 384 km	Border with Podlasie Region (Gnojno - river Bug, connecting by ferry) - Janów Lub. – Terespol – Włodawa – Chelm Lub. – Krasnystaw – Szczepleszyn – Zwierzyniec – Józefów – Border with Podkarpackie Region	The Bug River The Polesie Lubelskie and The Włodawa Lake District The Lublin Upland and The Roztocze National Park
Podkarpackie - Length 430 km	Border with Lublin Region - Karol – Przemysł – Dynów – Tyczyn – Boguchwała – Rzeszów – Łańcut – Sokołów Małop. – Leżajsk – Nowa Szarżyna – Rudnik n.Sanem – Ulanów - Border with Świętokrzyskie Region	The San River Valley
Świętokrzyskie - length 190 km	Border with Podkarpackie Region - Sandomierz – Koprzywnica – Klimontów - Daleszyce – Kielce - Sielpia	Świętokrzyskie Mountains

Table 3 The Functional - technical datasheet of designed Tourist Cycling Routes in Eastern Poland

	Unit of measure	Warmia - Mazury	Podlaskie	Lubelskie	Podkarp.	Świętok.	Total
Population in corridor	[thous.]	444,2	1152	668,3	1116,7	700,6	4081,8
Number of towns and communities	[1]	27	32	27	37	17	140
Urbanization rate	[%]	24,6	26,2	35,4	45,1	52,8	37,3
Number of beds	[1]	5746	10948	7704	14374	5045	43835
Number of catering facilities	[1]	444	334	509	511	283	1081
Length of EPTBR	[km]	432	592	384	430	190	2028
Length of existing infrastructure	[km]	236	345	273	297	157	1308
	[%]	54,6	58,2	71,2	69	82,5	64,5
Length of planning cycle infrastructure outside of carriage-way (bike paths, etc.)	[km]	150	298	106	173	40	767
	[%]	34,5	50,3	27,7	40,2	21	37,8
Length of section in general traffic road	[km]	282	294	278	257	150	1261
	[%]	65,5	49,7	74,3	59,8	79	72,2
Number of engineering structures requiring reconstruction	[1]	34	12	23	27	9	105
Number of intersections needed to rebuild (sight posts and traffic lights)	[1]	41	21	28	31	20	141

5. Conclusions

- In the Polish cycling can be a significant factor for local development, as there is untapped potential in this as the natural sightseeing and - tourist and nature with high values of cognitive, developed based catering and accommodation, as well as a developed road and railway network provided access to nodes.
- Implementing of The Eastern Poland Bicycle Touristic Routes are a very big chance into socio – economical development of 5 voivodeships in Poland. This results from:
 - excellent landscape conditions
 - many of architectural monuments
 - good base of accommodation and catering
 - good transportation accessibility to trains, buses and airports.
- To obtain mentioned results of social – economic development is necessary to:

- develop significantly cycling infrastructure. First of all, should be made to improve the quality of infrastructure in non-urban sections as well as absolutely complete of the base points of cycling and bike repair in urban areas
 - develop accommodation and catering infrastructure, that should go in the direction of differentiation (categorization) and standardization.
4. The Touristic Bicycle Routes of Eastern Poland should be attract many tourists not only to cycling, popularize Eastern Poland in Europe and worldwide as well as be a impulse to the development of cycling infrastructure and cycle tourism in other Polish regions, either. These activities will also provide a base for socio - economic development and increase the number of jobs, improve living conditions for synergies.

REFERENCES

EIT (2007): *Regionalwirtschaftliche Effekte des Radtourismus in Rheinland-Pfalz*, European Institut of Tourism Trier University

ECF (2012)-1): *The-European-Cycle-Route-Network*, in: www.ecf.com/wp-content/uploads/2011/10/EU-Study-EuroVelo_The-European-Cycle-Route-Network.pdf (accessed XI.2012)

Greenways (2012): *Greenways network in Central- Eastern Europe*, in: www.greenways.pl/pl/siec-greenways-w-europie-srodkowo-wschodniej (accessed XI.2012), (in polish)

MRD (Ministry of Regional Development)(2012): *Projects*, in: www.polskawschodnia.gov.pl/Projekty (accessed XI.2012) (in Polish)

Zalewski A.(2010): *Partial report from a comparative analysis with similar projects carried out in Europe*, in The Feasibility Study of Touristic Bicycle Routes in Eastern Poland, M&G, Warszawa (in Polish).

Zalewski A. (2012): *Bicycle Routes In Eastern Poland as a Part of Socio - Economic Regions Development*, in: www.veloglobal2012 Velo-Global, Vancouver 2012, (accessed VII.2012).

NPH (National Police Headquarters) (2013): in: *Road accidents – annual report* http://statystyka.policja.pl/portal/st/1302/76562/Wypadki_drogowe_raporty_roczne.html (accessed III.2013)

CSO (2012): *Statistical Yearbook 2011*,The Central Statistical Office, Warsaw, (in Polish)

Zalewski A. (1993): *Influence of transportation infrastructure and Environmental conditions into cyle traffic in medium sized towns in Poland*, doctoral theses, Cracow Technical University, (in Polish)

Act of Polish Parliament of June 20, 1997 *Law on Road Traffic (2012)* consolidated text, Official Journal of 2012 pos. 1137 (Ustawa z dnia 20 czerwca 1997 Prawo o ruchu drogowym (2012)) tekst jednolity, (in Polish)

NRTSB (National Road Traffic Safety Board): in: *State of road traffic Safety in OECD*: www.krbrd.gov.pl 2009, Newsletter of ITS, Warsaw, (accessed III.2013), (in Polish)

Zalewski A.(2012): *Prognozowanie turystycznego ruchu rowerowego (Forecasting of Touristic cycling traffic)* in Proceedings of Conference Travel Modelling and Traffic

Forecasting, Research and Technical Papers of Polish Association of Transportation Engineers Proceedings 2(98)/2012 Cracow 239 – 249, (in Polish)



**Novčarske
institucije**

**Financial
institutions**

Miljenko Brekalo, Ph.D, Ph.D, Senior Research Associate

Ivo Pilar Institute of Social Sciences – Regional Center Osijek

HR - 31000, Osijek, Šamaška 9/2

Phone: +385 31 207 294 Fax: +385 31 202 067

E-mail: miljenko.brekalo@pilar.hr

Viktor Palić, PhD

The Commercial Court in Osijek

HR - 31000, Osijek, Zagrebačka 2

Phone: +385 31 207 600 Fax: +385 31 207 600

E-mail: viktor.palic@yahoo.com

**THE HISTORY AND THE FUTURE OF
CROATIAN MONEY - LEGAL AND ECONOMIC ASPECTS**

**POVIJEST I BUDUĆNOST HRVATSKOG
NOVCA – LEGALNI I EKONOMSKI ASPEKTI**

ABSTRACT

In the course of its history the Republic of Croatia has not always autonomously created its monetary system, e.g. it did not always have a fully established monetary sovereignty as a part of a complete national sovereignty. The monetary system was formed in 1994 by introducing kuna as an official means of payment and the complete monetary sovereignty was achieved on the 15th September 1997 when Yugoslav Dinar was converted in the area of the Croatian Danube region. By joining the Euro-zone, the Republic of Croatia loses its monetary sovereignty ipso facto and ipso iure, running out of the possibility to create an autonomous monetary policy and it remains without its national currency.

Key words: money, Croatian money, monetary system, sovereignty, monetary sovereignty.

SAŽETAK

Ulaskom u eurozonu Republika Hrvatska ipso facto i ipso iure gubi monetarni suverenitet, ostaje bez mogućnosti autonomnog kreiranja monetarne politike i bez nacionalne valute. Dakle, fiskalna politika ostaje joj jedino ekonomsko sredstvo kojim se može služiti glede što bolje kvantitativnog i kvalitativnog zadovoljavanja javnih potreba svojih građana.

Ključne riječi: novac, hrvatski novac, monetarni sustav, suverenitet, monetarni suverenitet.

1. Money in Ancient Time

Coins appeared rather late in the Croatian national territory, and this refers especially to the domestic issues of money. The oldest coin that appeared in the Croatian national area was copper and silver coins that were minted by early Greek cities in Dalmatia. The money from the island of Hvar (Pharos) dates from the fourth century B.C. and on the island of Vis the minting activities are noted from the end of the third century till the middle of the first century B.C. In the later historical period when Croatian national territory was a part of the Roman Empire, Roman coins were used in circulation, and afterwards till the 14th century there were Byzantine, Frankish, Frizah, Hungarian, Austrian and Venetian money in circulation.(Mirnik, 2008, 125-143)

In the first period of the Roman Empire Roman coins were minted only in Rome, but from the time of Emperor Diocletian on, the minting went on in other cities of the Empire. Thus there were solid proofs that the oldest Roman state mint in the Croatian national territory was founded in Siscia, today's Sisak in the third century.

In the Middle Ages there were three monetary systems that had been of particular importance for the goods and money transactions in the Croatian national territory: the Frank system introduced in the ninth century by Carl the Great; the system of *Frizah Denar* introduced in the mid-twelfth century and it was named after the mint in Frizah, Carinthia; Hungarian monetary system of the twelfth century and of centuries to follow.

2. Money in Feudalism

The oldest Croatian coins are considered to be silver *denari* and *poludenari* that were minted by Hungarian king Andrew II, a Croatian duke, at the end of the twelfth century and in the beginning of the thirteenth century, more precisely from 1197 till 1204. On these coins there was the inscription "*Andreas dux Croatiae*". The design of these coins resembled the *Frizah Denar* and it weighed 0.94 grams of silver fineness 800/1000 (Dolenc, 1993, 20-21).

Hungarian kings, beginning with Bela IV (1235-1270) minted coins even for Slavonia. During their rule they governed Slavonia as ban's dominion so that the money was given the name of *Slavonian Banovci*. In 1256 this money was minted in Pakrac and since 1260 it had been minted in Zagreb till 1360 when it ceased. During these 104 years of minting the type and the size of *Slavonian Banovci* had remained the same, the diameter measuring 1.6 cm and the weight was 0.96 g of silver of constant fineness. The money minted in Zagreb mint was very appreciated and gladly taken due to its silver purity and the beauty of fabrication. (Dolenc, 1993, 30-31).

In the mid-thirteenth century the Dalmatian town of Spalatum, today Split, began minting five types of autonomous money based on the model of Hungarian money. However, based on the Venetian approval, the other Dalmatian towns of Šibenik, Zadar, Trogir and Hvar began minting copper and some silver coins. On the coin obverse there was the lion of St. Mark and on the reverse side there was the image of the town's patron saint. At the beginning of the fifteenth century in Split the duke Hvoje Vukačić Hrvatinić minted his own coins, *Groš*, with the image of Saint Duje, the martyr and the town's patron saint. Hrvatinić had four types of coins minted, namely gross with the family coat of arms, gross with the ducal coat of arms, half of the gross – a dinar and a quarter of the gross – a half dinar (Mirnik, 2008, 123-139)

In the early Middle Ages, during the reign of the Byzantine Empire in the Balkans, in the Republic of Dubrovnik, as well as in other states under Byzantine influence, there were gold solidus and silver and copper coins in use. Afterwards, during the Venetian rule (1205-1358) the Byzantine money was replaced by Venetian silver *Groš* or *Metapon* that was joined by the Venetian gold ducat or sequin in the year of 1284. The Dubrovnik very own monetary system represents a combination of Byzantine and Venetian monetary systems. In 1337 Dubrovnik began minting its own money - *Dinar (grossi)*, caring the image of St. Blasius, the patron saint, and the inscription that it was Dubrovnik money. The Dubrovnik monetary system consisted of copper and silver coins, at the rate of 30 copper Minca = 1 gross. *Kopuća* was a copper coin minted in Dubrovnik before the year of 1294, a year prior to the great fire, and the minting of a silver *gross* started at the beginning of the fourteenth century, to be more precise, in 1337. On the obverse of these coins there was the image of St. Blasius, on the averse there was the image of Jesus Christ and these coins had the standardized weight of 1.951 g. Due to various political (the change of the patron state) and natural disasters (the earthquake of 1520 and 1667 then the Plague of 1527), Dubrovnik money continually changed its shape, weight, value and names. Among other things, in the sixteenth and seventeenth century Dubrovnik money were minted in large quantities but the weight and the fineness of the precious metal were reduced which resulted in the name *Dinarić* in the early seventeenth century. In 1683 Dubrovnik citizens started minting silver *Perper* (1 *Perper* = 12 *Dinarića*) and in 1725 they began minting *Thalers* (1 *Thaler* = 60 *Dinarić*) and *Halftaler*, following the model of the Austrian

monetary system. At the end of the eighteenth century they minted *Libertina* (1 *Libertina* = 2 silver ducats or 80 *Dinarića*). In the period from 1337 till 1803 money of various types, 15 altogether, were continuously minted in Dubrovnik. The money was being minted in the very own mint, that since the sixteenth had been located in the well-known Dubrovnik Palace of Sponza or Divona and its last coins minted were *Perpers* and *Halfperpers* originating from 1801-1803 and their content of silver was below 50 % of their weight. Dubrovnik monetary activity was completed by this series of coins because the French occupying army entered Dubrovnik on the 25th May 1806 and the Republic of Dubrovnik was abolished on the 31st January 1808. After the French Army, the Austrian army came to Dubrovnik in January 1814, which had been confirmed a year afterwards at Vienna Convention. (Dolenc, 1993, 44-59)

Croatian bans (engl. vice-roys) brothers Pavao I Šubić Bribirski and Mladen I Šubić Bribirski, and Pavao's son, Mladen II Šubić Bribirski, minted money in Bosnia but on the Croatian soil. Croatian ban Pavao I Šubić Bribirski (around 1245 till the 1st May 1312) was a Croatian nobleman who ruled the entire Croatia from the mountain of Gvozd to the river of Neretva, and Dalmatia at the end of the thirteenth century and in 1299 he added to his name the title of master of Bosnia – *dominus Bosnae* (Šišić, 2004, 201-202). At that time he was one of the most influential political and military figures on the territory of Croatia, Hungary and Bosnia. Namely, at that time Croatia was in personal union with Hungary (1102 -1527) led by the Hungarian Arpad dynasty (1102-1301). Despite this fact, in economic terms, Croatia and Dalmatia were independent of Hungary. Therefore, they had the right to issue money (*ius cudendae monetae*) and to put it into circulation. “The coins of ban Pavao were minted following the design and weight of the contemporary Venetian *gross* and *matapan*, so that his mints would easily and perhaps unobservedly get into circulation. There was the only difference in the inscription. Two types of vicery Pavao's money were known; the first type caring in the first place the inscription of the viceroy's name: *DUX PAVL* and in the second place the name of his brother Mladen I: *BAN MLADEN*, who ruled from 1302 till 1304. The second type had next to Pavao's name the name of his son Mladen II: *BAN MLADEN SECUNDUS*, who governed Bosnia from 1305 till 1312, e.g. until the death of his father. The location of the viceroy Pavao's mint is not known because the preserved historical sources do not provide this information. It was most likely located in his fortified town of Skradin where he would often gladly stay. Ban Pavao could not provide the silver needed for minting in Croatia because there was not one silver mine in the area of his rule. However, when he became the master of Bosnia he provided silver from the Bosnian mines and he started minting his own money, which was later on continued by other Bosnian rulers, viceroys and kings” (Dolenc, 1993, 74-78)

Count Nikola Zrinski III (1489-1534) also minted his own money and in 1521 there was his own mint in Gvozdansko. He minted *silver Denari* of silver supplied from his own mines. Judging by the quality of the money it can be concluded that he had excellent masters blacksmiths. His *Denari* of 1521 and 1526 were minted of the solid 8-Lot silver and judging by their content they correspond with the older state money – *moneta antiqua* . Besides *Denari*, Nikola II minted also grosses, thalers and pfennings. (Dolenc, 1993, 74-78).

3. Money in the Nineteenth and the Twentieth Century

The coins from the time of the general, the count and Ban/viceroy Josip Jelačić Bužimski are considered to be original Croatian money. In 1848 the Council of viceroy started minting silver forint (average weight of 9.50 g and diameter of 26.5 mm) in its own mint and in 1849 copper *Križar* , average weight of 9.61 and diameter of 26.5 mm (Dolenc, 1993, 62).

During the existence of the Independent State of Croatia (ISC) the official currency was *Kuna* (1 *Kuna* = 100 *Banica*). Then the series of banknotes was issued by the Ministry of national economy, the State Treasury and the Croatian National Bank. The *ISC-Kuna* and the *Kuna* of the Republic of Croatia were printed by the same printing company, e.g. Giesecke & Devrient in the German city of Leipzig. On the 26th May 1941 *Kuna* was officially put into circulation in the ISC and at the same time there was German *Reichsmark* (till the 23rd August 1941) and Italian *Lira* (till the 31st

December 1941) in circulation. After these dates *Kuna* was the only official means of payment in the ISC. The *Kuna* banknotes were put into circulation as follows: 50.00; 100.00; 500.00 and 1,000.00 *Kn* on the 26th May 1941; 10.00 *Kn* on the 30th August 1941; 50 banica, 1 *Kn* and 2 *Kunas* on the 25th September 1942; 5,000.00 *Kn* on the 15th July 1943; 1,000.00 and 5,000.00 *Kn* on the 1st September 1943. In addition to these banknotes, the banknotes of 10,000.00 and 50,000.00 *Kn* should have been put into circulation. The printing proof of a 10,000.00 banknote was made on the 1st September 1943 (the only known copy can be found in the Leipzig Museum) and the bill of 50,000.00 *Kn* had been prepared but it was never released for printing. In the ISC there was less luck with coins; a certain amount of experimental coinage was made, and there were excellent samples of artistic design of *Banica* and *Kuna* but due to the high inflation and war situation there had never been large-scale minting and circulation. Therefore, small and drab zinc coins of 2 and 1 *Kuna* were minted. In addition to this, there was an unofficial gold coin of 500.00 *KN* and there were several types of the experimental coinage that were known. The exchange rate of *Kuna* against the German Reichsmark (RM) had been changed a few times: on the 26th July 1941 it was 1 RM = 20.00 *KN*, on the 31st December 1941 1 RM = 25.00 *KN*, on the 31st December 1942 1 RM = 37.50 *KN*, on the 31st December 1943 1 RM = 40.00 *KN*, on the 31st December 1944 1 RM = 80.00 *KN*, on the 6th May 1945 1 RM = 120.00 *KN*. After the collapse of the ISC the conversion rate for the *Dinar* of the Democratic Federal Republic of Yugoslavia was carried out in the period from the 30th July to the 9th June 1945 and it was 40.00 *KN* = 1 *Dinar* (Prebeg, 2006, 240-249).

In the course of the nineteenth and twentieth century there were mostly foreign money in circulation on the Croatian national territory: Austro-Hungarian; Austrian currency in Istria and Dalmatia and Hungarian currency in Northern Croatia; Italian currency in the region under the Italian rule between the two World Wars and during the Second World War; Hungarian currency in Baranya and Međimurje during the Second World War; the German *Reichsmark* in the territory of the Independent State of Croatia during the Second World War. During the period of the two Yugoslavias (the Kingdom of Yugoslavia and the Socialist Federative Republic of Yugoslavia), the Croatian national territory was an integral part of their monetary system, e.g., it belonged to the monetary area of the Kingdom of Serbs, Croats and Slovenes till 1929, the Kingdom of Yugoslavia till 1941 and the Socialist Federative Republic of Yugoslavia after the Second World War till 23rd December 1991 when Croatian Dinar was introduced instead of the dinar of the former Yugoslavia. Namely, that was when the monetary sovereignty of the Republic of Croatia had been established. For this reason there will be a short presentation of the currency of the Kingdom of Serbs, Croats and Slovenes (the Kingdom of Yugoslavia) and of the Socialist Federative Republic of Yugoslavia. The official currency in the Kingdom of Yugoslavia was Dinar, according to the legal provisions of the Law on the national bank of the 20th January 1920 and according to the Law on money of the 11th May 1931 of which the article no. 1 stated: "The currency of the Republic of Yugoslavia is Dinar. The value of Dinar is worth the value of twenty six and a half milligram of pure gold." After the end of the Second World War the new Yugoslavia was established, that adopted Dinar as its national currency. This was done respecting legal provisions of the Law on withdrawal and exchange of the occupation banknotes of the 5th April 1945 that stated, among other things: "The currency of the Democratic Federative Republic of Yugoslavia is *Dinar* – abbreviated DIN, that is divided into 100 *Para* – abbreviated P." (Brekalo, 2012, 31)

4. The Monetary System of the Republic of Croatia

The formation of the monetary system in the Republic of Croatia is divided into two phases: the first one went on from the 6th October 1991 till the 10th May 1994, when the second phase began, and it has been going on until nowadays, its main feature being the introduction of *Kuna* as the permanent Croatian national currency, until the accession of the Republic of Croatia to the Euro-zone. The first monetary act was issued by the Government of the Republic of Croatia at its session held on the 6th October 1991, when it adopted the Regulation on measures to protect the Republic of Croatia from the possible misuse of the Dinar, NN, no. 53a/1991. This Regulation in the Republic

of Croatia limited temporarily the use of cash by individuals on order to make each payment to legal persons and natural persons engaged in the sale of goods or the provision of service in the amount of more than 5,000.00 Dinar. The second and the most important step towards the formation of the monetary system in the Republic of Croatia, was to establish the Croatian National Bank (CNB). Thus, the first monetary effects in the Republic of Croatia can be spoken of after the 23rd December 1991 when this Regulation came into force through the legal force of the Government of the Republic of Croatia. Based on this Regulation the Croatian National Bank was founded (the Regulation on the Croatian National Bank). According to the stated Regulation, the Croatian National Bank became the central bank and at the same time came into force the Decision on the introduction of Croatian Dinar as a means of payment in the territory of the Republic of Croatia, NN, no.71/1991 (Brekalo, 2006, 57-76). Croatian Dinar banknotes that were issued in accordance with the Decision on the introduction of Croatian Dinar as a means of payment in the territory of the Republic of Croatia and the Decision on the denomination, the form and the basic characteristics of the Croatian Dinar, were put into circulation on 23rd December 1991. The replacement of the SFRY-Dinar for the Croatian Dinar (HRD) was carried out by: SDK, banks, post offices and other financial organizations. The SFRY-Dinar banknotes and coins were replaced at a ratio 1:1 and the replacement lasted from 23rd to 31st December 1991. The second phase in the complete establishment of the monetary system of the Republic of Croatia started on the 10th May 1994 when the Council of the Croatian National Bank took the Decision on the denomination and basic characteristics of the banknotes *Kuna* and *Lipa* coins, NN, no. 37/1994. According to this Decision, *Kunas* and *Lipas* were put into circulation on the 30th May 1994, the Croatian Statehood Day, when the replacement of the Croatian Dinar banknotes started and it went on till the 31st December 1994. The replacement was carried out at a ratio 1 HKN : 1000 HRD by the CNB, The Payment Institute, commercial banks and the Croatian Post Office.

Establishing monetary sovereignty of the Republic of Croatia on its entire state territory was not an easy process the main reason being the temporary occupation of certain areas. Unlike the formation of the monetary system, the formation of which can be viewed in two phases, the establishment of monetary sovereignty had gone through four phases that coincide with the establishment phases of the territorial sovereignty of the Republic of Croatia (Brekalo, 2009, 266-268). The last phase was completed on the 15th September 1997, when the conversion of the SRY-Dinar was performed (Matić, 2006, 208).

5. Monetary Sovereignty of the Republic of Croatia and the Euro-zone

The Republic of Croatia is a country in transition that gained its state independence and international recognition in 1992. Twenty-one years afterwards the Republic of Croatia is on its way to become the twenty-eighth member of the European Union and the first of July this year is the target day of its accession to full membership of this intergovernmental and supranational union of European states. After joining the European Union but before entering the Euro-zone and putting Euro into circulation, the Republic of Croatia must meet the convergence criteria laid down by the Maastricht Treaty, which represent the economic conditions in the assessment of the preparedness of Member States to participate in the economic and monetary union. In other words, before entering the Euro-zone the Republic of Croatia has to achieve high degree of price stability with an inflation rate not exceeding 1.5% in relation to the inflation rate in the first three countries with the most stable prices. The budget deficit may be moving up to 3% of GDP and the public debt may reach 60% of GDP the most. Therefore the control of the public debt and the budget deficits are the only two fiscal convergence criteria. In addition, the Republic of Croatia has to have a stable exchange rate and the average nominal interest rates must not exceed 2% in relation to the interest rates in the three countries with the lowest inflation rate. Being a new member state of the European Union, the Republic of Croatia, in order to meet the mentioned Maastricht criteria as soon as possible, has to join ERM II or the exchange rate mechanism whose framework does not allow to perform devaluation of the national currency against Euro for at least two years. After entering the

EMU the Republic of Croatia has to spend at least two years within the system of ERM. That is, until it will have met the convergence criteria, the Republic of Croatia is participating in the economic and monetary union as a member state with the exception of the use of the Euro and the exchange rate for Croatian Kuna is dealt with as a matter of common interest. By joining the Euro-zone, the Republic of Croatia loses its monetary sovereignty *ipso facto* and *ipso iure*, running out of the possibility to create an autonomous monetary policy and it remains without its national currency. Thus, fiscal policy remains its only economic tool that can be used in order to meet the public needs of the citizens regarding, both the quality and the quantity, in the best possible way (Brekalo, 2011, 165).

6. Conclusion

After joining the European Union and after fulfillment of the convergence criteria which represent the economic conditions for the entry into the European Monetary Union or the Euro-zone, the Republic of Croatia as an entity of the international law voluntarily loses its monetary system and monetary sovereignty. Thus, having taken the political will to accede to the European Monetary Union, the official policy of the Republic of Croatia voluntarily made a decision to lose its monetary sovereignty. Therefore, the Republic of Croatia as an international legal entity will no longer be able to autonomously create its monetary system, which will be reflected in the autonomous adoption of monetary regulation; the establishment of national monetary unit; the determination of the national currency value and the way to maintain this value; the definition of the form of banknotes and coins as means of payment and transfer; the establishment of the monetary authorities that will guide monetary policy, etc. By joining the European Monetary Union, Croatia *ipso facto* and *ipso iure* loses its monetary sovereignty; Kuna ceases to be a measure of value, means of payment, transfer and accumulation.

REFERENCES

- Brekalo, M.: O nepropitljivosti monetarnog suvereniteta Republike Hrvatske nad nekada zavojevanim područjima (1991.1997.), Pravni vjesnik, br. 1-2, Osijek, 2006.;
- Brekalo, M.: Suverenitet Republike Hrvatske 1990.-1998., Svjetla grada d.o.o., Osijek, 2009.;
- Brekalo, M.: Monetarni suverenitet i eurozona, Svjetla grada d.o.o., Osijek, 2011.;
- Brekalo, M.: Ratna monetarna unija SRJ. RS i RSK, Svjetla grada d.o.o., Osijek, 2012.;
- Dolenec, I.: Hrvatska numizmatika: kovani novac, papirni novac, radne marke, privatna izdanja kovanog novca – žetoni: od početka do danas, Prvi hrvatski bankovni muzej Privredne banke Zagreb, Zagreb, 1993.;
- Matić, B.: Neke specifičnosti uspostave hrvatskog monetarnog suvereniteta u segmentu gotovinskog novca, Numizmatičke vijesti, br. 59/2006, Zagreb, 2006.;
- Mirnik, I.: Novac i njegova uloga u srednjovjekovnoj Hrvatskoj i Slavoniji, Crkvena kulturna dobra br. 5, Godišnjak Ureda za kulturna dobra Zagrebačke nadbiskupije, Zagreb, 2008.;
- Prebeg, D.: Njemačke novčanice Reichskreditkassenschein – sredstvo plaćanja u NDH, Numizmatičke vijesti, br. 59/2006, Zagreb, 2006.;
- Šišić, F.: Povijest Hrvata, pregled povijesti hrvatskog naroda 600.-1526., prvi dio, Logos, Split, 2004.

Anita Pavković, PhD.

Faculty of Economics and business, University of Zagreb
J.F. Kennedy Square 6
10000 Zagreb, Croatia
Phone: +385 1 238 3181
Fax: +385 1 233 5633
E-mail: amusa@efzg.hr

Tomislav Klarić, M.Sc.

Hypo Alpe Adria Bank d.d.
Požeška 14
34322 Požega, Croatia
Phone: +385 91 2319 702
E-mail: tomlav.klaric@po.t-com.hr

THE FINANCIAL CRISIS' EFFECTS ON BANKS' EFFICIENCY IN THE POŽEGA AND SLAVONIA COUNTY

UČINCI FINACIJSKE KRIZE NA EFIKASNOST POSLOVNIH BANAKA U POŽEŠKO-SLAVONSKOJ ŽUPANIJI

ABSTRACT

In developed economies financial crises from 2007 have had significant influence on macro economy and bank's profitability and stability across national economies. Like in other banking systems in Croatia in last few decades' banks become larger and complex and had developed their business profiles through the wider usage of innovative financial techniques, instruments and information technologies. The aim of the paper is research the characteristics and volume of economic crisis in Croatia, the crises' impact on the Croatia banking sector efficiency and profitability and the effect on banks' profitability dominantly active in Požega and Slavonia County. The research would be based on the representative sample of Požega and Slavonia County clients (households and enterprises). So the paper will test next hypotheses: the influence of the economic crises on Slavonia economy, the quality of Slavonia banks loans portfolios, the categories in analyzed portfolios which are the most distorted through the crisis in the researched County. Research methodologies would consist mostly of the ratio analysis of the most used performance indicators like return on assets, return on equity, reservations, nonperforming loans, net income costs etc., their trends in last few years and future expectations on the values of used variables.

Key words: bank, efficiency, profitability, financial crisis, loan quality, reservations

SAŽETAK

Financijska kriza od 2007. godine značajno utječe na gospodarstva, bankovnu profitabilnost i stabilnost nacionalnih gospodarstava diljem svijeta. Kao i u drugim bankovnim sustavima u Hrvatskoj u zadnja dva desetljeća banke postaju sve krupnije, kompleksnije i kontinuirano razvijaju svoje poslovne modele posredstvom sve šire primjene inovativnih financijskih tehnika, instrumenata i informacijskih tehnologija. Cilj rada je istraživanje karakteristika i obujma ekonomske krize u Hrvatskoj, njenog utjecaja na efikasnost i profitabilnost hrvatskog bankovnog sektora te učinaka na profitabilnost najznačajnijih banaka aktivnih u Požeško-slavonskoj županiji. Istraživanje će se bazirati na reprezentativnom uzorku klijenata Požeško-slavonske županije (kućanstava i poduzeća).

Slijedom navedenoga rad će analizirati slijedeće hipoteze: učinak ekonomske krize na gospodarstvo Slavonske županije, kvalitetu kreditnog portfelja banaka u Slavonskoj županiji, kategorije kreditnog portfelja koje su najugroženije u Požeško-Slavonskoj županiji. Metodologija istraživanja obuhvatit će analizu omjera najznačajnijih pokazatelja koji se koriste u bankarstvu kao što su profitabilnost imovine, profitabilnost vlasničke glavnice, rezervacije, „loše“ kredite, omjer troškova i prihoda i sl., njihova kretanja u posljednjih nekoliko godina te očekivanja o budućim trendovima.

Ključne riječi: banka, efikasnost, profitabilnost, financijska kriza, kvaliteta kredita, rezervacije

Introduction

In last twenty years Croatian financial system has changed dramatically and has become more competitive and comparable to developed and sophisticated financial systems of the market oriented economies. Also the constant development of economy had been slowed down by the influence of global financial crises factors in domestic financial system but in wider scope into the banking sector in Croatia. The paper analyses the specific factors influence on the quality of Požega and Slavonia County dominant banks loans portfolios, collaterals, reservation structure, repayments etc. Also the paper suggest some bank's actions which can restructure debtors positions in Požega and Slavonia County and in wider sense positively influence on reshape and development of regional economy.

1. Croatia banking sector in figures

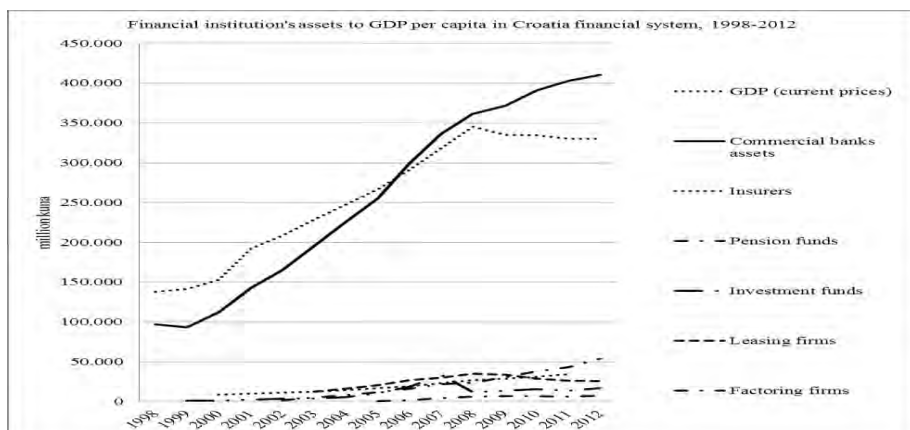
Croatian market for financial services counted population of around 4,403 million people with nominal GDP per capita of 10,205 Euros at the end of 2012. In 32 commercial banks are employed 21,836 employees which manage by 54 billion euros bank's asset. In recent years the new technologies and communication infrastructures have become revolutionary forces changing bank business models, cost reductions and the nature of customer relationship in Croatia. The intensive use of electronic banking channels and self-service devices has also significantly changed typical branch profile. Compared to EU statistics and the significance of contemporary distribution channels in Croatia there is 3,363 people per branch while in EU only 2,131 people per branch. Also in Croatia are rising trend in Internet banking use (23% adult persons aged from 16 to 74). Croatian financial system is characterized by an extremely important role of commercial banks in servicing all deficit saving units (corporations, households, government). Total banking system asset category is continuously growing in last decade but in last few years at lower rate (Bank bulletin, 2012).

Table 1 Croatian commercial banks basic financial indicators, 2012

Size	Number	Asset (%)	Employees	Units	ATM	ROAA (%)	ROAE (%)	A/C (%)
Large	6	82.4	15,872	745	3,064	1.2	6.1	21.2%
Medium	3	9.2	2,572	177	567	0.5	3.5	17.6%
Small	23	8.4	3,392	332	420	-0.2	- 3.1	16.5%
Total	32	100.00	21,836	1254	4,051	1.1	6.3	20.17

Note: Data for bank number, assets, ROAA, ROAE and A/C is for VI/2012 and assets for VI/2012

Source: Croatian Central Bank, official data, 2013.



Source: Croatian Central Bank and Croatian Agency for financial services supervision, official data, 2013.

At the end of 2012 Croatian commercial banks credit portfolio had consisted of only 36.8% loans granted to corporations and almost 45,1% loans granted to households. On the other side 55% of total bank's deposits are from households sector and only 14.9% from corporate sector. In total bank's revenue structure about 67.4% is net interest revenues. The structure of commercial bank loans in Croatia has become worse from 2007 as result of global crises which spilled over in Croatia and the nonperforming loans (NPL) were 13.81% at the end of 2012 (the ratio of nonperforming loans in total loans in 2012 had amounted 49.67% for corporate sector and 9.15% for households mortgage loans).

Table 2 Concentration ratio C5 in Croatia banking system, 2004 to 2011.

Year	Total assets	Total deposits	Time deposits	Loans	Interest revenues	Non-interest revenues	Net profit	Capital
2004	0,7426	0,7169	0,7067	0,7306	0,7032	0,7446	0,7878	0,677
2005	0,7444	0,721	0,714	0,7465	0,7186	0,7258	0,7795	0,6881
2006	0,7265	0,7017	0,6852	0,73	0,7036	0,7191	0,7952	0,7189
2007	0,7155	0,7205	0,7209	0,7205	0,6851	0,7394	0,7751	0,6820
2008	0,7227	0,7136	0,7044	0,7258	0,7104	0,7208	0,8506	0,7047
2009	0,7543	0,7644	0,7732	0,7666	0,7201	0,7525	0,8446	0,7855
2010	0,7525	0,7539	0,7596	0,7668	0,7505	0,7526	0,8784	0,7853
2011	0,7597	0,7648	0,7722	0,7753	0,7477	0,744	0,8756	0,7937

Source: Pavkovic, A., Dumičić, K., Akalović Antić, J. (2012): pp. 117-136.

The table 2 consists of concentration ratios on the basis of different bank's criteria from 2004 to 2011 for five large commercial banks in Croatia: Zagrebačka banka, Privredna banka Zagreb, Erste & Steiermärkische Bank, Hypo Alpe-Adria Bank, Raiffeisen Bank Austria. The highest rose is in profit and capital category for five strongest banks in Croatia. Consequently 26 other smaller banks have gained only 12% total net profit or only 21% capital.

2. Contemporary banks efficiency tools

Different parties are interested in bank performance, like bank clients, public as potential investor, bank supervisors, financial analysts, shareholders, management and others (scientists, students, society) etc. The profitability analysis is based on a set of different indicators and often offers an

image of banking management quality. The main performance indicators computed for banks are return on equity, return on assets, income ratio, capital adequacy, ratio of overdue debt to credit exposure, non-performing loans, provisions to credit exposure ratio, etc. Return on Equity measures how efficient the shareholders capital is used. The indicator is determined as the ratio between net profit and equity. In the banks situation, a normal margin of this indicator is appreciate to be situated between the significant thresholds of 10% and respectively 30%. The Return on Equity indicator should be higher or equal inflation rate to retain real value of capital (Pavković, 2004,181). Return on Assets indicator is also known as profit to assets or the assets rent ability. It measures the effect of management capacity to use the bank assets in order to generate profit. The computation formula of the indicator is the ratio between the net profit and average asset category. The limits of indicator's variations are generally between 0.5 and 1.6 percent. Specifically to the large banks is the small value ($< 1\%$), while to the small and medium banks is characteristic an extra unit dimension of indicator (Pavković, 2004,183). Beside these indicators, the most frequently used as performance indicators are cost income ratio and capital adequacy. Ratio of overdue debt to credit exposure is simple indicator which measures quality of portfolio and is useful to determine trend. It corresponds with provisions and non-performing loan indicator, but it is not as accurate. Provisions to credit exposure ratio is quality portfolio indicator. This indicator is based on assessment of losses in portfolio. Reservations are counted accurately defined methodology. The next indicator is the non-performing loans (NPL) to total exposure ratio. For non-performing loan, it is generally considered to be in default over 90 days, but the banks for their reporting can use different number of days. It is a more precise indicator of credit quality than the ratio of overdue debt to total exposure. Others frequently used indicators are: earnings per share, price per share, dividends per share, price earnings ratio, net interest margin, loan to deposit ratio and other comparable ratios.

3. Bank's financial crises – literature review

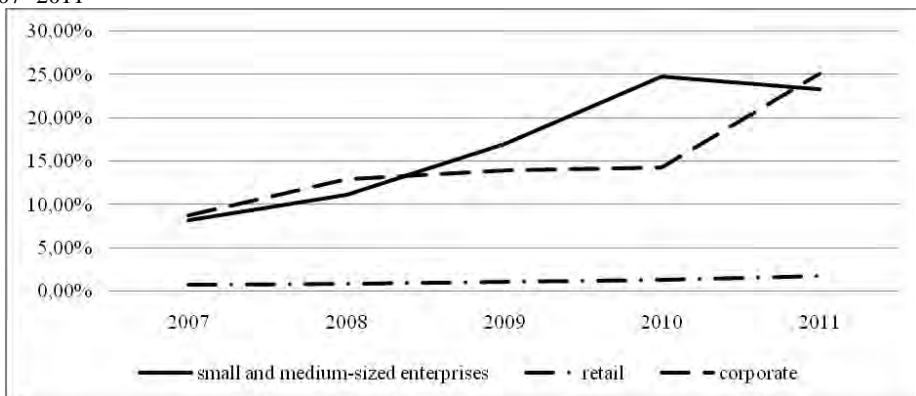
Up until recently, views of financial crises in the literature have split into two polar camps, those who think that government intervention in crisis is unnecessary and can be harmful and those who advocate a much expanded role for government intervention when a financial crisis, broadly defined, occurs (Mishkin, 1991, 3). Today, most of economists agree with government intervention but there are different opinions in which way government should intervene. The large in the Depression era occurred between fiscal conservatives, who wanted to rein in the deficit, and Keynesians, who thought the government, should run deficits to stimulate the economy (Stiglitz 2010). When many banks—either depository banks or shadow banks—get into trouble at the same time, there are two possible explanations. First, many of them could have made similar mistakes, often due to an asset bubble. Second, there may be financial contagion, in which one institution's problems spread and create trouble for others. Banking crises are almost always associated with recessions, and severe banking crises are associated with the worst economic slumps. Furthermore, experience suggests that recessions caused in part by banking crises inflict sustained economic damage, with economies taking years to recover (Krugman, Welles, 2012, 6). Paul Krugman, a Nobel Prize winner, has advocated the view that the fundamental concern of macroeconomic and fiscal policy should be the revitalization of the financial and economic activities, preventing further increase in unemployment and economic growth, not the budget deficit: concerns about the budget deficit are needed to leave aside at the moment. Another Nobel Prize winner, Joseph Stiglitz explained that the main causes of global financial crisis in USA are: deregulation, adoption of the law that make no difference between commercial and investment banks, rating agencies are paid by those they evaluate, economic and military policies of George W. Bush which reduce taxes, reduce the interest rate of the central bank, extent of tax relief on all investments executing the war in Iraq, which resulted in a sharp rise in oil prices, and thus a radical budget deficit increase. Plenty of money and deregulation have led to the emergence and flooding subprime loan "bubble" in the housing market (Stiglitz, 2010, 27). Another important cause, Stiglitz explained, is inequality and

lack of demand. The country faces enormous inequality, the largest among advanced countries. Since those at the top consume a much smaller fraction of their income than the rest, when money moves from the bottom to the top total demand is weakened. Firms won't invest if there is no demand for their products. What's needed for a robust recovery are more government spending, especially on investments directed at addressing the two underlying related problems, our structural transformation and our persistent and outsized inequality. Reinhart and Rogoff engage comparative historical analysis which is focused on the aftermath of systemic banking crises. These is their results: first, asset market collapses are deep and prolonged. Real housing price declines average 35 percent while equity price collapses average 55 percent over a downturn. Second, the unemployment rate raises an average of 7 percentage points over the down phase of the cycle. Output falls (from peak to trough) an average of over 9 percent. Third, the real value of government debt rising an average of 86 percent. The main cause of debt explosions is not the widely cited costs of bailing out, but the inevitable collapse in tax revenues that governments suffer in the wake of deep and prolonged output contractions (Reinhart, Rogoff, 2009, 223).

4. The financial crises influence on Požega and Slavonia County banks

Požega and Slavonia County has 85,831 inhabitants according to 2011 population statistics which makes 1.93% of the Croatian population. While unemployment rate in Croatia in the year 2011 is 19.1%, this rate in Požega and Slavonia County is 26.2%. The value of industrial products sales measured in the industrial local units is 1,287 million kunas, which represents 0.96% of the total sales of the Croatian industrial products. Gross domestic product per capita in Požega and Slavonia County is 6,229 euros. The share of gross value added for the same county is 1.1% Croatian gross value added. The assessment basis of sector portfolio quality in the selected banks in Požega and Slavonia County is a random sample. It is focused on default loans and overdue debt to credit exposure ratio. The sample includes 220 clients: 20 corporate clients, 100 small and medium-sized enterprises and 100 individual clients. Studies are exempt from the limits on cards and current account balances. It is used sampling without replacing at which each selected customer, after a random draw, is excluded from the population. The sample was selected using a random number table.

Graph 2 Ratio of overdue debt to credit exposure in selected banks in Požega and Slavonia County, 2007- 2011

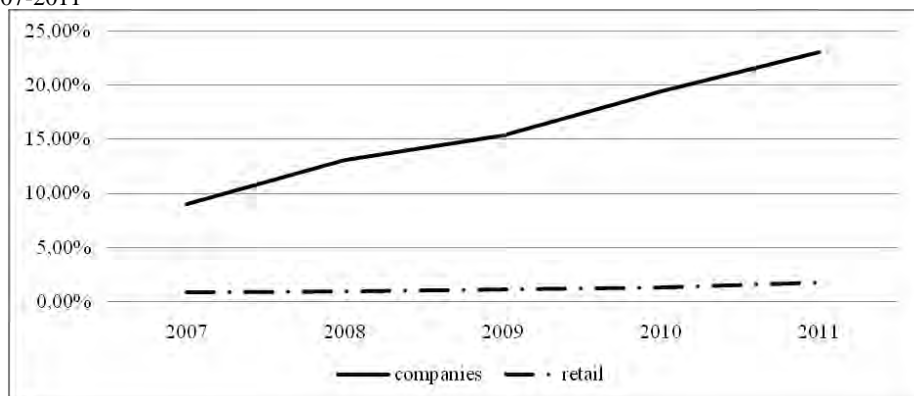


Source: Klarić, T. (2012): pp. 102-103.

During the observed period, it is evident deterioration in the debt due payment in all sectors. The significant growth of the debt due in the sector of small and medium-sized enterprises occurred in 2009 and the trend has continued in 2010 year. In the corporate sector there was significant growth

in 2008 and in 2011 year. The retail sector recorded a slight increase in maturity and at a much lower level than the two above mentioned sectors. It is a common indicator calculated for corporate and small and medium-sized enterprises to make the data comparable with the overall Croatian banking system. These enterprises are collectively called “companies” as shown in the chart. Overdue debt to credit exposure ratio in Požega Slavonia County in observed period increased as the same indicator for the Croatian banking sector. It was also observed that in level, Požega and Slavonia County and Croatian banking sector, there is stronger growth of the indicator in the companies sector, while the retail growth rate is lower. Comparing the indicators, it can be concluded that the clients in the retail sector of selected banks in Požega and Slavonia County are more accurate to pay on time their obligations than the Croatian sector's average. It can also be concluded that retail sector has smaller proportion of non-performing loans and that is the least affected by the financial crisis. Besides, financial crisis affected that sector by the time lag in relation to the companies sector. The most important reasons for the household sector to set better indicators are: delayed effects of the crisis due to priority payment of salaries in relation to other creditors in businesses, relatively small amounts of loans with longer term and better security and stricter lending policies (for example: the guarantors and joint debtors).

Graph 3 Overdue debt to credit exposure ratio in selected banks in Požega and Slavonia County 2007-2011



Source: Klarić, T. (2012): pp. 102-103.

Analysis of company sector indicators showed opposite results. The 2011 year in selected banks, Požega and Slavonia County, the ratio of overdue debt to credit exposure was significantly higher compared to the Croatian banking system. In the sample selected banks indicator was 23.02%, while the Croatian banking sector was 14.23%. The main reason for the payment delay of small and medium-sized enterprises and corporate clients is the economic downturn, decline in revenue and decrease in cash flow needed to repay the loan, while the main reason in the retail sector unemployment, the increase rate for the franc exchange rate, reducing wages and the increasing cost of living. The crisis first hit the construction sector. Entrepreneurs who practiced real estate construction and sales of building materials first found themselves in difficulties. The reason for that are the real estate market bubble and the decline in demand for real estate. Following, the entrepreneurs in other industries faced with declining activity. The analysis showed that the retail sector is more resilient to the crisis compared to corporate and small and medium enterprises. There is a deterioration of the portfolio quality in all sectors, but it is significantly expressed in corporate and small and medium enterprises. Trend worsening portfolio has not yet stopped.

5. Conclusion

Overdue debt to credit exposure ratio in Požega and Slavonia County in observed period increased as the same indicator for the Croatian banking sector. In both level, Požega and Slavonia County and Croatian banking sector, there is stronger growth of the indicator in the corporate and small and medium-sized enterprises sector, while the retail growth rate is lower. Therefore retail sector has smaller proportion of non-performing loans. In general, because of lowering portfolio quality, provisions are increasing which directly effects on costs and profit in a negative way. According to that, financial crisis influenced to profitability of the banks in Požega and Slavonia County as it was on the state level. Measures banks should make to improve their portfolio quality are: reprograms on credits, moratorium approvals, haircuts, write-offs and combinations of all mentioned measures. This will enable Požega and Slavonia County enterprises to restructure their debts and harmonize debt payments with decreased cash flow.

REFERENCES

- Klarić, T., (2012): *Utjecaj financijske krize na efikasnost poslovanja banaka u Republici Hrvatskoj*, magistrski rad, Ekonomski fakultet Zagreb, pp. 102-103.
- Krugman, P., Wells, R., (2012): *Crises and Consequences chapter*, Economics, Mac Higher, p. 6.
- Mishkin, F.S., (1991): *Anatomy of financial crisis*, Working paper, No. 3934, National Bureau of Economic Research, Cambridge, p. 3.
- Pavkovic, A., Dumičić, K., Akalović Antić, J. (2012): *Mjerenje koncentracije u bankarstvu u Republici Hrvatskoj*, Zbornik Ekonomskog fakulteta u Zagrebu, Grgić, M, (urednik), Sveučilište u Zagrebu, Ekonomski fakultet Zagreb, No 2., pp. 117-136.
- Pavkovic, A., Pavlović, A., Stojanović, A. (2012): *Basel II – case of Croatian commercial banks*, The Business Review, Cambridge, Vol. 19, No 2, pp. 288-295.
- Pavković, A., (2004): *Instrumenti vrednovanja uspješnosti poslovnih banaka*, Zbornik Ekonomskog fakulteta u Zagrebu, Grgić, M, (urednik), Sveučilište u Zagrebu, Ekonomski fakultet Zagreb, No 2., pp. 179-193.
- Reinhart, C.M., Rogoff, K.S., (2009): *This time is different: Eight Centuries of the Financial Folly*, Princeton University Press, New Jersey, pp. 223-224.
- Stiglitz, J.E., (2010): *Freefall : America, free markets, and the sinking of the world economy*, W.W.Norton & Company, New York.
- Stiglitz, J.E., (2012): *The Price of Inequality: How Today's Divided Society Endangers Our Future*, W.W.Norton & Company, New York.



**Kulturna i
spomenička
baština**

**Cultural and
monumental
heritage**

Mario Šercer, B. Econ.

J. J. Strossmayer University of Osijek

Faculty of Economics

Gajev trg 7, 31000 Osijek, Croatia

Phone: +385 91/1656066

E-mail address: bioplam@ck.t-com.hr

Zlatica Kavić, B. Econ.

J. J. Strossmayer University of Osijek

Faculty of Economics

Gajev trg 7, 31000 Osijek, Croatia

Phone number: +385 98/268842

E-mail address: zlatica.kavic@gmail.com

THE ORGAN – QUEEN OF INSTRUMENTS AND PART OF CULTURAL HERITAGE

ORGULJE - KRALJICA GLAZBALA I DIO KULTURNE BAŠTINE

ABSTRACT

Cultural heritage in any of its forms through its diversity and peculiarity represents the wealth of mankind, and its preservation is one of the most important factors for recognising, defining and achieving recognition of cultural identity. Organ is not only an instrument or a tool used during the church service, but it can certainly be claimed to be an inevitable part of cultural heritage. It is one of the most ancient types of musical instruments that is passed on from generation to generation for centuries. For this reason, its cultural value is practically invaluable. This paper provides main information on the organ, its main constituent parts and the building systems used from the very beginning of the organ building until the present day. More than eight hundred organs are registered altogether in the Republic of Croatia. The purpose of this paper is to give an overview of the most important organs that can be found in five counties in the eastern Croatia that represent an important and valuable part both of the Croatian and the European cultural heritage. By the number of registers (but not their cultural value) the largest organs can be found in the cathedrals of Osijek, Đakovo and Požega. Beside the organs, the most important organ builders are also discussed in this paper. Some of the organs belong to the category of cultural monuments that have to be taken care of and maintained regularly. Therefore, they are under the protection of the Ministry of Culture, which is in charge of the development of mechanisms and the establishment of cultural heritage protection measures with the aim to provide their sustainability. The protection and preservation of cultural heritage ensure the persistence of cultural values and provide a potential for further development of the Republic of Croatia, its reputation, the stimulation of economic competitiveness as well as a better quality life in the European environment. This is very important having in mind the fact that many organs in the eastern Croatia were severely damaged or even completely destroyed during the Homeland war.

Key words: *cultural heritage, musical instrument, organ, organ builder, Slavonia, Croatia*

SAŽETAK

Kulturna baština u bilo kojem postojećem obliku svojom raznolikošću i posebnošću predstavlja bogatstvo čovječanstva, a njezino očuvanje jedan je od najvažnijih čimbenika za prepoznavanje, definiranje i afirmaciju kulturnog identiteta. Orgulje nisu samo glazbalo ili pomagalo koje se koristi za vrijeme bogoslužja već se za njih sa sigurnošću može ustvrditi da predstavljaju nezaobilazan dio kulturne baštine. Riječ je o jednoj o najstarijih vrsta glazbala koja se stoljećima prenose iz pokoljenja u pokoljenje te je stoga njihova kulturološka vrijednost praktički neprocjenjiva. Ovaj rad daje osnovne informacije o orguljama, glavnim dijelovima od kojih se ta glazbala sastoje te o sistemima gradnje koji su se koristili od početka gradnje orgulja do današnjih dana. U Republici Hrvatskoj sveukupno je evidentirano više od osamsto orgulja. Cilj ovog rada je dati prikaz najznačajnijih orgulja koje se nalaze u pet županija na području istočne Slavonije koje svakako čine značajan i veoma vrijedan dio kako hrvatske tako i europske kulturne baštine od kojih su po broju registara (ne i po kulturološkoj vrijednosti) najveće one koje se nalaze u katedralama u Osijeku, Đakovu i Požezi. Osim samih glazbala u radu su navedeni i najznačajniji graditelji orgulja. Neke od orgulja ubrajaju se u spomenike kulture o kojima treba redovito brinuti i održavati ih te samim time podliježu zaštiti Ministarstva kulture koje je zaduženo za razoj mehanizama i uspostavljanje mjera zaštite kulturne baštine s ciljem osiguranja njene održivosti. Zaštitom i očuvanjem kulturne baštine osigurava se postojanost kulturnih vrijednosti kao i potencijala za daljnji razvitak Republike Hrvatske, njenu afirmaciju, stimulaciju ekonomske konkurentnosti i kvalitetnijeg života u europskom okruženju što je veoma bitno imajući u vidu činjenicu da je podosta orgulja na području istočne Slavonije bilo znatno oštećeno pa čak i u potpunosti uništeno za vrijeme domovinskog rata.

Gljučne riječi: kulturna baština, glazbalo, orgulje, graditelj orgulja, istočna Slavonija, Hrvatska

1. Introduction

As the name itself suggests, cultural heritage is something that earlier generations have created and nourished for years. It is the legacy of the past. Division of cultural heritage is regulated by law and according to this division cultural goods are divided into immovable cultural goods such as cities, villages, archaeological sites, parks, etc., mobile cultural goods such as collections of objects in museums, church inventory items, ethnographic objects, films, etc., and intangible cultural goods such as languages, dialects, folk art, traditional art, etc. (The Law on the Protection and Preservation of Cultural Heritage, 1999. art. 7th to 9th). According to this division organs are included into mobile cultural goods, and as such are recorded as well by the Ministry of Culture from which side large number of organ have a status of protected cultural goods. This paper consists of four chapters. The first chapter contains a brief introduction. The second chapter presents basic information about history of the organ from its beginning to the present day, as well as a brief overview of the development of organ through history in Croatia and explained the basic parts of organ. The third chapter provides a view of the most important organs in eastern and a brief overview of the most important organ builders who worked in this area in previous years as well as today. The fourth chapter is a conclusion.

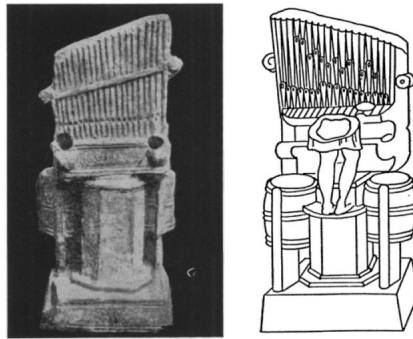
2. Organ – the queen of music

2.1. A brief historical overview

The history of the organ dates back to the third century BC. The oldest preserved sample today originates from 228th BC. The instrument was probably invented in 246th BC, and its technical performance was based on the principle of hydraulics (Dearling, 2005, 230). The organ was the oldest instrument with keys with three basic features of construction, and these are group of

separately tuned pipes, artificially air supply and the keys that allowed entry of air into the closed pipe. Greek engineer Ctesibius who worked in Alexandria is considered to be the inventor of organ pipe. Greek engineer Ctesibius who worked in Alexandria is considered to be the inventor of organ pipe. (Apel, 1948, 192). For the ancient Greeks and Romans, organ was secular instrument which was used for entertainment and in circuses. Figure 1 shows a clay model of organ from Carthage. In the eight century organ were introduced in Western Church, while Orthodox Church never actually introduced them (degl' Ivellio, 2008,1). In a letter to his father from 17th October 1777., W. A. Mozart called organ the queen of all instruments.

Figure 1 A clay model of organ from Carthage



Source: Apel, W. (1948.): *Early History of the Organ, Speculum*, Vol. 23, No. 2, page 197

2.2. Development of organ in Croatia

The oldest archival information about organ in Croatia are from 14th century. In the 1359th organ were mention in the church of St. Mark at Gradec in Zagreb (Hudovsky, 1968, 4). At that time, the organ receive the church of St. Anastasia in Zadar as well. Father Urban, organ builder in St. Mark in Venice, builds organ for the Cathedral in city of Trogir, of which today have survived only painted doors, the work of Gentile Bellini from the 1489th. Zagreb Cathedral gets its first organ around 1480th, and in Pula they were first mentioned in 1417th. In 1649th Zagreb Cathedral has supplied organ from organ builder Gregor Strukel. The oldest still standing organ in Croatia is from the early 17th century. It is a group of six small organ and positives from Lepoglava, Varazdin, Zlogonje and Vukovje. In the area of southern Croatia there are registered only remnants of organ from Carlo de Benni in Labinci, and remnants of organs from St. Justine in Rab (Meder, 1992, 11). With the census of academician Ladislav Saban from 1972.-1975. in Croatia are registered 774 organ in the period from the 1649th up to 1974th (Armano, 2006, 21).

2.3. The essential parts of the organ

Dugan in his book “Doctrine studies about instruments with special regard on organ” cites that organ is instrument of very intricate structure that consists of many parts. As the most important parts of organ he points out pipes, bellows and devices by which the air as needed is introduced in individual pipes, and in these devices are included console, windchest and action which represent the combination of console with pipes (Dugan, 1944, 144). Figure 2 shows console of organ in Dakovo cathedral. This figure clearly indicates that this is an organ with three keyboards. At the base of console there is pedal - keyboard which is played by foot, which is in generally another organ specificity. Figure 3 shows front or head of the organ with pipes. These organs are located in the Franciscan monastery in Osijek. Pipes which are standing in the organ front actually belongs to the group of principals.

Figure 2 Console



Source: Šercer Mario, own collection

Figure 3 Front



Source: Šercer Mario, own collection

In the previous section of this chapter it was mentioned that the pipes are connected with the console using action, and according to performance of action the organs are divided into mechanical, pneumatic and electrical organs (Adelung, 1991, 129). At mechanical action airflow through each pipe is released through interconnected levers and bars. For pneumatic action working medium is air, while at electrical action electromagnetic valves are used for transmission of impulse. Chronologically observed, first actions were mechanical, but it is worth to mention that this work system is still in use and it is most popular among organists.

3. The organ in the eastern Croatia

3.1. Statistical review

According to data from the Ministry of Culture in Croatia is today listed about eight hundred organ, of which 261 of them are under protection of the Ministry of Culture. In the five counties of eastern Croatia by the end of March 2013. under the protection of the Croatian Ministry of Culture is located 45 organ as it is shown in Table 1. The exact number of organ in the entire Croatian territory as well as in the eastern Croatia is not known because data collected through years are still not statistically analyzed.

Table 1 Number of organ protected by the Ministry of Culture in the eastern Croatia

Osijek-Baranja county	20
Vukovar-Srijem county	6
Brodsko-posavska county	8
Požeško-slavonska county	9
Virovitičko-podravaska county	2
Total	45

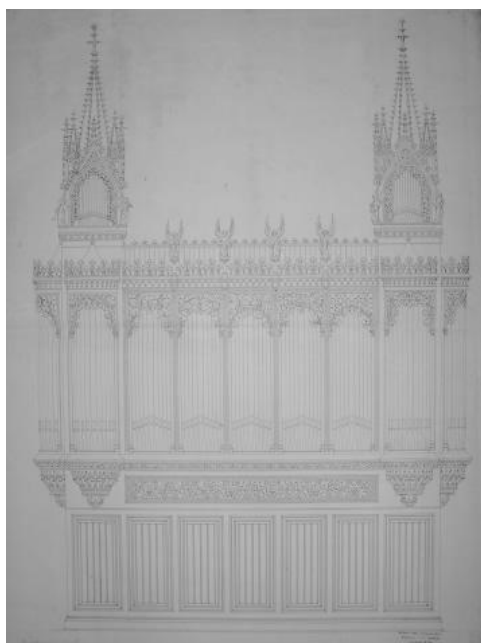
Source: Šercer Mario, own drawing

3.2. The most prominent organ in the eastern Croatia

Each organ is made individually according to the characteristics of the space in which they will be placed, both acoustically and visually. Their value is not just the value of one instrument and it would certainly be wrong to evaluate them according to their size, material values or according to the number of embedded pipes. The organ are transferd from generation to generation, and as mentioned in previous chapters they represent the cultural heritage and this is the fact which gives the organ its special and priceless value. The oldest data about the existenc eof the organ in general

in Slavonia refers to the church of St. Michael in the citadelle in Osijek from 1699 (Šaban, 1983, 632). It was smaller positive for which it is assumed that it has arrived from Graz through the Drava river. It was replaced by the organ from 1759., and in the end by the Fischer organ from 1830. of which today has left only organ case. From the organ from 1890. built by Lorenzo Fabinga, the only thing that have left are pipes, everything else is the work of Franco Jenko from 1937. With the biedermeier elegance organ case of the organ is artistic decoration of the church, and with the quality of rich sound it is a befitting musical correlative to the artistic and stylish valuable inventory of the church (Meder, 1992, 142). In the recent research in the parish church of the Holy Name of Mary in Osijek Lower Town there were found data about positive built in the 1674th which was built by Joseph Aurum form Graz (Ban, 2004, 218). The same positive is now in good condition and is used in the liturgy even more than a church organ. During the World War 1st, positive was almost alienated from the church, but it was excluded because of its artistic value (Adžić, 2011, 9). One of the most famous, and certainly the largest organ are located in the Co-Cathedral of St. Peter and Paul. These large concert organ with three keyboard and 62 registry were built by the austrian company Mauracher and by according to the size they are among the largest organ in Croatia (archival data of the Ministry of Culture, 2013). Among the data about organ collected in the archives of the Ministry of Culture it is worth to mention cathedral organ at the Co-Cathedral of St. Peter in Djakovo which are among the highest in the Croatian churches in general. The first organ that were designed by the Viennese architect Friedrich von Schmidt and built by bishop Jospi Juraj Strossmayer were completed 1882nd, and burned in the fire in 1933. (Damjanović, 2007, 254). Detailed design of these organ is shown in Figure 3. A new organ to its original form, but larger scale with 73 registers and 5486 pipes, has built Slovenian Franc Jenko in 1936. (Jarm, 1993, 176).

Figure 3 Modified detailed design from Friderich von Schmidt for organ from Djakovo Cathedral, the end of 1878th – the beginning of the 1879th.



Source: Damjanović, D. (2007.): First and second organ of today's Djakovo Cathedral, *Arti musices - Croatian Musicological Review*, Vol.38, No.2, page 246.

Certainly it is worth to mention organ in the church of the Immaculate Conception of the Blessed Virgin Mary in Valpovo whose organ case is high artistic quality. They were built by the Casper Fischer from Apatin in 1805. In the Osijek-Branja county arguably one of the most important organs are located in the church of St. Anthony of Padua in Nasice. According to the data from the archives of the Ministry of Culture organ were procured in Budim in 1776th at „master Joseph“ (probably Jozsef Janicseka, born in Prague). Although over the time they have experienced more reconstructions they are mostly original. They have big historical and artistic value. Colossal organ case, which is the work of local franciscan master carpenter is culmination of woodcarving in 18th century in Croatia. One of the most valuable organ in Vukovar county is located in the church of St. John of Capistrano in Ilok. They were built in the 1838th by the builder Friar Ignatius Lehner. As a valuable historical monument and very well preserved work from the first half of the 19th century, these organs are among the most important achievements in this region (Meder, 1992, 198). Near Ilok in Vinkovci church of St. Polion and Eusebio are organ which were built around 1850. by the builder Franz Vogt from Pecuh. Among the most prominent organ are organ located in the church of St. Trinity in Slavonski Brod. Their builder, Ignatius Lehner completed them in 1838. and they are among one of the most important Croatian instruments from the first half of 19th century. Cathedral in Pozega received a new modern organ from German builder Wolfgang Eisenbarth in 2007. In church of St. Lovro in Pozega there are organ from Croatian organ Ferdinand Heferer built in 1896. In the church of St. Rok in Virovitica Reieger brothers from Jagendorf (today Krnov in the Czech) built organ with 20 registers at the beginning of the twentieth century (around 1900.), which are one of the best preserved Rieger works preserved in this area. Another instrument deserves to be mentioned as a valuable part of the cultural heritage and that is physharmonica from the Vienna master Peter Tietz. It was built in the mid-nineteenth century, the exact year is not known (Armano, 2006, 28). Musicologist Branka Ban from Osijek has found Titz physharmonica in the south tower of parish church of St. Michael the Archangel in the 2002. Physharmonica, although damaged was still able to be played (Ban, 2006, 14). Heritage value of found physharmonica confirms the fact that there are few examples of Titz physharmonica in the world, but they have not been preserved in its original state.

3.3. The most important organ builders in the eastern Croatia

During the time in eastern Slavonia organs were built by many different organ builders. Unfortunately, for a number of organs data about their builders are not found as the organ procurement documents had not been made or have been lost or destroyed. On the other hand, from some organs tables with information about their builders were severed or removed. Thus, for the organ in the church of St. Michael the Archangel in the Lower Miholjac is assumed that they have been built around 1852nd by an excellent masterly hand, and these organs are among the most important senior instruments in Croatia in general. On the outside of the organ case are the initials of the donor CBP (Conrad baron Prandau), while name of the builder is not known (archival data of the Ministry of Culture, 2013). In the mid-nineteenth century, precisely in the 1833. the Andrew Febing in Osijek founded organ company that has been building instruments until about 1920. and a plenty of pneumatic organs were built in the period from 1907. to 1931.by Vaclav Venceslav Holub from Pozega (Bush, Kassel, 2006, 130). One of the most important organ originating from eastern Croatia certainly is famous organ builder from Baranja Josef Angster, born in the 1834. in the village Jagodnjak, then Kacsfalu (Varga, 2008, 145). Certainly worth mentioning is Heferer company whose activity in the are of Croatia are constant from the 1868. (Armano, 2006, 33).

4. Conclusion

Organ on Croatian territory exists for nearly seven centuries, which suggests that they are not just instruments made up of thousands of parts that are commonly used in the liturgy. Once built, they serve to generations for several centuries; as a musical instrument and as a monument of time in

which they are incurred. Organs are not just a part of cultural heritage, but also a piece of history. Churches throughout the eastern Croatia boast a host of valuable organ. Unfortunately, during the war, numerous organs are partially or completely destroyed, but also a lot of them have been restored during the reconstruction or have been built a new ones. The largest contribution to the creation of organs certainly have their builders. Organs that are located in the eastern Croatia were built by the prominent organ companies and organists from the time in which they worked, and some of the most important are Andrew Fabing from Osijek, builder from Baranja Josef Angster, builder from Vienne Peter Titz, Jan Tucek from the Kutna Hora in Czech Republic, german builder Josef Brandl, croatian organ workshop Heferer and many others. The fact that in Croatia there are more than eight hundred organs says that it is really rich cultural heritage to which is certainly necessary to devote as much attention as possible to maintenance of existing organs, and restoration and repair of those derelict or damaged in any way. Croatian Ministry of Culture has a rich collection of data collected through decades, but it should be emphasized that this data should be professionally processed and digitized because this is the only way for data to become accessible and usable to all users.

REFERENCES

- Adelung, W. (1991.): **Einführung in den Orgelbau**, Breitkopf & Härtel, Wiesbaden
- Adžić, D. (2011.): **Liber memorabilium (Spomenica) od 1887. do 1996.**, Magnificat Gospe Donjogradske, Vol. 2, No. 2, pp. 8-13
- Apel, W. (1948.): **Early History of the Organ**, Speculum, Vol. 23, No. 2, pp. 191-216
- Armano, E. (2006.): **Orgulje hrvatskih graditelja, tragom Ladislava Šabana**, ITG, Zagreb
- Armano, E. (2006.): **Fisharmonika Petera Titza iz župe sv. Mihaela Arkandela u Osijeku**, Anali Zavoda za znanstveni i umjetnički rad u Osijeku, Vol. 22, pp. 19-55
- Ban, B. (2004.): **Pozitiv u župnoj crkvi Preslavna imena Marijina u Osječkom Donjem Gradu**, Vjesnik Đakovačke i Srijemske biskupije, Vol. 132, No. 3, pp 218-222
- Ban, B. (2006.): **Fisharmonika-otkriće u župnoj crkvi svetog Mihaela Arkandela u Tvrđi**, Anali Zavoda za znanstveni i umjetnički rad u Osijeku, Vol. 22, pp. 11-17
- Blake, J. (2000.): **On Defining the Cultural Heritage**, International and Comparative Law Quarterly, Vol. 49, No.1, pp. 61-85
- Bush, E. D., Kassel, R. (2006.): **The Organ: An Encyclopedia**, Routledge Chapman & Hall, ISBN 978-0415941747
- Damjanović, D. (2007.): **Prve i druge orgulje današnje Đakovačke katedrale**, Arti musices - Hrvatski muzikološki zbornik, Vol.38, No.2, pp. 233-258
- Dearling, R. (2005.): **Enciklopedija glazbala**, Znanje, Zagreb
- degl' Ivellio, J. (2008.): **„Orgulje – kraljica instrumenata“ s posebnim osvrtom na orgulje, orguljarstvo, orguljare i orguljaše u Hrvatskoj**, http://orgulje.com/orguljarstvo/orgulje_kraljica_instrumenata.html#literatura (accessed 15. February 2013)

Dugan, F. (1944.): **Nauk o glasbalima s osobitim obzirom na orgulje**, Nakladni odjel Hrvatske Državne tiskare, Zagreb

Hudovsky, Z. (1968.): **Die Organisten und Spielleute im mittelalterlichen Zagreb**, Studia Musicologica Academiae Scientiarum Hungaricae, Vol. 10, No. 1-2, pp. 1-10

Hudovsky, Z. (1969.): **Razvoj muzičke kulture u Zagrebu od XI do konca XVII stoljeća**, Rad Jugoslavenske akademije znanosti i umjetnosti. Odjel za muzičku umjetnost. Vol. 2, pp. 5-61

Jarm, A. (1993.): **Đakovačka katedrala. Požar i obnova 1933. - 1937.**, Diacovensia, Vol.1, No.1, pp. 165-181

Meder, J. (1992.): **Orgulje u Hrvatskoj**, Globus, Zagreb

Meder, J. (2006.): **Orgulje u Hrvatskoj**, <http://www.min-kulture.hr/default.aspx?id=2078> (accessed 18. February 2013)

Mozart, W. A. (1777.): **Wolfgang Amadé Mozart an Leopold Mozart in Salzburg, Augsburg, 17. Oktober 1777.**, Briefe und Aufzeichnungen zu W. A. Mozart und seiner Familie aus den Beständen der Stiftung Mozarteum Salzburg, http://dme.mozarteum.at/DME/objs/raradocs/transcr/pdf/BD_352.pdf (accessed 15. February 2013)

Šaban, L. (1983.), **Starije orgulje Osijeka i njihovi graditelji**, Zbornik za narodni život i običaje Južnih Slavena, Vol. 49., pp. 631-651.

Varga, D. (2008.): **Josef Angster - poznati graditelj orgulja iz Baranje**, VDG Jahrbuch, Vol.15, No.1, pp. 143-185

Zastupnički dom Hrvatskoga državnog sabora (1999.), **Zakon o zaštiti i očuvanju kulturnih dobara** (NN 69/99, NN 151/03; NN 157/03 Ispravak, NN 87/09, NN 88/10, NN 61/11, NN 25/12, NN 136/12), Zagreb

Anita Tufekčić, prof.

Elementary School "Antun i Stjepan Radić", Gunja

Vinkovačka 22, 32270 Županja

Phone: 098/543-056

E-mail: ariana200@gmail.com

THE NECESSITY OF THE APPLICATION OF MARKETING IN THE LIBRARIES OF THE EASTERN CROATIA

NUŽNOST PRIMJENE MARKETINGA U KNJIŽNICAMA ISTOČNE HRVATSKE

ABSTRACT

Marketing, as a business philosophy, can be applied within the library service in the form of non-profit marketing. In the 21st century the library-information experts strive to establish a dialogue in which, by employing elements of marketing mix, they offer services, aid and time-saving to their users, while their ultimate goal is the transfer of knowledge, and through that, meeting the needs of their users. This project is about the necessity of application of marketing in libraries and library service, which should represent an integral process of considering the ways to meet heterogeneous user needs, all for the purpose of showing the possibilities of systematic application of specific marketing methods in the libraries of the Eastern Croatia, and through that, also increasing the number of library users and the frequency of reading a wider range of various books on their part, and with this, helping to increase the level of education and general knowledge of Eastern Croatia's population in the future.

Keywords: Eastern Croatia, library, library service, marketing

SAŽETAK

Marketing se kao poslovna filozofija može u knjižničnoj djelatnosti primjenjivati u obliku neprofitnog marketinga. U 21. stoljeću knjižnično-informacijski stručnjaci nastoje uspostaviti dijalog u kojem, služeći se elementima marketing-mixa, svojim korisnicima nude usluge, pomoć i uštedu u vremenu, a krajnjim je cilj transfer znanjai time zadovoljavanje potreba njihovih korisnika. U radu je riječ o nužnosti primjene marketinga u knjižnicama i knjižničnoj djelatnosti koji bi trebao predstavljati cjelovit proces promišljanja načina zadovoljavanja heterogenih korisničkih potreba, a sve u cilju prikaza mogućnosti sustavne primjene određenih marketinških metoda u knjižnicama istočne Hrvatske, te na taj način I povećavanja broja korisnika knjižnica i učestalosti čitanja šireg raspona različitih knjiga s njihove strane, te na taj način pripomaganja u povećavanju razine obrazovanosti i opće kulture stanovništva istočne Hrvatske u budućnosti.

Ključne riječi: istočna Hrvatska, knjižnica, knjižnična djelatnost, marketing

1. Introduction

For several decades, owing to the economic changes and the changes in library business, marketing has been becoming an increasingly important component of library business in the world, as well as in Croatia. The importance of marketing in libraries is evident primarily in the attraction of an increasing number of users to the libraries, who, in this age of modern technology, utilize many

other sources of information, often of questionable quality. Furthermore, the need for various sources of financing, as well as the rise of competition, are reasons enough for urgent presentation of libraries at the market. Marketing, as a complex business concept, requires excellent knowledge of marketing strategies and patient implementation of marketing procedures in order for the desired results to be noticeable.

According to the American Marketing Association, marketing is the process by which the creation and implementation of ideas, products and services are conducted, the setting of their prices, the promotion and distribution, in order to achieve the exchange which will satisfy the goals of individuals and organizations. (Klaić, 1986, 849). Marketing represents a modern business concept which focuses on user and his needs. It is based on the research of the needs of a user and ultimately, meeting them. The main goals of marketing are to raise the overall consumption and satisfaction of a user, to enable him to be able to select that which suits him and to raise to the highest degree the quality of life of both an individual and the society as a whole. (Ivanović, 2003, 107). Up until recently, marketing has usually been associated exclusively with profit institutions. However, social and economic changes have caused the marketing to become an important component of the activities of non-profit institutions. In the non-profit institutions, marketing is important for the building of an image or reputation in society, as well as differentiating institutions which offer similar services, but also for attracting and keeping donors and volunteers. In short, the non-profit marketing is the application of marketing techniques whose goal is to improve the objectives and tasks of a non-profit organization. (Wymer, et al., 2006). The term 'non-profit sector' concerns all non-profit, benefactory and non-government organizations (religious congregations, universities, hospitals, environment protection groups, museums, recreational societies, group for the protection of certain rights, various local community foundations, worker associations, social clubs and the like). (Wymer, et al., 2006, 4). It includes all those activities which are included in the marketing in profit organizations as well - from advertising, public relations, gathering of funds, as well as gathering and processing information for the purpose decision making, cooperation with executive bodies, board members, donors and volunteers.

2. The implementation of marketing within libraries

For the successful implementation of marketing within libraries, the elementary requirement is that all library personnel must participate in it, and they must be trained to do it. The other requirement is that librarians have to carry out all those steps which comprise marketing, starting with research and market analysis, to the planning of services and the promotion thereof. The first step is the research and analysis of the market at which the libraries and information services offer their services, then, identifying the needs, analyzing the library's strengths and weaknesses in regard to the information sources, personnel and professional areas which are covered by the library, understanding competition, inventing the supply (of services and goods) which will be satisfying the identified needs of users, making both current and potential users aware of the existence of library services, and monitoring and measuring the satisfaction of users. (Coote, 1997, 2).

The first step of the marketing process is the research of market in order for the library to become aware of the situation on the market, of direct and indirect competition, of financing sources, and of the expectations and needs of users. The research of market implies systematic gathering, filing and analyzing the data which concern the required service or product. There are two basic functions of market research - to decrease the incertitude of decision-making concerning the process of marketing itself, and the supervision and control of the execution of marketing activities (Nicholas, 1998, 53).

The marketing program is based on the interests and habits of users which are important for the planning and introduction of innovations. The four instruments of marketing program are:

product/service (*P-product*) price, (*P-price*), distribution (*P-place*) and promotion (*P-promotion*), or their combination. Modern marketing introduces the fifth element, which concerns the factor of an employee (*P-people*) because nowadays, the employee plays an increasingly important role both in selling and in maintaining loyalty of a consumer. After laying out a marketing plan, the next step is to establish the marketing strategy and to determine the goals which the library wishes to achieve through marketing process.

Within a library, information is the product, and it can be stored on various media, from classic paper format, audio-visual material, video cassettes, to a simple oral information (Može, 1992, 60). There are also products (catalogues, brochures, bibliographies) which the personnel produce successively, as sources of information. The places of borrowing and distribution (free access to the material, book points, branches, bookmobiles) enable access. Promotional activities are part of the job description for library workers (the windows and bulletin boards are regularly arranged, forums and children activities are organized, posters created, invitations written, the media are informed of the weekly programme, radio and TV shows are organized, also social networks - *facebook* etc.) The price is present in the charging of membership fees, membership cards and demurrages, although lately other services are being charged as well (for example, photocopying).

After researching user's needs, future trends and available sources, the library may begin planning marketing goals and sources which is it going to be using, and determine the time period in which it will be implementing the laid plan. The forming of a strategy enables the library to concentrate on library services, and at the same time, it provides it with guidelines to achieve the desired goals. Marketing strategy is comprised of six basic steps - the setting of goals, envisioning the complete strategy, preparation of the plan of implementation, the implementation of the plan, monitoring the success, and the feedback on the results and the adaptation of the plan. The strategy has to be simple and short in order to be implemented more easily, and formed adequately to prevent inaccuracies.

The key elements of a marketing strategy are the estimate of that which the buyers want, what services they desire, the expectation and benefits which they expect of libraries and information centers, and the analysis of strengths, weaknesses and the abilities of the library and its services, the estimate of the strengths and weaknesses of competition, the understanding of real differences between the library and the competition, and the envisioning of a practical plan which is based on the understanding of market and the setting of measurable plans which will aid the realization of set goals. (Coote, 1997, 6). Also, it is important to incessantly value one's activities through surveying the satisfaction of users, and plan the continuation of the laid plan according to the results.

The promotion, the last step of the marketing process, comes only when all other elements of the marketing planning are complete. The promotion's purpose is to inform customers, or users, about that which the library does and can do for its users. Promotion is communication with attitude. (Šegota-Novak, 2003,27). Promotional plan extends from the marketing plan, and involves the description of services which require publicity, the description of users for which that publicity is intended, the details of campaign implementation (kind and method of distribution), the fashion of executing the campaign and the analysis of its execution. (Nicholas, 1999, 302). Also, each marketing plan should take into account the use of electronic media which can lead to a large number of potential users, since many users, especially younger ones, utilize technology.

Various activities, which are created by the organization, comprise the communication bond between the mass, the individual and the source. The elements of promotional activities are: public relations, printed forms of promotion, organizing events within and outside library, cooperation with media, and web promotion. The motivation for the promotion and services of public libraries is the education of citizens, raising the cultural level of a society. Although libraries and similar informational institutions do not have such direct competition, it is still important to differentiate

and study the competition. It's important to discover what are their strengths and weaknesses, so we can counter them with our services and our promotional activities. The direct competition are the users and subjects who have their own on-line databases or bases on CD-ROMs, as well as information brokers, whose numbers are rising these days. The indirect competition are individual users who possess their own information sources. One should do a research on where do the users usually receive the information which they need, are they are satisfied with it, and how do they use it, as that will enable the librarians to focus and to promote their services even more effectively. (Coote, 1997,12-13)

Modern marketing is oriented exclusively towards users. Before we decide who our target users are, it is necessary to have a certain amount of information about them. This can be found out through key information which we shall receive by answering the questions: who are they (groups of users should be large enough to be significant and small enough for the marketing plan to be able to get developed according to their needs), what are their characteristics and needs (not only that which they say they want, but also that which influences their wishes), what are their triggers for using library services, what services they want, what services would they like to be using in the future, what services could the librarians entice them to purchase in the future, what are their expectations and perceptions (their expectations will be formed by various conditions which include their experiences with libraries and that which they had heard from others, their perception is based on that which the library truly does or says), what benefits they want (the key marketing concept is that users purchase benefits - they purchase that which the library can do for them), what are their buyer factors (they include the ease of access to services, reliability, price, speed of delivery of a service)? (Coote, 1997, 8-12). Also, it is necessary to keep in mind the age structure of users, because their needs depend on that. Children are the segment of users to whom a library must provide special services, both because of the social goal of more successful upbringing, and for the creation of an increasing number of regular users in libraries since childhood. A library may attract the youth through organizing forums adapted to the specific age of users, through showing of movies, and strengthening and more adapted structuring of library materials. For workers, a library should be organizing forums and lectures, and founding club-reading halls with interesting themes. The elderly population also has its own demands and expectations, especially the need for social-communication services. For this kind of population, a library should be organizing user forums, provide special publications source, as well as aid for selecting publications, and discussions regarding the publications. (Kobaš, 1985, 93-96).

3. Library marketing - example of Osijek and Vinkovci

There are various options and ways of presenting library activities in a library and outside it: direct work with library users, cooperation with kindergartens, schools, local committees, organizing various individual occasional or even permanent programmes for users of various age structures and interests, cooperation with the media, the publishing of operating plans and reports, various research, especially that which includes questionnaires.

Under the cultural-promotional operation of City And University Library of Osijek (GISKO), the following has been achieved: 30 great exhibitions of library-related and other materials, and a large number of other smaller occasion-based ones, 20 literary meetings, 77 book presentations and other activities of lectures/forums/round tables.⁸³ All the important anniversaries of Croatian and world history, culture and art have been celebrated. Through cultural programmes the Library strives to promote all the forms and capabilities of its operation to the entire population of Osijek and its region, with the goal of reviving the cultural events in the City. During the Cultural Meeting Days in Osijek, aside from other cultural institutions, the Austrian Reading Hall of City and University

⁸³ <http://baza.gskos.hr/izvjestaj2011gotovo.pdf> (accessed 17 March 2013)

Library of Osijek has also participated through an array of activities. Special attention has been paid to the celebration of the City Day of Osijek (2nd December), Children Book Day (2nd April), and Croatian Book Day (from 15th October to 15th November), and all other significant dates. Along with most of the activities, the following was printed: posters, invitations, catalogues, bookmarks and other related materials. Cooperation has been realized with the Center for pre-school education, Gallery of fine arts, and various associations and schools. In collaboration with the Our Children of Osijek Society, a masked ball was organized for all the City's children. The department for work with children and youth offers programmes which are carried out in the playing halls, and which are mostly based on games. Various activities are prepared, such as video projections, discussion groups, music listening halls, imagination halls, creative workshops (art, acting, puppetry), exhibitions, writer meetings, presentations of books, lectures for children. Through work with children, librarians promote the contents of education for peace, tolerance, communication, and children rights, care for others, care for environment and for oneself. The Library has the maximum of 5,000 friends on Facebook profile and around 200 followers on Twitter⁸⁴ which, on a daily basis, informs and reports on the activities and services which the Library offers. The users are also notified about the new titles, interesting facts from the world of literature and culture in general, books and reading are promoted, and each day at least one title is recommended, with a short synopsis. Through the use of Facebook and Twitter profiles, new content is created on these channels, which is considered supportive for the marketing, for the major part. On the other hand, through communication with users and answering their comments in almost real-time, this particular means of communication belongs to the function of user support.

The City Library and Reading Hall of Vinkovci is the example of a library which had also implemented marketing in its operation, and rather successfully. It is a public library which involves the widest and most diverse population, and which strives to satisfy various reader tastes and to attract as many users as possible. On the desks of borrows and children's department, the Library offers bookmarks with the picture of the Library, and calendar or the working hours and basic information about its operation. Also, one may also find brochures regarding the stop points of the Bookmobile and the terms of membership and borrowing. The Library regularly organizes various events in there, intended for users of all ages. For children, there are presentations of fairy tales or picture books, novels or books for reading class, with occasional visits of famous writers. The Library often hosts professional lectures intended primarily for librarians and library personnel. Inside the Library one can often view small exhibitions on certain subject, such as displaying the most important works of a writer, presenting important Slavonian customs, or exhibitions of children's art creations. The exhibitions are changed on the weekly or monthly basis, depending on the occasion which the Library honors. During winter or spring holidays, the Library gathers the youth into a reader's club, at which, every two weeks, there is a discussion about the read book in order to activate and motivate the young users of the Library for further reading and the use of the services of the Library. Each Saturday, the youngest ones are able to utilize the children's playing room as part of the Children's Library of Peace, at which an educated librarian and paedagogist assigns them a small task such as the manufacturing of ornaments out of modelling clay, candlesticks out of plasticine, origami figures and the like. The Children's Library of Peace cooperates with the Mala Terezija Rehabilitation Center, whose users visit the Library few times a month, at which time they paint, draw, write poetry or produce various objects. The Library also cooperates with the City Museum of Vinkovci, which often organizes lectures at the Library for the presentations of its discoveries.

As part of the Vinkovci Health Fair which is held each year in spring, the Library sets up its stand and presents its services to the visitors. The Library also cooperates with the local media, such as Vinkovci Radio Station and Vinkovci Gazette. Also, in the TV show 'You, We, Book', the librarians present the newest topicalities related to the Library. The Vinkovci Gazette actively informs the

⁸⁴ <http://baza.gskos.hr/izvjestaj2011gotovo.pdf> (accessed 17 March 2013)

readers about the activities and events at the Library on a weekly basis, and offers top lists of most read books at the Library, as well as the recommendations of the librarians for reading.

On the Library's website one may find all the information about its operation, one can search through the web catalogue or make an inquiry through the Ask the Librarians service.⁸⁵ If the users have information-based inquiries, there is an option to send an e-mail to the Central or directly to the librarians.⁸⁶ The Library is an active member of the Facebook social network, where one may also find all about the news and events which the Library organizes. Through the coming of the Internet and new technologies, the horizons of finding new ways for marketing of libraries have been expanded. By employing new technology in their operations, the libraries have much greater capabilities of processing publications. Also, the technology has become a precious tool for managing information, especially in regard to storing and retrieving information, handling, keeping and accessing data, through which it strengthens its function of an information center. With the aid of telecommunications and network, libraries have never had better access to outer databases, which in this modern times comprise an important part of an assortment which libraries offer to the users. The greatest objections to the librarian networking area is the lack of actuality, delays with data, and the lack of promptness of data.

4. Conclusion

The marketing at libraries is truly necessary for several reasons: for attracting funds for financing libraries and attracting new users, but also for building its own image within society, wider or closer local community. A library is a local informational center which enables its users direct access to all kinds of knowledge and information, provides conditions for lifetime learning, and is considered a vital power in education, culture, informing, cherishing peace and spiritual welfare.

Since marketing is often understood as a modern business philosophy, strategy, activity and business concept which focuses on the consumer (user) and his needs, it is clear that it shall have a very significant place in modern and future library activities, whose goals is to inform as many people as possible about public libraries, and that as many of them as possible get enticed to satisfy their needs for a book, a newspaper text, magazine, information on electronic network, at a public library. There are more and more sources and holders of information and data, and they become increasingly diverse. Belletristic, professional, popular-science and publicistic texts are scattered throughout books, magazines, newspapers, they appear in electronic format, on electronic networks, at the Internet. The needs of users and potential users are increasingly diverse and constantly susceptible to changes. The librarians must be active intermediaries between the material and the users, and they must be open to changes.

One of the goals of library operation is to entice through various ways the still unrecognized readers' interests and informational needs by offering the user (current and potential) professional services, library supply, and special programmes. The marketing is both the help and the weapon. The marketing concept of business-conducting as part of the library operating will result primarily in raising awareness and comprehending as to what a public library may signify to each individual within a community and what use of it each individual may have in every moment of his life.

REFERENCES

Database GISKO. URL: <http://baza.gskos.hr/izvjestaj2011gotovo.pdf> (accessed 17 March 2013)

⁸⁵ <http://www.knjiznica.hr/pitajte-knjiznicare/> (accessed 20 February 2013)

⁸⁶ <http://www.gkvk.hr/> (accessed 20 February 2013)

Coote, H. (1997): *How to market your library service effectively*, in AsLib the Association for Information Management, 2nd Ed. London

Enache, I. (2008): *The Theoretical Fundamentals of Library Marketing*, Philobiblon 8. EBSCO. URL: <http://search.ebscohost.com> (accessed 10 March 2013)

Gradska knjižnica i čitaonica Vinkovci. URL: <http://www.gkvk.hr/> (accessed 20 February 2013)

Ivanović, M. (2002): *Prepoznavanje knjižničnog marketinga*, Vjesnik Bibliotekara Hrvatske, Vol.3/4, No. 45., pp. 105-114

Klaić, B. (1986): *Rječnik stranih riječi*, Nakladni zavod MH, Zagreb

Kobaš, P. (1985): *Marketing u bibliotečno-informacijskoj djelatnosti*, vlastita naklada, Orašje.

Može, S. (1992): *Strategija marketinga i marketinški program narodnih knjižnica*, Vjesnik bibliotekara Hrvatske, Vol. 34, No.35., pp. 51-70

Nicholas, J. (1998): *Marketing and Promotion of Library Services*, Library and Information Services in Astronomy Vol.153, No. 3. URL: <http://www.stsci.edu> (accessed 13 March 2013)

Pitajte knjižničare. URL: <http://www.knjiznica.hr/pitajte-knjiznicare/> (accessed 20 February 2013)

Šegota-Novak, M., Silić, A. (1998): *Budućnost knjižničnoga marketinga ili kako se pripremiti za 3. tisućljeće*, Godišnjak Gradske knjižnice i čitaonice "Metel Ožegović", Varaždin, No.2.

Wymer, W. et al. (2006): *Nonprofit marketing: Marketing Management for charitable and nongovernmental Organizations*, Sage Publication, London (2006): URL: http://books.google.com/books?id=pVM0wK_SbncC&printsec=frontcover&dq=non-profit+marketing&hl=hr&ei=LUpkTpuaOMqW8QPhrfT_Cw&sa=X&oi=book_result&ct=result&resnum=1&ved=0CCgQ6AEwAA#v=onepage&q=non-profit%20marketing&f=false (accessed 15 March 2013)



**Školstvo
i sport**

**Education
and sport**

Darko Dumančić, MPE
City of Osijek
Social Services Department
Head of Sport Sub-department
Franje Kuhača 9
31000 Osijek, Croatia
Phone: +385 31/229-191
Mobile: +385 98/851-900
Fax: +385 31/229-181
e-mail: darko.dumancic@osijek.hr

Željko Širić, M.Sc., MPE
Association of sports organizations
in the City of Osijek
Adama Reisnera 46a
31000 Osijek, Croatia
Phone: +385 31/227-500
Mobile: +385 98/339-399
e-mail: sport.sav.osijek@os.t-com.hr

REFORMING OF THE FOOTBALL CLUB OSIJEK INTO JOINT STOCK SPORTS COMPANY

PREOBLIKOVANJE NOGOMETNOG KLUBA OSIJEK U SPORTSKO DIONIČKO DRUŠTVO

ABSTRACT

Up to 2006 and adoption of the new Sports Act the only organizational form of clubs was sports club-association, whereas now it is possible, and for some clubs, which have gained mandatory legal conditions, also obligatory, to reform into a completely new organizational form of the society of capital – joint stock sports company. Football club Osijek is recorded in the Register of Professional Sports Clubs since 2007. The Committee for Professional Sports Clubs has confirmed that the conditions for insolvency have been met, that is the conditions for mandatory reforming in accordance with the regulations of the Sports Act have been acquired, and based on the aforementioned the reforming of the Club into joint stock sports company has been accessed.

This paper aims to show and analyze the process of the mandatory reforming of the Football club Osijek into joint stock sports company, draw attention to some specificities of the process and give assessment of the condition and possibilities for development in the new organizational form of the Club. The paper shows the foreseen reforming process, afterwards it analyzes differences between the foreseen process and the process that has been carried out.

SWOT analysis has been carried out for the assessment of the conditions and possibilities for the development of Football club Osijek as a joint stock sports company. Through the analysis main components of the model have been identified and showed: strengths, weaknesses, opportunities, that is possibilities and threats.

Based on the analysis of the reforming process and SWOT analysis, business strategy, which will make use of the strengths and minimize the weaknesses and capitalize opportunities and minimize threats in the best way, can be planned and identified. In the context of economic environment of east Croatia the role of the first joint stock sports company in the City of Osijek is being considered and the issue of minimalizing existent weaknesses and at the same time increasing

strengths of the joint stock sports company, that is how to make use of the opportunities in the best way possible, while decreasing objective threats from the surroundings.

Key words: *football club, joint stock sports company, SWOT analysis*

SAŽETAK

Do 2006. i donošenja novog Zakona o sportu jedini ustrojbeni oblik klubova je bio sportski klub-udruga za natjecanje, dok je sada moguće, a za neke sportske klubove za koje su stekli obvezni zakonski uvjeti i obvezno, preoblikovanje u posve novi organizacijski oblik društva kapitala-sportsko dioničko društvo. Nogometni klub Osijek nalazi se u Registru profesionalnih sportskih klubova od 2007. Povjerenstvo za profesionalne sportske klubove, potvrdilo je da su ispunjeni uvjeti za pokretanje stečaja, odnosno da su se stekli uvjeti za obvezno preoblikovanje sukladno odredbama Zakona o sportu, te se temeljem navedenoga pristupilo preoblikovanju Kluba u Sportsko dioničko društvo.

Cilj ovog rada je prikazati i analizirati postupak preoblikovanja NK Osijek iz Udruge u Sportsko dioničko društvo. Ukazati na neke specifičnosti postupka te dati ocjenu stanja i razvojnih mogućnosti za novi ustrojbeni oblik Kluba. U radu je prikazan predviđeni proces preoblikovanja, potom su analizirane razlike predviđenog i realiziranog postupka preoblikovanja.

Za ocjenu stanja i razvojnih mogućnosti NK Osijek kao sportskog dioničkog društva, provedena je SWOT analiza kojom su identificirane i prikazane glavne komponente modela: snage, slabosti, prilike odnosno mogućnosti i prijetnje.

Temeljem analize procesa preoblikovanja i SWOT analize može se planirati i identificirati poslovna strategija kojom će se na najbolji način iskoristiti snage i minimalizirati slabosti te kapitalizirati prilike i minimalizirati prijetnje. U kontekstu gospodarskog okruženja istočne Hrvatske razmatra se uloga prvog sportskog dioničkog društva u gradu Osijeku, te kako minimalizirati postojeće slabosti uz istovremeno povećanje snaga sportskog dioničkog društva, odnosno kako što bolje iskoristiti šanse uz istovremeno smanjenje objektivnih prijetnji iz okruženja.

Ključne riječi: *nogometni klub, sportsko dioničko društvo, SWOT analiza*

1. Introduction

Development of modern sports, in the way they are familiar to us today, began in the late 19th century and in the beginning of the 20th century, when football, grass hockey, tennis, athletics, wrestling, swimming, aviation, automobilism and other sports started spreading from England around Europe⁸⁷. In the same time it was noticed that the modern sport in Croatia has started its development, mostly due to Franjo Bučar⁸⁸.

The process of industrialization had a positive influence on the development of sport in eastern Slavonia; therefore the first football game in this part of the country was played in 1880 in Županja, mainly due to the English workers, that worked in forest exploitation there. Not long after the establishment of the first football club in Croatia (Zagreb, 1903), SK Slavija was founded in 1910 in Osijek. Afterwards numerous clubs in Croatia and Slavonia were established, as well as vocational alliances and first official competitions have started.

From the very beginning football represented extremely significant, not only sports, but also social activity, therefore it was necessary to form the rules of the game and other regulations by which the competitions in national and later in international competitions will be conducted. In the beginning and up to the 1980s the state didn't intervene significantly into autonomy of international and national football organizations, not only in the rules of the sports game and competition

⁸⁷ Jajčević, Z. (2010): 225 godina športa u Hrvatskoj, Streljački savez Osječko-baranjske županije, Osijek. page 59

⁸⁸ Franjo Bučar: Zagreb, 25.11.1886.-Zagreb,26.12.1946.

organization, which was expected, but also in the part that had all elements of social, legal and economic relationships between clubs, players, associations and society as a whole. That relationship was thoroughly changed when football, and all of the sports, became through commercialization extremely significant social and economic phenomenon, in which the state had to legally intervene.⁸⁹

The most significant and far-fetched confirmation of this fact was the court verdict in the Bosman⁹⁰ case, in which the Belgium and then the European court have been authorized for the decision making in the labor dispute between a professional athlete and a football club, that is national and European football association (UEFA), which was by then in the area of exclusive autonomous football right. After Bosman won the trial, football players and other athletes were subjected to the labor law of the European Union, just like all other workers. Through this verdict, among others, football gained the official attribute of economic function, therefore it needed to adjust its regulations according to the law regulations, which govern market relations.⁹¹

In the Republic of Croatia the sports system is regulated by the Sports Act⁹². Sport is marked as a special social value and it is protected by the Constitution of the Republic of Croatia⁹³. Therefore Article 8 states that “the state shall encourage and support care for physical culture and sports”.

2. Sports Act

Sports Act was adopted in July 2006 and it regulates the sports system and activities, professional work in sports, competitions, sport financing, surveillance and other matters of significance for sports. Also the first Article of the Act states that “Sporting activities hereunder are activities of interest for the Republic of Croatia”. Unlike the former Law on Sports⁹⁴, the new Sports Act implements a whole range of changes. Adoption of national sports program and establishment of the national sports council is planned, sports system for children and youth is regulated, conditions for carrying out professional work in sports is appointed, a range of sports facilities is planned, state anti-doping agency is founded and the biggest novelty in the new Sports Act is the implementation of the joint stock sports company as a possible organizational form of sports clubs. Before the implementation of the new Sports Act, only legal form in which a club could compete was sports association founded in accordance with the Law on Associations, which was allowed to form trade associations through which they could carry out economic activities. But the limitations in the disposal of profit for these trade associations were not stimulating, because all of the profit gained had to be “invested” in the sports activity of the club. The new Sports Act enables taking part in the competitions in the form of a joint stock sports company, but also carrying out economic activities and its stock holders can dispose the gained profit in accordance with the Corporations Act and Sports Act.

Joint stock sports company can come into existence by founding a new company or reforming sports clubs-associations for competitions into joint stock sports companies. Reforming of sports clubs-association for competitions into joint stock sports companies can be mandatory or voluntary. In accordance with the regulations football club Osijek has carried out mandatory reforming process.

⁸⁹The significance of sports as a social and economic phenomena is emphasized in the White paper on sports, which sports as the ever growing social and economic phenomena, which contributes to strategic goals of solidarity and prosperity of the European Union, it attracts European citizens to regularly take part in sports activities, it creates important values such as collective spirit, solidarity, tolerance and fair play and it contributes to personal growth and fulfillment. According to the public opinion polls of the Eurobarometer in November 2004 approximately 60% of the European citizens participate regularly in sports activities in or outside approximately 700 000 clubs, which are members of numerous associations and unions.

⁹⁰ Jean -Marc Bosman (1995) ECR I-4921; C-51/96 i C-191/97

⁹¹ More on that, Ivkošić, M. Pravni okvir transfera profesionalnih nogometaša, str .130-146.; Kačer, H. et al. (2009): (Uvod u) športsko pravo, Inženjerski biro d.d., Zagreb

⁹² Sports Act, Narodne novine (71/06, 150/08, 124/10, 124/11 i 86/12), Zagreb

⁹³ Constitution of the Republic of Croatia, Narodne novine (56/90, 135/97, 113/00, 28/01, 76/10.), Zagreb

⁹⁴ Sports Act, Narodne novine br. 111/97., 13/98. i 24/01

3. Mandatory reforming of a sports club-association for competitions into joint stock sports company

Sports club-association has to be reformed into joint stock sports company, if the conditions have been cumulatively met, that is that the club in question is a professional football, basketball or handball sports club and that the registration in the Registry of professional sports clubs has been confirmed. And also that based on the revision arises that the conditions for insolvency proceeding have been met, but it wasn't initiated. After that the minister of sports, with previous approval of the professional sports clubs committee, determines within a month that all of the conditions for the mandatory reforming have been met

3.1. Process of mandatory reforming of a sports club-association for competitions into joint stock sports company

Process of reforming begins with the composition of an elaborate, which has to contain the review of the insolvency auditor about the possessions status, rights and obligations of a sports club-association for competition, list and evaluation of possessions and the list of all claims towards the sports club-association for competition, stated according to the types of creditors and their height. Affirmation of the auditor about the value of claims toward the sports club-association for competition, affirmation of the auditor about the value of the usage rights of a sports facility, which can be an investment into basic capital of the joint stock sports company, overview of business activities of the club-association for competition from the last five years, with shown revenues and expenditures of the sports club-association for competition in that period of time and calculation of profit and loss of the sports club-association for competition in that period of time. List of members of the sports club-association for competition, list of authority members of the sports club-association for competition, description of authority and mutual relationship between authority members of the sports club-association for competition, sports results of the sports club-association for competition from the last five competition seasons at least, number of members of the national team in all of the categories, contractual values of competitor athletes with whom the sports club-association for competition has a contract and the number of young athletes according to categories. Elaborate has to contain a list of potential stock holders of the joint stock sports company, among which the creditors of the sports club-association for competitions are specially emphasized, based on their declaration in response to a written avocation, which has to be sent by the sports club-association for competition to express their interest to reform their claims into investment in the joint stock sports company. Then an evaluation of necessary additional resources for performing the functions of the joint stock sports company, evaluation of value of the right to play in a sports facility, which was determined by the authorized auditor and the statement of the local authority, which possesses the afore mentioned sports facility, about the deadline by which the sports club-association for competition would have the right to play. Also necessary are the amount proposition of the basic capital of the joint stock sports company, statute draft of the joint stock sports company, which has to contain a regulation that within two month of the registration of the joint stock sports company in particular registers, the joint stock sports company will adopt a decision on an increase of basic capital in order to reform the creditors' claims toward the joint stock sports company into investments.

Sports club-association for competition has to address all of the creditors-potential stock holders personally and ask them to respond in written form whether they are interested into reforming their claims into investments in the joint stock sports company. Creditors that don't want to reform their claims into investments in the joint stock sports company remain creditors of the joint stock sports company. The committee is obligated to give their consent for the elaborate and to determine the initial amount of the basic capital. The initial amount of the basic capital is determined in a way that it represents at least 25% of the average annual expenditures of the sport club-association in the last

five years. When calculating the average annual expenditure in the five years, the year in which the expenditure was the smallest and the year in which the expenditure was the highest are not included in the calculation.

After it gets the approval regarding the elaborate and determined basic capital of the joint stock sports company, the sports club is obligated to send out a registration and share payment invitation. Registration and share payment invitation is sent out in four cycles. In the first cycle the invitation is sent to the local authority in which the center of the sports club-association for competition is located. If the shares haven't been registered and paid during the first cycle, the rest of the shares can be paid by the members of the sports club-association for competition. If during the second cycle all of the shares still haven't been registered and paid, the rest of unregistered shares can be paid by the members of the sports club-association for competition, which have already registered and paid shares in the second cycle proportionally to their payment in the second cycle. The rest of the unregistered shares are offered in the public invitation for registration and share payment, and in this cycle members of the sports club-association for competition, which already registered and paid shares in the last two cycles, can also take part, as well as those that didn't take part in any of the cycles. If all of the shares haven't been registered and paid after the fourth cycle, the committee can allow the issue an invitation for registration and share payment in fifth cycle if all of the creditors of the sports club-association for competition. If all of the shares haven't been registered and paid even after the fifth cycle it is considered that the reforming of the sports club-association for competition did not succeed.

The authority of the sports club-association for competition is obligated, after the finished procedure of registration and share payment, to issue a decision on termination of the association and joint stock sports company is legal successor of the sports club-association for competition, which was reformed.

If the sports club-association for competition doesn't carry out the reforming process into joint stock sports company or if the reforming didn't succeed, the ministry, upon the proposition of the committee, by official duty, issues a requirement to initiate an insolvency proceeding and the sports club-association for competition suffers the consequences in accordance with the rules of national sports association.⁹⁵

4. Overview of the reforming process of football club Osijek into joint stock sports company.

Resolution on the entry of football club Osijek in the Registry of professional sports clubs was issued by the Ministry of science, education and sports on March 22nd, 2007, by which the football club Osijek fulfills the requirements for the entry in the Registry, that is the club has more than 50% of senior drive players with professional football playing contract at the time the Registry of professional sports club came into force.

After issuing the resolution on the entry in the Registry, football club Osijek required the approval of the auditor selection committee. Dr.sc. Slavko Majić was appointed as the authorized auditor.

After the report of the auditor and previous approval of the professional sports clubs committee, the Ministry of science, education and sports issued on November 5th, 2008 a decision on fulfillment of the requirement for mandatory reforming of the football club Osijek from association into joint stock sports company.

In the process of making the elaborate, as one of the key actions, interviews with the creditors of the club have been carried out. Most of the creditors responded in written form about their intention to reform their claims into basic capital for the future joint stock sports company. The Republic of Croatia acted in the same way; it transferred its claims on the local authority, the City of Osijek.

⁹⁵ More on that: Ivkošić, M./Ceronja, P., Pravni modeli provođenja postupka obveznog preoblikovanja športskog kluba - udruge u športsko dioničko društvo, Zbornik PfZ, br. 59(1), 2009, str. 125-150.

The reforming process itself cannot be carried out with active participation of the local authority in which the center of the club which is being reformed is located. City council of the City of Osijek, after the preposition of the Major, taking its social responsibility into account and protecting the interests of the city capital and also the social significance of the football club Osijek, has issued a decision that the City of Osijek will be included in the reforming process as follows:⁹⁶

1. By giving the rights to football club Osijek to play on, that is to use, the sports facility Stadium Gradski vrt during a period of 25 years with estimated value on playing (usage) rights on 131,162.50 kn per month, that is 1,573,950.00 kn annually. Estimated value of playing (usage) in the amount of 39,348,750.00 the City of Osijek will reform into its investment in the basic capital of the joint stock sports company.

Mutual right and obligations between the City of Osijek and football club Osijek regarding giving the right to play, as well as right and obligations regarding the usage of the stadium Gradski vrt will be regulated by a special Contract, which will be concluded after the mandatory reforming process of the football club is finished.

2. By reforming accrued, unpaid debt of the football club Osijek towards the City of Osijek in the amount of 7,212,887.42 **kn (with interest)** determined on December 31st 2011 into an investment into basic capital of the joint stock sports company.

3. By taking over, without charge, a debt of the football club Osijek toward the Republic of Croatia in the amount of **15,492,443.72 kn (with interest)**⁹⁷ determined on December 31st, 2011 and reforming the afore mentioned amount into its investment into basic capital of the joint stock sports company.

Basic capital of the club is estimated on the amount of 5,931,500.00. Nominal value of a stock is 100 kn and in total 59 315 stocks have been issued. By using the legal right the City of Osijek has paid 10 000 stocks in the first cycle as the only subscriber. In the following three cycles the members of the club and other physical and legal entities have paid in total 193 stocks. After the committee has approved the fifth cycle, the remaining 49 122 stocks have been assorted among the creditors of the club, based on the interest that was shown, and in that way all of the basic capital has been paid.

In the basic capital the City of Osijek participates with the amount of 5,332,000.00 kn. The rest are companies, that have reformed their claims towards football club Osijek into stocks and 94 small shareholders have bought stocks in the amount of 19,300 kn.

The founding assembly of the football club Osijek joint stock sports company has been held on March 28th, 2013 in the Croatian National Theatre in Osijek. Supervisory board has been chosen unanimously: Zvezdana Tuma Pavlov, Darko Dumančić, Ljubomir Novoselić. Ivan Jakobljević, Karlo Šatvar, Tomislav Maltešić and Dubravko Ižaković. In the first session of the supervisory board Zvezdana Tuma Pavlov was chosen for the president of the supervisory board and Darko Dumančić was appointed her deputy. In the same session former president of the football club Osijek Zdravko Josić was appointed president of the company.

After the legal deadline of sixty days, which is underway and during which the rest of the creditors' claims will be transformed into investment in the joint stock sports company through the process of enlarging the basic capital, the reforming process will be conclude. After that a new session of the company will take place and during this session the bodies of authority in the company will be appointed, in accordance with the new partnership portions.

⁹⁶ Odluka o sudjelovanju Grada Osijeka u postupku preoblikovanja Nogometnog kluba Osijek u športsko dioničko društvo, Gradsko vijeće grada Osijeka, 18.travnja 2013.; Klasa: 620-08/12-01/22; Urbroj: 2158/01-01-12-9

⁹⁷ April 16th, 2013, the exact amount of debt 7,697,480.71 kn has been determined.

5. SWOT analysis

One of the simplest and most expanded methods for surroundings analysis is the so called SWOT analysis. It is actually an abbreviation form the English words: strengths, weaknesses, opportunities and threats. The surroundings analysis represents a research on all important characteristics of the inner and outer surrounding to identify factor, which will determine the future of the examined subject. The final goal of the analysis is to identify opportunities, which cannot be used at the present moment because of various reasons.

5.1. Elements of the analysis

Elements of the SWOT analysis are called strategic factors. Outer surrounding is compiled of opportunities and threats which are outside of the examined subject and the management usually has no direct influence on them. In the inner surrounding we can find strengths and weaknesses which the subject can influence and adjust to the outer factors.

There is no formal list of the elements that are evaluated in the analysis and this is the whole meaning of the procedure: identifying key factors from the surroundings that influence the subject.

SWOT analysis shows us where we are at the present moment and which steps we have to undertake to seize all of the opportunities. Going through the process of the SWOT analysis we answer these questions:

- what is our organization doing right, what has to be improved (strength and opportunities)
- which are the areas that give our organization opportunities and how to preserve them (strength and threats)
- which part our organization has to change to fight the outer factors (weaknesses and threats)
- what are the goals of the organization (weaknesses and opportunities)

5.2. SWOT analysis of the football club Osijek joint stock sports company

Strengths

- football school (coaches, players, organization)
- tradition
- brand
- continuous appearance in the 1st Croatian football league

Weaknesses

- economic surrounding
- lack of stable and sufficient financing source
- weak opportunities for spreading the fan base in the region (name of the club around the city)
- unstable steering structure
- frequent coach changes
- outdated stadium

Opportunities

- widespread player base
- development and popularity of football

- realistic possibility of achieving satisfying sports result
- player transfer profit
- reforming
- membership of the Republic of Croatia in the EU
- excellent location of the stadium
- City of Osijek as the regional center

Threats

- possibility of insolvency
- strict implementation of the UEFA rules about financial fair play and the rules on licensing
- too large duty for the majority owner (the City)
- legal changes in financing professional sports clubs

5.3. Commentary

It cannot be argued that the most significant value of the football club Osijek joint stock sports company is its football school, which was founded, in the form as it exists today, in 1982. It has produced numerous members of the national team and world known players, among which the most famous one is definitely Davor Šuker, the best goal scorer of the World Cup in France 1998. Today ten coaches work in the school and they take care of around 300 selected football players that compete in five categories and ten teams.⁹⁸ When we talk about the strengths it is important to emphasize the tradition of the Club and its continuous appearance in the Croatian football league from its beginning until today.⁹⁹ Football club Osijek joint stock sports company shares the same destiny as most of the football clubs in Croatia, therefore the weaknesses are similar to those that can be found in other clubs. Unlike some other clubs, this Club, although it is located in the city which is a regional center, has a fans and members mostly from the city and its suburban areas. That situation can hardly be altered, because, when it comes to football, there are other centers in eastern Croatia (Vinkovci, Vukovar, Slavonski Brod), which also have local fans, whereas the rest of the people give their attention to the national clubs GNK Dinamo and HNK Hajduk. In the case of the football club Osijek the opportunities haven't been exploited enough, which also has to change by the establishment of the joint stock sports company and entry of Croatia in the European Union. Firstly the investment cycle of the stadium construction using the European Union funds has to be initiated, which will enable positive changes in the number of spectators during games, sponsors' interest and thus raising the quality of the players, that will achieve significantly higher price in football transfers. New stadium as the regional sports-cultural center should become also a venue for concerts and other big sports and similar manifestations.

Unless the process of positive changes is initiated in time, weaknesses and threats can prevail, among which the biggest is definitely financial instability, which in the case of an account blockage of the company would inevitably lead to insolvency, because due to the reforming of the association into joint stock sports company all of the regulations, which regulate the business of companies, are adequately applied.

6. Conclusion

Until the present moment the reforming process from a sports association for competition into joint stock sports company has been implemented by football clubs HNK Hajduk (Split), HNK Cibalia (Vinkovci), NK Istra 1961 (Pula), HNK Rijeka (Rijeka) and NK Osijek (Osijek), whereas the reforming of the football club HNK Šibenik (Šibenik) is in process. All of the afore mentioned

⁹⁸ Source: data recorded in the football club Osijek

⁹⁹ First Croatian football league was founded in 1992. First championship was held during war. Football club Osijek won 3rd place among 12 other clubs.

clubs have undergone mandatory reforming process. The first club that succeeded in the process is HNK Hajduk, which finished it in 2008 and it was recorded in the Commercial court registry in Split on December 23rd, 2008 as the first joint stock sports company in the Republic of Croatia. Common to all of the clubs is the fact that due to the reforming insolvency has been avoided, that is the club and its competitive status in the 1st Croatian football league has been preserved. All of the clubs have been supported by the state and local authority, which transformed their claims into basic capital of the club, enabled stadium usage and took over the control over the football clubs. Interest of the local community by all means enabled basic conditions for the activity of professional football clubs in their regions, as the main actuators of sports as a whole and economy in the city and region. However there is a realistic risk that the large and expensive professional machinery, with ongoing and investment upkeep of the stadiums which are owned by the cities, will become a big burden on the insufficient budgets of local communities. Furthermore the city as the main owner by appointing the authority takes on immediate responsibility in managing the club and protecting the capital of the investors in the joint stock sports company. In this way the city became an owner of another company, which represents an exception, because it's not a communal activity, which is the main role of each local authority. By not degrading the public interest that the football club Osijek joint stock sports company and other professional football clubs have and by taking into account all other priorities, it should not be expected that the cities will direct its financial and personnel potentials on functioning of football clubs. This represents a realistic threat in future functioning of the football club Osijek joint stock sports company, especially if we take into account the realistic economic surrounding and the system for financing sports on the state level, which doesn't provide almost any funds for sports in the local community.

After the entry in the Commercial court registry in Osijek Football club Osijek joint stock sports company will be able to do business normally, after many years of account blockage. We can expect that at least in the first year the funds needed for functioning of the Company on all levels will be provided. It is necessary to use this time to find investors, which will recognize the potentials of the football club Osijek joint stock sports company, as well as their business interest. We can see that this is realistic on the example of HNK Rijeka joint stock sports company and NK Istra 1961 joint stock sports company, in which after the reforming significant parts are owned by the foreign capital.

It is up to the new management and the owner to make use of the possibilities that are also given through the acceptance of the Republic of Croatia in the European Union, by using the European funds to build the need stadium infrastructure, which would be, next to the already existent advantages, one of the main requirements for the improvement and survival of the football club Osijek joint stock sports company as the most significant regional sports collective.

REFERENCES

Jajčević, Z. (2010): *225 godina športa u Hrvatskoj*, Streljački savez Osječko-baranjske županije, Osijek

Commission of the European Communities (2007): *White Paper: White Paper on Sports*, Brussels

Kačer, H. et al. (2009): *(Uvod u) športsko pravo*, Inženjerski biro d.d., Zagreb

Republic of Croatia. Ministry of Science, Education and Sports. (2007): *Sports Act*, Narodne novine (71/06, 150/08, 124/10, 124/11 i 86/12), Zagreb

The Committee on the Constitution, Standing Orders and Political System of the Croatian Parliament (2010): *Constitution of the Republic of Croatia*, Narodne novine (56/90, 135/97, 113/00, 28/01, 76/10.), Zagreb

Ivkošić, M./Ceronja, P., Pravni modeli provođenja postupka obveznog preoblikovanja športskog kluba - udruge u športsko dioničko društvo, Zbornik Pravnog fakulteta u Zagrebu, br. 59(1), 2009, str. 125-150.

Zuber, M. et al. (2007): *Novi zakon o športu i aktualna praksa iz područja športa i športskih djelatnosti*, Inženjerski biro d.d., Zagreb

Gradsko vijeće grada Osijeka, *Odluka o sudjelovanju Grada Osijeka u postupku preoblikovanja Nogometnog kluba Osijek u športsko dioničko društvo*, Klasa: 620-08/12-01/22; Urbroj: 2158/01-01-12-9, 18.travnja 2013., Osijek

NK Osijek, *Javni poziv za upis i uplatu dionica NK Osijek s.d.d. Osijek (Prospekt)*, 02.rujna 2012., Osijek

Saša Gravorac, teaching assistant

University of Novi Sad, Faculty of Economics in Subotica
Postal Address: Segedinski put 9 – 11, 24000 Subotica, Serbia
Phone: + 381 24 628 024 Fax: + 381 24 546 486
E-mail address: sasa.gravorac@ef.uns.ac.rs

Aleksandar Kovač, teaching assistant

University of Novi Sad, Faculty of Economics in Subotica
Postal Address: Segedinski put 9 – 11, 24000 Subotica, Serbia
Phone: + 381 24 628 024 Fax: + 381 24 546 486
E-mail address: aleksandar.kovac@ef.uns.ac.rs

**VOCATIONAL EDUCATION REFORM IN THE AUTONOMOUS
PROVINCE OF VOJVODINA - FINANCIAL ASPECTS****REFORMA SREDNJEG STRUČNOG OBRAZOVANJA U AUTONOMNOJ
POKRAJINI VOJVODINI – FINANCIJSKI ASPEKTI****ABSTRACT**

Secondary vocational education in the Autonomous Province of Vojvodina has undergone significant changes in the last twelve years. First of all, the reform which started led to significant changes in the basic outline of the vocational education. Traditional educational profiles are being cancelled, and new, so called experimental educational profiles, are being introduced, primarily being aimed at training students for the labour market, or for performing specific tasks that are being placed before them in business practice. The main purpose of the reform is adapting the education system to the labour market demands, i.e. making the education system support the economy. Successful implementation and completion of this reform is conditioned by the amount of funds directed toward this purpose. This paper will consider the financial aspects of the vocational education reform, a comparative analysis of the funds spent and the effects of the vocational education reform will be carried out. We will give a detailed analysis of the major financial problems encountered in the vocational education reform, the ways of solving them and the possibility of providing additional funding. One segment of the paper will be devoted to funding per student, as a new form of financing the education system of the Autonomous Province of Vojvodina.

Keywords: reform of the secondary vocational education, financial aspects of the vocational education reform, funding per student

SAŽETAK

Srednje stručno obrazovanje na teritoriji Autonomne Pokrajine Vojvodine u posljednjih dvanaest godina doživjelo je značajne promjene. Prije svega, reforma koja je započela dovela je do značajnih promjena osnovnih obrisa srednjeg stručnog obrazovanja. Tradicionalni obrazovni profili se ukidaju, a uvode se novi, tzv. ogledni obrazovni profili koji su prije svega usmjereni ka osposobljavanju učenika za tržište rada, odnosno za obavljanje konkretnih zadataka koji se pred njih postavljaju u poslovnoj praksi. Osnovna namjera reforme je adaptacija obrazovnog sistema zahtjevima tržišta rada, tj. stavljanje obrazovnog sistema u funkciju gospodarstva. Uspješno sprovođenje i okončanje ove reforme je uslovljeno količinom financijskih sredstava usmjerenih k ovoj namjeni. U okviru ovog rada će se upravo razmatrati financijski aspekti reforme srednjeg

stručnog obrazovanja, napraviti se uporedna analiza utrošenih finansijskih sredstava i efekata postignutih reformom srednjeg stručnog obrazovanja. Kroz rad će se dati detaljna analiza osnovnih finansijskih problema uočenih u procesu reforme srednjeg stručnog obrazovanja, načini njihovog otklanjanja i mogućnosti osiguranja dodatnih izvora financiranja. Jedan segment rada će biti posvećen modelu financiranja po učeniku, kao novom modalitetu financiranja obrazovnog sistema Autonomne Pokrajine Vojvodine.

Ključne riječi: *reforma srednjeg stručnog obrazovanja, finansijski aspekti reforme srednjeg stručnog obrazovanja, financiranje po učeniku*

1. Introduction

Secondary vocational education features as a noteworthy segment of the overall educational system of the Republic of Serbia. Modern-day market trends, characterised by extremely dynamic movements and turbulence require a flexible educational system. Flexibility of an educational system implies that it should produce human resources in accordance with the labour market demands at any moment. This also implies constant reforms of educational profiles, additional training of the teaching staff, keeping track of changes on the market, and conducting the educational process adjusted to the needs of economy, that is, producing human resources required by economy in a given economic milieu.

Creating such an educational process is a time-consuming and complex process, accompanied by a multitude of challenges. Opting for market-oriented economy, Serbia, including Vojvodina, has faced numerous challenges as regards reforms to be completed, particularly in the education sector. Inappropriate network of education institutions, outdated curricula incompatible with contemporary trends, teaching staff lacking knowledge required for a modern concept of teaching, and a chronic lack of funds are only some of the problems facing the Ministry of Education when initiating this, by all means necessary reform.

The educational system of Serbia, including the Province of Vojvodina was, first of all strictly bureaucratized. As building any educational system is tainted by ideological elements, so was the educational system built in Serbia and Vojvodina adapted to the Socialist system that had existed in this region for about fifty years. Transition to market-oriented economy did not entail its automatic change; on the contrary, all efforts were channelled into preserving the existing state of affairs, without more serious reforming endeavour. Until the turn of the millennium, the educational system had been creating human resources disregarding the requirements of the contemporary labour market. Human resources that were produced were unnecessary on the labour market, whereas on the other hand, people whose professional profiles were lacking on the market were educated at a negligible rate. The educational system existed as an isolated system, completely oblivious of the current market trends, persistently resisting any attempt at reform. However, opting for market-focussed economy and entering the transition process faced the educational system with its own shortcomings and imposed the need for its reform, which will inevitably encompass all the segments of society. The objective of this research stems from the aforementioned, which is to point to the importance and role of secondary vocational education on the territory of the Republic of Serbia and the Autonomous Province of Vojvodina, its key features, and key guidelines in the reform of secondary vocational education with the ultimate goal of future economic development.

2. The reform of secondary vocational education in the Republic of Serbia – the roadmap to the future

Having opted for market-focussed economy and capitalist system, the Republic of Serbia had to undergo a whole range of structural reforms, where the reform of secondary vocational education

took one of the prominent places. The educational system that had existed until the reform was characterised by sluggishness and inflexibility in responding to changes in the environment. The result of such educational system are workers trained in skills redundant on the labour market, that is, in low demand. The then educational system educated human resources without any coordination with economy and labour market; it was, simply, an isolated system functioning as if no changes had happened in the society, and that the social circumstances were unchanged in relation to the time when its foundations were set.

The development of contemporary technology, change in the market structure and the economy's orientation to tertiary and quaternary sector imposed a need for professionals of different profiles, while the educational system kept producing human resources for industry and "old" trades and crafts, where the demand kept decreasing. The then educational system is characterised by an extremely small percentage of practical activities performed by students. The students were virtually dominantly oriented to amassing theoretical, practically useless knowledge, with quite unfavourable structure of general and specialised subjects, in terms of equal participation, or even participation of general subject dominating in some segments.

Textbooks designed for secondary school students were outdated; their contents did not follow the changes occurring in the modern society, so that, in some cases, students learned extremely obsolete contents that were completely out of date. A special problem was the head count. Classes of 30 or more students were more a usual practice than an exception. In such numerous classes, the quality of the educational process was quite compromised. The equipment at schools was at extremely low level, especially in the case of information technology. The teaching staff lacked continuous training and education, which resulted in outdated teaching methods, monotonous and uninteresting lessons. This resulted in students' unwillingness and disinterest in content, and resistance to acquiring new knowledge.

Diagnosing all the anomalies of the existing educational system meant the beginning of the reform, primarily of secondary vocational education, as the foundation of economic development in any country. The reform of secondary vocational education included a schedule for carrying out a set of stages, resulting in a reformed educational system. Any reform requires copious funds, so that 20 million euros have been invested in the reform of the secondary vocational education, owing to the financial support from the Community Assistance for Reconstruction, Development and Stabilisation (CARDS) allocated for the Program of reforming secondary vocational education.

The first three stages of the reform of secondary vocational education have been completed from 2006 until today. The results accomplished by this reform are impressive, including [www.mpn.gov.rs/sajt/page.php?page=129, April 10, 2013]:

- a. the Strategy of Development of Secondary Education has been adopted and its implementation commenced;
- b. numerous old curricula have been modified and changed, and new, experimental educational profiles have been introduced;
- c. over 2500 teachers have undergone various seminars, training courses and study trips;
- d. over 150 secondary schools received over 3500 modern computers, with additional equipment;
- e. major construction projects have been completed, numerous secondary schools have been reconstructed, innovative activities of students have been encouraged; and
- f. schools that started introducing experimental education profiles have been equipped with specialised classrooms for conducting the practical educational work (e.g. virtual enterprises, virtual banks, etc.).

Completing the above described three phases of the reform of secondary vocational education was followed by the new, fourth phase in 2009 – “Modernisation of the Secondary Education and Training System”. The essence of this, fourth phase of the reform of secondary education will be concentrated on the development of the National Council for Vocational Education, building a more solid cooperation between secondary education and numerous relevant ministries and other relevant institutions, building a national qualification framework and converting the experimental educational profiles into regular profiles. A significant segment of completing this fourth stage of the reform of secondary vocational education will also include improvement of the funding system.

The process of modernising secondary vocational education in the Republic of Serbia is based on several basic principles (The Draft Concept of Secondary Vocational Education, 2004, 10-12):

- (1) partnership – stemming from education itself as a partner activity, and cooperation with various level of community: local, regional and national administration, school management methods etc.;
- (2) decentralisation – should secure decentralised management of the entire education system, and each school individually;
- (3) availability – secondary vocational education should be available to all regardless of gender, race, religious denomination or ethnic background;
- (4) openness – secondary vocational education is an open system enabling distribution of knowledge, skills, abilities, and numerous working competencies;
- (5) programme diversity – programmes of diverse types are conducted within secondary vocational education;
- (6) organisational diversity – school is the fundamental, but not the sole form of institution for acquiring vocational education;
- (7) professionalization of teachers’ and associates’ work – continuity of training and further education of teachers and associates; and
- (8) focus on the outcome – clear definition of what students should know, and the knowledge acquisition method.

The fundamental purpose of the reform of secondary vocational education is connecting educational institutions with the sector of economy, i.e. creating human resources that will fully meet the needs of the modern labour market. This implies close cooperation of educational institutions, government bodies and organisations, employers and trade unions with a single clear goal: to create human resources who will find employment in a very short period of time. This goal has partly been attained by creating and introducing experimental educational profiles. This is best demonstrated by the latest data, according to which about 80% secondary school graduates in agriculture and engineering found employment in the first three months after finishing school. In addition, students are much more interested in the teaching process and have mastered numerous practical skills, as witnesses by numerous members of the business community who served as members of examining boards. Secondary vocational education should respond to the changing conditions on the labour market by taking several measures (The Draft Concept of Secondary Vocational Education, 2004, 13):

- (1) developing programmes and standards that should reflect changes on the labour market and create human resources that will be able to respond to these changes;
- (2) creating a broad range of professions and developing key skills;
- (3) building partnerships with local employers, social partners and other numerous stakeholders.

Within the secondary vocational education, the purpose of educational programmes lasting up to two years is mostly to fulfil the current needs of the labour market, whereas three-year and four-year programmes produce future university students. Nonetheless, secondary school graduates who

pass the vocational graduation exam are directly employable on the labour market, whereas graduates who obtain general certificates of graduation (notably graduates from grammar schools) are directly oriented to higher education institutions. If they want to continue education at universities, graduates of secondary vocational schools must also pass the general graduation.

The following stage of the reform of secondary vocational education will be primarily focussed on resolving numerous problems observed in the domain of funding the secondary vocational education. In effect, numerous additional sources must be found for resolving the problem of funding the institutions of secondary vocational education in the forthcoming period, and raise the efficiency level of functioning of the secondary vocational school network.

Opting for the reform of the secondary vocational education, the Republic of Serbia has tackled a highly complex social process. On the one hand, conducting this process required substantial funds, which were partly provided from the national sources, but a much more significant source of finance were the European Union funds. Owing to the support of European countries, the Republic of Serbia was able to initiate and complete its reform. The effects of this reform are interpreted variously, depending on the viewpoint. Introducing experimental classes into the educational system created conditions for establishing a connection between the educational system and economy. The concept of these educational profiles is oriented to a dominant share of vocational courses in relation to general education courses – some 60% in favour of the former.

In the opinion of the authors of this article, it is desirable for students to implement the theoretically acquired knowledge through lessons of tutorials and practical training, so as to become qualified for practical application of acquired knowledge after the completion of secondary schools, through performing specific jobs they were trained for. A current problem is that generating the curriculum was not accompanied by creating appropriate textbooks that should facilitate the implementation of the educational process, so that the teachers were left to their own resources in order to teach the programmed contents. The official textbooks used for working in classical classes do not fully cover the curriculum of the experimental educational profiles.

A large number of teachers hired to teach courses within experimental educational profiles did not pass the pedagogical training required for the teaching process within these educational profiles, such as teaching actively oriented lessons, testing methods, teaching methods and conducting the student training activities. Having attended mostly classical ex cathedra lessons at primary schools, the students were strikingly unused to this approach to work. Some of the teachers teach courses in a classical manner and administer modern tests, which is by no means recommendable. The teaching and testing methods must be harmonised, that is, the students must be examined the way they were taught. These growing pains and teething problems are likely to be overcome as the reform progresses.

3. The reform of secondary education in Serbia – the financial aspect

Observing the development tendencies in secondary school education in the Republic of Serbia over the past few decades, we can note that secondary education has shared the fate of the overall social development in this period, manifested in the continuous devastation of secondary education and destroying its human, material and development potential. All of this imposes a need for an urgent reform of the secondary education, in order to preserve the remainder of resources and potentials existing in the educational system of the Republic of Serbia. If we add to this the fact that the outcomes and effects of the existing educational systems are more than devastating, with several decades of lacking behind the developed countries in the world and advanced educational systems, some measures needed to be taken towards enhancing the quality of the overall educational system,

including secondary school, so as to secure human resources and experts able to follow the development trends in the Republic of Serbia.

The total expenditure on education in Serbia takes up an average of 4.5% GDP or 11% consolidated public expenditure. The Serbian education sector employs about 130 thousand people, accounting for about 6.5% of the total formally employed workforce. If we compare these data with the EU countries, we will notice that expenditure in the EU vary across a broad range of 4% to 8% of the GDP, whereas expenditure in transition countries is equal to the level of expenditure in Serbia and Vojvodina.

According to some calculations, expenditure per student in Serbia in 2008 amounts to about 1400 euros per annum, while according to some other calculations the same expenditure amounts as much as 2250 euros.

According to current legislation, Serbia, including Vojvodina, uses class-based financing models, characterised by (Kabok, 2011):

Table 1 Overview of characteristics and quantification of class-based financing model in elementary and secondary education

CLASS-BASED FINANCING MODEL	
model characteristics	quantifications (parameters)
formula	number of enrolled students per class
supports smaller schools	weekly teacher workload
curriculum related	number of auxiliary staff per number of classes
higher budget costs	criteria for operating costs
centralised financing system	
imbalances in the school system	
supports the specifics of Vojvodina	

The current financing model in Serbia and Vojvodina, based on the number of classes, demands significant budget expenditure and centralised financing system, often resulting in imbalances in the school network. According to this model, the maximum number of students per class is 25 in elementary, and 30 in secondary schools. Teachers teach 20 lessons a week, whereas teachers of mother tongue, foreign language and mathematics teach eighteen.

Considering the difficult economic situation, fall in the number of students on the territory of Serbia and the shortcomings of the existing model, Serbia has decided to apply student-based financing model as of 2014/15. The basic features of the model are (Kabok, 2011):

Table 2 Overview of characteristics and quantification of new financing model in elementary and secondary education

STUDENT-BASED FINANCING MODEL	
model characteristics	quantifications (parameters)
formula	number of enrolled students per class
supports smaller schools	weekly teacher workload
curriculum related	number of auxiliary staff per number of classes
higher budget costs	criteria for operating costs
centralised financing system	
imbalances in the school system	
supports the specifics of Vojvodina	

The given model supports competition among schools in attracting students, resulting in the increase in quality of the total educational process. It demands less budget funding and decentralises the financing system. Any uneconomical behaviour in the system, i.e. schools' operation, results in closure. According to this financing model, costs are a planned category and are related to teaching process costs including employees' wages on the one hand, whereas on the other they include overalls, including heating, auxiliary staff and costs of zonal school.

In addition to enhancing the financing model of the educational system in Serbia and Vojvodina, other measures should also be taken in order to raise the cost-effectiveness of the educational system, especially secondary education, such as enhancing the teaching staff's qualifications, improving the teaching facilities and equipment, increasing the flexibility of curricula and adapting them to the demands of the economy and the labour market, and the unified system of testing at the national level, so that the students' knowledge can be equally assessed.

It is essential for these measures to be implemented with a plan and long-term orientation, as education is one of the most significant spheres in any society, demanding constant attention and continued improvement. Investing in development creates prerequisites for high-quality and solid social and economic development, and overall progress of the entire country.

4. Conclusion

In addition to advantages in terms of developing similarity with contemporary educational trends, the current process of reform of the secondary vocational education has shown numerous shortcomings elaborated earlier. Solutions to these shortcomings should therefore be sought in the forthcoming period. If the success of these reforms is to be maximised, its effects must be monitored, and all the observed shortcomings should be removed continuously. When implementing these reforms, experiences of other countries with high-quality educational system should be studied, and the positive elements observed there should be incorporated in our educational system.

Further implementation of reforms in the forthcoming period should pay more attention to the opinion to practitioners, that is, teachers and associates teaching in educational institutions. Major attention should be devoted to improving the financial situation of educators, as only financially secure teachers will be able to endure the full burden of reforms. Equipping school facilities with contemporary educational tools is another vital prerequisite for a successful implementation of the reform.

Studying the Draft Education Development Strategy in the Republic of Serbia until 2020, positive tendencies are observable in the domain concerning secondary education. This especially relates to establishing correlation between the business community and education, so as to provide for schooling human resources required by economy. What this Strategy adopts is recognition of both formal and informal knowledge, which is positive, as it encourages attending various training courses, thus enhancing students' competencies, and encouraging the lifelong learning process. Finally, the Draft Education Development Strategy in the Republic of Serbia until 2020 includes another element that must be thoroughly pursued – harmonising the national qualification system with the European system, so as to provide coordination with the qualification system of the European Union. The Draft Strategy also contains introducing compulsory secondary education system, which, in the opinion of the authors of this text, is not a bad concept, provided that it does not cause a negative impact, that is, that anyone who enrolls in a secondary school must graduate, regardless of the quality of acquired knowledge.

REFERENCES

Draft Education Development Strategy in the Republic of Serbia (2004). Ministry of Education and Sport of the Republic of Serbia.

Grandić, R. (2001). *Osnovi pedagogije – priručnik*. Novi Sad. The author's own edition

Kabok, J. (2011) *Finansiranje po učeniku: novi model finansiranja osnovnog i srednjeg obrazovanja u Republici Srbiji*. Collection of papers from the Conference on Contemporary trends in the European Economy, Novi Sad, October, 2011

Kovač Cerović T., Grahovac, V., Stanković, D., Vuković, N., Ignjatović, S., Šćepanović, D., Nikolić, G., Toma, S., Knežević, G. (2004) *Kvalitetno obrazovanje za sve – izazovi reorme obrazovanja u Srbiji*. Belgrade: Ministry of Education and Sport of the Republic of Serbia.

Marković, D.; Ilić, B., Ristić, Ž. (2010). *Ekonomija znanja – top menadžment i liderstvo znanja* Belgrade: Etno stil, 2010

Rakić, Lj. (2011). *Consolidating Financial Reports of Educational Institutions in the Republic of Serbia (unpublished doctoral dissertation)*. Subotica: Faculty of Economics

<http://www.mpn.gov.rs/prosveta/page.php?page=101> retrieved April 10, 2013.

www.cep.edu.rs/sistem-obrazovanja-u-srbiji/sistem-obrazovanja-u-celini > retrieved April 10, 2013.

www.mpn.gov.rs; retrieved April 6, 2013.

www.mpn.gov.rs/sajt/page.php?page=129 retrieved April 10, 2013.

www.pdis.org.rs > retrieved April 21, 2013

<http://www.mpn.gov.rs/prosveta/page.php?page=79> retrieved April 7, 2013.

Doc. dr. sc. Irena Ištoka Otković, dipl.ing.grad.

Josip Juraj Strossmayer University of Osijek, Faculty of Civil Engineering

Postal Address: Drinska 16a, 31000 Osijek, Croatia

Phone: +385 31 274 377 Fax: +385 31 274 444

E-mail address: iirena@gfos.hr

Nataša Bošnjak, M. Arch.

Josip Juraj Strossmayer University of Osijek, Faculty of Civil Engineering

Postal Address: Drinska 16a, 31000 Osijek, Croatia

Phone: +385 31 274 377 Fax: +385 31 274 444

E-mail address: nbosnjak@gfos.hr

Ivana Brkanić, M. Arch.

Josip Juraj Strossmayer University of Osijek, Faculty of Civil Engineering

Postal Address: Drinska 16a, 31000 Osijek, Croatia

Phone: +385 31 274 377 Fax: +385 31 274 444

E-mail address: ibrkanic@gfos.hr

**ANALYSIS OF INTRINSIC AND EXTRINSIC MOTIVATION IMPACT ON
ACHIEVEMENT OF FIRST-YEAR CIVIL ENGINEERING STUDENTS IN
OSIJEK**

**ANALIZA UTJECAJA INTRINZIČNE I EKSTRINZIČNE MOTIVACIJE NA
POSTIGNUTI USPJEH STUDENATA PRVE GODINE GRAĐEVINSKOG
FAKULTETA U OSIJEKU**

ABSTRACT

The largest decrease in the number of students of the Civil Engineering Faculty in Osijek occurs during the first years of studying. This paper analyzes the influence of intrinsic and extrinsic motivation on students' achievement in the selected course during the first semester of the full-time undergraduate study. Based on the survey among first-year students, which examined the motivational variables and subjective ratings of specific prior knowledge of subjects associated with the selected course, a database of 90 subjects has been obtained. This research has explored the possibility of using neural networks for the prediction of the learning outcomes expressed in measurable and observable terms, i.e., grades earned in the selected course. Several configurations of neural networks have been examined and the neural network that achieved the best correlation in the success prediction has been used to analyse the impact of each input variable on the students' success achieved during the selected course. According to the Self-determination theory, increasing of intrinsic motivation would lead to higher student achievement, greater creativity and flexibility of thinking and better long-term memory. Variable intrinsic motivation can be encouraged by a certain social atmosphere, by strengthening individual sense of autonomy, by competence and connection. The results of this study have revealed a complex interaction of input variables, but generally the effect of extrinsic motivation on achievement of students included in this research is more significant. These results are indicative, but they should be taken with a grain of salt, because they include the assessment of the success of learning outcomes of the only one course. More realistic picture requires a longer period of observation of the students' achievement, including more courses and the observation of the overall success of students during their undergraduate studies.

Keywords: *intrinsic and extrinsic motivation, civil engineering students, neural networks*

SAŽETAK

Najveće smanjenje broja studenata studija građevine događa se na prvim godinama. U okviru ovog rada napravljena je analiza utjecaja intrinzične i ekstrinzične motivacije na postignuti uspjeh studenata u odabranom kolegiju prvog semestra preddiplomskog studija. Temeljem provedene ankete među studentima prve godine, u okviru koje su ispitane motivacijske varijable i subjektivna ocjena specifičnog predznanja ispitanika koje je povezano s odabranim kolegijem, dobivena je baza podataka od 90 ispitanika. Istražena je mogućnost primjene neuralne mreže za predikciju postignutih rezultata učenja izraženih kroz ostvarenu ocjenu na promatranom kolegiju. Ispitano je više konfiguracija neuralnih mreža i neuralna mreža koja je postigla najbolju korelaciju u predikciji uspješnosti, korištena je za analizu utjecaja svake pojedine ulazne varijable na postignuti uspjeh studenata u promatranom kolegiju. Sukladno Teoriji samodeterminacije jačanje intrinzične motivacije dovelo bi do veće uspješnosti studenata, veće kreativnosti i fleksibilnosti mišljenja i boljeg dugoročnog pamćenja. Varijabilnu intrinzičnu motivaciju moguće je poticati određenim socijalnim ozračjem i jačanjem osjećaja autonomije, kompetencije i povezanosti. Rezultati ovog istraživanja pokazali su složenu interakciju ulaznih varijabli, ali je ukupno gledano značajniji utjecaj ekstrinzične motivacije na postignuti uspjeh studenata obuhvaćenih ovim istraživanjem. Dobiveni rezultati su indikativni, ali treba ih uzeti s rezervom, jer obuhvaćaju ocjenu uspješnosti ishoda učenja jednog kolegija. Za realniju sliku potreban je duži vremenski period praćenja postignuća studenata, uključivanje više kolegija i praćenje ukupnog uspjeha studenata tijekom cijelog preddiplomskog studija.

Ključne riječi: *intrinzična i ekstrinzična motivacija, studenti građevinskog studija, neuralne mreže*

1. Introduction

Monitoring the scattering of students from the Faculty of Civil Engineering shows the largest decrease of the number of students during the first few years of the studies. Decrease percentage includes mostly students who failed the year or gave up the studies. Undergraduate studies of Civil Engineering finishes, without losing a year, approximately 25% of all the full-time students enrolled into these studies. This means that a significant number of students, that is $\frac{3}{4}$ of students, lose a year or leave their studies. Such a situation is not unexpected, but the question is whether an action, taken in order to strengthen the motivation of students for achieving greater success and continuation of studies at the desired Faculty, is possible and, if it is, in which domain it should be taken. In the analysis of motivation neural networks are chosen to be an optimization tool, since they have the possibility of giving the difficulty coefficient of every input variable for the prediction of a chosen research result. That feature can provide a basic insight into kinds of motivation relevant for the investigated population of students. Within this research a one course has been selected, and that was the Technical drawing and CAD, so that, for starters, neural networks responses in the analysis of this type of problem are examined.

2. Basic concepts in the research of motivation in the academic domain

Motivation is a state in which we are excited from 'within' by needs, motivations, aspirations, desires or motives for a particular behaviour directed toward achieving a goal, which acts as an external stimulus to the behaviour (Petz, 2005). Motivation directly or indirectly affects the process of learning and teaching, and is one of the important elements in the development and education. Settings of previous studies have analyzed the motivation as a unique phenomenon that varies only in its quantity, but the recent research settings distinguish variability of motivations according to the

amount and the type (Deci, Vallerand, Pelletier, Ryan, 1991). Self-Determination Theory (Deci, Ryan, 1991, 1994, 2000) divides motivation into intrinsic and extrinsic motivation and innovates the classic definition of motivation, taking into the account the latest researches and insights (Deci, Vallerand, Pelletier, Ryan, 1991, Deci, Ryan, Koestner, 2001, Deci, Ryan, 2000, 2006).

Intrinsic (internal) motivation is a need arisen from internal impulses which are not caused by external influences, and the only reward inherent to intrinsic motivation is the pleasure of learning, cognition, development of knowledge and skills, encouraged by personal interests. The research (Deci, Ryan, Koestner, 2001) shows that the intrinsic motivation is significantly correlated with the positive outcomes of learning. Strengthening the intrinsic motivation leads to higher student achievement, greater creativity and flexibility of thinking and better long-term memory. Variable intrinsic motivation can be encouraged by certain social atmosphere. There are three basic psychological needs associated with intrinsic motivation: the need for autonomy, defined as the self-regulation of personal behaviour (Chirkov, Ryan, 2001, Ryan, Deci, 2006, Soenens, Vansteenkiste, 2007), the need for competence as a necessity of the success and the control of our own environment and the need for coherence, i.e. a sense of belonging to a particular social group (Deci, Ryan, 2000). On the other hand, the negative impact on the intrinsic motivation have all expected material rewards and all forms of external control, such as deadlines, surveillance, threats, which are invasive of the personal autonomy, the primary curiosity and desire for challenge (Deci, Ryan, 2000).

Extrinsic (external) motivation is influenced by external factors, various forms of incentives, such as awards, praises, reviews, progress in work and others for example, which impact the development of motivation (Rheinberg, 2004). The social responsibility context encourages not only intrinsically motivated activities, and the question of the degree of personal satisfaction in completing these activities is explained by the concept of internalization. Internalization is an active natural process within socialization through which an individual transforms social rules and expectations of self-worth. There are four basic stages to extrinsic motivations: external regulation (avoidance of sanctions), introjected regulation (discomfort with the environment), identified regulation (acceptance of environmental rules as one's own) and integrated regulation (activity for a particular purpose). The division implies a certain degree of internalization: pure extrinsic motivation is the external regulation, and the integrated regulation implies that a certain external goal is recognized as important for personal growth and adopted as an internal goal. The integrated regulation is the closest to the intrinsic motivation, but it is considered to be a form of extrinsic motivation, because the actions are aimed at achieving a particular goal, and not arising from the inner satisfaction.

3. Analysis of motivation influence on success of students of the first semester of civil engineering studies in Osijek

3.1. Database

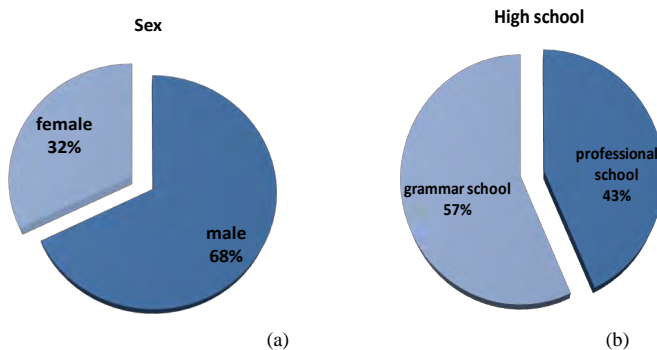
Database of 90 subjects has been obtained by survey the among the first-year students of the undergraduate studies. The translated and revised questionnaire (Self-Regulation Questionnaire – Study Abroad, Ryan, Connell, 1989, Chirkov, Vansteenkiste, Tao, Lynch, 2007) has been used. Each student has responded to questions about the motivation for performing the obligations under the first semester, by rating the answers. Offered responses were rated in the range from 1 to 7, where 1 meant – “I completely disagree”, and 7 meant – “I completely agree”. The questions were focused on examining intrinsic and extrinsic motivation and subjective assessments of prior AutoCAD knowledge, as it is evident from Table 1.

Table 1 Examined input parameters (adopted from Self-Regulation Questionnaire, Ryan, Connell, 1989)

PARAMETERS				VALUE RANGES	
LEVEL I	LEVEL II		LEVEL III		
INTRINSIC MOTIVATION	I1	Personal interest	I11	It is fun	1-7
			I12	I like	1-7
EXTRINSIC MOTIVATION	E1	External regulation	E11	Fear of sanctions	1-7
			E12	Other people's opinion	1-7
			E13	Rule	1-7
			E14	Reward	1-7
	E2	Introjected regulation	E21	I want to be (exemplary, praised)	1-7
			E22	I feel bad if (I do not...)	1-7
			E23	I will be proud	1-7
	E3	Identified regulation	E31	I want to (know, understand)	1-7
			E32	It is important to me	1-7
PPREVIOUS KNOWLEDGE	P	Subjective rating of prior AutoCAD knowledge	P	Subjective rating of prior AutoCAD knowledge	1-5

The number of male and female respondents is shown in the Figure 1a, and the breakdown of respondents according to prior high school education is shown in the Figure 1b.

Figure 1 Breakdown of respondents by sex (a) and the type of high school (b)



Database served for learning of neural network. Based on the numerical values of the input parameters (within the range - Table 1), the neural network was given the task of predicting grades achieved in the courses. Prediction of grades is not the main aim of the research, but the good correlation achieved will give more realistic values of difficulty coefficients of the analyzed input parameters of intrinsic and extrinsic motivation, which in this research makes it particularly interesting. The analysis was made in three levels, as seen in Table 1. At the first level the three input parameters were analyzed – intrinsic and extrinsic motivation and prior knowledge, at the second level the extrinsic motivation was divided according to the internalization level (Ryan, Connell, 1989), and at the third level 12 input variables were analyzed.

3.2. Neural Networks

Neural network learning and prediction results analysis is done with the NeuroShell2¹⁰⁰ software package. The following basic neural networks were tested: Ward nets, Standard nets and General

¹⁰⁰ NeuroShell 2 Help <http://www.wardsystems.com/manuals/neuroshell2/index.html?idxhowuse.htm>

regression net (Figure 2). In total around 30 neural networks, which differed in basic architecture, the number of hidden layers, number of neurons in the hidden layers and activation function, were analyzed. Neural networks were compared according to two basic criteria – their training and generalization ability. Training ability is a success of the prediction on a data set (used by network for learning), and the generalization is a success of the prediction on an unknown set of data (test data set). For the estimate of the generalization (test set), 20% of the data from an existing database was allocated.

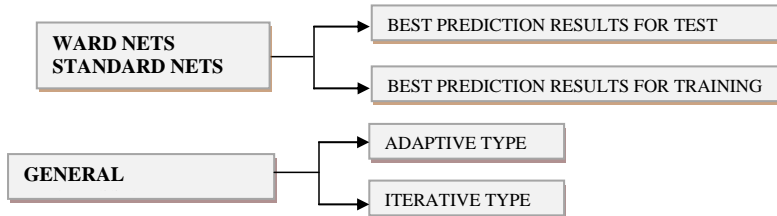
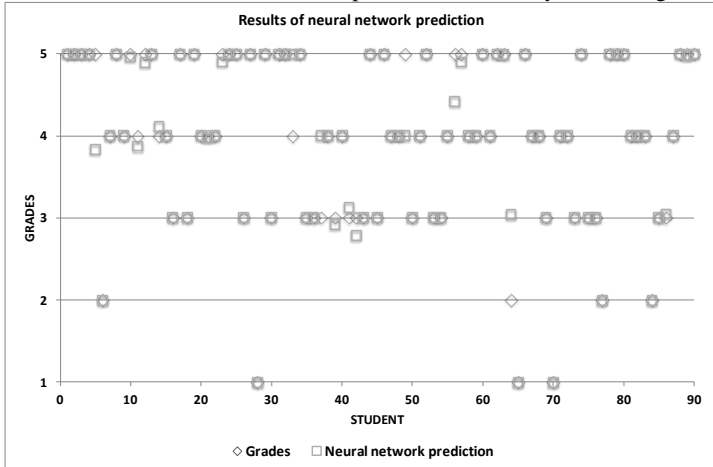


Figure 2 Examined types of neural networks

At the first level three input variables are analyzed (Table 1). The best correlation of 73.58% is given by Ward net network and, according to the importance of input variables, extrinsic motivation and prior knowledge were equally important, and the intrinsic motivation had a smaller impact. Response of the neural network was not as good as expected, so the decision was made to do the detailed analysis. At the second level, the extrinsic motivation is divided according to the degree of internalization (Table 1). A slightly better response has been obtained from neural networks. The most successful was Ward net network and 83.34% correlation with the mean absolute prediction error of 0.27 has been achieved. Ranking of the examined input variables according to the influence coefficient is: (E1) external regulation 0.23, (I1) intrinsic motivation 0.22, (E3) identified regulation 0.20, (E2) introjected regulation 0.17 and (P) prior knowledge 0.16.

The best response has been obtained from neural networks at the third level of the analysis (Table 1). Correlation between the actual success achieved by students in the examined course (subject grades) and the prediction of the neural network achieved by the most successful neural network at the third level, according to the generalization criterion, is 97%. The neural network that has achieved the highest correlation is the General regression neural network of genetic, adaptive type, with one hidden layer containing 800 neurons and a linear activation function, hereinafter General regression 1. Prediction of the neural network in comparison with actually achieved grades in the existing database is shown in the Figure 3.

Figure 3 Prediction of the neural network in comparison with actually achieved grades

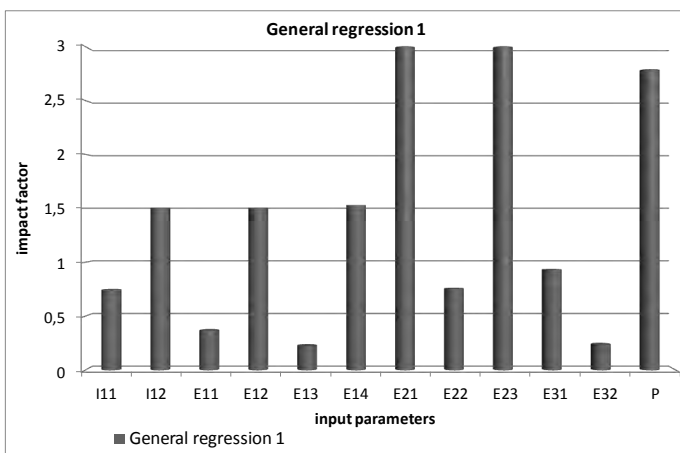


Besides the achieved correlation, the performance indicators of General regression neural network 1 can also be evaluated through the mean absolute error of prediction which equals to 0.08, and the percentage (92.22%) of the results with the prediction error less than 5% shows the performance success. Good response of the neural network provides us a real insight into the difficulty coefficients and the amount of influence of particular input variables on prediction results.

3.3. Analysis of difficulty coefficients

Table 4 show difficulty coefficients given by General regression 1. On the abscissa the input parameters of the third level of analysis (Table 1) are shown and on the ordinate the coefficients of influence of each parameter on the prediction outcome.

Figure 4 Impact factor of input parameters on the prediction outcome – best prediction neural network



The greatest impact on learning outcomes, according to Figure 4, have the parameters of the extrinsic motivation (introjected regulation) – the desire for praise and exemplary behaviour (E21)

and personal pride (E23). According to the importance of the impact, prior knowledge is the next, and then the network estimated the element of intrinsic motivation 'I love to (learn, know, understand)' (I12) and two parameters of external regulation – other people's opinion (E12) and a reward (E14) – as equally important. Highly ranked parameters – the desire for praise, exemplarity, awards and positive social atmosphere – are consistent with the results of studies that show a significant effect of the parents on the motivation of students of lower years (Gonzalez-DeHass, Willems, Doan Holbein, 2005, Soenens, Vansteenkiste, 2005).

4. Conclusion

This piece evaluates the impact of motivation on students' achievements in the selected course of the first semester of undergraduate Civil Engineering studies. Neural networks were selected as a tool of analysis. The results have revealed a complex interaction of input variables, but generally the effect of extrinsic motivation on achievement of students is more significant. According to the neural network, with the best correlation achieved, the elements of the introjected regulation of the extrinsic motivation (the desire for praise and exemplary behaviour and personal pride) have the greatest impact. The aim of this part of the study was to examine the response of neural networks in the analysis of students' motivation and get the insight into the dominant motivation for learning outcomes for the surveyed group of students and that goal is reached. The obtained results are indicative, but they should be taken with a grain of salt, because they include the assessment of the success of learning outcomes of the only one course. More realistic picture requires a longer period of observation of the students' achievement, including more courses and the observation of the overall success of students during their undergraduate studies. Good response of neural networks opens the possibility of further research with this tool and testing of certain hypotheses, such as - whether students who have greater intrinsic motivation achieve better performance, which is the main (or missing) type of motivation among students who are leaving the selected Faculty, etc.

REFERENCES

Petz, B. (2005): *Psihologijski rječnik*, Naklada Slap, Zagreb

Rheinberg, F. (2004): *Motivacija*, Naklada Slap, Zagreb

Chirkov, V.I., Ryan, R.M. (2001): *Parent and Teacher Autonomy-Support in Russian and U.S. Adolescents: Common Effects on Well-Being and Academic Motivation*, Journal of Cross-Cultural Psychology, Vol.32, No.5, pp. 618-635

Chirkov, V., Vansteenkiste, M., Tao, R., Lynch, M. (2007): *The role of self-determined motivation and goals for study abroad in the adaptation of international students*, International Journal of Intercultural Relations, Vol. 31, pp. 199-222

Deci, E. L. i Ryan, R. M. (2000): *The "what" and "why" of goal pursuits: Human needs and the self-determination of behaviour*, Psychological Inquiry, Vol. 11, pp. 227-268.

Deci, E. L., Ryan, R. M. and Koestner, R. (2001): *Extrinsic rewards and intrinsic motivation in education: Reconsidered once again*, Review of educational research, Vol.71, pp. 1-27

Deci, R.M., Stiller, J.D., Lynch, J.H. (1994): *Representations of Relationships to Teachers, Parents, and Friends as Predictors of Academic Motivation and Self-Esteem*, Journal of Early Adolescence, Vol. 14, No.2, pp.226-249

Deci, E. L., Vallerand, R. J., Pelletier, L. G. i Ryan, R. M. (1991): ***Motivation and education: The self-determination perspective***, Educational Psychologist, Vol. 26, No. 3-4, pp. 325-346

Gonzalez-DeHass, A.R., Willems, P.P., Doan Holbein, M.F. (2005): ***Examining the Relationship Between Parental Involvement and Student Motivation***, Educational Psychology Review, Vol.17, No.2, pp.99-123

Ryan, R. M. i Connell, J. P. (1989): Perceived locus of causality and internalization: ***Examining reasons for acting in two domains***, Journal of Personality and Social Psychology, 57, 749-761

Ryan, R.M., Deci, E.L. (2006): ***Self-Regulation and the Problem of Human Autonomy: Does Psychology Need Choice, Self-Determination, and Will***, Journal of Personality, Vol.74, No.6, pp.1157-1585

Soenens, B., Vansteenkiste, M. (2005): ***Antecedents and Outcomes of Self-Determination in 3 Life Domains: The Role of Parents' and Teachers' Autonomy Support***, Journal of Youth and Adolescence, Vol

Darija Kuharić, senior lecturer of German language

Faculty of Agriculture Osijek

HR-31000 Osijek, 1d P. Svačića

Phone: +385 (0)31 554-940 Fax: +385 (0)31 554-800

E-mail address: dkuharic@pfos.hr

Ljubica Ranogajec, associate professor

Faculty of Agriculture Osijek

HR-31000 Osijek, 1d P. Svačića

Phone: +385 (0)31 554-943 Fax: +385 (0)31 554-800

E-mail address: lranogaj@pfos.hr

Ines Kuharić, Bachelor of information science

HR-31000 Osijek 27 J. Huttlera

Phone: +385 (0)31 501-105

E-mail address: ines@kuharic.org

**IMPLEMENTATION OF FACEBOOK IN FOREIGN LANGUAGE
TEACHING IN HIGHER EDUCATION**

**IMPLEMENTACIJA FACEBOOKA U NASTAVI STRANIH JEZIKA U
VISOKOM OBRAZOVANJU**

ABSTRACT

Technology is more and more integrated into society's norms. It is well-known that social networking tools have become a way of life for people of all ages. Educators are realizing that, if used properly as course tools, they may bridge the generation gap between their students and themselves. Besides, they can easily be used as alternative media for traditional course requirements. A few years ago, the social media platform, Facebook, that has been used mostly for entertainment purposes, was integrated into my classroom. Having created Facebook groups for both English and German courses, some great results were yielded. Communication between the students and myself as a teacher has greatly improved. Not only that some course material has been included, but my students were also encouraged to find Facebook pages and groups regarding various field of agriculture (horticulture, agricultural machinery, fruit and grape growing, animal production, apiculture, ecology, agricultural economics, gardening, etc.). In this way, students' interest and participation have been enhanced. Finally, they discovered a new source of information regarding their field of professional interest. Three generations of students of the Faculty of Agriculture Osijek were given a simple on-line questionnaire for the purpose of gathering first hand information on their views regarding the implementation of social media into the classroom in their post-secondary education. Eventually, the results may also be used as guidelines for future use of Facebook or other social media platforms in other courses at the Faculty of Agriculture Osijek.

Key words: foreign language teaching, higher education, social networking tools, Facebook, agriculture

SAŽETAK

Tehnologija se svakim danom sve više integrira u norme društvenog života. Dobro je poznato da su alati pomoću kojih se koriste društvene mreže postali dio života ljudi svih dobnih skupina. Prosvjetni radnici uočavaju da im društvene mreže, ukoliko ih se koristi na primjeren način, mogu pomoći u premoštavanju generacijskog jaza između njih i učenika/studenata. Osim toga, može ih se koristiti i kao alternativa tradicionalnim nastavnim metodama. Društvena mreža Facebook, koja se koristi uglavnom u svrhu zabave, našla je put do mojih predavaonica. Naime, osnovane su grupe studenata na Facebooku koji uče engleski i njemački jezik i postignuti su vrlo dobri rezultati. Komunikacija između studenata i mene kao nastavnika se poboljšala. Putem Facebooka uvedeni su određeni nastavni materijali, dok su se studenti istodobno poticali na pronalaženje stranica i grupa koje se baziraju na različitim područjima poljoprivrede (hortikultura, poljoprivredni strojevi, voćarstvo i vinogradarstvo, stočarstvo, pčelarstvo, ekologija, poljoprivredna ekonomika, vrtlarstvo, itd.). Na ovaj se način povećalo zanimanje i sudjelovanje studenata u nastavi. Konačno, studenti su otkrili novi izvor informacija u vezi sfere svog profesionalnog interesa. Provedena je anketa među studentima triju generacija Poljoprivrednog fakulteta u Osijeku, kako bi se iz prve ruke prikupile informacije o njihovim stavovima o implementaciji alata društvenih mreža u nastavi u visokoškolskom obrazovanju. Dobiveni rezultati mogu poslužiti kao smjernice za buduću primjenu Facebooka ili neke druge društvene mreže u modulima na Poljoprivrednom fakultetu u Osijeku.

Ključne riječi: *učenje stranih jezika, visoko obrazovanje, alati društvenih mreža, Facebook, poljoprivreda*

1. Introduction

1.1. Social Networking Sites

Social networking has become one of the most important communication tools among people nowadays. These networks are described as social, because they allow communication and strengthen the ties between members of these networks in the space of the Internet (Zaidieh, 2012).

In the field of education, technology doesn't have a secondary role in the sole process of knowledge transferring, especially because technology is becoming increasingly integrated into the lives of learners of all age groups (Petrović et al., 2012). Recently, the integration of social media platforms (Facebook, Twitter, and Skype) into classrooms has changed the landscape of post-secondary education. Educators are slowly realizing that these tools can be used to bridge the generation gap between them and their students. As the popularity of Facebook and other social networking sites (SNSs) continues to grow, educators are seeing their potential for use, realizing that SNSs may have the ability to promote both active learning and collaboration (Pollara and Zhu, 2011). Nevertheless, there are opponents to the acceptance of SNSs. Currently, there is a heated debate on whether or not SNSs should be used in educational settings as a part of higher education. Many of them question what kind of role SNSs, particularly Facebook, could have in education. In the paper significantly titled "Facebook in higher education promotes social but not academic engagement" (Wise et al., 2011) authors argue that Facebook, instead of promoting social engagement in a way that might increase academic engagement, is more likely to operate as a distracting influence. But since students are already investing time and energy in social networking, building relationships and their own communities of shared interest and fostering 21st century skills in the process, there is a unique opportunity to form educational communities of knowledge (Zaidieh, 2012). Unfortunately, pedagogy is not keeping up with technology.

In general, the literature and empirical findings on implementing social networking in educational practices are mixed in their support of SNS' use in education. In addition, there exist no known

published work providing comprehensive guidance on how to implement SNS or Facebook, specifically, within the classroom (Muñoz and Towner, 2011).

1.2. Using Facebook in Education

A few decades ago, the best way to contact professors was to go to their office. Nowadays, it is commonly believed that students only need to fire up their computers.

Since Facebook is considered as one of the most popular and the most used SNS, it has quickly become the SNS of choice by college students and an integral part of the "behind the scenes" college experience (Selwyn, 2007). Because students complain about lacking opportunities for authentic communication due to non-personalized course content even when alternative delivery methods are employed, providing informal learning contexts by integrating emerging social networks into existing learning practices becomes significantly important to attain more robust learning and teaching opportunities (Bartlett-Bragg, 2006). According to Pascarella and Terenzini (2005) some of the most effective educators are those that create an informal relationship with their students through the use of SNS.

Petrović et al. (2012) provide a list of characteristics noted in the literature that recommends Facebook as a tool that can contribute significantly to the quality of education:

- Fostering positive relationships among students and encompassing students' motivation and engagement,
- Involving students in achieving tasks and successful transfer of knowledge,
- Developing a positive attitude towards learning and improving the quality of learning,
- Developing interpersonal intelligence as well as critical thought,
- Developing of communications and interactions on the relationship between students and teachers outside the classes.

With regard to teachers, they also quote what Facebook can enable teachers to do. It can:

- Provide constructive educational outcomes in a variety of fields
- Practice a differential pedagogy, in the best interest of the students
- Integrate diagnostic formative evaluation in the learning process and calibrate didactic activities accordingly
- Achieve a change in strategy, mentality, attitude and behaviours by using Facebook
- Establish efficient educational relations on a social network
- Accept the student as an interaction partner
- Analyse and compare ways of learning and the knowledge achieved by students
- Develop knowledge and skills in order to perform efficient didactic activities.

2. Problem Statement

The purpose of this article is to examine the role of social networking in higher education and to demonstrate how SNSs, in our case – Facebook, can be used in foreign language courses in higher education for edusocial purposes. The authors of this paper share the opinion that university education is student focused and it is, therefore, important to consider students' perceptions of technology that is integrated into their learning environment (Irwin et al., 2012).

For the last three academic years (2010/2011, 2011/2012 and 2012/2013) Facebook has been introduced in English and German courses at the Faculty of Agriculture Osijek. As foreign languages for specific purposes, English I and German I (winter semester) as well as and English II and German II (summer semester) are obligatory courses in the first year of undergraduate university studies. There are two hours of lectures and three hours of exercises weekly per semester.

On the other hand, the foreign language course is also obligatory in the first year of professional studies in the winter semester, but the course is held in three-week block classes.

Namely, in the Republic of Croatia higher education is performed through university and professional studies. University studies are performed at universities while professional studies are performed at polytechnics and schools of professional higher education. Professional studies can be performed at universities only exceptionally, with the prior consent by the National Council for Higher Education¹⁰¹. The Faculty of Agriculture Osijek is one of them.

At the beginning of every academic year, three¹⁰² Facebook groups are created depending on the foreign language the students are studying (English or German) and the level of higher education (professional studies or undergraduate university study). Students are informed of the course's Facebook group and instructed that they can use it as learning resource throughout the semester(s) by visiting it. Facebook groups are used in four steps:

- STEP 1. They serve as a platform to provide information relevant to the course (e.g. lecturer's notifications on the course, changes to lecture times and location, links to useful and interesting media and learning material related to the course). Students are welcome to comment on any post or to post their own question regarding course material or similar.
- STEP 2. In order to show students that Facebook does not have a solely social function, but also an educational dimension, they are asked to find as many Facebook pages about agriculture as they can, but in the foreign language they are learning. They have to choose their favourite page and present it in front of their colleagues.
- STEP 3. Both students and the lecturer post news from their favourite Facebook (agricultural) pages. Students are encouraged to comment on them.
- STEP 4. Introduction of Facebook groups in foreign language learning at the academic level may inspire other members of academic staff to create such groups for their modules and provide students with even more valuable information, materials and links, including pages in English or German, for the students have already encountered them.

One of the good examples of collaboration among academic staff is the implementing of Facebook in other (non-)obligatory courses, but now with 2nd year students of professional studies (Elements of Accounting in Agriculture), 2nd and 3rd year students of undergraduate university studies (Cost Estimating in Agriculture, Accounting in Agriculture) as well as 1st and 2nd year students of graduate university studies (Costs Management, Methods of Modern Cost Accounting).¹⁰³

In order to examine students' perception of the utility of Facebook as a learning source as well, data were gathered via two questionnaires.

a. Questionnaire 1

An initial questionnaire in hard copies was administered in the first lecture of semester (academic year 2012/2013) to first year students of both professional studies and undergraduate university studies. It was created in order to establish the extent of using Facebook during their secondary education for educational purposes. The questionnaire included one structured and one semi-structured question.

Out of 43 respondents, 53.4 percent of them did not use Facebook during secondary education. Among those who used it (46.5%), Facebook was a platform that helped them create groups, in which they would exchange information, provide some exercises or share their schoolwork needed for certain courses.

¹⁰¹ <http://public.mzos.hr/Default.aspx?art=5865&sec=2510>

¹⁰² The author of this paper is the coordinator for modules English I and English II (Agroecomics), German I and German II (all majors) in undergraduate university studies as well as German (all majors) in professional studies at the Faculty of Agriculture in Osijek.

¹⁰³ The named modules are coordinated by the first co-author of the paper.

b. Questionnaire 2

A second questionnaire was based on the seminar paper "Survey: Using Facebook as Means of Improvement of Knowledge with Students of Agriculture" (Kuharić I. 2012)¹⁰⁴. The seminar paper was written as an obligatory task in the course Research Methods in Information Science and supervised by D. Hasenay, full professor. At that time, the co-author of this paper was a first year student of graduate university study at the University of J. J. Strossmayer Osijek, Faculty of Humanities and Social Sciences, Department of Information Sciences.

Most of the questions from this seminar paper were used in the study to gather primary data. Among others, it included semi-structured questions, regarding gender, experience in use of Facebook, benefits associated with and skills acquired through the use of Facebook, information regarding their language proficiency.

It was distributed to the students of the Faculty of Agriculture Osijek electronically. QuestionPro was used to create an online version of the questionnaire. It was distributed through Facebook (groups) to students of

- first and second year of professional studies
- first, second and third year of undergraduate university studies
- first and second year of graduate university studies.

3. Presentation of Results

A total of 104 students of the Faculty of Agriculture participated in the study (Figure 1). Regarding the gender of participants, 37.76 percent were male and 62.24 female. Almost all of the respondents (99.0%) had a Facebook profile.

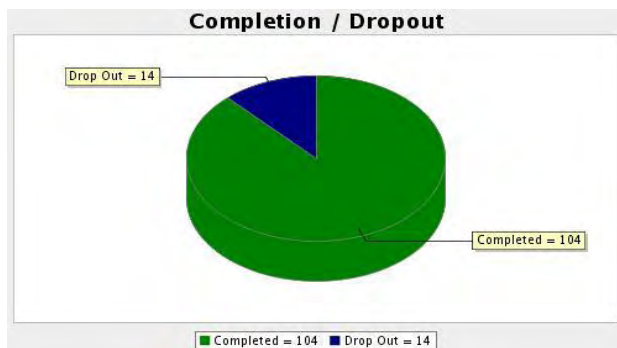


Figure 1 Number of participants (QuestionPro)

Figure 2 shows the frequency distribution for the year of study. Most (53%) of the respondents were first years of the undergraduate university studies.

¹⁰⁴ „Ispitivanje korištenja Facebook grupa za proširenje znanja kod studenata Poljoprivrednog fakulteta“, (veljača 2012).



Figure 2 Frequency distribution for year of study

Interestingly, 88.31% of students claimed that they were aware of the fact that there existed Facebook pages that might help them to improve their information database regarding agriculture. When asked, "How did you learn about agriculture related Facebook pages that may help you with your courses?", a significant number of the students (54.95%) reported that their source of information were their colleagues. Only 27.93% of respondents learned about such Facebook pages from their educators. To our disappointment, just 16.22% of them found those pages by themselves. When asked if they created any Facebook groups with their fellow students that could help them in exchanging certain information, interesting links, learning materials etc., 61.36% of them gave a positive answer.

Although the respondents were quite critical about their foreign language skills (Table 1), when asked whether they avoided using Facebook pages in foreign languages because of poor knowledge, only 14.71% answered positively.

Table 1 Students' self-evaluation of their foreign language skills

ENGLISH		GERMAN	
Grade	Percentage	Grade	Percentage
A	7.95%	A	4.60%
B	19.32%	B	9.20%
C	26.14%	C	32.18%
D	38.64%	D	37.93%
E	7.95%	E	16.09%

Students were also asked to describe their attitude towards agriculture related Facebook pages in foreign languages (Table 2).

Table 2 Students' attitude towards agriculture related Facebook pages in foreign languages

What do you think about agriculture related Facebook pages in foreign languages?	
I have no opinion, since I haven't used any of them.	12.79%
My knowledge of English/German is poor, so I don't use them.	4.65%
I'm not sure if information provided by such Facebook pages is relevant.	12.79%
I don't know how to find such Facebook pages.	0 %
I don't think that they are necessary.	5.81%
I don't use them, because I'm not sure how my educators would react to the fact that my source of information were Facebook pages.	16.28%
I use only learning material(s) provided by my educators.	44.19%

4. Conclusion

In the academic community, social networking sites (especially Facebook) offer students the opportunity to connect with other students and their educators. They help them improve their technology proficiency, social skills and to communicate in new ways with new people. Although SNSs are being used extensively in higher education, the authors of this paper highly recommend the integration of social media in the learning process. We believe that Facebook is not only a social, but a good educational tool as well. The academic community must not forget that university education should be student focused and it is therefore important to consider students' perceptions of technology that is integrated into their learning environment. Based on our results and three year experience, we would like to encourage others to use Facebook groups in their courses. In addition, foreign languages may and should help students to complete educational tasks more efficiently, provide stronger understanding and increase retention on the subject.

REFERENCES

- Bartlett-Bragg, A. (2006): *Reflections on pedagogy: Reframing practice to foster informal learning with social software*, <http://matchsz.inf.elte.hu/tt/docs/Anne20Bartlett-Bragg.pdf> (accessed March, 15th, 2013)
- Irvin, C., Ball, L., Desbrow, B. & Leveritt, M. (2012): *Students' perception of using Facebook as an interactive learning resource at university*, in: Australasian Journal of Educational Technology 2012, 28(7), pp.1221-1232, <http://www.ascilite.org.au/ajet/ajet28/irwin.html> (accessed March, 18th, 2013)
- Muñoz, C. L. & Towner, T. (2011): *Back to the "wall": Facebook in the college classroom*, in: First Monday, Volume 16, Number 12, 5 December 2011, <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/3513/3116> (accessed March, 25th, 2013)
- Pascarella, E. T. & Terenzini, P.T. (2005): *How Colledge Affects Students, Volume 2, A Third Decade of Research*, https://apps.lis.illinois.edu/wiki/download/attachments/32452/distance_learning.pdf (accessed March, 26th, 2013)
- Petrović, N. et al. (2012): *Possible Educational Use of Facebook in Higher Environmental Education*, in ICICTE 2012 Proceedings, pp.335-362, <http://www.icicte.org/Proceedings2012/Papers/09-1-Petrovic.pdf> (accessed March, 25th, 2013)

Pollara, P. & Zhu J. (2011): *Social Networking and Education: Using Facebook as an Edusocial Space*, in Proceedings of Society for Information Tecnology & Teacher Education International Conference 2011, pp. 3330-3338,
http://www.academia.edu/394232/Social_Networking_and_Education_Using_Facebook_as_an_Edusocial_Space (accessed March, 15th, 2013)

Selwyn, N. (2009): *Faceworking: exploring students' education-related use of Facebook*, in: Learning; Media and Technology, Vol. 34, No.2, June 2009, pp.157-174
<http://blogs.ubc.ca/hoglund/files/2011/05/facebook.pdf> (accessed March, 13th, 2013)

Wise L.Z., Skues, J. & Williams, B. (2011): *Facebook in higher education promotes social but not academic engagement*, in: G. Williams, P. Statham, N. Brown & B. Cleland (Eds.), *Changing Demands, Changing Directions, Proceedings ascilite Hobart 2011.*, pp. 1332-1342,
<http://www.ascilite.org.au/conferences/hobart11/downloads/papers/Wise-full.pdf> (accessed March, 16th, 2013)

Zaidieh, A. J. Y. (2012): *The Use of Social Networking in Education: Challenges and Oppourtunities*, in: World of Computer Science and Information Technology Journal (WCSIT): ISSN 2221-0741: Vol.2, No.1, 18-21, 2012,
<http://wcsit.org/pub/2012/vol.2.no.1/The%20Use%20of%20Social%20Networking%20in%20Education%20Challenges%20and%20Oppourtunities.pdf> (accessed March, 15th, 2013)

Zamwe, N., Rupere, T. & Kufandirimbwa, O. (2013): *Use of Social Networking Technologies in Higher Education in Zimbabwe: A learners' perspective.*, in: International Journal of Computer and Information Technology (ISSN: 2279 – 0764) Volume 02– Issue 01, January 2013,
<http://ijcit.com/archives/volume2/issue1/Paper020102.pdf> (accessed March, 15th, 2013)

Anka Mašek Tonković, PhD.

Faculty of Economics in Osijek

31000 Osijek, Gajev trg 7

Phone: +385 91 224 4045, Fax: +385 31 211 604

E-mail: masek.efos@gmail.com

Katica Križanović, univ.spec.oec., PhD. candidate

Credere, Centre for research, development and reengineering

31000 Osijek, Gornjodravaska obala 84

Phone: +385 91 535 6162

E-mail: katica.krizanovic@sb.t-com.hr

Helena Miličević Lubar, univ.spec.oec.

Ministry of Finance, Tax administration

Regional office Osijek, Branch office Đakovo

31400 Đakovo, V.K.A. Stepinca 10

Phone: +385 91 535 5585

E-mail: helena.milicevic.lubar@gmail.com

THE IMPORTANCE OF LIFELONG LEARNING IN CREATION OF SOCIAL CAPITAL - CASE STUDY: FACULTY OF ECONOMICS IN OSIJEK

ZNAČAJ CJELOŽIVOTNOG UČENJA U STVARANJU DRUŠTVENOG KAPITALA – PRIMJER EKONOMSKOG FAKULTETA U OSIJEKU

ABSTRACT

Concept of lifelong learning should allow an individual country, i.e. its population, sustainable economic development and certain competitive advantages. Considering the emerging significant changes in the labour market, security and longevity of employment is becoming questionable. Global economy forces us to permanently adapt to changes, to accept the concept of lifelong learning and education, to develop potentials for further advancement. In fact, lifelong learning and education has become a necessity, not an option. Permanent education and improvement is necessary for adapting to changes and requirements of the modern society. Lifelong learning and education, i.e. the intellectual capital, is an essential actuator of economic, social and cultural progress. This paper describes professional development programmes which are organized at the Faculty of Economics in Osijek and which answer to the labour market needs for knowledge and skills necessary to adapt to the market changes. The methodology of the paper is based on relevant literature and case studies.

The objective of this paper is to point to the importance of lifelong learning and education as a basic prerequisite for competitiveness in the national labour market, and thereby in the labour market of the European Union (EU).

Key words: *lifelong learning, lifelong education, labour market, competitiveness, intellectual capital*

SAŽETAK

Koncept cjeloživotnog učenja treba omogućiti pojedinoj zemlji, odnosno njenim stanovnicima održivi ekonomski razvoj i određenu konkurentsku prednost. S obzirom da dolazi do bitnih promjena na tržištu rada, sigurnost kao i trajnost zaposlenja postaje upitna. Globalna ekonomija prisiljava nas na neprestano prilagođavanje promjenama, cjeloživotno učenje i obrazovanje, te razvijanje potencijala za daljnje napredovanje. Zapravo, cjeloživotno učenje i obrazovanje postalo je nužnost, a ne potreba. Permanentno obrazovanje i usavršavanje je nužno zbog prilagodbe promjenama i zahtjevima suvremenog društva. Cjeloživotno učenje i obrazovanje, odnosno intelektualni kapital osnovni je pokretač gospodarskog, društvenog i kulturnog napretka. Ovaj rad opisuje programe stručnog usavršavanja koji se provode pri Ekonomskom fakultetu u Osijeku i koji su odgovor na potrebe tržišta rada za znanjem i vještinama koji su nužni za prilagodbu promjenama tržišta. Metodologija rada se temelji na relevantnoj literaturi i primjerima iz prakse. Cilj ovog rada je ukazati na važnost cjeloživotnog učenja i obrazovanja kao osnovnog preduvjeta za konkuriranje na nacionalnom tržištu, a samim time i na tržištu rada Europske Unije (EU).

Ključne riječi: *cjeloživotno učenje, cjeloživotno obrazovanje, tržište rada, konkurentnost, intelektualni kapital*

1. Introduction

A modern idea of lifelong learning is formed more pronouncedly since the 1970s. The following definition of lifelong learning is mostly used today (EU, 2000): All learning activity undertaken throughout life, with the aim of improving knowledge, skills and competence, within a personal, civic, social and/or employment-related perspective.

The notion of lifelong learning and lifelong education are not synonyms; while education embraces only organized (formal) learning, the notion of learning is wider and it includes non-intentional, unorganized and spontaneous acquisition of knowledge and skills, and it can be conducted non-formally and formally throughout the whole life. Therefore, formal education should not be the only criterion based on which an individual would be evaluated. Non-formal and informal learning, as a part of the lifelong learning process is an even more important factor; since only those individuals who will continuously learn after their formal education will be able to respond to a challenge of new economic and technological changes, contribute to stimulation of economic development, common social prosperity and social cohesion. Therefore, we could define the notion of intellectual capital as an assembly of all the individual's investments into education, knowledge, skills and other competences acquired through the formal, non-formal or informal learning.

The objectives of lifelong learning and education are:¹⁰⁵

- raising the general education level,
- personal and social development of an individual,
- individual's social responsibility,
- adapting an individual to variable conditions in the labour market, and
- higher level of employability.

Globalization trends that are present in the EU territory are also embracing Croatia, so we meet with new challenges in the global labour market. One of the challenges refers to a change in organization of educational system and creating a perception of a profile of a man preferably educated for the following decades. Just as Ohmae (2005) says:

¹⁰⁵Smjernice za strategiju odgoja, obrazovanja, znanosti i tehnologije (Guidelines for Education, Science and Technology Strategy), MZOS (Ministry of Science, Education and Sports), 2012; <http://public.mzos.hr/fgs.axd?id=18632> (17th March 2013)

“ ...Employees in all aspects of economy, which includes professional sectors, should be taught to expand their horizons and raise their own adaptability. They should realize the education is not a closed process, which starts and ends in a point in time (and maybe lasts for years), and whose objective is to occupy a vacant position, but it is a permanent process that lasts whole life. Employees have to be prepared to change careers due to oscillations in demand.”

Many authors have shown that in developed economies of knowledge, the main development factors are education and science (Barić, Raguž, 2008). Therefore, in such countries, their greatest wealth is their population. Their education improves the quality of which depends the success of using natural resources, technology and capital. In analysis of post-capitalism society Drucker (1993) determined that the productivity of knowledge is increasingly a decisive factor in the competitive position of some country, industry or company (North, 2008).

Modern manufacturing is increasingly taking an intangible form and becomes more based on the use of ideas, information and knowledge. According to Baruch Lev the companies that invest intensively in the knowledge will have higher market value than their real physical assets of those who do not (Lev, 1996). Thus, for example, the gap between the value of Microsoft's physical assets and its market value is significantly higher than in a traditional manufacturer. The added value is a measure of the Microsoft's potential to create wealth in the future. Therefore, there are authors (Stevens and Weale, 2003) who consider that the process of education can be analysed as an investment decision, taking into account what is delivered from spending on education comparing to spending on fixed capital.

Authors Pulić and Bornemann (2006) in their study of the physical and intellectual capital of Austrian banks concluded that *“increasing the efficiency of intellectual capital is the simplest, cheapest and safest way to ensure sustainable success”*. In the last decades in Europe, as well as in Croatia, a special attention is given to lifelong learning and education, i.e. intellectual capital as an essential actuator of the whole society's progress. We can say that the intellectual capital is a basis for development of developed societies where investments into intellectual capital as a priority is growingly put onto first place in strategic development projections. Investing into intellectual capital is given an advantage even in relation to investing into financial capital, since the knowledge, skills and innovativeness of each individual are crucial for competitive society (which is expressed as *goodwill* in the balance sheet of the society).

When revising objectives achieved by the Bologna Declaration, at the conference held in Prague on the 19th of May 2001 - Prague Communiqué, a need was recognized to implement strategies for lifelong learning into the Bologna process. Among others, a conclusion was made that lifelong learning is a key element in development of European Higher Education Area: *In the future Europe, built upon a knowledge-based society and economy, lifelong learning strategies are necessary to face the challenges of competitiveness and the use of new technologies and to improve social cohesion, equal opportunities and the quality of life.*¹⁰⁶

In 2004, the European Parliament and the Council of Europe have started building an integral action programme within the area of lifelong learning which should include various programmes – general education programmes for secondary schools, higher education, vocational education, and education of adults, all within the framework of lifelong learning concept (Proposal for a Decision, 2004.).

2. Strategic framework for promotion of development of lifelong learning in the Republic of Croatia

Lifelong learning and education is one of the strategic objectives of the Republic of Croatia. Strategy for Sustainable Development of the Republic of Croatia, from 2009, states one of the key challenges for achieving sustainable development of the country, which is achieving social cohesion

¹⁰⁶www.azvo.hr/images/stories/visoko/PRAGUE_COMMUNIQUE.pdf, (17th March 2013)

and justice. As a main objective it states: *Achieve a socially inclusive society that is characterised by solidarity within and among generations and where differences are respected within a framework of democratic values, in which any individual, regardless of gender and origin, has equal rights and opportunities to actively and responsibly participate under conditions which advance or ensure social security, human health and legal protection*¹⁰⁷, and one of the key measures for achieving the stated objective is investing into lifelong education. Document issued by the Ministry of Science, Education and Sports named Guidelines for a strategy of education, science and technology (2012) states that *the essential role of education and research system is to provide every individual an opportunity to develop which will consequently allow them to achieve their abilities in the society of today and tomorrow. Second fundamental reason to set up a coherent and effective system of lifelong learning and education is the necessity of permanent directing, i.e. adapting, of the working-age population to variable conditions in the labour market.* Namely, directing and promoting human resources enables their complete and effective usage in order to adapt to changing conditions in the labour market, as well as to achieve personal aspirations of individuals for knowledge.¹⁰⁸

When defining prerequisites for sustainable development of Croatia (Strategy for Sustainable Development of the Republic of Croatia, 2009), one of the key challenges is to increase the number of participants in lifelong education, because in the Republic of Croatia only 0.2% of persons older than 35 participates in adult education programmes, although this is of special significance for a modern labour market. Namely, *“experience shows that growth of knowledge results in growth of employment which would, apart from reducing unemployment, help the Republic of Croatia in strengthening social cohesion and reducing regional disparities”*¹⁰⁹.

Towards the model of the Nordic countries¹¹⁰ where investments into human resources and lifelong learning are foundations of economic success and technological progress, it is necessary for Croatia as well to build a system which would meaningfully discover, encourage and direct the individual to develop skills, acquire new knowledge and apply them, in order to, based on their own views and experiences, ensure a high level of competitiveness and ability to adapt fast to new conditions and circumstances.

Since the 1st of January 2011, the Republic of Croatia fully participates in the Lifelong Learning Programme of the EU which is an instrument set up to implement the European education and training policies (learning through mobility). General objective of the Programme: *“through lifelong learning contribute to development of the EU as an advanced knowledge-based society, with sustainable economic development, larger number of jobs of higher quality, and stronger social cohesion. Particularly it aims to foster mutual exchange, collaboration and mobility between education and training systems in the EU...”*¹¹¹ After accession to the EU the Republic of Croatia will participate more actively in the development of strategies, with higher levels of implementation and access to European funds with funds to implement these strategies. The strategic framework for education cooperation with the EU is a document named “Education and Training 2020”, adopted by the EU Council in 2009, where one of the objectives is: *“to make lifelong learning and mobility a reality by, for instance, development of qualification frameworks, promotion of learning through mobility, introduction of measures for more flexible learning pathways (informal / non-formal)”*,

¹⁰⁷ *Strategija održivog razvitka RH (Strategy for Sustainable Development of the Republic of Croatia)*, 2009, Narodne novine, nr. 30, pp. 22-23;

¹⁰⁸ *Smjernice za strategiju odgoja, obrazovanja, znanosti i tehnologije (Guidelines for Education, Science and Technology Strategy)*, MZOS (Ministry of Science, Education and Sports), 2012; <http://public.mzos.hr/fgs.axd?id=18632> (17th March 2013)

¹⁰⁹ *Strategija održivog razvitka RH (Strategy for Sustainable Development of the Republic of Croatia)*, 2009, Narodne novine, nr. 30, p. 38.

¹¹⁰ Sweden, Finland, Norway and Denmark

¹¹¹ www.mobilnost.hr/index.php?id=272 (11th April 2013)

and “to improve the quality and efficiency of education and training, and enable all pupils and students to acquire essential skills and competencies needed for employment”.

Croatian Qualifications Framework (CROQF) represents a significant requirement for organization of the lifelong learning system which is a backbone of knowledge-based society and social inclusion. It is in accordance with European Qualifications Framework as part of the foreign policy of the Republic of Croatia.

3. The role of educational institutions in the process of lifelong learning and education – Case study: Faculty of Economics in Osijek

Despite the large number of unemployed, uncoordinated educational structure of the unemployed to labour market needs, educated people with insufficient core competencies for survival in the labour market or adaptation to social and economic changes, only a small number of people in Croatia participate in the lifelong learning process. According to Eurostat data for 2011 proportion of the population aged 25-64 years which participated in the lifelong learning process in Croatia was 2.3%, while the EU-27 average was higher than 8.9%, and in the Nordic countries it was as follows: Sweden 25%, Finland 23.8%, Norway 18.2% and Denmark 32.3% (see Table 1).¹¹²

Table 1 Involvement of the population in the lifelong learning process in European countries in 2006 and 2011 (proportion of the population aged 25-64 years, in percentage)

	Total		Male		Female	
	2006	2011	2006	2011	2006	2011
EU-27	9.3	8.9	8.4	8.2	10.1	9.6
Belgium	7.5	7.1	7.4	6.7	7.6	7.4
Bulgaria	1.3	1.2	1.3	1.2	1.3	1.2
Czech Republic	5.6	11.4	5.4	11.2	5.9	11.6
Denmark	29.2	32.3	24.6	25.6	33.8	39.0
Germany	7.5	7.8	7.7	7.9	7.2	7.7
Estonia	6.5	12.0	4.2	9.2	6.6	14.5
Ireland	7.5	6.8	6.1	6.3	8.9	7.2
Greece	1.9	2.4	2.0	2.6	1.8	2.3
Spain	10.4	10.8	9.3	10.0	11.5	11.6
France	6.4	5.5	5.9	5.2	6.8	5.9
Italy	6.1	5.7	5.7	5.3	6.5	6.0
Cyprus	7.1	7.5	6.5	7.2	7.8	7.8
Latvia	6.9	5.0	4.1	3.8	9.3	6.1
Lithuania	4.9	5.9	2.9	4.6	6.6	7.1
Luxembourg	8.2	13.6	7.6	14.2	8.7	13.0
Hungary	3.8	2.7	3.1	2.6	4.4	2.9
Malta	5.4	6.6	5.4	6.3	5.4	6.9
Netherlands	15.6	16.7	15.3	16.5	15.9	16.9
Austria	13.1	13.4	12.2	12.2	14.0	14.5
Poland	4.7	4.5	4.3	4.0	5.1	5.0
Portugal	3.8	11.0	3.7	10.5	4.0	11.4
Romania	1.3	1.6	1.3	1.6	1.3	1.5
Slovenia	15.0	15.9	13.8	13.7	16.3	18.2
Slovakia	4.1	3.9	3.8	3.4	4.4	4.4
Finland	23.1	23.8	19.3	19.9	27.0	27.7
Sweden	18.4	25.0	13.3	18.4	23.7	31.9
United Kingdom (2)	26.7	15.8	22.2	14.0	31.3	17.5
Iceland	27.9	25.9	22.4	22.8	33.7	29.0
Norway	18.7	18.2	17.2	17.1	20.2	19.2
Switzerland	22.5	29.9	21.7	31.0	23.4	28.7
Croatia	2.9	2.3	3.1	2.3	2.8	2.3
FYR of Macedonia	2.3	3.4	2.4	3.4	2.3	3.3
Turkey	1.8	2.9	2.1	3.0	1.5	2.7

(1) Refer to the internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/ifs_edu_a_esms.htm).

(2) 2006: unreliable or uncertain data.

Source: Eurostat (online data code: trng_ifs_01)

Source: <http://epp.eurostat.ec.europa.eu/statistics> (10th April 2013)

¹¹²[http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Lifelong_learning_2006_and_2011_\(1\)_%25_of_the_population_aged_25_to_64_participating_in_education_and_training.png&filetimestamp=20121001105931#file](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Lifelong_learning_2006_and_2011_(1)_%25_of_the_population_aged_25_to_64_participating_in_education_and_training.png&filetimestamp=20121001105931#file) (4th April 2013)

Consequently, lifelong learning in Croatia, compared to the EU countries and especially the Nordic countries, is insufficiently developed.

Faculty of Economics in Osijek, as a part of the Josip Juraj Strossmayer University in Osijek, has started since 2009 a series of professional training programmes which are within the framework of lifelong education concept, in accordance to the University Statute and article 12 of the Regulations on studies and studying at the University. These are:

- Professional training programme “Project Cycle Management”
- Professional training programme “Public Procurement”
- Professional training programme “Cost & Benefit Analysis of Investment Projects”
- Professional training programme for leaders of local and regional government units,

Furthermore, they are in the process of obtaining approval from the University to establish and carry out a professional training programme intended for school directors and bankruptcy trustees.

All aforementioned programmes should ensure necessary knowledge and skills to develop their own individual abilities and their competitiveness in the labour market.

3.1. Professional training programme “Project Cycle Management”

Process of Croatian accession to the European Union has allowed significant pre-accession funds to become available. It is anticipated that up to 2013 European Union will invest € 910.2 million in Croatia just within the IPA programme.¹¹³ Familiar with the insufficient level of knowledge required to make projects in accordance with Project Cycle Management (PCM) methodology, and wishing Eastern Croatia to participate more significantly in using EU and other international funds, Faculty of Economics in Osijek has reached a decision in 2009 to introduce a professional training programme „Project Cycle Management“. The Programme was accepted by the Josip Juraj Strossmayer University in 2009 as a part of a lifelong education programme, and it is intended for higher education personnel. Purpose of the Programme is to teach the participants about the procedures, access and making of PCM projects. By producing the final paper which represents an elaboration of project idea(s) a participant gets a Certificate of completion of professional training from the Faculty of Economics in Osijek and achieves 60 ECTS points, which can later be used for further education programmes. By May 2013 total of 93 participants have finished the Programme, throughout six generations. The educational structure of participants who completed the professional training programme “Project Cycle Management” is shown in the Table 2.

Table 2 The educational structure of participants who completed the professional training programme “Project Cycle management” at the faculty of Economics in Osijek from 2009 to 2013

Number	Occupation	Number of participants	Structure in %
1	lawyers	11	11.83
2	economists	52	55.91
3	engineers in various fields	17	18.28
4	doctors	2	2.15
5	historians	2	2.15
6	educators	3	3.22
7	political scientists	1	1.08
8	social workers	1	1.08
9	in the process of graduation	4	4.30
Total		93	100.00

Source: data of the Faculty of Economics in Osijek from 2009 to 2013, calculations made by the author

¹¹³ <http://ec.europa.eu> (17th March 2013)

Table 2 shows that within the participants who completed the professional training programme “Project Cycle Management” from 2009 to 2013, 52 out of 93 participants or 55.91% were economists.

Some of the projects administered by the completed participants have been successfully evaluated by the European Commission, and their implementation is undergoing. Very valuable example of such project is the project of designing wine roads in the Osijek-Baranja County area with the total value of approximately € 1.25 million. Overall objective of the project was improvement and development of wine tourism as a generator of development in Osijek-Baranja County. Approved EU support was approximately € 930,000.00, and the project was carried out within the pre-accession program IPA IIIc - Regional Competitiveness Operational Programme 2007-2009.

3.2. Professional training programme "Cost & Benefit Analysis of Investment Projects"

Regulatory framework of EU Cohesion Policy demands development of cost-benefit analyses for all major infrastructural projects which apply for EU funds. At Osijek-Baranja County area and beyond, there is a need for experts in making cost-benefit analyses. This will especially be significant when Croatia becomes an EU member and infrastructural and Cohesion funds become available. In order to satisfy current market needs for experts in making cost-benefit analyses, as well as expected future trends (when this need will become far more pronounced), Faculty of Economics in Osijek decided to start a professional training programme for development of cost-benefit analyses. Working on cost-benefit analyses demands specific knowledge, skills and experience for whose acquisition until now there was no adequate academic training. Purpose of the Programme is to teach participants about the procedures, access and making of cost-benefit analyses for project proposals which are demanded not only by the EU, but also many other donors and investors.

Professional training programme “Cost & Benefit Analysis of Investment Projects” was until May 2013 successfully completed by 18 participants who took 55 hours of interactive classes. Their successful completion and passing exams gives the Programme participants a Certificate of completion of professional training issued by the Faculty of Economics in Osijek and 10 ECTS points.

3.3. Professional training programme “Public Procurement”

Purpose of the professional training programme “Public Procurement” is to teach participants about the needs for general and specific knowledge and skills regarding various types of procurements, as well as planning and implementation of public procurement procedures in private, public and civil sectors in the Republic of Croatia. The Programme was structured by the contents corresponding to the European criteria. The emphasis is on acquisition of professional and practical knowledge and skills, and their implementation in practice. After the completion of professional training programme participants are trained to practically and independently implement public procurement for users in private, public and civil sectors. By January 2013, the professional training programme “Public Procurement” was completed by 12 participants of the first generation who attended 50 hours of interactive classes. After passing exams they get a Certificate of completion of professional training and 10 ECTS points.

3.4. Professional training programme for leaders of local and regional government units

To successfully run a sustainable regional and rural development new contemporary and applied knowledge are essential. Especially since the entry of the Republic of Croatia in the EU system requires a new approach to development which is based on the principles of democracy, sustainable development, economic approach to use of public property, using funds of international financial institutions, and especially resources of the Structural Funds and the Cohesion Fund of the EU.

Purpose of the professional training programme is to teach participants about procedures and approaches in leading economic policies of local and regional government units. Since there are business activities in the area of Eastern Croatia that are related to European economy, gaining new knowledge is an imperative for current and future leaders of local and regional government units.

4. Conclusion

In a globalized world where intellectual capital doesn't know of national boundaries, the concept of lifelong learning and education gives us a different approach to problem solving and adaptation to economic needs, as well as new changes that are yet to come. Economies are being built on true values of intellectual capital and based on that sustainable development is achieved. So, the focus is on economy of knowledge, innovative economy, flexible economy, information-based economy, everything that contributes to creation of new or added value. The economy of knowledge is a qualitative factor for development of certain economy. The very fact that it is not quantifiable and measurable gives it a special significance.

Development of society based on knowledge and its implementation has stressed the importance of lifelong learning and education. Lifelong learning and education in developed economies are necessary prerequisites for transformation towards the knowledge society with the final objective of raising the competitiveness, productivity and employment, and consequently, achieving stable and sustainable economic growth. Lifelong learning promotes development of intellectual capital and continued creation of added value, for an individual as well as the whole society. Since people are the main carriers of ideas, information, knowledge and skills, motivation and variety in education possibilities are a very important factor in the process of lifelong learning and education. Intellectual capital is the strategic foundation in contemporary society and economy.

Despite the large number of unemployed, uncoordinated educational structure of the unemployed to labour market needs, educated people with insufficient core competencies for survival in the labour market or adaptation to social and economic changes, only a small number of people in Croatia participate in the lifelong learning process. Lifelong learning and education system in Croatia is not adequate to obvious growing market needs. It is necessary to establish a socially acceptable value system, enable evaluation of lifelong learning and education, i.e. recognition of competences acquired in the process of lifelong learning and education, increase and stimulate investments into lifelong learning and education, and emphasize the importance of lifelong learning and education in stimulation of economic development and general prosperity of the society, as well as social cohesion.

REFERENCES

Barić, V., Jelenc Raguž, M (2008), *Značaj obrazovanja za razvoj društva znanja (The Role and Significance of Education for the Knowledge Society Development)*, 1st International Conference "Vallis Aurea", focus on: regional development, Požega;

Barro, R.J. (1997), *Education and Economic Growth*. Harvard University;

Bogović, T., Cingula, M. (2008), *Utjecaj visokog obrazovanja na razvoj informatičkog poduzetništva u varaždinskoj regiji (Higher education impact on informatics entrepreneurship in Varaždin County)*, 1st International Conference "Vallis Aurea", focus on: regional development, Požega;

Dragičević, M. (2002), *Znanje kao temeljni strateški resurs 21. stoljeća (i slučaj Hrvatske), Znanje – temeljni ekonomski resurs, (Knowledge as an Essential Strategic resource in the 21st Century (Case Study Croatia), Knowledge – an Essential Economic Resource)*, Rijeka, Faculty of Economics at the University of Rijeka;

Lev, B. (1996), *Granice financijskog izvješćivanja i kako ih proširiti (The Boundaries of Financial Reporting and How to Extend Them)*, SEC Symposium, Washington DC;

North, K. (2008), *Upravljanje znanjem – Vođenje poduzeća usmjereno prema znanju, (Knowledge Management – Leading a Company Directed Towards Knowledge)*. Naklada Slap;
Pulić, A., Bornemann, M.: *Fizički i intelektualni kapital austrijskih banaka (The Physical and Intellectual Capital of Austrian Banks)*, www.measuring-ip.at (15th January 2012);

Organisation for Economic Co-operation and Development (OECD), www.oecd.org/edu/eag2010: *Education at a Glance 2011, OECD indicators* (30th November 2011);

Hanushek, E. A. (2005), *Economic Outcomes and School Quality*. <http://unesdoc.unesco.org> (15th December 2011);

<http://www.mckinseysociety.com> (30th March 2013);

<http://public.mzos.hr/fgs.axd?id=18632> (17th March 2013);

www.azvo.hr/images/stories/visoko/PRAGUE_COMMUNIQUE.pdf, (17th March 2013);

www.mobilnost.hr/index.php?id=272 (11th April 2013);

[http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Lifelong_learning,_2006_and_2011_\(1\)_\(%25_of_the_population_aged_25_to_64_participating_in_education_and_training\).png&filetimestamp=20121001105931#file](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Lifelong_learning,_2006_and_2011_(1)_(%25_of_the_population_aged_25_to_64_participating_in_education_and_training).png&filetimestamp=20121001105931#file) (4th April 2013);

<http://ec.europa.eu> (17th March 2013);

Strategija održivog razvitka RH (Strategy for Sustainable Development of the Republic of Croatia), 2009, Narodne novine, nr. 30;

Document “Education and Training 2020.“, EU Council, in 2009;

Smjernice za strategiju odgoja, obrazovanja, znanosti i tehnologije (Guidelines for Education, Science and Technology Strategy), MZOS (Ministry of Science, Education and Sports), 2012

Professor Dragan Milanović, PhD

University of Zagreb Faculty of Kinesiology
Horvačanski zavoj 15, 10000 Zagreb
Phone: 01/3658 666, Fax: 01 / 3634146
E-mail: dragan.milanovic@kif.hr

Professor Igor Jukić, PhD

University of Zagreb Faculty of Kinesiology
Horvačanski zavoj 15, 10000 Zagreb
Phone: 01/3658666, Fax: 01 / 3634146
E-mail: ijukic@kif.hr

Zrinko Čustonja, PhD

University of Zagreb Faculty of Kinesiology
Horvačanski zavoj 15, 10000 Zagreb
Phone: 01/3658 666, Fax: 01 / 3634146
E-mail: zrinko@kif.hr

Dario Škegro, PE teacher

University of Zagreb Faculty of Kinesiology
Horvačanski zavoj 15, 10000 Zagreb
Phone: 01/3658 666, Fax: 01 / 3634146
E-mail: dskegro@kif.hr

STRATEGIC APPROACH TO THE DEVELOPMENT OF HIGH-PERFORMANCE SPORT IN THE REPUBLIC OF CROATIA

STRATEŠKA PITANJA RAZVOJA VRHUNSKOG SPORTA U REPUBLICI HRVATSKOJ

ABSTRACT

The aim of this paper is to examine a realistic strategic approach to further develop high-performance sport in Croatia. The methodology used involved an analysis of the data collected in questionnaires administered to national sport federations concerning coaches and other high-performance sport indicators. Selection and development of talent, sport schools and sport clubs, technology of sports preparation, coaches and other professional staff, organisation of sport activities on the local, regional and national levels, material and technical requirements, funding in sport, international cooperation and scientific and research activity were analysed. The most important findings of this analysis are: the selection of future athletes in Croatia is not conducted in a scientific, evidence-based manner, the programme of universal sport school established by Croatian School Sport Federation was attended by 6,712 students and it included 156 PE teachers, coaches lack understanding of the technology to be used when working with young athletes as oppose to the one used on adult high-performance athletes, there are only 11,500 coaches in sport clubs, i.e. approximately only 2.3 coaches per a sport club, total annual revenue of the sport system in Republic of Croatia is approximately about HRK 2.5 billion, public sources account for about 55 % of total revenues in sport, whereas households contribute with another 45 %. Due to this information's, strategic goals are defined.

Key words: *strategic approach, high-performance sport, development, analysis, strategic goals*

SAŽETAK

Cilj ovoga rada je analiza realnog strateškog pristupa daljnjem razvoju vrhunskoga sporta u Republici Hrvatskoj. U metodološkom smislu, analiza podataka prikazanih u ovom radu napravljena je na temelju anketnih upitnika koje su ispunili nacionalni sportski savezi o trenerima i drugim pokazateljima stručnoga rada. Područja koja su obuhvaćena analizom su: selekcija i razvoj sportskih talenata, sportske škole i sportski klubovi, tehnologija sportske pripreme za potpuni razvoj darovitih sportaša, treneri i ostali stručni kadrovi kao temeljni resurs razvoja sporta, organizacija sporta na lokalnoj, regionalnoj i državnoj razini, materijalno-tehnički uvjeti, financiranje sporta, međudržavna suradnja i znanstveno-istraživački rad. Neke od važnijih spoznaja do kojih se došlo analizom su: selekcija budućih sportaša ne provodi na egzaktan i znanstveno utemeljen način, program univerzalne sportske škole organizirane od strane Hrvatskog školskog športskog saveza je u godini 2011/2012 pohađalo oko 6.712 učenika s kojima su kao voditelji radila 256 profesora kineziologije, treneri nedovoljno razlikuju tehnologiju rada s mladima i tehnologiju rada sa već formiranim vrhunskim sportašima, u sportskim klubovima radi samo 11.500 trenera što po klubu iznosi 2.3 trenera, u hrvatski šport godišnje uđe približno 2,5 milijarde kuna, proračunski izvori sudjeluju s oko 55%, dok kućanstva sudjeluju s oko 45% u financiranju sporta u Hrvatskoj. Sukladno ovim saznanjima te ostalim rezultatima analize ponuđeni su strateški ciljevi za razvoj hrvatskog sporta.

Ključne riječi: *strateški pristup, vrhunski sport, razvoj, analiza stanja, strateški ciljevi*

1. Introduction

The concept of high-performance sport is perceived, around the world as well as in Croatia, as referring to the achievement of top sport results. The focus on the result has set the course for the development of sport science and shaped the priorities of sport professionals. Accordingly, the following topics emerge as the priority areas: the selection and systematic inclusion of children and youth in sports; athletes' motivation; technology of training; qualifications and competences of coaches; and the organisation and material and technical conditions for acquiring and mastering sport skills and for planning, programming and implementing sport preparation.

This paper sets out to examine a realistic strategic approach to further develop high-performance sport in Croatia. In the past 30 years a number of documents and studies have been drawn up and published focussing on the conceptual, strategic or programming baseline of sport, i.e. on the analysis of sport or some of its elements in Croatia: *Plan for the Development of Top Sport Achievements in the Socialist Republic of Croatia* (1978), *Analysis of the Development of Physical Education in the Socialist Republic of Croatia in the Period 1981 – 1985 and the Analysis of the Development Potential in the Period 1986 – 1990* (1984), *Physical Education Models* (1987), *Future Sport Development Policies of the Republic of Croatia* (1991), *Report of the Croatian Sport Convention* (1999), *Sport Development Strategy of the Republic of Croatia* (2000), *Sport Models for Croatia in the 21st Century* (2000), *Croatian Sport Development Strategy Proposal of the Work Group of the President of the Republic of Croatia* (2000), *The Present State and the Future Prospects for Sport in Zagreb* (2001), *Developmental Goals of Croatian Sport* (2004), *Sport Development Programme of the City of Zagreb 2006 – 2010* (2005), *Strategy for the Development of School Sport in the Republic of Croatia 2009 – 2014* (2009.), *Principles and Guidelines for Sport Development in the Republic of Croatia* (2011), and *Coaches and Positions in Sport in Croatia* (2011). However, a comprehensive document primarily focussing on the strategic goals of the high-performance sport development has not been developed yet.

The methodology used involved an analysis of the data collected in questionnaires administered to national sport federations concerning coaches and other high-performance sport indicators. Of the total of 82 national sport federations, 44 have filled out the questionnaires. The authors of the paper collected other high-performance sport indicators. The results were processed using the basic descriptive methods for data analysis.

3. Strategy for the development of high-performance sport in the Republic of Croatia – setting and achieving goals

3.1. Strategic approach

In Croatia, the position of high-performance sport has still not been clearly defined in relation to other human activities. The jobs, rights and obligations related to certain segments of high-performance sport – such as coaches and other sport staff; sport clubs, sport federations and other sport organisations; or school and club sport – have not been clearly marked out either.

The problem of insufficient level of systematization of certain segments of the sport system must be dealt with by passing and implementing legal acts and subordinate legislation. These documents shall form the baseline for the development of a development strategy. Lacking data on the number of sport clubs, the number and education level of professional staff and other sport staff, and the number and the condition of sport facilities can hamper the efforts to systematically approach the development of sport strategy. The data reflecting the state of high-performance sport in Croatia should be further expanded on the basis of analysis and studies examining the state of individual segments of sport.

Legislation regulating all segments of sport, data on the current state of affairs, projections for the future, the standards and values to aspire to, as well as the goals and priorities incorporating the professional and national interests, form the baseline of strategic efforts.

All the elements of high-performance sport development are very complex and involve their own objectives and measures. It is thus important to find the balance between well-argued needs and wants and realistically available resources of the Croatian society, and sport as its important element.

3.2. Strategic approach to sport development in the Republic of Croatia

3.2.1. Selection and development of talent: *Identifying and guiding future high-performance athletes*

Definition of the strategic element:

Selection is the process of identifying talented individuals who might, under certain criteria, be capable of outstanding sport results. The selection process should begin early on and at the time when anthropological dimensions of potential athletes can be determined with a high level of reliability. Selection of athletes is carried out by comparing individual's characteristics with the explicitly defined model characteristics for a particular sport and by analysing the similarity between the anthropological profile of the individual and the dimensions in the hierarchical structures of the sport success specification equation. The process of selection requires an insight into the required specific characteristics of an individual capable of achieving a certain result.

Current state of affairs:

Nowadays, the selection of future athletes in Croatia is not conducted in a scientific, evidence-based manner. The choice of a sport is very often left to chance and athletes often choose a sport which

does not match their abilities and skills. Furthermore, the current system makes it almost impossible to encompass an entire age group of children and gain an insight into their sport potential.

Strategic goal:

Steps must be taken to improve the quality of selection criteria. This involves the development of specification equations for specific sport fields and, more importantly, development of model characteristics of athletes of various ages and different quality levels by sport fields and disciplines.

To develop the top athlete model for a specific sport field and to monitor the (qualitative and quantitative) changes taking place simultaneously with the improvement of sport performance in a multi-annual cycle. Such a model will serve as a role model to be followed by other athletes on their path to top sport results in adult sport age.

3.2.2. Sport schools and sport clubs: *Places of high concentration of talent*

Definition of the strategic element:

Long-term sport specialisation is to be implemented in sport schools. Universal sport schools involve an organised approach to sport activities of children and they can be organised in kindergartens, primary schools, sport clubs and other public or private institutions. They carry out exercise and learning programmes focussing on multifaceted psychosomatic development and on gaining various motor experiences. The training process is conducted and monitored within sport activity groups.

Talent for a specific sport field needs to be recognized at a very early age. This is especially true when it comes to sports requiring the implementation of the selection process at the age of seven or eight. At that time the final choice of a sport takes place. All children that demonstrate talent in sport schools should be included in a highly organised and professionally guided training process in sport clubs, since sport clubs should be the places of top-quality sport in Croatia.

Current state of affairs:

At this point, an organised and professionally-led system of universal sport schools in Croatia can only be found within the school sport system. Croatian School Sport Federation launched the programme of universal sport schools in the school year 2007/08. Universal sport schools were designed for children aged 6-10, i.e. grades 1-4 of primary school. In the school year 2011/2012, a total of 307 groups in 263 primary schools were founded. The programme was attended by 6,712 students and it included 256 PE teachers (Jukić, G., 2012)

Unfortunately, the school sport and the club sport systems have not yet forged close cooperation aimed at the selection, monitoring and directing talented children towards the club sport system.

Strategic goal:

The development of universal sport schools within the Croatian School Sport Federation must be further improved and a national system of selection, monitoring, guiding and directing sport talents towards the matching fields of sports, i.e. towards the club sport system involving children in a high-quality, competitive sports activity and a high-quality and systematic training process.

3.2.3. Technology of sports preparation for a full development of talented athletes: *Coaches must know how to manage the training process in order for the athlete to realise his or her full potential and achieve top sport results*

Definition of the strategic element:

Technology of sports preparation comprises high-quality systems of training, competition and recovery process. Each phase of athlete's development should be characterised by clearly defined criteria and standards of the training process, an adequate number and level of competitions, and an adequate and multiple recovery methods.

Croatian professionals and scientists should define the laws of transformation processes in youth sport more clearly in order to ensure reliable realisation of genetic predispositions of young athletes. This is the area where coaches uncritically use the "recipes" which they remember were used by their coaches or which they were advised to use, even though they have no scientific or professional justification. This is especially the case in training of young athletes.

Current state of affairs:

Coaches lack understanding of the technology to be used when working with young athletes as oppose to the one used on adult high-performance athletes. It is sometimes the case that athletes enter the adult category with insufficiently developed skills and underdeveloped basic and specific motor abilities. Due to inadequate training technology, many of them were left at the threshold of top sport without realising their potentials.

Strategic goal:

The strategy for the development of a Croatian sports training school should be developed. A comprehensive strategy is to be developed first, followed by strategies for particular sport fields, primarily those that seem to be the most appealing ones to youth and in which professionals have identified the most talent.

There is an urgent need for discontinuing the practice of premature specialisation of very young sport talents. Accelerating sport development of a young athlete for a short-term success of a sport club, personal gain of a coach or because the young athlete cannot handle the uncertainty of the final success can jeopardise the athlete's future development as well as his or her health.

In terms of technology, special attention should be given to athletes that have the potential to compete at major international competitions. Considering the fierceness of international competition, these athletes need to be prepared based on the most advanced scientific principles and bearing in mind the long-term goals.

3.2.4. Coaches and other professional staff as the driving force of the development of sport: *Coaches that have received adequate qualifications and training should carry out only the part of the work that corresponds to their level of expertise*

Definition of the strategic element:

Extremely important questions regarding the development of sport refer to professional staff carrying out professional activities in sport. In the professional staff hierarchy, coaches are at the top of the pyramid, representing the most significant profession in sport.

The decisions on the level of load put on the athletes, the selection and time distribution of training programmes and the implementation of control methods for monitoring the effects of training should be left to coaches with adequate education and level of professional competence.

Within the sport system there is a need for qualified coaches of various profiles. In Croatia, the education of coaches is organised in the form of training courses (assistant coach – teacher – instructor of a particular sport), undergraduate professional study programmes for coaches, full-time university study programme and postgraduate specialist study programme.

Current state of affairs:

An analysis of the data obtained from national sport federations on coaches and the professional work carried out in the Croatian sport system suggests that the position of the coaching profession in the Croatian sport system is an unfavourable one. A significant lack of coaches has been identified.

Currently, there are only 11,500 coaches in sport clubs, i.e. approximately only 2.3 coaches per a sport club. There is a particularly noticeable deficiency of coaches in certain sports and in certain counties. The imbalance between the number of coaches and the number of sport clubs suggests that there is a general deficiency of coaches and that too little attention is given to professionalism in the activities of sport clubs. A huge gender imbalance has also been observed, with only 6 % of female coaches in the total number.

The majority of coaches in the Croatian sport system (75 %) coach younger age groups, while 15.5 % coach adult athletes. There is a very small percentage of assistant coaches (4.6 %) and strength and conditioning coaches (0.8 %), suggesting that coaches in Croatia are still perceived to be “universal” coaches, working without the support of an adequate professional team of specialised coaches. This is a major adverse factor affecting the quality of coaching in Croatian sport (Table 1).

Table 1 The structure of coaching jobs (Čustonja, Jukić, Milanović, 2011)

Coaches of adult athletes	Assistant coaches of adult athletes	Strength and conditioning coaches	Coaches of younger age groups	Other
15.5%	4.6%	0.8%	75%	4.5%

The situation is also unfavourable with respect to the qualification level of the coaches. Of the total number of the coaches included in the analysis, 2,194 or 37.2 % does not meet legal requirements prescribed for the coaching job, i.e. they are underqualified and, consequently, they lack competences required to carry out a coaching job. The identified qualification level of male coaches was higher than that of female coaches. Almost 50 % of the coaches included in the sample were entry-level coaches who had recently received a qualification in a training course. Most of them received training organised by the Football Academy of the Croatian Football Federation (NHL) (Table 2).

Table 2 Qualified and underqualified coaches (Čustonja, Jukić, Milanović, 2011)

Qualified coaches	Underqualified coaches
62.8 %	37.2 %

* The minimum level of qualification required to carry out a coaching job is prescribed in the Sports Act (Official Gazette NN 71/06, Article 9, Paragraphs 2 and 3)

Only 30% of the coaches have received the full qualification in Croatia, i.e. graduated from of the faculties of kinesiology or the former Coach Education and Training Department, which has since November 2011 been operating at the Faculty of Kinesiology in Split and in Zagreb under the name Study Centre for Coach Education and Training. There is no doubt that there is both a significant potential and demand of the coaching staff and that there are many possibilities for future activation of that potential. The sport system must develop the capacity for the absorption of the coaches with the highest qualification level, create conditions for their employment and stimulate kinesiology graduates to become involved in the sport system.

It is also necessary to stimulate the existing providers of coach education and training to make more coach training and education programmes available in order to generate more qualified coaches and to develop new programmes for coach education and training, especially in sports plagued by a major deficiency of qualified coaching staff (Table 3).

Table 3 Education structure of coaches (Čustonja, Jukić, Milanović, 2011)

University education		Professional education		Croatian Olympic Academy (HOA) ²	Football Academy of Croatian Football Federation ¹	Student ²	Other ²	Total
Faculties of kinesiology ¹	Other ²	Coach Education and Training Department/ Study Centre ¹	Other ²					
15.6%	1.7%	14.4%	6.9%	16.3%	32.9%	7%	5.2%	100%

¹ qualified to carry out some coaching jobs

² generally underqualified to carry out coaching jobs

The minimum proportion of qualified coaches in an Olympic sport is only 1.5 % and there are a few national sport federations of non-olympic sports which do not have any qualified coaches. Underqualified coaches, i.e. the coaches who do not hold legally prescribed minimum qualification for the coaching job, make up the majority of coaches in the majority of sports.

Only 27.4% of the coaches are employed in sport clubs on either a temporary or a permanent employment contract. These coaches are considered to be professional coaches. Most coaches (as many as 72.6 %) are not professional coaches – they either work as volunteers or as contractors (paid based on a temporary service contract) (Table 4).

Table 4 Employment status of coaches (Čustonja, Jukić, Milanović, 2011)

Permanent employment contract	Temporary employment contract	Temporary service contract	Volunteers	Total
11.1%	16.3%	28.7%	43.9%	100%

The fact that the smallest proportion of coaches, only 11.1 %, is employed on a permanent employment contract is alarming. That means that the smallest percentage of coaches makes a living coaching. This fact can deflect young people from pursuing education and career in coaching.

Coach profiles in the elite sport include:

- Master of sports kinesiology – university specialist in sports kinesiology (postgraduate specialist study programme)
- Kinesiology graduate (master) – sports coach (integrated five-year university study programme)
- Professional bachelor degree – sports coach (professional study programme for coach education and training)
- Teacher – instructor – coach – training courses within the Croatian Olympic Academy and Football Academy of the Croatian Football Federation.

Strategic goal:

Principal strategic objectives for raising the level of coaching expertise are the following:

- different levels of selection of potential candidates for future coaches;

- basing the education and training of coaching staff on the most recent findings in order to improve their efficiency as coaches;
- ensuring continual professional education of coaches in the form of seminars, consultations and national and international conferences.

Considering the vital role that the coaching staff has in all the future top sports results, all the future strategies for sport development in Croatia will have to focus on overcoming the challenges posed by the number, qualification level and employment status of coaches.

There are several clear strategic goals to strive towards achieving: 1) a significant increase in the number of coaches in sport clubs; 2) promotion of professional team work and inclusion of relevant experts in different segments of sport preparation; 3) making it impossible for the unqualified and underqualified individuals to perform coaching jobs; 4) a significant increase in the number of coaches with a higher education degree in the population of qualified coaches; 5) increased attention to regulating and improving the employment status of coaches in the Croatian sport system.

It is of strategic importance to delineate the area of professional competences, jobs and responsibilities of professionals of various profiles with respect to sport preparation and sport results. Professional teams led by a sport coach should be a guarantee of top sport results in Croatia.

3.2.5. Organisation of sport activities on the local, regional and national levels: *Governmental and non-governmental sector of sport management*

Definition of the strategic element:

Organisational needs of sport vary considerably depending on the age, sex, level of sport achievements as well as the position of sport in society and the sport value system. Sport is characterised by a wide spectrum of organisational forms, ranging from sport rehabilitation to high-performance sport, from swimming schools for young children to performances at the Olympics. Considering this variety, it is of utmost importance for the providers of these services to meet the quality requirements with respect to their organisational structure.

Current state of affairs:

Organisational prerequisites for achieving top sport results involve the existence of a system of various organisations and institutions with a view to:

- enabling transition from the lower to the higher levels of sport engagement
- enabling mass participation in sport on the lower levels of sport engagement and elitism on the highest levels (pyramidal character)
- for each level of sport engagement, clearly defining the participants, activities, levels and types of sport preparation programmes, conditions for the implementation of the activities and methods for controlling their effects
- belonging to a single system, but simultaneously participating in networks of institutions and organisations from other systems, enabling them to achieve their goals and objectives through primary and secondary activities.

Strategic goal:

Responsibilities of principal institutions and organisations, as well as the relations among them, should be determined in the organisational scheme comprising the Croatian Olympic Committee

with national sport federations, the Ministry of Science, Education and Sport with the National Council for Sport, and the Faculty of Kinesiology in Zagreb and the Faculty of Kinesiology in Split with their respective science institutes and sport research and development centres.

It is strategically important to include regional high-performance sport research centres in the organisational structure, in particular the national high-performance sport institute to be founded in the near future, as well as to ensure reliable funding for the required projects and studies.

3.2.6. Material and technical requirements: *Capacity building*

Definition of the strategic element:

Material and technical requirements for the development of high-performance sport include planning, development, maintenance and availability of sport facilities and equipment. Funding has a key role in the realisation of this segment of the sport preparation system and high-performance sport development.

Tackling the ownership and estimate value issues relating to the sport infrastructure should be made a priority; a high-quality infrastructure cannot be built without clearly defined jurisdiction and accountability, and a high-quality and availability of infrastructure is a prerequisite for a greater inclusion of the population of all age groups in sport.

Current state of affairs:

Sport facilities should meet the size, quality and sanitary requirements. In the context of an ongoing expansion of sport in Croatia, a general lack of sport halls, pools and outdoor courses has been observed. However, no concrete data is available since there have not been any comprehensive studies carried out regarding the current state of sport facilities in the past 20 years and no plan for the development of a network of sport facilities has been adopted.

To date, no legislation has been passed prescribing the spatial requirements, standards and norms for sport facilities in a sport facility network and the special requirements for planning, programming, designing, developing and maintaining sport facilities and ensuring the safety of their users.

Installing adequate equipment for the implementation of the training process is essential. Modern equipment and instruments ensure a higher quality of training.

Strategic goal:

A registry of sport facilities should be compiled as soon as possible, providing a list of the existing facilities and indicating the areas where further development of indoor and outdoor (open-air) facilities is required, considering the special demands of different sports.

Investments in maintenance of the existing sport infrastructure and development of new capacities cannot be directed in an effective manner without a detailed insight into the available sport infrastructure, their ownership structures (owned publicly, locally, privately, or by a sport federation) and their use and management. Instrumental in achieving this goal would be the above mentioned legislation (a by-law) regulating spatial conditions, standards and norms for sport facilities and a universal sport information system.

Significant funds should be allocated for the acquisition of modern diagnostic and training equipment for top athletes. Sport centres should have diagnostic instruments enabling objective measuring of the preparedness of athletes.

3.2.7. Funding in sport: *Find reliable sources and distribute funds rationally*

Definition of the strategic element:

The issue of financing in sport is vital for further development of sport in Croatia. There are three sources of financing of the sport system: households, public funds (the state budget and the local budgets), and the business sector (sponsorships, media, broadcasting rights, etc.).

In the mixed financing model, budget funds allocated for sport, i.e. usually for sport organisations, are a very important source of financing. Regarding the public financing, the majority of funds are allocated from local budgets, whereas the state budget has a less significant role.

Current state of affairs:

According to Škorić and Čustonja (2011) “the basis of sport financing is the revenue which the legal and natural persons that perform sporting activities obtain by performing sporting activities, the membership fees obtained by sports associations, a part of the revenue from organizing games of luck, and the funds given by local and regional self-governing units, the City of Zagreb and the State to help the performance of sporting activities. The Republic of Croatia, the local and regional self-governing units and the City of Zagreb shall determine the public needs in sports and ensure the funds for their achievement from their own budgets in accordance with this Act. The task of central government is to help the functioning of the entire sports system through determining the public needs in sport and providing the necessary funds to finance those needs. Public needs in sport at the state and local levels are determined by the Sports Act” (Official Gazette NN 71/06, Articles 75 and 76). The public needs catered for from the budgets of local and regional self-governing units and the City of Zagreb are not significantly different, and they are also set out in the Sports Act (Official Gazette NN 71/06, Article 76).

However, it is not possible to clearly identify the origins of funding in sport, i.e. the share of private and public sources. This is primarily a result of a lack of comprehensive analyses and studies examining the funding and economic impacts of sport in Croatia.

According to the available data, in 2008, Croatian households spent an annual average of HRK 3,359 on sport, which was about 5.2 % of their total income. The majority of money was spent on clothes (34.4 %) and footwear (27.1 %), fees (12.9 %), entrance tickets (10.5%), equipment (9.1 %), and gambling (5.9 %) (Sever, 1999:43). Assuming that the household expenditure relating to sport has not changed in the past 13 years and that it still amounts to HRK 3,359, and considering that there are 1,477,377 households in Croatia according to the 2001 census, the total annual household expenditure on sport in Croatia is almost HRK 5 billion (Table 5). The system directly receives 23 % of the total amount referring to fees and entrance tickets, or about HRK 1.16 billion. It receives almost another HRK 300 million indirectly, from gambling.

If we accept this currently available estimate of the household expenditures as realistic and if we add up other known revenues in sport, we come to the total annual revenue of the sport system of about HRK 2.5 billion (Table 5).

Table 5 Estimate of the structure of financing of sports in Croatia in 2008 (in HRK million) (Škorić, Čustonja, 2011)

	Households	Business sector	State Budget	Local budgets	Private sources-total	Public sources-total	Overall financing of sport
Amount	1,161.2	/	328.5	1,093.6	1,161.2	1,422.1	2,583.3
Percentage	45 %	/	12.7 %	42.3 %	45 %	55 %	100 %

Having in mind methodological limitations related to data collection and analysis, it may be concluded that the financing of sport and the structure of revenues in sport differs from those of the

analysed EU countries. Public sources account for about 55 % of total revenues in sport in Croatia, whereas households contribute with another 45 %. However, the data on the revenues from other sources, such as sponsorships, donations, etc. are still not available.

Strategic goal:

The system of sport, in particular the children, youth and student sport, the sport for the disabled, sport recreation and high-performance sport, can only be further developed if a strong financial support from the public sources is ensured. In this sense, the following steps should be taken (Škorić and Čustonja, 2011):

- draw the line between the club sport and other types of sport activities; high-performance club sport would not receive significant funding from the public sources;
- increase the quality and transparency of the allocation of funds according to public needs programmes;
- propose categorization of sports to be taken into consideration in the public funds allocation, both on the local and the regional levels, and taking into account specific public needs of the given area;
- introduce a tax relief system to provide incentive to potential sponsors, especially those interested in sponsoring high-performance club sport;
- create legal preconditions to enable high-performance sport clubs that are not publicly financed to engage in business and entrepreneurial activities;
- increase sport revenues from the gambling business and improve the system of the allocation of these funds.

3.2.8. International cooperation: *Inclusion in European sport and financial institutions*

Definition of the strategic element:

Organised Croatian sport institutions maintain different forms of cooperation with international partners, bringing the global know-how and experience closer to Croatian sport staff and coaches. This cooperation most often takes place via national Olympic committees and higher education institutions.

Current state of affairs:

There are too few Croatian representatives in *international sport* organisations and associations. These representatives should have an important role in promoting and safeguarding the interests of Croatian sport in general as well as those of individual sport fields and athletes. The international sport organisations concerned include primarily European and world sport federations and the IOC working groups.

Our experts and scientists from different fields of sport science partake in annual international conferences worldwide. Some of them are members of European and global scientific organisations.

Strategic goal:

International sport activity should be given a strong impetus through intensification of cooperation with the IOC and international sport associations. A greater number of experts should be selected and encouraged to use their knowledge and positions in particular sports to promote Croatian sport and sport federations on the global scene.

3.2.9. Scientific and research activity: *Partnership of the science, profession and practice*

Definition of the strategic element:

The majority of countries whose athletes achieve world-class sport results have a high level of scientific and professional activity. Improved financing of applied science projects carried out by

sport research and development centres within sport institutes operating on the national and regional levels can give an impetus for the development of sport and sport achievements.

Current state of affairs:

In Croatia, a scientific centre primarily carrying out sport research has not been established yet. The Faculty of Kinesiology of the University of Zagreb has highly-qualified academic personnel from the field of sport study and interdisciplinary studies that develop and conduct projects and research generating results that are potentially instrumental for the development and affirmation of Croatian sport but rarely applied in sports training technology.

Professional and scientific journals and publications, available to the wider public, including sport coaches, are another platform for international communication among experts and professional institution.

Strategic goal:

Research results should be taken into consideration by athletes and coaches. The transfer of knowledge can only be complete if coaches, athletes and sport researchers participate in seminars and workshops.

It is necessary to encourage new forms of involvement of highly qualified staff, especially researchers, in sport clubs, sport federations and professional bodies of the Croatian Olympic Committee.

Sport research and development centres and sport institutes on the national and regional levels should be able to tackle various theoretical aspects of sport and sports training methodology with a view to creating conditions for a safe and humane development of talented athletes, reaching an optimum level of readiness of athletes and achieving top sport results at major national and international competitions.

4. Conclusion

This paper lists only the most important elements of the high-performance sport development strategy. These elements require further elaboration, including more detailed data and figures that will ensure more accurate representation of the current state and the set goals.

Main strategic goals for the development of Croatian sport:

1. Developing and improving the quality of the criteria for the selection of future athletes.
2. Continuing the development of the universal sport school system and introducing the selection system for talented children in a particular sport, resulting in basic preparation and sport specialisation of children and young athletes for achieving top sport results at the adult age.
3. With respect to sports technology, focussing on continual improvement of the sport preparation process based on research results as well as academic and practical expertise.
4. Clearly defining the complexity levels of coaching jobs and the level of qualification required to perform jobs of a certain complexity level. Professional teams led by highly qualified sport coaches should be a guarantee of safe sports preparation and top sport results.
5. Defining the responsibilities of key institutions in the organisational scheme – the Croatian Olympic Committee, Ministry of Science, Education and Sport, Faculty of Kinesiology of the University of Zagreb and Faculty of Kinesiology of the University of Split – and the relations among these institutions.
6. Urgently compiling a detailed registry of sport facilities, providing a list of the existing facilities and indicating the areas where further planning, development, maintenance and utilisation of indoor and outdoor facilities is required, considering the special demands of different sports.

7. Increasing the quality and transparency of the allocation of funds according to public needs programmes; introducing a tax relief scheme; encouraging business and entrepreneurial activity in sport; and increase sport revenues from the gambling business.
8. Selecting a greater number of Croatian experts and encouraging them to use their knowledge and positions to promote Croatian sport and sport federations on the global scene.
9. Intensifying the funding of applied scientific research and disseminating research results to coaches and athletes through transfer centres.

Considering the present state of affairs, the safest course of action in further development of sport in Croatia is that of **launching a nation-wide project** involving definition of priorities and goals for sport development by 2020 (Sport Development Strategy) and compilation of an action plan for the implementation of the strategy, elaborating the actions to be taken, timeframes for their implementation, methods for monitoring the implementation and evaluating the effects (National Programme for Sport Development by 2020).

REFERENCES

Čustonja, Z., Jukić, I., Milanović, D. (2011). Treneri i stručni poslovi u hrvatskome športu (neobjavljeni dokument Nacionalnog vijeća za šport). [Coaches and Expert Jobs in Croatian Sport (unpublished document of the National Council for Sport). In Croatian.]

Croatian Olympic Committee (1999). Izvješće hrvatskog športskog sabora. [Croatian Sport Convention Report. In Croatian.], Croatian Sport Convention Proceedings, Zagreb, 1999.

Croatian Sport Federation (1991). Projekcija politike razvoja hrvatskog športa. [Projection of the Policy for the Development of Croatian Sport. In Croatian.], Zagreb: Croatian Sport Federation

Jukić, G. (2012). Godišnjak Hrvatskog školskog športskog saveza 2011./2012. [Croatian School Sport Federation Yearbook for the year 2011/2012. In Croatian], Zagreb: Croatian School Sport Federation.

Milanović, D. (2000). Hrvatski sportski model za 21. stoljeće. [Croatian Sport Model for the 21st Century. In Croatian.], Olimp, 5, 8-11.

Milanović, D. (2000). Strategija razvoja hrvatskog športa. [Strategy for the Development of Croatian Sport. In Croatian.], Olimp, 4, 4-7.

Milanović, D. (2010). Teorija i metodika treninga. [Theory and Methodology of Training. In Croatian.], Zagreb: Coach Education and Training Department, Zagreb Polytechnic for Social Sciences and Faculty of Kinesiology, University of Zagreb.

Milanović, D. (Ed.) (2001). Stanje i perspektive zagrebačkog sporta. [The Present State and the Future Prospects for Sport in Zagreb. In Croatian.], Zagreb: Faculty of Physical Education, University of Zagreb and Zagreb Sport Federation.

Milanović, D. et al. (2009). Strategija razvoja školskoga športa u Republici Hrvatskoj 2009. - 2014. [Strategy for the Development of School Sport in the Republic of Croatia 2009 – 2014. In Croatian.], Zagreb: Ministry of Science, Education and Sports of the Republic of Croatia.

Milanović, D., Čustonja, Z., Bilić, D. (Ed.) (2011). Temeljna načela i smjernice razvoja športa u Republici Hrvatskoj. [Principles and Guidelines for Sport Development in the Republic of Croatia.

In Croatian.], Zagreb: Ministry of Science, Education and Sports of the Republic of Croatia, downloaded from the web-page: <http://public.mzos.hr/Default.aspx?sec=3311> (25th March 2013).

Milanović, D., Jukić, I., Čustonja, Z. i Šimek, S. (2004). Razvojni pravci hrvatskog sporta. [Developmental Goals of Croatian Sport. In Croatian.], In: Bartoluci, M. (Ed.). Sport in Tourism. Proceedings of the International Scientific Convention "Management in Sport and Tourism", Zagreb Fair, 20th and 21st of February, Faculty of Kinesiology, University of Zagreb, p. 1-10.

Milanović, D., Jukić, I., Čustonja, Z. i Šimek, S. (2004). Tjelesno vježbanje i sport u odgojno-obrazovnom procesu – strateški pristup. [Physical Exercise and Sport in Education Process – Strategic Approach. In Croatian.], In: I. Prskalo (Ed.), Proceedings of the International Scientific Professional Convention "School and Development", Topusko, 13th and 14th of May, p. 28-37. Petrinja: The Teachers' School of Professional Higher Education, Petrinja.

Škorić, S i Čustonja, Z (2011). Financiranje športa. [Financing in Sport. In Croatian.], In: Milanović, D., Čustonja, Z., Bilić, D. (ed.), Principles and Guidelines for Sport Development in the Republic of Croatia, Zagreb: Ministry of Science, Education and Sports of the Republic of Croatia, downloaded from the web-page: <http://public.mzos.hr/Default.aspx?sec=3311> (25th March 2013).

Marko Orkić, B.Sc.Civ.Eng.
Dubravko Ižaković, prof.
Darko Trubeljak, B.Sc.Civ.Eng.
Tomislav Suk
Darko Dumančić, prof.

SVOD d.o.o.
For designing and civil engineering
Gundulićeva 61a/II
31000 Osijek, Croatia
Tel: +385 31/297-334
Mob: +385 99/212-2513
Fax: +385 31/297-334
e-mail: marko@svod.hr

DEVELOPMENT OF ATHLETICS THROUGH CONSTRUCTION OF ATHLETIC TRACKS AND VENUES

RAZVOJ ATLETIKE KROZ IZGRADNJU ATLETSKIH TRKALIŠTA I BORILIŠTA

ABSTRACT

The basic problem is the lack of athletic track and the lack of a systematic approach to the construction of athletic track in terms of the development of athletics and sports in general.

To achieve this goal it is necessary to take several steps. Athletic track cadastre for the region should be developed with reference to the existing tracks in Croatia, illustrate the possibility of constructing athletic tracks and venues in combination with other sports fields, focus on the size of land for construction and the cost in relation to the number of running lanes at the track and sports fields.

Next step would be to explore the possibility of constructing sixty, two hundred, three hundred thirty three and four hundred meters athletic tracks with an emphasis on construction of unified compact two hundred meters athletic tracks with basic venues and multifunctional sports fields situated on outer areas of elementary and high schools .

It is necessary to emphasize the importance of obtaining certificate or consent for the project solution by the Croatian athletics federation, Olympic committee, line ministry and Faculty of Kinesiology, University of Zagreb, to analyze the cost-effectiveness (validity) of constructing athletic tracks with venues and sports fields at regional level.

By implementing the above steps it is possible to positively influence the sport culture in elementary and high school, and the development of basic sports (athletics) which is a predisposition for all other sports.

Methodology work is desk study. The objective of this paper is to show in which way to encourage the development of athletics at the regional level.

Key words: *athletics, development, financing*

SAŽETAK

Osnovni problem je manjak atletskih staza i nepostojanje sustavnog pristupa izgradnji atletskih staza u smislu razvoja atletike i sporta u cjelini.

Da bi se taj problem riješio potrebno je poduzeti nekoliko koraka. Treba izraditi katastar atletskih staza u regiji sa prikazom postojećih staza na području Republike Hrvatske, prikazati mogućnost izgradnje atletskih trkališta i borilišta u kombinaciji s ostalim sportskim terenima, te osvrtnom na veličinu zemljišta za izgradnju i visinu troškova izgradnje u odnosu na broj atletskih staza na trkalištu i sportskih igrališta.

Slijedeći korak bio bi istražiti mogućnost izgradnje šezdeset, dvjesto, tristo trideset tri i četiristo metarskih atletskih staza s naglaskom na izgradnju unificiranog kompaktnog dvjesto metarskog atletskog trkališta sa osnovnim borilištima i multifunkcionalnim sportskim igralištima na vanjskim prostorima osnovnih i srednjih škola.

Potrebno je naglasiti važnost ishoda certifikata odnosno suglasnosti na projektno rješenje od strane Hrvatskog atletskog saveza, Olimpijskog odbora, resornog ministarstva i Kineziološkog fakulteta u Zagrebu i analizirati isplativost (opravdanost) izgradnje sportskih trkališta sa borilištima i sportskim igralištima na regionalnoj razini.

Provođenjem gore navedenih koraka moguće je pozitivno utjecati na sportsku kulturu u osnovnom i srednjem školstvu kao i razvoju baznih sportova (atletike) koja je predispozicija za sve ostale sportove.

Metodologija rada je desk istraživanje. Cilj ovoga rada je prikazati na koje se načine može potaknuti razvoj atletike na regionalnom nivou.

Ključne riječi: atletika, razvoj, financiranje

1. Introduction

Over the past ten years we were intensively dealing with designing and supervision of works on construction and reconstruction of athletic tracks and venues.

Since in this times of crisis we can not expect extreme expansion of athletics at the club level, and therefore neither the construction of large athletic tracks and venues, we have developed several types of school playgrounds for which we will soon get a certificate from Croatian Athletic Federation with a recommendation towards Line Ministry and local Government to invest in this type of fields because it is expected that with entry into the European Union the development of basic sports, including athletics will intensify.

2. Cadastre of athletic tracks

The main reason to make cadastre of athletic tracks is to get information about number, location and condition of existing tracks in regions of Croatia.

On seventeen different locations in Croatia there are constructed athletic tracks (Figure 1, Table 1.). As it can be seen in some areas it is not possible to develop adequate athletic culture because they have minimum or none athletic infrastructure.

Constructing new smaller(200m) tracks with sports fields near schools it is possible for minimum cost to make positive influence on children, their sport culture and athletics.

Developing cadastre gives us possibility to see real condition of existing tracks, helps us to plan their reconstructions and construct new ones. It is also important when cadastre is finished to make update on regular basis by Croatian Athletic Federation each year so they always know real and exact situation.

Figure 1 Tracks in Croatia



Source: author

Table 1 Tracks in Croatia

	LOCATION	TRACK LENGHT	NUMBER OF LANES
1	BJELOVAR	400 m, 70 m	6, 5
2	ČAKOVEC	400 m	8
3	KARLOVAC	400 m, 333 m	8, 5
4	KUMROVEC	400 m	8
5	MAKARSKA	400 m	6
6	OSIJEK	400 m, 2 x 333 m	8, 6, 5
7	OTOK	200 m	5
8	POREČ	400 m	6
9	PULA	400 m	8
10	RIJEKA	400 m, 333 m	6, 5
11	SLAVONSKI BROD	400 m	6
12	SINJ	400 m	6
13	SPLIT	2 x 400 m	8, 6
14	VARAŽDIN	400 m, 333 m	8, 5
15	VINKOVCI	400 m	6
16	ZADAR	400 m	6
17	ZAGREB	3 x 400 m	8, 8, 8
		4 x 333 m	4, 5, 4, 4

Source: author

3. Athletic tracks and venues in combination with other sports fields

Athletics is an exclusive collection of sporting events that involve competitive running, jumping, throwing, and walking. The most common types of athletics competitions are track and field, road running, cross country running, and race walking. The simplicity of the competitions, and the lack of a need for expensive equipment, makes athletics one of the most commonly competed sports in the world. Athletics is mostly an individual sport, with the exception of relay races and competitions which combine athletes' performances for a team score, such as cross country.

Because athletic is basic sport, which is a predisposition for all other sports it is recommendable to combine track with other sport fields. Depending on the land area it is possible to construct 400 m, 333 m, 200 m and 60 m tracks combined with sport fields (Table 2.). As is evident (Table 2.) the optimal are 400 and 200 meters athletic tracks.

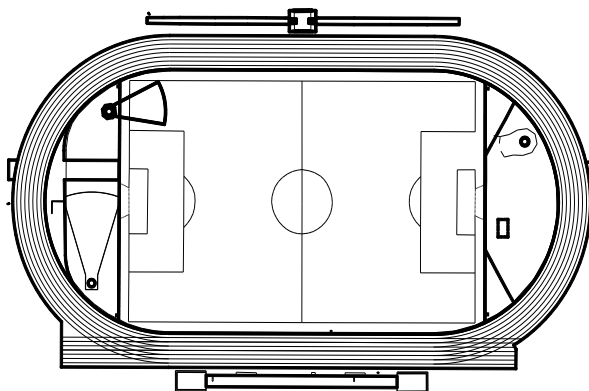
400 meters athletic tracks (Figure 2.) are ideal in relation of land surface and costs for the development of top professional sport and competition at various levels. 400 m tracks can be constructed with 6 or 8 lanes depending on needs of Croatian Athletic Federation in particular region, finances and land area. Exact number of venues (water jump, long and triple jump, high jump, pole vault, discus and hammer throw, javelin throw and shot put) is determent by construction category. Usually 400 m track is combined with standard soccer field (FIFA matches 78 m x 115 m).

333 meters athletic tracks (Figure 3.) are not standard so it is recommendable only as reconstruction of the existing ones where there is no adequate space, usually in urban areas where they are used mainly for recreational purposes. Large area inside 333 m track give possibility to combine various types of sport fields.

200 meters athletic tracks (Figure 4.) are ideal in relation of land surface and costs for development of school sport because inside athletic track are located all sport fields, so that enables quality communication and supervision over children for professor of physical education. This type of tracks includes only basic venues (shot put, long jump and high jump) which are used in school physical education programs. Recommended sport fields inside 200 m tracks are volleyball (9 m x 18 m), handball ((footsall) 20 m x 40 m) and basketball (15 m x 28 m) fields.

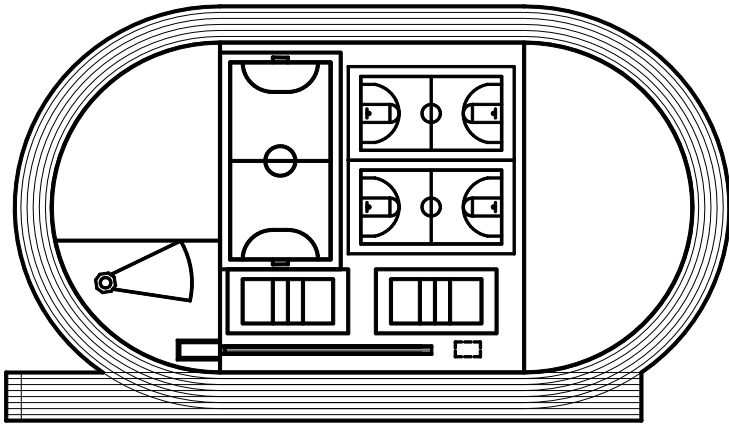
60 meters athletic tracks (Figure 4.) are constructed next to the primary schools on existing handball courts as new compact multisport fields where there is no space for normal circle tracks.

Figure 2 Compact 400 m athletic track, venues and sport fields



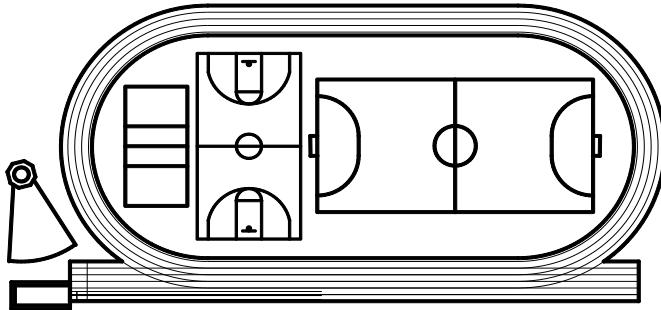
Source: author

Figure 3 Compact 333 m athletic track, venues and sport fields



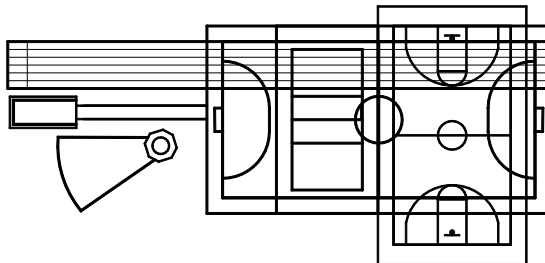
Source: author

Figure 4 Compact 200 m athletic track, venues and sport fields



Source: author

Figure 5 Compact 60 m athletic track, venues and sport fields



Source: author

From an economic point of view (Table 2.), in our opinion an important factor is that the expenditure in price of land, and in the construction are highly transparent which is an essential prerequisite for the realization of possible co-financing by international funds.

From the aspect of maintenance it is important to emphasize that the costs are fully rationalized when constructing the compact athletic track with venues and sport fields.

Table 2 Athletic tracks and venues in combination with other sports fields

	400 METERS	400 METERS	333 METERS	200 METERS	60 METERS
NUMBER OF CIRCULAR LANES	8	6	6	4	0
NUMBER OF STREIHGT LANES	8	6	8	6	6
LONG JUMP	2	1	1	1	1
HIGH JUMP	1	1	1	1	1
POLE VAULT	2	1	1		
SHOT PUT	2	1	1	1	1
JAVELIN THROWING	2	1			
FOOTBALL FIELD	1	1			
HANDBALL (FOOTSALL) COURT			1	1	1
BASKETBALL COURT			2	1	1
VOLLEYBALL COURT			2	1	1
LAND AREA (m2)	17000	15000	12000	4000	2400
ATHETIC TRACK AREA (m2)	6700	5400	3200	1200	1500
SPORT FIELDS AREA (m2)	7200	7200	4000	2400	
PRICE (HRK) minimum	3.100.000,00	2.650.000,00	2.460.000,00	1.185.000,00	700.000,00
PRICE (HRK) maximum	5.800.000,00	5.350.000,00	3.350.000,00	1.650.000,00	850.000,00

Source: author

4. Importance of obtaining certificate or consent for track

IAAF* regulations give different categories for 400 m Standard track** which need to be certified. Different construction categories determent what kind of level of competition can be organized and there are defined with number of lanes and venues.

For the rest of not standard tracks (400 m, 333 m, 200 m and 60 m) there is no IAAF* certification, so final control is not complete. Our opinion is that certain certificate or consent on project needs to be issued by some institution (Croatian athletics federation, Olympic committee, line ministry or Faculty of Kinesiology, University of Zagreb) for unification and systematic construction of tracks in regions of Croatia. Certification also can give guidelines for control of final product (quality, leveling and performance of synthetic surface).

It is necessary to emphasize the importance of obtaining certificate or consent for the project solution, to analyze the cost-effectiveness (validity) of constructing athletic tracks with venues and sports fields at regional level.

* IAAF - International Association of Athletics Federations

** Standard track - minimum inside radius 36,5 m

5. Conclusion

In East Croatia there are few existing tracks which are in bad condition and some areas are not properly covered by minimum athletic infrastructure.

All the steps above show problems and give solutions for development of athletic and sports culture, also possibility for development of athletics. Constructing tracks near schools gives better opportunity to keep children focused on sport, get them off the "streets", teach them the basics and improve their sport culture.

Standardization and organized building of tracks and sport fields will help us to use funds and resources from European Union when we become full member.

REFERENCE

Imre Matrahazi and Denis Wilson (2008): **IAAF Track and Field Facilities Manual**, Multiprint, Monaco

Darko Trubeljak, B.Sc.Civ.Eng. (2012): **Cadastre of athletic tracks in Croatia**, SVOD d.o.o., Osijek

<http://www.iaaf.org>

Ljerka Sedlan Kőnig, PhD

Josip Juraj Strossmayer University in Osijek, Croatia Department of Economics

Gajev trg 7, Osijek

Phone: +385 31 22 44 94

E-mail: sedlan@efos.hr

OPPORTUNITIES AND LIMITATIONS OF COMMUNITIES OF PRACTICE IN GRADUATE EDUCATION IN CROATIA

PREDNOSTI I OGRANIČENJA UVOĐENJA ZAJEDNICA PRAKSE U NASTAVU PREDDIPLOMSKIH STUDIJA U REPUBLICI HRVATSKOJ

ABSTRACT

Communities of practice present a potential alternative teaching approach for entrepreneurial education that has been underappreciated in graduate education. In the first part, the paper introduces communities of practice and cites the existing research. Besides that, it discusses their characteristics and the distinction from other similar structures. Apart from the positive outcomes of implementation of communities of practice in graduate education, this article explores the potential challenges confronting the implementation of communities of practice in graduate education in Croatia. In the discussion section of the paper, the field research investigates students' learning through experience in communities of practice at the Department of Economics in Osijek. Purpose of the field research is to explore the impact of communities of practice on students learning in order to understand the extent to which such activities stimulate entrepreneurial learning. This initial study is qualitative in nature and involves semi-structured interviews with students and student feedback by e-mail as forms of data collection. The collected data is coded by using character counts. In the second phase of coding, the responses are explored in more detail. The paper concludes that social learning is important, and that community of practice approach (COPA) provides enhanced opportunities for learning through action and experience. Engagement in some form of communities of practice improves student confidence. Additionally, it contributes effectively to students' professional development outside of the formal classroom setting. Despite the limitations, communities of practice provide a valuable and useful alternative to more traditional teaching methods which tend to focus on transfer of explicit and codified knowledge and place less emphasis on tacit knowledge which is less teachable and transferrable between teachers and students. Therefore, community of practice approach presents an excellent value to the modern HEI.

Key words: *communities of practice, graduate education, competences, alternative teaching tools, experiential learning*

SAŽETAK

Zajednice prakse predstavljaju alternativni pristup poučavanju u poduzetničkom obrazovanju koji je neopravdano bio zanemaran na preddiplomskim studijima. U prvom dijelu rada definirane su zajednice prakse kao oblik poučavanja i predstavljena prethodna istraživanja. Rad u nastavku navodi karakteristike zajednica i prakse i elemente koji zajednice prakse razlikuju od ostalih sličnih struktura. Osim pozitivnih ishoda koje donosi implementacija zajednica prakse, rad istražuje moguće izazove s kojima se susreću nastavnici prilikom uvođenja zajednica prakse u diplomsku nastavu na sveučilištima u Republici Hrvatskoj. U diskusiji je predstavljen primjer uvođenja

zajednica prakse u nastavu na Ekonomskom fakultetu u Osijeku. Svrha ovog istraživanja je istražiti utjecaj zajednica prakse na učenje studenata kako bi se utvrdio opseg u kojemu takve aktivnosti potiču poduzetničko učenje. Ovo inicijalno istraživanje je kvalitativne prirode, a podatci su prikupljeni metodom polustrukturiranog intervjua i iz komentara studenata poslanih putem elektronske pošte. Sakupljeni podatci kodirani se metodom character count i detaljnije istraženi u drugoj fazi kodiranja. Zaključak istraživanja je da je socijalno učenje važno te da zajednice prakse pružaju izvrsnu mogućnost za učenje kroz rad i iskustvo. Uključivanje u neki oblik zajednica prakse povećava samopouzdanje i sklonost poduzimanju poduzetničkih aktivnosti kod studenata. Usto, takve aktivnosti učinkovito doprinose profesionalnom razvoju studenata izvan formalnog fakultetskog okruženja. Usprkos ograničenjima, zajednice prakse pružaju vrijednu i korisnu alternativu tradicionalnim metodama poučavanja koje se fokusiraju na prenošenje eksplicitnog i kodificiranog znanja uz zanemarivanje tacitnog znanja koje je teško poučavati i prenositi s nastavnika na studente. Zbog toga zajednice prakse predstavljaju veliku vrijednost za moderno sveučilište.

Ključne riječi: *zajednice prakse, preddiplomski studij, kompetencije, alternativni načini poučavanja, učenje iz iskustva*

1. Introduction

Although all EU countries adopted the idea of teaching and learning entrepreneurship as a way to become more competitive, a survey among higher-education institutions (HEI) in Europe showed that only 48% of HEIs offer entrepreneurial education. This means that approximately only 10 million of 21 million students in Europe have the opportunity to engage in entrepreneurship during their studies. Besides that, at many institutions the subject of entrepreneurship accounts for less than 25% of course curriculum. Additionally, the real impact of this education is rather low. Comparing institution performance with regard to number of courses, Survey of entrepreneurial universities in Europe (2008) showed that the difference between the highest and lowest performing institutions is relatively small, meaning that all HEIs offer similar number of entrepreneurship courses, which have a limited impact on entrepreneurial behavior.

In order to improve their performance, HEIs need to upgrade graduate education teaching methods, stimulate entrepreneurial learning and development of entrepreneurial behavior in their students. One way to achieve that is to supplement curricular activities with communities of practice. Communities of practice engage interested students, ensure networking and contacts with business life in society, incorporate other entrepreneurial activities and encourage members to become more enterprising people. They are crucial for learning from experienced entrepreneurs and successful business people. Communities of practice better prepare students for their professional lives and careers.

Communities of practice, despite being a term of relatively recent invention, have become increasingly utilized as a means of improving performance (Wenger, 2007). A substantial volume of literature has been published that generally communicates positive aspects of communities of practice. Given the growing importance of knowledge management, it is imperative that communities of practice are understood in terms of their limitations, as well. Detailed empirical research in the field has been limited. There is also very little argument about the potential benefits of communities of practice as a teaching tool in graduate education.

This paper attempts to discuss the distinction between communities of practice and other similar structures, examine the positive outcomes of implementation of communities of practice in graduate education, and explore the potential challenges confronting the implementation of communities of

practice in graduate education in Croatia. It also includes an example of communities of practice present at Josip Juraj Strossmayer University in Osijek.

2. Definition and common characteristics of communities of practice

The origin of the term communities of practice can be traced to Lave and Wenger (1991) who first used the term to describe situated learning, where learning is not simply the acquisition of propositional knowledge, but occurs through certain forms and types of social co-participation, is contextual and embedded within a social and physical environment. Such learning is highly interactive, with the individual learner not simply accessing a discrete, static body of abstract knowledge. Rather, learning and skill acquisition occur by actually engaging in the desired practice itself, within a participational framework, not an individual mind.

According to Lave and Wenger (1991), communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. Besides that, communities of practice are self-forming and self-governing, resistant to supervision, interference and cooptation with the organization, because of their inherently organic and informal nature (Wenger and Snyder, 2000). Communities of practice vary greatly in form and size, yet all possess certain fundamental structural components.

In modern society, communities of practice are frequently used in some form whenever high levels of skills, knowledge and expertise are demanded, throughout a diverse array of disciplines (medicine, law, teaching, professional sports, performing arts, etc.). Participation in communities of practice allows for the management of greater task complexity by confronting the individuals new to a certain community of practice with highly qualified workers, and thus enabling them to use their knowledge, skills and abilities with a high degree of flexibility, independence under certain circumstances. There are many forms of communities of practice, among which in graduate education the following can apply: games, competitions, interest clubs and societies, summer schools, internships, mentoring, students' exchange programs, matchmaking events, projects with local entrepreneurs, student consultancy projects, workshop programs, pre-incubators and other business support programs.

3. Distinction of communities of practice from similar structures

The terms "community" and "practice" refer to a specific type of social structure with a specific intended purpose (Wenger et al. 2002). Communities of practice go beyond the usual group or team assignments. The primary difference is that communities of practice do not focus on producing a finish product in the most efficient manner. Instead they focus on the process of learning and building the knowledge of all members at both individual and community level.

There are three elements that are crucial in distinguishing a community of practice from other groups and communities. Community of practice has an identity defined by a shared domain of interest. Membership therefore implies a commitment to the domain, and therefore a shared competence that distinguishes members from other people. Secondly, in pursuing their interest in the domain, members engage in joint activities and discussions, help each other, and share information. They build relationships that enable them to learn from each other. Finally, members of a community of practice are practitioners. They develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems, in short, a shared practice. The list is not all inclusive, as there are other common characteristics that may develop, evolve or emerge in communities of practice during an extended period of time. Table 1 provides information contrasting communities of practice with other more familiar social structures to describe the relevant dimensions along which it may be differentiated.

It is also observed that the common characteristics, structural components and the distinctions are vital for a community of practice to function effectively and to gain legitimacy, recognition and permanence.

Table 1 Distinction Between communities of practice and other structures

Structure	Purpose	Membership	Cohesiveness through	Longevity
Communities of practice	To create, expand and exchange knowledge to develop individual capabilities	Self-selection based on interest and passion for topic	Passion, commitment, cognitive identification with group and its interests, goals and knowledge	Start, evolve and end organically – last as long as topic relevance, value and desire to learn communally last
Project teams	To accomplish predetermined task and objective	Individuals who bear direct responsibility for accomplishing the task	Teams acknowledgement of the project's goals, milestones and progress	Specific- typically when project is acknowledged as complete
Communities of interests	Informational	Self-selection based on individual interest	Information access, sense of like-mindedness	Start, evolve and end organically
Informal networks	To collect and share common information, to validate relevant people.	Friends, business partners, those who possess and provide relevant information	Mutual needs, relationships, perceived value in belonging and participating	Ambiguous – exist as long as contact between individuals continues

Source: Wenger et.al.,2002, Kerno, 2008

4. Opportunities, benefits and challenges of employment of communities of practice in graduate education

Communities of practice make the share of know-how, the infinite knowledge we all have in our heads (Edmundson, 2001) possible. Additionally, learning occurs in a real-time context. As communities of practice are student led, they provide additional space outside the curriculum for students to take initiative. They have also been suggested as a novel and innovative way of connecting HEIs with its broader environment. As the knowledge economy has increased the complexity of market, learning systems and relationships, it is now possible, even necessary, to conceive of communities of practice that weave broader value webs beyond the formal, rational boundaries of the organization (Wenger et.al., 2002), and increase internal knowledge by reaching outside the formally defined boundaries and thus facilitate the development of shared meaning and identity formation for professionals. Some ranking schemes, particularly, use the number of students' clubs as a way of assessing the quality of a graduate program. At the same time, existence of communities of practice at a HEI is seen as the factor that makes the difference, attracts more students, and therefore more income to the HEI.

Organizations such as communities of practice encourage students to invest their effort where there have limited previous knowledge but where they can learn in a position of relative security (Pittaway et.al., 2011). The collaborative learning environment allows them the opportunity to test their skills without encountering major risks. Some studies (Pittaway et.al., 2011) have shown that because communities of practice provide experiential learning outside the constrains of the curriculum students, but also HEIs, employers, corporate sponsors and alumni can benefit from such experience. Communities of practice provide a foundation for learning from experience, create supportive environment within which individuals can take risks and fail, and thus encourage and inspire entrepreneurial spirit. They aim to enhance entrepreneurial skills and raise awareness, as

well as aspirations and knowledge about entrepreneurial activity (Clark et.al. 2008, Whitehurst et.al., 2008), although the way how they enhance student learning remains unclear.

Despite the potential value and contribution that communities of practice have for students, HEIs and employers, there are some issues and difficulties that impair the introduction, implementation and integration of communities of practice to supplement teaching practices in graduate education that have not yet been given sufficient attention. The implementation of community of practice approach (COPA) is time-consuming both for students and teachers. Therefore, the first challenge confronting communities of practice in graduate education is the availability of time in which students are to engage in the activities to be effective, i.e. to engage in prolonged, sustained discourse. This also includes the time to structure a given period to involve oneself in the activities conducive to the effectiveness of a community of practice, such as regular meetings, allowing for the engagement with others. Prevailing trends, the acceleration of activities and the demand for ever-increased efficiency from the participants indicate that time is likely to become even more constrained and scarce in the future. Furthermore, the curricula are becoming more complex. In addition, more and more students work part-time nowadays, want to pursue other interests and hobbies, and spend time with friend outside their studies. Students in communities of practice are likely to do so at the expense of the effectiveness of communities of practice. On the other hand, there are the teachers who already suffer under excessive work-load.

Another challenge of the implementation of COPA lies in the high number of students, which hinders HEIs from providing the experience of learning in a community of practice for all students, and teachers from evaluating their progress objectively and comprehensively. Apart from that, this approach will bring only limited effects unless academic knowledge based assessment criteria are replaced with competency criteria.

In addition, organizational hierarchies, which, given their ubiquity, durability and verticality are likely to impede efforts for successful communities of practice utilization and integration. The coexistence of communities of practice with the organizational structure of a HEI is particularly problematic because HEIs are hierarchical, and communities of practice are diametrically opposed to organizational hierarchy in many ways. From the characteristics of communities of practice it can be concluded that communities of practice benefit from flatter, horizontal organizations. Besides, they are typically most useful when linking individuals within the organization who are willing to solve commonly faced or experienced problems, exchange ideas, share knowledge directly and refine and spread innovative practices, for example teachers and/or established entrepreneurs, and students. If the majority of individuals within the HEI are more concerned with maintaining the hierarchical ordering than with maximizing performance, even if occasionally the salient rules are breached, the status quo will prevail and communities of practice efforts are not likely to produce any substantive progress or benefit.

Moreover, it has been established (Roberts, 2006) that societies that have strong social structures and a socio-cultural environment valuing community over individuality, may correspondingly have stronger and more effective communities of practice. As Croatia is changing from a society valuing group, community, harmony, collectivism and interconnectedness to the one in favor of self-actualization and individualism, egocentrism and confrontation, we might expect it to become less effective in the use of communities of practice. This continuing erosion of community in favor of individualism in the social context represents an ominous trend for the attempt to capitalize on the community of practice approach in graduate education. Furthermore, there is the issue of creating the atmosphere of security and trust within a community of practice, which can present a challenge in graduate education.

What is more, at present, communities of practice, as a teaching tool in graduate education, are not fully appreciated, because the benefits of their employment are not clearly presented to authorities, management of HEI or teachers. Furthermore, teachers are not encouraged to work together with students on solving practical issues.

5. Entrepreneurs without borders as a successful example of community of practice

Entrepreneurs Without Borders (EWOB) is a non-government student-led organization founded at the University of Illinois at Urbana-Champaign in 2008, USA, with a sister chapter established in 2009 outside of the United States at Josip Juraj Strossmayer University in Osijek, Croatia. EWOB offers young people the opportunity to connect with communities around the world, develop business-based projects that solve local economic and social issues and to become a force for the public good, working towards social change, and integrating classroom learning into practice. Entrepreneurs Without Borders is an international organization with the mission to harness diverse skills and resourcefulness of students, and work towards educating communities about entrepreneurship as a way of thinking and living.

As a student organization, EWOB seeks to contribute to the promotion of entrepreneurial spirit, entrepreneurial thinking and action in all social contexts, development of entrepreneurial universities and collaboration with students, organizations and entrepreneurs outside their home institution. Students develop different kinds of projects, such as the celebration of Global Entrepreneurship Week, cooperation with local entrepreneurs through student consultancy projects and business plan competitions, charity events, participation at the European Week of Small and Medium Enterprises and study trips to the USA and within Croatia. The study visits enable students to learn in a different cultural context, share and exchange knowledge and experience, identify opportunities for increasing their entrepreneurial activity, link American and Croatian entrepreneurs, analyze the application of U.S. business models in Croatia, and the Croatian ones in America, benefit communities in need, and ultimately change the human condition in areas of global concern. Through practice and application of consultancy projects students experience how to approach, evaluate and provide viable business solutions to small and medium-sized business owners. The sustainability of these projects is ensured by cooperation with HEI in supporting the development of entrepreneurial activities, and participation with the business community ensuring the implementation of the solutions provided.

EWOB is a great example of a community of practice that supports and complements curricular activities, especially through consultancy projects, for which students are given ECTS points.

6. Methodology

The empirical study sought to explore how engagement in communities of practice can enhance entrepreneurial learning in graduate education. The research was designed to be an initial study. Before detailed surveys or questionnaires are carried out, it is essential to gain a deeper understanding of the concept of communities of practice and the learning processes involved, and this is the main rationale for the study. It is qualitative in nature and involves two forms of data collection. The first type used is semi-structured, in-depth interviews in which eight students, members of EWOB, were involved. These interviews were aimed at understanding what motivated them to engage in this form of community of practice at the HEI, how it has changed them, and what benefits they have gained. The interviews were coded by using character counts of learning experienced by the students interviewed. The data was analyzed first by exploring the research themes initially, and in greater depth at the second level of coding by developing sub-themes. The second part was e-mail correspondence. This method was selected to gather larger amounts of data in an effective way. Apart from providing basic information, the members of EWOB were asked to

write a couple of sentences on how they participated, what they have learned and how they have changed personally from being involved with EWOB. It was designed to supplement the first form of data collection described above. Ten students responded to the circular e-mail.

7. Discussion

The data analyzed in this field research support the view that being involved in communities of practice provides greater opportunities for students to learn by doing through action and subsequent experience (35% of the data set). The interviews have also illustrated that engagement in this community of practice leads to significant shifts in students' self-confidence (67% of the data set).

The more generic evidence supports changes in self-confidence around particular skills and activities, for example: leadership, managing teams, presenting, negotiating and networking and is particularly true for self-confidence in developing and managing new projects. For example:

I have realized that I have become a more confident, communicative and ambitious person, a person who knows what she wants and pursues that. (Ivana)

The evidence supports the view that this form of learning can enhance wider enterprise skills which can be applied in multiple contexts. For example:

EWOB has helped me because others have recognized my leadership qualities and skills. Through various projects and research I have had the opportunity to apply the knowledge I have gained at the university in practical situations. (Zrinka)

There is less evidence to support the view that learning through EWOB stimulates generation of ideas for starting own business (33% of the data set). One can perhaps argue that students who are engaged in EWOB are self-selected and have already made some commitment to entrepreneurial activity and, therefore, one cannot expect to see much change in their intentions. On the other hand, although, according to this research, EWOB does not encourage students to start their own business, from the interviews it can be concluded that engagement in EWOB can inspire students to become more enterprising persons.

Although it was expected, there was little evidence for the assumption that communities of practice provide opportunities for learning through mistakes (2 per cent of interviewees). It might, however, be the case that students do learn from mistakes, but they did not report this learning in their reflections because either they are unclear that learning has occurred or because they do not regard these aspects of their experience as a "positive" outcome, and therefore disguise any learning that occurs.

There is also evidence showing the importance of social learning, which cannot be overemphasized as the main value of this community of practice. The interviewees often commented on learning through social practice and social engagement, for example when practicing entrepreneurs were invited to give a talk, or while providing opportunities for like-minded students to meet, running mentoring programs, or when students while preparing for competitions developed team-working skills. There are many other aspects that came through in the data, for example: the opportunity to lead others, to work with others on a new project and gain knowledge from experienced entrepreneurs. Organizations such as EWOB, being extra-curricular, have both a social and professional component. Students reported having meetings in cafes, organizing trips together, developing networks and contacts that might help them in their future employment or venture creation.

My perception about how much a student association can contribute to solving a problem (for example project: Helping children in Africa) has changed dramatically. (Nikolina)

EWOB is friendly, relaxed, voluntary, concerned with real life and exploration of ideas is encouraged. (Nkolina)

In EWOB we are free and open so we gladly share information and experience and help each other. (Sanja)

The interviewed students put different emphasis on their motivation to actively participate in EWOB which include: gaining experience and practical knowledge and enhancing transferable skills (11 of 18 students), meeting people and better managing free time (9 of 18 students). A few mentioned helping others, having an opportunity to put idea into practice and personal development.

There is a big difference between studying and work in EWOB because studying is not as interesting as working in student club. It is more relaxed and fun and we do what we are interested in. (Tina)

I have a feeling that I have wasted five years of my life on studying to become nothing more than a clerk in some ministry. I believe that there are very few things that can be learned at lectures on the university and we have to take any opportunity to gain practical knowledge... Theory, unless connected with practice, is useless. Student associations give students opportunity to work on real-life problems.(Matej)

For example it is not the same to analyze the future prospects for a company from the USA as an exercise at the lecture and research market potential for a real local company, as we did in EWOB. (Nikolina)

We need more practical knowledge. (xyz)

Interestingly, 3 of 18 students, a motivation, mentioned the desire to gain competitive advantage over other students.

Although the majority of students considers the engagement in such activities a valuable preparation for the labor market (56% of the data set), they do not believe that it directly improves their prospects of employment. This is an interesting outcome as it supports the view of communities of practice as a means to enhance entrepreneurial activity (Sedlan-König, 2011), rather than as a means to directly promote employment.

My work in EWOB has helped me identify the way in which my future carrier will develop. (Vedrana)

Through EWOB I have gained practical experience. I feel prepared for the labor market because I have worked with real life projects and learned to deal with difficult situations. I feel more confident. (Andrea)

I feel I am better prepared for the labor market but not yet fully ready to start my own business. Through my engagement in EWOB I understand what I need to do and therefore I have a competitive advantage on the labor market. (Ivana)

When asked to comment whether HEIs should promote communities of practice as extra-curricular activities among students, 56 % of the interviewed students agreed, although only 4 students, or 22 per cent, believe that engagement in EWOB should be acknowledged by the HEI in the form of additional ECTS points.

Teachers at the university should be informed about who is a EWOB member, but engagement in EWOB does not need to be acknowledged in the form of additional ECTS points because it would then become an obligation and not student choice/initiative, and it would then not give EWOB students any competitive advantage. (Ivana)

From the data on learning accumulated, it is evident that students are gaining a range of different outcomes from their involvement in EWOB. These outcomes include: specific skills, context relevant knowledge, knowledge about oneself and change in personal behavior. Students

commented that they have significantly improved their time management (78%), communication skills (44%), team work (39%), and management of ambiguity and uncertainty (16% of interviewees). However, from the data collected it is difficult to precisely define the learning that was accumulated. The reason for that could be because the act of doing leads to specific knowledge that is derived from the context, and is therefore diverse and cannot be predicted as a learning outcome in advance.

8. Conclusion

This article sought to answer the basic question about the opportunities and challenges of communities of practice in graduate education. The research asked additional questions: why communities of practice are attractive to young people, and what learning benefits they provide. In setting to answer these questions the article explored the common characteristics of communities of practice, distinction of communities of practice from similar structures, as well as opportunities, benefits and challenges of employment of communities of practice in graduate education. Also, an example of communities of practice at J.J. Strossmayer University in Osijek was presented. From the empirical data, it is evident that communities of practice provide an important component of graduate education. They do so because they are student-led, allow students to engage in experiential learning, and allow them to learn collaboratively in a supportive environment. When exploring student motivations, a lot of underpinning reasons emerged. These include for example: preparation for future career, enhancing transferable skills, gaining practical experience, as well as personal enjoyment, and development. There is some irony in this conclusion as communities of practice are usually considered primarily to be a means of raising awareness, knowledge and intentions to start a business.

There are some interesting outcomes from this study pertinent to understanding the learning benefits of communities of practice, although there is some variance between interviewees in terms of learning benefits they gain. Inevitably, different individuals have different roles and learn in different ways so it is understandable that they take away different things. Despite individual differences, there is, however, a common thread in the data with regard to the value of communities of practice. Learning by doing, action learning and gaining experience are all seen as the main benefits that students gain. Students often see them as “superior” forms of learning when compared to traditional forms experienced throughout the curriculum. Nevertheless, teachers or high education institutions rarely value communities of practice as beneficial.

Although there are limitations in this article, it has to be acknowledged that communities of practice have real learning benefits for students, as well as for graduate education and that the applicability of the community of practice approach (COPA) is valid. It fills the gap in graduate education as it facilitates the acquisition of transferable skills. In addition, it provides a useful and valuable alternative to more traditional teaching approaches, which tend to focus on explicit and codified knowledge, and place less emphasis on tacit knowledge, which is less teachable, more difficult to observe, and does not travel easily between individuals. There is certain evidence that communities of practice raise self-confidence and provide necessary skills to perform effectively in multiple contexts.

Before drawing wider conclusions, it is important to point out that this study is a small sample which is based on the data from one student club, as the field research gathered data from members of one student club at the HEI as a form of community of practice, and thus it does not represent other forms of communities of practice possible at the HEI. Further research would need to expand on this to explore student motivation. There are some other limitations of this research: it uses self-reported data, it is qualitative, and therefore, has limited validity if applied more generally. Taking into consideration these limitations, the study’s main contribution is to initiate a detailed empirical

study on this subject and provide some initial thoughts and conclusions on the value of this form of learning.

Several possible directions and areas for further research into the community of practice approach emerge. The culture of HEIs at the present time, especially the degree of hierarchy, and the challenges this presents to the community of practice approach, as well as the power distance present an avenue that holds potential for scholarly investigation as the understanding of the organizational contexts that are most appropriate for communities of practice mature. Further studies also need to explore student motivations in a more general sense with a larger sample; need to explore different forms of communities of practice more specifically, and should explore organizational practice because, obviously, some communities of practice are more successful in providing learning benefits than others. Also, an independent test of student learning that was gained as a consequence of engagement in communities of practice would enhance further research on this subject.

In conclusion, a community of practice approach (COPA) can provide value to the modern graduate education. However, communities of practice should not be regarded as a magic tool capable of enabling a HEI to disseminate knowledge, or to overcome both organizationally and socially constructed barriers. If the challenges and difficulties explained herein are not appropriately accounted for, communities of practice may fall short of expectations.

REFERENCES

- Clark, G., Dawes, F., Heywood, A. and McLaughlin, T. (2008): *Students as transferors of knowledge: The problem of measuring*, International Small Business Journal, Vol. 26, No. 6, pp. 735-758.
- Edmundson, H. (2001): *Technical communities of practice at Schlumberger*, Knowledge Management Review, Vol. 4, No. 2, pp. 20-23.
- Kerno, J. S. Jr. (2008): *Limitations of Communities of Practice: A Consideration of Unresolved Issues and Difficulties in the Approach*, Journal of Leadership & Organizational Studies, Vol. 15, No. 1, pp. 69-78.
- Lave, J. and Wenger, E. (1991): *Situated learning – Legitimate peripheral participation*, Cambridge University Press, New York
- Pittaway, L., Rodriguez – Falcon, E., Aiyegbayo, O. and King, A. (2011): *The role of entrepreneurship clubs and societies in entrepreneurial learning*, International Small Business Journal, Vol. 29, No. 1, pp. 37-57.
- Roberts, J. (2006): *Limits to communities of practice*, Journal of Management Studies, Vol. 43, No. 3, pp. 623-639.
- Wenger, E. (1998): *Communities of practice: Learning, meaning and identity*, Cambridge University Press, New York
- Wenger, E., McDermott, R. and Snyder, W. M. (2002): *Cultivating Communities of Practice*, Harvard Business School Press, Boston
- Wenger, E. C. and Snyder, W. M. (2000): *Communities of practice: The organizational frontier*, Harvard Business Review, Vol. 78, No. 1, pp. 139-145.

Whitehurst, F., Siedlok, F. and Race, J. (2008): *Reach-in and reach-out: The story of the MSc in pipeline engineering at Newcastle University*, International Small Business Journal, Vol. 26, No. 6, pp. 709-733.

Sedlan-König, Lj. (2012). *Higher education pedagogy in the development of entrepreneurial behavior*(Doctoral thesis) Osijek: [Lj. Sedlan-König].

Survey of entrepreneurial universities in Europe, Main Report, (2008), http://ec.europa.eu/enterprise/policies/sme/files/support_measures/training_education/highedsurvey_en.pdf, (accessed 15 November 2011)

Anica Vukašinović, M.Sc.

Ph.D. Candidate

Posavina-Brod County, P. Krešimira IV 1 35 000 Slavonski Brod, Croatia

Phone: 035 216 544, mob. 095 906 2001

E-mail address: anica.vukasinovic@gmail.com

STANDARDIZATION OF EDUCATIONAL CONDITIONS – PREREQUISITE OF MORE EFFICIENT EDUCATIONAL SYSTEM

UJEDNAČAVANJE UVJETA OBRAZOVANJA -PREDUVJET UČINKOVITIJE OBRAZOVNOM SUSTAVU

ABSTRACT

The aim of this work is to highlight the changes in the Republic of Croatia, which do not necessarily have to negatively reflect on the quality of the educational system, on the contrary, they may be factors that lead to a more efficient educational system. Educational conditions in the Republic of Croatia are not homogenized. The current changes will impact the equalization of educational conditions. By the conducted research, using scientific methods (analysis and synthesis, inductive and deductive method, descriptive, mathematical methods), we have analyzed the impact of education on the efficiency of the education system in the case of primary education of Brod Posavina County.

In the society of knowledge the approach to the possibilities of acquiring necessary knowledge, skills and competence is essential for the social progress and economical growth of a country. Additional investments in acquiring new acquisitions through education presents the benefit for the individual as well as for the national economy. The education as an activity is at the same time the starter of the development of countries and societies. This applies to the field in which the changes in science and society must be firstly recognised. The education changes its environment but the education itself is subjected to constant changes. The education of every country and Croatia as well, is influenced by low birth-rate resulting in decreased number of students. This can be exemplified in the case of Brodsko-Posavska county region. In the school year 20012/2013 the number of registered children was less for 400 than the previous year. The consequence of this will be closing more and more schools especially in rural areas. It is known that the communities without educational institutions cannot prosper concerning the quality of living. Young people are encouraged to leave the areas where the schools are being closed. The surplus of teaching staff is evident in the employment offices. The low birth-rate has been noticed resulting in smaller number of registered children in the elementary schools. There is a surplus of teachers of great number of subjects especially in lower classes of elementary schools on the labour market. On the one hand there is longer and thorough education of teachers and on the other hand there are not enough job opportunities. In developed countries such situation presents the possibility of the quality of education. However, in Croatia the finance for education are being decreased in the recent years due to the smaller number of students. The Ministry of science, education and sport introduced the project «building of schools» a few years ago, so that all schools in Croatia could function in only one shift, what is in fact quite real and possible, but taking into consideration the existing demographic trends it will be not necessary to build up new school buildings or construct annexes because the number of students has been decreased. The existing schools are spacious enough to function in one shift. We have done the research in elementary schools (33) of Brodsko-Posavske county in order to find out if it is possible, in the conditions of existing changes, to increase the quality of education. There are 1810 employees in elementary schools of Brodsko – Posavska county

and 14.752 students distributed in 771 forms. Data analysis has been done in the equalization of educational conditions giving us the results pointing the increase of efficiency of existing educational system, the improvement of pedagogical standard and better motivation for teachers, what is important for a successful educational system.

Key words: society of knowledge, quality of education, efficiency of educational system, standardization of conditions in education, demographic trends.

SAŽETAK

Cilj ovoga rada je ukazati na promjene u kojima se nalazi Republika Hrvatska, koje se ne moraju nužno negativno odraziti na kvalitetu obrazovnog sustava, dapače, one mogu biti faktori koji vode ka učinkovitijem sustavu obrazovanja. Uvjeti obrazovanja u Republici Hrvatskoj nisu ujednačeni. Postojeće promjene utjecati će na ujednačavanje uvjeta obrazovanja. Provedenim istraživanjem koristeći znanstvene metode (metoda analize i sinteze, induktivna i deduktivna metoda, metoda deskripcije, matematička metoda) analizirali smo utjecaj uvjeta obrazovanja na učinkovitost obrazovnog sustava na primjeru osnovnog školstva Brodsko-posavske županije.

U društvu znanja pristup mogućnostima stjecanja potrebnog znanja, vještina i kompetencija bitan je za društveni napredak i gospodarski rast neke zemlje. Dodatna ulaganja u stjecanja novih znanja kroz obrazovanje predstavlja dobit za pojedinca kao i za nacionalnu ekonomiju. Obrazovanje kao djelatnost je istodobno i pokretač razvoja država i društava, kao i područje u kojem promjene u znanosti i društvu moraju najprije biti prepoznate. Obrazovanje mijenja svoje okruženje, ali je i samo podvrgnuto trajnim promjenama. Na školstvo svake države, pa tako i Hrvatske utječe činjenica da se rađa sve manje djece, a time smanjuje broj učenika. Primjera radi na području Brodsko-posavske županije u školskoj 2012./2013. godini upisano je gotovo 400 djece manje nego prethodne školske godine. Posljedica toga će biti zatvaranje sve više škola, osobito u seoskim područjima. Poznato je kako zajednice u kojima nema obrazovnih ustanova stagniraju u kvaliteti života. Sredine u kojima se zatvaraju škole, mlade ljude potiču na odlazak. Na burzama rada pojavljuje se višak nastavnog osoblja. Vidljiv je i pad broja novorođene djece i trend smanjivanja upisanih učenika u osnovnu školu. Na tržištu rada je višak nastavnika većine nastavnih predmeta i područja, a osobito razredne nastave. Na jednoj je strani dulje i temeljitije obrazovanje budućih nastavnika, a na drugoj sve neizglednije zapošljavanje. U razvijenim se državama takva situacija vidi kao prilika za povećanje kvalitete obrazovanja. Međutim, u Hrvatskoj se zbog smanjivanja broja učenika zadnjih godina smanjuju izdvajanja za obrazovanje. Ministarstvo znanosti, obrazovanja i športa je prije nekoliko godina pokrenulo projekt „škologradnje“, kako bi sve hrvatske škole radile u jednoj smjeni, što je zapravo posve realno i dostižno, ali s obzirom na postojeće demografske trendove, neće biti potrebno izgraditi ni dograditi nove školske zgrade jer se iz godine u godinu smanjuje broj učenika. Postojeće škole su dovoljno velike za rad u jednoj smjeni. Dali je u uvjetima postojećih promjena moguće povećati kvalitetu obrazovanja istražili smo u osnovnim školama Brodsko-posavske županije (33 osnovne škole). Osnovne škole na području Brodsko-posavske županije imaju ukupno 1810 djelatnika i 14.752 učenika raspoređena u 771 razredni odjel. Obradom dobivenih podataka u ujednačenim uvjetima obrazovanja dobili smo rezultate koji ukazuju na povećanje učinkovitosti postojećeg obrazovnog sustava, podizanje pedagoškog standarda i bolje motiviranje nastavnika, što je važno za uspješan obrazovni sustav.

Ključne riječi: društvo znanja, kvaliteta obrazovanja, učinkovitost obrazovanog sustava, ujednačavanje uvjeta obrazovanja, demografski trendovi

1. International researches of the quality of education

The quest for quality in education is the goal of every state. Research in this area contributes to improve the quality of education. Integrating quality education research in school curricula is a

demand placed before the education authorities, with the aim of improving the quality of education and its institution. Empirical research results can greatly contribute to the identification of key determinants that affect the quality of the educational system. Such conducted research of interdependent levels of educational quality, established by the international evaluation of educational achievements, and the growth rate of gross domestic product per capita, suggest an increased rate of growth of national income in an economy that has a better education system. Similarly, the quality of education is a significant part of the impact on economic growth through changes in the rate of technological progress. In the analysis of economic growth there were more significant qualities of education and length of education in the open, rather than in closed economies. From all this we can conclude that institutional quality is dependent upon economic development.

2. The quality of education in Croatia, opportunities and challenges

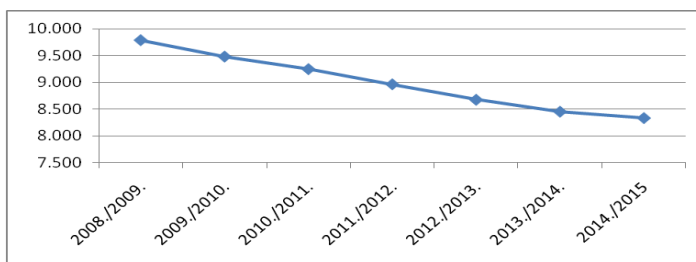
Major challenges such as diminishing population, global and national changes in the economy, focus on applied knowledge, and requirements for rapidly acquired knowledge and skills necessary to a modern labor market. Consequently, there is a need for lifelong learning, requiring a vital reform of the Croatian education system.

The Croatian education system is in the process of aligning with education systems in developed countries, whose economies are based on knowledge. Research indicates a kind of crisis in the Croatian educational system and the need for further reforms. In such circumstances, it is difficult to talk about social and economic progress that is based on an adaptive, accessible and operational educational system without consideration of economic development.

The lag in the development of our education system along with perennial reductions in spending may soon become a limiting factor for long-term, sustainable development of the country. It is necessary as soon as possible to identify the critical factors of quality of education in the Republic of Croatia in order to gain access to the society of knowledge and the acquisition of competencies essential for social progress and economic growth of the country.

In this paper, in the case of primary education, we will present possible causes of the inefficiency of the educational system, but also recommendations to increase the quality of the system.

Graph 1 Graphic display projection-number of elementary school students in Brod-Posavina County in the period 2008 - 2015 (23 elementary schools, without schools in the City of Slavonski Brod)



Source: Author's calculation¹¹⁴

¹¹⁴ The data: Registry Offices in the Brod – Posavina County, primary schools in the County, Police Department of Brod- Posavina County

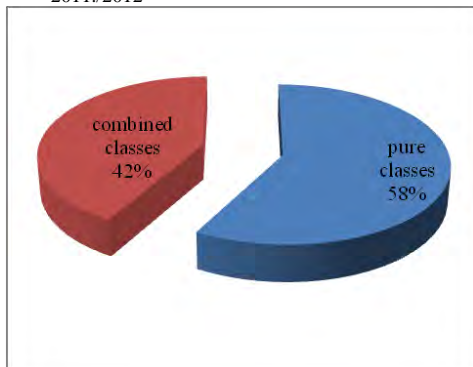
The school system² is a technical term for a system of institutions, their capacity, equipment and human resources, training, who perform a certain extent in the territory. The school network is optimal when the cost-benefit ratio in the market segments most suitable education. This means that the preferred "exit" from the system (number of graduated pupils and the quality of pupils achievement), achieved with the lowest inputs (costs), and that with the fixed costs of maximizing the available effects.

The State Pedagogical Standard for elementary education has been delivered in Croatia to enable the adoption of schools network at the local level. The system is inefficient and unmanageable under its current structure. The level of knowledge created in the existing organization of primary schools in the Republic of Croatia is not sufficient for integration in rapid social and economic changes, so the need for effective change in the planning of the education system is crucial. Creating an optimal school network is the priority in primary institutions because primary school is compulsory and non-selective and the government should do everything in its power to ensure the conditions for complete coverage of children and the successful completion of basic education.

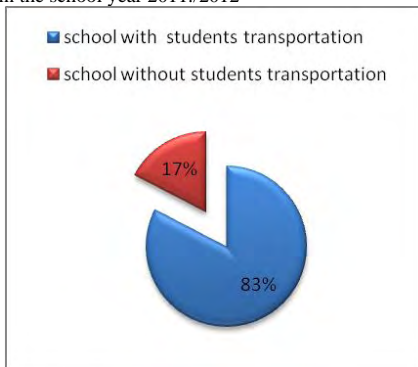
2. Critical quality factor, uneven network distribution of primary education institutions

The school system¹¹⁵ is the main starting point that determines the status and development of primary schools in the Republic of Croatia and so in the Brod – Posavina County. The network of schools in the Republic of Croatia is not optimal. The Brod-Posavina County and the City of Slavonski Brod are the founders of 33 primary schools with 83 regional classes. This is an example of a county that has unequal conditions for the growth and development of children, the large number of branch schools with a small number of children (23 with less than 10 students) with a tendency of further reducing, high training costs, and questionable effectiveness and quality of teaching, particularly in combined classes. In the school year 2012/2013 14.752 students in total attend classes in 676 divisions and 95 mixed divisions (in regional classes).

Graph 2 Structure of regional classes in Brod-Posavina County in the school year 2011./2012



Graph 3 Work organisation –transportation of primary school students in Brod-Posavina County in the school year 2011./2012



Source: Author's calculation

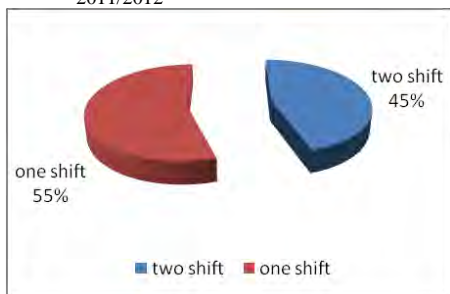
Out of the total number of class divisions, 42% are combined classes (two class divisions, three and four class divisions). Combined classes are present only in the branch class divisions. In this structure, the quality of the educational work is doubtful.

Optimal school network includes scheduling issues and research and school improvement of "external conditions of learning" in schools: school buildings, facilities, equipment and quality of human capital. This is the basis for the directed investment planning into the improving of the learning conditions in order to reduce the differences in educational achievement. While there are large differences in educational standards, the results of external evaluation provoke discontent of those educational environments that are objectively in disadvantaged position.

Law on Education in Primary and Secondary Schools, Article 69, stipulates the obligation of the founders to organize transportation for younger pupils (grades 1-4) having their residence away from school for at least three kilometers, or older pupils, (grades 5-8) having their residence away

from school for at least five kilometers. In the Brod-Posavina County, transportation is organized for 19 elementary schools. On average it is approximately spent HRK 8,000,000.00 annually for that purpose from decentralized functions of primary education.

Graph 4 Work organization of primary Schools in Brod-Posavina County (main and branch) in school year 2011/2012



Source: Author's calculation

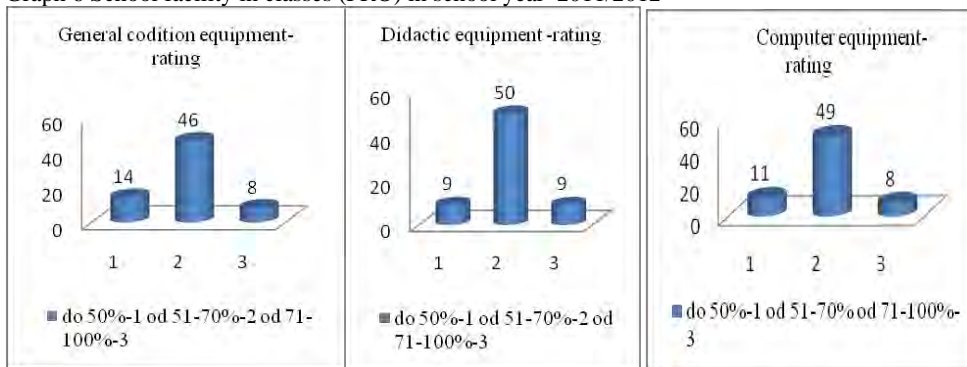
Graph 5 Work organization of main schools in Brod-Posavina County in school year 2011/2012



Source: Author's calculation

By analyzing the structure of the work organization of primary schools in Brod-Posavina County throughout the entire enrolment area of each school (with the branch classes), we can see that a larger number of schools operate in one shift, as many as 55%, but there is actually a branch of the greater number of classes with a small number of students that work in one shift. Out of the total number of main elementary school in the Brod-Posavina County, 78% work in two shifts. The effectiveness of education work in one shift is more significant.

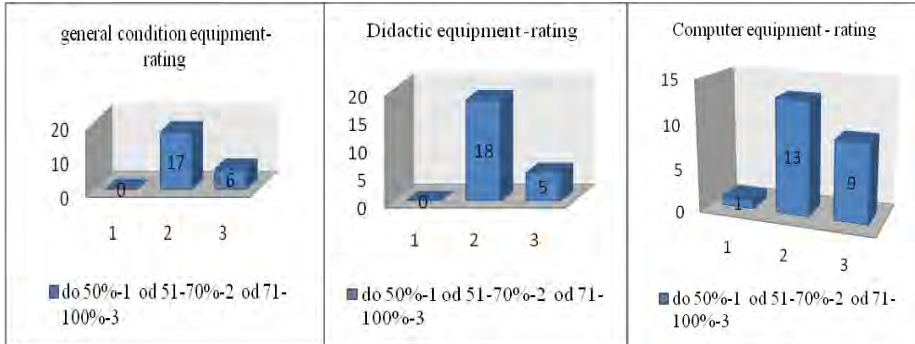
Graph 6 School facility in classes (PRO) in school year 2011/2012



Source: Author's calculation

General condition and didactic equipment for a number of branch classes is in the range of 51-70%, while a small number of branch classrooms are fully equipped with this type of equipment. Computer equipment in branch classes is also in the range of 51-70% , but a significant number of branch classes have minimal IT equipment. The quality of education in the branch schools is low because they have only a basic level of equipment, inadequate quality, lack of computer classrooms, gyms, as well as lacking specialized classrooms and offices.

Graph 7. Main schools facility in school year 2011/2012



Source: Author's calculation

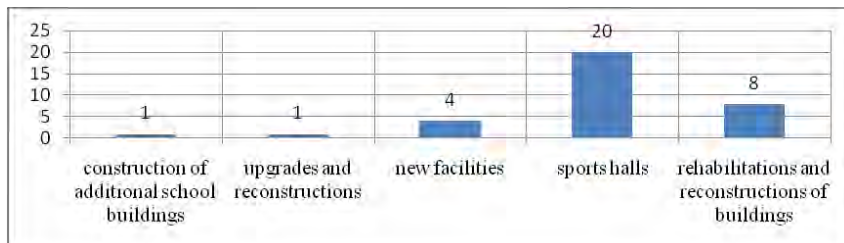
Analyzing equipment in the main schools in the Brod-Posavina County we can say that the general and didactic equipment in a greater number of school buildings is in the range of 51-70%. Resources are more suitable with computer equipment due to the larger number of schools with computer facilities. Equipping main school buildings has greater significance because they are generally more invested; students in their main schools have a better quality of educational work and a higher standard of learning and living.

Equipping schools is a continuous work every year in accordance with the budget of the founders and the needs of schools (decentralized funds approximately 20% of the budgeted funds for the investment in the current year). This depends on intended use of school space and need for the implementation of educational work with students. General equipment (equipment for classrooms, equipment for the school) and didactic equipment are defined by the pedagogical standard.

3. Critical fact of quality, unequal conditions of education

Primary schools are being built and equipped according to State educational standards, standards for the construction and equipping of primary schools premises and all laws, rules and technical regulations in construction and other areas of importance to work and stay at school area. The basic standard of school premises, as a rule, should ensure school work in one shift to the creation of the necessary conditions, and exceptionally in two shifts. Depending on the predictable demographic, economic and urban developments in the enrollment area of the school and the impact of these developments on the school network, the Ministry of Science, Education and Sports issues the approval for a conceptual project for the construction of new schools and the expansion and reconstruction of existing schools to work in one or two shifts. The school building should provide adequate functional organization of space appropriate to contemporary forms of teaching, to meet all sanitary and technical requirements, and basic ecological and aesthetic criteria.

Graph 8 School buildings constructed by 2013. in primary schools Brod-Posavina County (last 15 years)



Source: Author's calculation

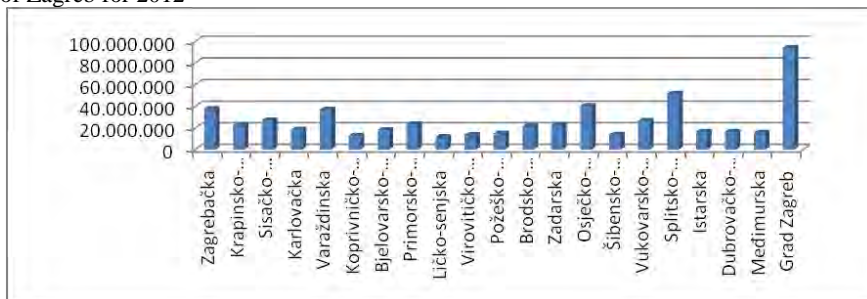
In the Brod-Posavina County we have 20 school sports halls, 19 in the main schools and one in a branch classroom which significantly improves the quality of educational work. In 8 buildings of main schools, the repair and reconstruction have been done, one main school has been expanded, one branch classroom the reconstruction and annex have been completed. Because of inadequate working conditions and deterioration of school buildings four new schools have been built, one main and 3 branch classes. Further investments should continue to establish teaching standards and work in one shift. It is important to stress once again that the designated investments relate to the improvement of educational work in main schools, in the school buildings where we already have achieved higher educational and pedagogical standards, unlike the branch schools.

4. Critical quality factor, reduced investments into education

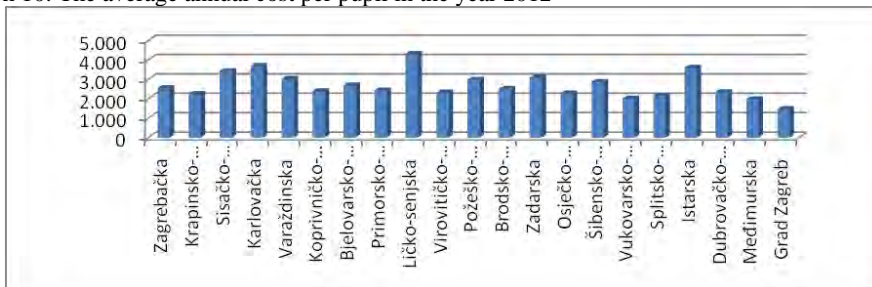
By the Decision on criteria and benchmarks for the financing of a minimum financial standard for primary schools in the Republic of Croatia adopted by the Government each year, the fund is allocated to the founders of primary schools in the Republic of Croatia for material and financial operating expenses and for capital investments. As this is the minimum financial standard that provides basic conditions for the implementation of educational work, the founders of schools (cities and counties), from their original budgets should provide schools a higher standard of work. Those counties and cities that have a higher fiscal capacity of their budgets are able to ensure schools in their area better working conditions.

The Brod-Posavina County has, for years, had one of the lowest fiscal budgets in Croatia and since the beginning of the process of decentralization of primary education (2001), was not able to provide funds for the improvement of schools in its area. Perennial low rate of spending on education, as well as the announcement of the Government's tendency to further reductions in the coming years, will significantly affect the quality of education in the Republic of Croatia in all respects, from investment in human capital, to the material conditions of work.

Graph 9 Calculation of the right balance of material and financial expenditures by counties and the City of Zagreb for 2012



Graph 10: The average annual cost per pupil in the year 2012



Source: The ministry of Science, Education and Sports, author's processing

5. Proposal of possible models for increasing the efficiency in existing conditions

The existing education regulations undoubtedly emphasize the right of every child to education under equal conditions. Proposition of a model for more effective educational system is in adoption of Proposal on network of primary school institutions in Croatia, including in the Brod-Posavina County that will be equitable, so the branch schools, that have a small number of children, close, and pupils from branch schools are transported to the main school buildings.

Operation and maintenance costs of branch schools constituted 85% of all investment in school buildings, and they have been extremely inefficient. We should not invest more in rehabilitation of branch schools each year and provided funds could be used to improve existing conditions of main schools. These branch schools should not be built on because the number of students is smaller each year, and school work could be organized in one shift. Within allocated funds it would be possible to provide more money for the training and retraining of personnel with the aim of enhancing the educational process. Equitable conditions of education are prerequisites for an effective educational system. The goal of creating the optimum school network is to improve the availability and quality at the national level while minimizing the differences between the schools. In the most developed countries, it is irrelevant which primary school the pupil attends as he/she will get equally excellent education. This maximizes human potential for the benefit of each individual and society as a whole.

6. Conclusion

The results of research on the effectiveness of the education system implemented in primary schools of Brod-Posavina County actually identified the critical factors of quality of the education system in the Republic of Croatia. With clear, concise objectives of critical quality factors, it is possible to improve the national quality of education and gradually improve it within existing appropriations, while ensuring investment in human capital. Every national economy and its long-term development mainly depends on it.

REFERENCES

Ahuja, S.(2012): **RESEARCH RESULTS FOR QUALITY SCHOOLING:BRIDGING THE GAP BETWEEN RESEARCH AND PRACTICE**, MIER Journal of Educational Studies, Trends & Practices Vol. 2, No. 2 pp. 206-214

ALONSO J.A. & GARCIMARTIN C.(2010):**THE DETERMINANTS OF INSTITUTIONAL QUALITY. MORE ON THE DEBATE**, Journal of International Development J. Int. Dev. Published online in Wiley InterScience (www.interscience.wiley.com) DOI: 10.1002/jid.1710

Jamison E.A., Jamison, D.T., Hanushek E.A. (2007): *The effects of education quality on income growth and mortality decline*, Economics of Education Review 26, pp. 772–789.

Odluka o kriterijima i mjerilima za utvrđivanje bilančnih prava za financiranje minimalnog financijskog standarda javnih potreba osnovnog školstva u 2012. godini (2012) Vlada Republike Hrvatske, Narodne novine 52/2012, Zagreb
Zakon o odgoju i obrazovanju u osnovnoj i srednjoj školi, Narodne novine 87/2008.

Nikolić, N. (2007): *Financijska decentralizacija obrazovnog sustava u Hrvatskoj*, simpozijски referat, Ekonomska misao i praksa, Dubrovnik, god. XVI br.2 str. 213

Staničić, S. (2011): *Promjene u suvremenom svijetu - izazovi obrazovanju* / Školski priručnik 2011./2012. Zagreb, Znamen, str. 153-18.



**Društveno
odgovorno
poduzetništvo**

**Social
responsibe
entrepreneurship**

Josip Britvić, univ.spec.oec.

Virovitica college
Matija Gupca 78, 33000 Virovitica
Phone: 033/721-099 Fax: 033/721-037
E-mail address: josip.britvic@vsmti.hr

Anita Prelas Kovačević, dipl.oec.

Virovitica college
Matija Gupca 78, 33000 Virovitica
Phone: 033/721-099 Fax: 033/721-037
E-mail address: anita.prelas.kovacevic@vsmti.hr

Monika Cingel

Virovitica college
Matija Gupca 78, 33000 Virovitica
Phone: 033/721-099 Fax: 033/721-037
E-mail address: monikacingel@gmail.com

**INTEGRATION POSSIBILITIES OF ISO 9001:2008 QUALITY
MANAGEMENT SYSTEM WITH ISO 27001:2010 INFORMATION
SECURITY MANAGEMENT SYSTEM**

**MOGUĆNOST INTEGRACIJE SUSTAVA UPRAVLJANJA KVALITETOM
ISO 9001:2008 I SUSTAVA UPRAVLJANJA INFORMACIJSKOM
SIGURNOŠĆU ISO 27001:2010**

ABSTRACT

The requirements of customers, users of services and actions of competitors require companies to constantly raise the level of quality of products and / or services as well as the quality level and functioning of organization. Other requirements like those arising from legislation, requirements of local communities and environment also require organizations to adapt. To help organizations meet all these requirements they can use existing tools such as ISO 9001, ISO 14001, ISO 27001 and other standards. By integrating multiple ISO standards into one integrated system it's possible to meet a wider range of requirements. The paper analyzes the possibility to integrate the ISO 9001:2008 quality management system with ISO 27001:2010 Information Security Management System and application possibilities of the integrated system in practice. Organization with implemented quality management system proves that its quality management system complies with the requirements of ISO 9001:2008. Thus the risk of uncertainty in customers towards the quality of products or services is reduced, so organizations are increasingly seeking to obtain this certification. As some organizations require not only the quality of products and services, but also the safety of these, ISO 9001:2008 is a great start for organizations towards implementation of other ISO standards, in this case the ISO 27001:2010. The purpose of ISO 27001:2010 is to show customers that information security in the organization is carried out in the best possible way and to gain their trust. Therefore we can say that the ISO 27001:2010 means for information security the same thing as ISO 9001:2008 means for quality management system. In this paper will be shown how to implement the standards individually and whether there is the possibility of integrating these standards.

Key words: ISO 9001, ISO 27001, integrated systems, information security, quality management

SAŽETAK

Zahtjevi kupaca i korisnika usluga, te potezi konkurenata zahtjevaju od poduzeća da konstantno podižu razinu kvalitete proizvoda i/ili usluga ali i razinu kvalitete ustrojenosti i funkcioniranja svoje organizacije. Isto tako, ostali zahtjevi kao što su zahtjevi koji proizlaze iz zakonske regulative, zahtjevi lokalne zajednice i okoline traže od organizacija da se prilagode. Kako bi organizacije zadovoljile sve te zahtjeve one mogu koristiti postojeće alate poput normi ISO 9001, ISO 14001, ISO 27001 i drugih. Integracijom više ISO normi u jedan integrirani sustav moguće je zadovoljiti širi spektar zahtjeva. U radu je analizirana mogućnost integracije ISO 9001:2008 sustava upravljanja kvalitetom sa ISO 27001:2010 sustavom upravljanja informacijskom sigurnošću te mogućnosti primjene tog integriranog sustava u praksi. Organizacija sa implementiranim sustavom upravljanja kvalitetom dokazuje da je njen sustav upravljanja kvalitetom sukladan zahtjevima iz norme ISO 9001:2008. Samim time rizik neizvjesnosti vezane uz kvalitetu proizvoda ili pružene usluge za kupce je smanjen, stoga organizacije sve češće teže dobivanju tog certifikata. Kako je u nekim organizacijama potrebna ne samo kvaliteta proizvoda i usluga nego i sigurnost istih, norma ISO 9001:2008 je odličan početak organizacije za primjenu drugih ISO normi, u ovom slučaju norme ISO 27001:2010. Svrha norme ISO 27001:2010 je da pokaže korisnicima da je informacijska sigurnost u organizaciji provedena na najbolji mogući način i da stekne njihovo povjerenje. Stoga možemo reći da norma ISO 27001:2010 znači za informacijsku sigurnost isto ono što ISO 9001:2008 znači za sustav upravljanja kvalitetom. U radu će biti prikazano kako se norme implementiraju pojedinačno te postoji li mogućnost integracije tih normi.

Ključne riječi: ISO 9001, ISO 27001, integrirani sustavi, informacijska sigurnost, upravljanje kvalitetom

1. Introduction

This paper deals with the subject of integration possibilities of quality management system ISO 9001:2008 and Information Security Management System ISO 27001:2010. Organization implemented quality management system proves that its quality management system complies with the requirements of ISO 9001:2008. As some organizations require not only quality of products and services, but also the safety of these, ISO 9001:2008 is a great start for the application of other ISO standards, in this case, ISO 27001:2010. The purpose of ISO 27001:2010 is to show customers that information security in the organization is implemented in the best possible way and gain their trust. Therefore we can say that the ISO 27001:2010 means for information security the same thing as ISO 9001:2008 means for quality management system. In this paper will be shown how to implement the standards individually and whether there is the possibility of integrating these standards.

2. Quality management systems

2.1. Choice between alternatives

Each organization applies certain quality management system, it is its characteristic. Organizations and owners are aware of the fact that to a greater or lesser extent, they can not survive on the market if they do not have customers for products and services. The degree of quality management is drastically different from organization to organization which is caused by differences that exist among market conditions, size of organization, type of ownership, social culture, management style,

business, etc. The quality management system built according to ISO¹¹⁶ 9000, is the starting point, but over time the requirements of this system are becoming inadequate and need to be supplemented and upgraded to some of the more sophisticated systems.

2.2. ISO 9001 standard

Organization with a focus on customers through leadership, teamwork, process approach, systems approach to management, continuous improvement, decision-making based on facts makes standard ISO 9001 the most extensive international standard that sets requirements for the establishment, maintenance of quality management systems and is applicable to organizations of all types. ISO 9001 covers the basic processes within the organization, it also provides certain actions for control over processes and management that is controlled. Quality Management System according to ISO 9001 standard is now used throughout the world and gaining certification of the system proves the quality of products or services, that's why the ISO 9001 is generally accepted.

3. Implementation of ISO 9001:2008 standard

3.1. Advantages that the ISO 9001 standard brings to organisations

Particularly important for the safety of products and services is the process of acquiring that must be driven by the requirements of ISO 9001:2008 standard, which increases the preventive safety of products and services. ISO 9001:2008 standard is an excellent foundation for the application of other ISO standards in the field of management. It is primarily intended for the construction of a quality management system, which is for the information security the ISO / IEC 27001¹¹⁷ standard.

3.2. Implementation (introduction and establishment) of quality management system ISO 9001:2008

For the introduction of quality management system according to ISO 9001:2008 and certification of system, depending on the size of the organization or institution, the diversity of processes and products or services, an average of 2-12 months is needed. The establishment of quality management system and certification takes place according to certain phases, such as preparatory activities that include recording and analysis of the current situation (organization, resources, processes), good education of management personnel and key employees for the introduction of quality management, planning activities needed to establish the quality management system.

3.3. Certification of quality management system ISO 9001:2008

By obtaining the certification of the ISO 9001:2008 standard, certificate of conformity is provided of business with an internationally recognized standard, greater confidence of business partners and customers, a good marketing promotion, an objective and independent external evaluation and assessment of quality management system.

4. Information security management system

4.1. Information system protection

„Risk of Information/Internet technology is a danger that its application leads to undesirable consequences (damage) in an organizational system and/or its surroundings. Abuse mostly occurs

¹¹⁶ISO is the international organization for standardization (ISO – International Standards Organization)

¹¹⁷ISO 27001 is an international standard that defines the requirements of the Information Security Management System for organizations

due to two reasons, namely to achieve unjustified or unlawful use by individuals or organized groups or for applying material or non-material damage to the individual, group or community. The most vulnerable are the information systems that can access the Internet, because the Internet in itself is extremely compromised“(Klasić, Klarić 2009:160).

Part of the activity that is related to the application of information technology in the business world was supposed to be planning information system protection therefore ISO organization has organized the subcommission number 27 upon which standards for information system security are made. Therefore, the establishment of organizational control and protection management of information systems is the purpose of the standard ISO/IEC 27000. These standards give recommendations and the necessary elements (with respect to the specifics of each system) that should be followed in the preparation of their own security management model and standards for establishing, implementing, maintaining and improving information security management system.

4.2. ISO 27001:2010 standard

ISO 27001:2010 standard forms the basis of information security, it specifies in which way can any type of organization (profit or non-profit, large or small, public or private) organize information security. The purpose of the ISO 27001:2010 is to show how to introduce information security in an organization, it gives an organization the ability to obtain certification, which serves as a confirmation that the security of an organization is implemented in the best possible way. ISO 27001:2010 means for information security the same thing that ISO 9001:2008 means for the quality management system. The importance of this standard is shown by many jurisdictions that took this standard as a basis for writing a variety of regulations in the area of personal data protection, protection of privacy, protection of information systems, etc.

4.3. Advantages of the ISO 27001 standard

The establishment and operation of an ISMS will not, by itself, necessarily reduce the negative risk of information security immediately. In essence, the ISMS is a tool that allows an organization to systematically control the level of information security and performance. The system should provide economic benefits such as reducing the time to research safety, reducing the time to learn new things, reduce disputes, reduce legal fees, possible reduction in insurance premiums, the protection of information assets, increase awareness of information security, increasing the trust with customers and other interested parties. ISO 27001 standard helps to protect the confidentiality of information in a way that keeps them accessible only to authorized personnel, standard preserves the integrity, accuracy and completeness of the information, and the availability of information to authorized entities and the possibility of using them. A management system that has been introduced to an organization for the protection of information.

5. Implementation, maintenance, monitoring and verification of information security

5.1. Implementation

For an organization to receive a certificate of information security management organization must meet a set of requirements defined by the standard ISO 27001. Basic steps in the implementation of ISO 27001 are the beginning of the project, defining ISMS, risk assessment, risk management, training, pre-audit, audit and continuous improvement.

5.2. Maintenance, monitoring and verification

Management should regularly carry out verifications of the ISMS to ensure that the scope continues to be appropriate and that there are identified improvements in the ISMS processes. Supplement security plans by taking into account the results of tests and examinations of ISMS. Record the actions and events that could have an impact on the efficiency and performance of ISMS. In order to facilitate supervision and control of ISMS organization must make certain actions. Organization must monitor and review procedures and other controls to timely detect errors, identify successful and unsuccessful attempts at security violations and incidents, in order to determine whether the activities assigned to the staff are appropriate and that the implemented security controls are functioning as expected. It is necessary to detect security events and prevent security incidents.

6. Possibilities of integration of ISO 9001:2008 and ISO 27001:2010 standards

„In the organization where the management decides to integrate the management system, it is necessary to identify the area of different systems that integrate. It is necessary to identify those areas, processes, standards or requirements that are fully integrated into a single form and that the requirements in an integrated form remain independent“(www.kvaliteta.net).

As there is an increasing need for an integrated management system, every year there is an increasing number of organizations that implement such a management system in their organization. Various systems are being combined and one of the possible ways of integration is that of a quality management system and information security management system. „The most important principle, which leads to the introduction and integration of such systems of management is the principle of gain. Some are direct, others are indirect, where the results are shown in a certain period of time.“(www.kvaliteta.net).

Although it seems that the two standards are entirely different, but a more detailed study shows many similarities. One of the similarities is that they have the same four mandatory procedures such as internal audit, document management, corrective actions and preventive measures. Therefore, if the organization requires implementation of both standards, ISO 27001 will be easier to implement because by taking over the elements of ISO 9001, ISO 27001 will be much faster to implement.

7. Conclusion

The ISO 9001 standard is the most widely used international standard and is applicable to all organizations, all of which has been achieved with its approach within the organization, through obtaining certification of the system organization is proving the quality of products or services. ISO 9001 covers the basic processes within the organization, it also provides certain actions control over processes and management that is controlled. The quality management system enables an increase in profit due to better sales results, cost reduction of inadequate products, provides us with competitiveness and a better market position, making business reputation. The main reason for the introduction of ISO 9001:2008 in the organization is to achieve stability of the organization and to satisfy the needs all interested parties. We can also say that the ISO 9001 standard is the basic standard which can be upgraded to any other standard, in this case it is ISO 27001:2010. We can say that it is necessary to establish a safety management system if this is of direct relevance to the success and continued operation of the organization. An important factor in recognizing the organization as a reliable and modern business partners is implemented information security system because it represents the implementation of the necessary measures to achieve a satisfactory level of information security within the organization. Advantages of norms are stressed if they are applied over the course of the project implementation of information security and during the planning of activities. Management system that was introduced in the organization for the protection of

information, and complies with ISO 27001 provides an efficient instrument to verify the effectiveness of information security management system. The goal of this standard is the maximum protection of information systems and business resources.

Integration of quality management system ISO 9001:2008 and Information Security Management System ISO 27001:2010 is possible and desirable to all organizations that seek quality of its products and services and information security.

REFERENCES

IsecT Ltd (2007): ISO27k implementers' forum, www.ISO27001security.com

Klasić, K., Klarić, K.(2009): Informacijski sustavi. Zagreb: Intus informatika

Knez, J. (2006): Sigurnost informacija po normi ISO/IEC 27001 u postojećim sustavima upravljanja,[http://issuu.com/kvaliteta.net/docs/knez_j_rad?viewMode= magazine& mode=embed](http://issuu.com/kvaliteta.net/docs/knez_j_rad?viewMode=magazine&mode=embed) (17.08.2012.)

Lazibat, T. (2009): Upravljanje kvalitetom. Zagreb: Znanstvena knjiga

Norma ISO 9001:2008. ISO, 2008

Norma ISO 27001:2010. ISO, 2010

Oslić, I. (2009):Normom preventivno povećavamo sigurnost proizvoda i usluga, <http://www.manager.hr/naslovnica/item/normom-iso-90012008-preventivno-povecavamo-sigurnost-proizvoda-i-usluga> (20.08.2012.)

Skoko, H. (2000): Upravljanje kvalitetom. Zagreb:Sinergija d.o.o.

IsecT Ltd.(2007): ISO27k implementers' forum, www.ISO27001security.com

www.kvaliteta.net, (accessed 20 Januar 2013)

www.top-consult-grupa.hr, (accessed 22 Januar 2013)

Malgorzata Gajos, PhD.

University of Silesia in Katowice
Faculty of Computer Science and Materials Science
Institute of Computer Science
Będzińska 39, 41-200 Sosnowiec, Poland
Phone: +48 32 3689716; Fax: +48 32 2946160
E-mail: malgorzata.gajos@us.edu.pl

Ivana Čandrić-Dankoš, M.Sc.

Osječko-baranjska županija
Department of Economy and Regional development
Stjepana Radića 4, Osijek
Phone: 031/221-897, Fax: 031/221-880
E-mail: ivana.candrilic-dankos@obz.hr

Anka Mašek Tonković, PhD.

Faculty of Economics in Osijek
31000 Osijek, Gajev trg 7
Phone: +385 91 224 4045, Fax: +385 31 211 604
E-mail: masek.efos@gmail.com

**THE IMPACT OF THE INTERNATIONAL STANDARD ISO ON THE
SUCCESS OF ORGANIZATION**

**UTJECAJ MEĐUNARODNE NORME ISO NA USPJEŠNOST
ORGANIZACIJE**

ABSTRACT

International standard ISO in its basis represent set of rules whose systematic application has a multiple direct impact on the organization that applies them, but also indirect influence on its environment. Public sector represents organizations that are inherently highly standardized; therefore, law and subordinate regulations define the scope of activities. The question arises of purpose or the applicability of the international standards ISO 9001 in such systems.

Modern administration in the time of decentralization in its scope of activities receives increasing number of activities, on the other hand market economy, competition, speed of dissemination of information has raised the level of criticality of the real sector. Real sector especially in the time of recession is facing the problem of its sustainability, therefore demands from the administration quick, timely and quality service, program or a project. Real sector, today, in administration looks for a partner that will recognize problems with which they are facing and react to them with quality service. Real sector studies and compares work conditions in environment and impose to the administration demand for constant validation of their work. At the time when the expectations and obligations of the administration are increasing, question raises about justification the decision to accept international standards as criteria by which administration will evaluate its work. Particularly when we know that the acceptance of standards represent significant investment of administration in its own recognizability, proof of affirmative attitude of administration of its role in economic development, but also an obligation for continuous work on its own advancement.

Revision of international standards has resulted in principles that are precondition of successful organization. Analysis of the application of the principles of building a real and public sector presented a qualitative contribution to the application of these principles in organizational

behavior, and thus the success of the system. In the second part of the study it is analyzed the tendency of the increase of certified administrations in the world and Croatia. These analyzes were used as the basis and an argument for the justification of the decision on the application of international standards in administrations.

Keywords: *standard, ISO, quality management system, public sector, administration*

SAŽETAK

Međunarodne norme ISO u svojoj osnovi predstavljaju skup pravila čija sustavna primjena ima višestruki izravan utjecaj na organizaciju koja ju primjenjuje, ali i značajan indirekatan utjecaj na okruženje. Javni sektor predstavljaju organizacije koje su same po sebi visoko normirane, te je djelokrug rada definiran zakonima i podzakonskim aktima. Postavlja se pitanje svrhe, odnosno primjenjivosti, međunarodnih normi ISO 9001, u takvim sustavima. Moderna uprava u vremenu decetralizacije u djelokrug rada dobiva sve veći broj aktivnosti, s druge strane tržišna ekonomija, konkurencija, brzina diseminacije informacija podigla su razinu kritičnosti realnog sektora. Realni sektor je poglavito u vremenu recesije suočen sa problemima vlastite opstojnosti, stoga od uprave zahtjeva brzu, pravodobnu i kvalitetnu uslugu, program ili projekt. Realni sektor, danas od uprave traži parntera koji će prepoznati probleme s kojima se suočavaju i na njih odogovoriti kvalitetom usluge. Realni sektor proučava i uspoređuje uvjete rada u okruženju i nameće pred upravu zahtjev za stalnom valorizacijom vlastitog rada. U vremenu kada su očekivnja i obveze uprave sve veće, postavlja se pitanje opravdanosti donošenja odluke o prihvaćanju međunarodne norme kao kriterija po kojem će uprava valorizirati svoj rad. Poglavito kada znamo da prihvaćanje norme, predstavlja značajno ulaganje uprave u vlastitu prepoznatljivost, dokaz afirmativnog stava uprave prema vlastitoj ulozi u gospodarskom razvoju, ali i obvezu za kontinuitetom rada na vlastitom upaređivanju.

Revizija međunarodne norme rezultirala je načelima koja su pretpostavka uspješne organizacije. Analizom primjene načela izgradnje sustava u realnom i javnom sektoru iskazan je kvalitativan doprinos primjene ovih načela na organizacijsko ponašanje, a time i na uspješnost sustava. U drugom dijelu rada analizirana je tendencija porasta broja certificiranih uprava u svijetu i Hrvatskoj.

Navedene analize korištene su kao podloga i argument opravdanosti odluke o primjeni međunarodne norme u upravama.

Ključne riječi: *norma, ISO, sustav upravljanja kvalitetom, javni sektor, uprava*

1. Introduction

Standards make an enormous contribution to most aspects of our lives, although very often, that contribution is invisible.

The scope of the administration, organization of administrative bodies, control over their acts and operations, and other issues of importance to their work are defined by the laws and subordinate regulations. Especially the Law on Local and Regional government. Consequently, the question arises of purpose and applicability of international standards in systems that are regulated by law. Furthermore decentralization that brings increasing commitments in the area of local and regional self-governments on the one hand, and the growing expectations of the wider environment on the other hand, further emphasize the issue of economic justification of systematic investment in additional education of the international standard, cost effectiveness of time and effort consumption to review existing modes of work, making additional documentation that is not required by the laws in force and the acceptance of a set of obligations especially after the decision to verify compliance of the system with the international standard system certification company.

Analysis of the previously given arguments, leaves the impression that the decision about implementing international standard in administration is a work with questionable sense and purpose. But, this way of thinking is superficial and based on a lump understanding of the standard as series of „additional rules“. Market laws, primarily requirements for increasing competitiveness of the real sector, very often application of international standard ISO 9001:2008.(http://www.iso.org/iso/home/standards/management-standards/iso_9000.htm), developed increasing criticism and expectations of the real sector towards the public sector. Real sector, aware of significance and role of the public sector in creating a favorable economic environment, has more specific requirements. Real sector emphasizes that the public sector is financed out of real sector, therefore it is expected transparency of costs, prudence in making business decisions and creating preconditions for sustainable economic development. The concept of public administration that only fulfills the legal obligation is no longer viable.

The increased demands on one hand, and the pace of change facing administrations demands for raising their competence, acquiring new knowledge and technologies. Administrations are now expected to leave the frame of bureaucrats and merely following the legal framework, it is expected that they react swift and responsible to changes in environment, and that they become partner and support to real sector through their own programs and projects. These expectations that are set in front of administration, demand number of changes in work organization. In order to raise its own competency for expectations and demands that are set in front of it, administrations today learn by analyzing their own successfulness, comparing success of surrounding administrations, using the examples of „good practice“ as a base for improvement of its own work etc.

Consequently in this paper it will be analyzed the basic presumptions of international standard and its impact of their application to raise of overall level of system performance.

2. The basic rules for applying the ISO methodology

Analysis of the application of international standard ISO 9001:2008 in real sector show justification of its use by validating amount of invested in application itself and achieved, and systematic application. Use of international standard in real sector sometimes represents partners request, and is thus a prerequisite for successful business relationships. In international business standard is sort of a warranty to business partner that by doing business with organization that has a certificate get service or product that complies with requirements. In real sector survive projects that show profitability in given period; therefore, use of standards implies proper results. (Appleby, Clark, 1997, p. 27).

Administration, on the other hand, in general does not create added value, does not perform economic activity, therefore „measurability“ of profitability investing in application of ISO standard is somewhat more complex and harder to compare to the one in real sector. Trust in administration work, service, programs and projects are a request that administration must fulfill. Therefore standardization by international criteria is a validation that administration primarily understands and comprehends its role in modern society, that it disposes knowledge and capabilities necessary for rational management of available resources, that it is ready to systematically question its own way of work, that it is ready to receive comments and suggestions from the environment and that it is ready to change, after constructive analysis of the system and to adapt in a way to raise quality of its own service, projects and programs.

International standards are subjects of systematic analysis of organizations that apply them, interest groups on whose operations it has impact and a series of experts in the area to which they relate. Global character and wide applicability of standards, but also the influence from the environment, demand continuous analysis of the standards as well as its revision in accordance with perceived

needs for changes in standards requirements. As a result of series of revision from 1987 to 2008 the Organizing committee of ISO, in the preparation of the II Major revision of standard ISO 9001 building a system of quality and management, adopted the principles of building a quality system according to ISO 9001 standard, that are presumption of successful applicability of international standards (Bešker, Špiljar, 1999, p. 143). These principles represent set of rules as a sort of recipe for successful organization management. Principles are orientation towards the service users, leadership, employee involvement, process approach, systematic approach toward management, continuous advancement, and factual approach to decision-making and mutually beneficial relationships with suppliers.

2.1. The principle - orientation to service users

Performance of the real sector is basing on the orientation towards the customer or service user. Service user always has a choice, dissatisfaction with service in real sector will influence on his decision whether the next time he will choose specific product. By choosing one product, customer/service user confirms his satisfaction with given and with his money decides on the performance of company (real sector). Customer is a king for service user, where in time of recession and downsizing to necessary purchase, role of king is more significant.

On the other hand, services that administration is providing are necessary, but since they are not economical service user have no choice. Real sector does not have complete freedom in choosing service provider or suppliers, because matters are determent by law and subordinate regulations. Necessity of service choice by the management makes the management less exposed in basic existential sense, to which real sector is exposed. Nevertheless, the rights to dissatisfaction with provided service have all the service users, so they have the right for “reclamation”, written complaint, constructive criticism, making a claim, in the end on the local election express their opinion about projects, programs, and provided services. It is this right of choice that makes administration sensitive to service user opinion. Application of international standard ISO 9001:2008 in administration is based on the knowledge of officials of local, regional and national levels of government that it is necessary to systematically follow service user opinion. Application of international standard ISO 9001:2008 was developed through agreement or guidelines for administration in which officials of local, regional and national levels of government have tried to define the criteria for evaluating the success of administration to ensure their own survival.

2.2. The principle of leadership

Leader establishes unity of purpose and direction of organization. Organization management requires the skill of leadership apropos management (Kondić, 2002, p. 150). Every organization must have defined who does what and who is responsible for what. Lack of organizational structure is resulting in lower system efficiency and a series of unnecessary repetitions.

2.3. The principle of employee involvement

Every employee in organization is directly responsible for its success. The principle is basing on understanding of the role and significance of every employee, on respecting their opinions and the possibility to affect decision making in organization with their notes and suggestion.

2.4. The principle of process approach and the principle of a systematic approach to management

Work organization represents one of the most important assumptions of its success. Certification by the international standards represents defining key processes within the organization, determining

interactions between them and systematic analysis of unnecessary overlaps with goal to raise system efficiency. Local and regional administrations within the scope of their work have a variety of activities in the field of education, health, culture, economy, construction etc. Large scope of activities makes the public sector (administration) significantly different that is more complex systems than those relating to companies. Furthermore decentralization, on one hand, and continuous demands for decreasing administration employees on the other, are reflecting as an administration need for process analysis, defining key and auxiliary processes, perceiving unnecessary overlaps and its analysis in the sense of their removal, decreasing the number of errors through simpler instructions, and modernization of existing modes of work in terms of providing accurate, precise and complete information when it is necessary for decision making.

2.5. The principle of continuous improvement

Globalization, widespread use of internet, high dissemination of information are determinants of modern environment in which, in real sector, are successful only those companies that are good enough in analyzing changes in environment and which are capable to quickly react to those changes by changing their services, products and products to comply with new demand.

Administration and business decision making in administration represent more complex proceedings than it is in the real sector. Decisions that have considerable effect on environment demand detection of changes, their analysis, predicting their influence on environment, adjustments of projects, program and services to the newly conditions, and most importantly adopting the programs, projects and new services in system in which it is needed their systematic verification in front of county authorities, board and council authorities etc. Even after the passing of the Amendments of Law on regional and local government back in 2009 it has been made progress in simplification of business processes, but also increasing the role and powers of heads of administration, this procedure is slower even today, than decision making in real sector. Despite the fact that the law provides emergency procedures, decision procedures are essentially different between real and public sector. Reasons for such actions are mainly in the property sources. Real sector in all its decision-making is disposing by its own resources and their influence to environment is, in most cases, smaller than the one of public sector. In disposal of its own property and assets, real sector is autonomous and responsible primarily to employees, business partners and only indirectly to environment. On the other hand, public sector disposes budgetary funds, which are assigned to it under the law. Budgetary funds are not and cannot be a result of own activity of public sector and as such may be disposed in pre-defined manner with clearly defined criteria. Any modification or redistribution of budgetary funds generally represents withdrawal of rights allocated to one group of budgetary users so it could be granted to other group of budgetary users, or, if it stays within the same group changes intended use of funds. These kinds of business decisions require consent of all interested parties, which makes them more complex. However, the influence of business, often difficult strategic decisions that are made by administration, because of their significance for the environment, should not be taken differently. Furthermore, response reaction to the changes in environment for real sector in some situation can be crucial for continuation of business. Administration must recognize changes in environment and react to them in a way that their programs, projects and services can create optimal work conditions to real sector in new conditions.

2.6. Factual approach to decision making

Real sector has far more liberty in business decision making. The rationality of management in real sector makes it prone to use facts when making business decisions. However, the dynamics of change in the environment often does not leave enough time for systematic analysis, and the structure of real sector, which is dominating by small and medium enterprises, often does not leave

enough its own funds, time, or knowledge for conduction of systematic analysis. Consequently, business decision making in real sector is often based in business experience, intuition and monitoring changes in environment. Budgetary funds and its limited possibility of management, criticality of the real sector to the successful and less successful projects that are implemented by administration, but also the need for confirmation of justification of investments made by administration, makes the factual approach to decision making necessary in administration. The base for business decision making in administration can only be facts, profitability studies and scientifically based assessment. This kind of approach gives officials the right to make reasonable business decisions, and to the real sector trust that administration is disposing budgetary fund with accordance with rules of the trade and good management principles.

2.7. Mutually beneficial relationship with supplier

Application of mutually beneficial relationships with supplier principle is different in real compared to public sector. Real sector has freedom of business decision making in the choice of suppliers of services, and every organization has a freedom to determent selection criteria. Mutually beneficial relationship with supplier is extremely important because it can influence overall system performance in terms of service quality, product quality etc. Relationships with suppliers, in public sector are predefined by law and subordinate regulations, wherein the freedom in business decisions making is limited and dependent on legislation.

3. The role of the application of the International Standard ISO 9001:2008

ISO Survey (<http://www.iso.org/iso/home/standards/certification/iso-survey.htm>) is a worldwide review of certificates issued for ISO system management standards. This publication is issued since 1993 and it systematically analyzing number of new certificates by type, country, industries (http://www.iso.org/iso/database_iso_9001_iso_survey_2011.xls; http://www.iso.org/iso/database_iso_9001_iso_survey_2011.xls). Analysis of certified administration by countries of the world shows continuous growth of certificates. Table 1 is showing number if issued certificates ISO 9001, which is classified as administration, that in Croatian corresponds term of government, in the world by years.

Table 1 Number of issued ISO 9001. Certificates by years in world

Year	World
1998	689
1999	2086
2000	1404
2001	331
2002	780
2003	2229
2004	3457
2005	4213
2006	4371
2007	6208
2008	4911
2009	7938
2010	5399
2011	6468

Source: ISO survey <http://www.iso.org/iso/home/standards/certification/iso-survey.htm>

From the above table it is evident that the trend of administration certification by international standards in world started in 1998, and that it if we exclude 2001, when this number was slightly lower, indicates growth. This kind of relation to certifying shows the fact that administration

considers relevant quality and perception of its own service as quality, and that it is ready to invest in raising the quality of service. As administration certification is not a formal requirement for now, and the administration decide voluntary to certificate their way of working, it could be concluded that one of the primary motives for increase of certificates were examples of growth service quality of certified administrations.

Furthermore, from Table 2 we can see that analysis of issued certificates ISO 9001 for administration in Croatia shows tendency of growth.

Table 2 Number of issued ISO 9001 certificates by year in Croatia

Year	Croatia
1998	0
1999	0
2000	0
2001	0
2002	0
2003	0
2004	0
2005	22
2006	24
2007	29
2008	36
2009	45
2010	55
2011	17

Source: Croatian review of management system certificate ,www.kvaliteta.net

Although scientific research show difficulty in determining connection between success of organization and implementation of ISO quality (Wiele, Williams, Brown, Dale, 2001, pp. 323-331) significant data is that proactive administrations, which are initiating economic growth in their environment, are more prone to certification process (Davison, Grieves, 1996, pp. 32-38).

4. Conclusion

Even though it is difficult to determine the extent, to which the success of organization is associated with the application of international ISO methodology. Making a decision on implementing standards and principles of system management represents readiness and willingness of organization to establish its own processes. Define goals and priorities. Measure its own successfulness. Verifying acceptance of its products, services, programs and projects. Compares with their environment and learns from it. It is open to notes and suggestions from environment by analyzing them, and incorporates them in their way of work, if they are proven to be correct. Even though there cannot be linked successfulness of organization with appliance of standards, interest for application of ISO methodology as a business practice is showing proactive approach of organization to environment, as well as their own role as a responsible administration for ones actions in economic development. Furthermore decision to implement international standards, reflects readiness of organization to systematically checks its own method of work with authorized international certification bodies, in accordance with international success criteria, as well as actively participating in raising its own recognition in international settings. Previously noted expressed willingness, even declarative, is basically a qualitative progress. Consequently it is clear that investing in implementation of international standards is a investment itself into organization, thus justify its propose.

REFERENCES

Appleby A., Clark A. (1997): Quality management in local government, the same as in the private sector but different, *Leadership & Organization Development Journal*, Vol. 18, No. 1, pp. 29-36

Bešker M, Špiljar M. (1999): Načela izgradnje sustava kvalitete prema normi ISO 9001:2000 (*Principles of building a quality system according to ISO 9001:2000*), Naučni stručni skup 1999 (*Scientific Symposium 1999*) Zenica, pp. 145-147

Croatian review of management system certificate, www.kvaliteta.net (February 15.,2013)

Davison J., Grieves J. (1996): Why should local government show an interest in service quality, *The TQM Magazine*, Vol. 8, No. 5, pp. 32-38

ISO 9000 - Quality management, http://www.iso.org/iso/home/standards/management-standards/iso_9000.htm (February 15.,2013)

ISO Survey of Certifications 2011 – Industrial sectors,
http://www.iso.org/iso/industrial_sectors_iso_survey_2011.xls (February 15.,2013)

ISO Survey, <http://www.iso.org/iso/home/standards/certification/iso-survey.htm> (February 17,2013)

Kondić, Željko (2002): Kvaliteta i ISO 9000 primjena (*Quality and ISO 9000 implementation*), Tiva

The ISO Survey of Management System Standard Certifications (1993-2011),
http://www.iso.org/iso/database_iso_9001_iso_survey_2011.xls (February 17.,2013)

van der Wiele A., Williams A. R. T., Brown A., Dale B. G. (2001): The ISO series as a tool for organizational changes: Is there a case?, *Business Process Management Journal*, Vol. 7, No. 4, pp. 323-331

Zakon o lokalnoj i područnoj (regionalnoj) samoupravi (*The Law on Local and Regional Government*) (NN 33/01, 60/01, 129/05, 109/07, 125/08, 36/09, 150/11, 144/12 and 18/13)

Malgorzata Gajos, PhD.

University of Silesian Katowice
Faculty of Computer Science and Materials Science
Institute of Computer Science
Będzińska 39, 41-200 Sosnowiec, Poland
Phone: +48 32 3689716; Fax: +48 32 2946160
E-mail: malgorzata.gajos@us.edu.pl

Ivana Čandrlić-Dankoš, M.Sc.

Osječko-baranjska županija
Department of Economy and Regional development
Stjepana Radića 4, Osijek
Phone: 031/221-897, Fax: 031/221-880
E-mail: ivana.candrlic-dankos@obz.hr

**ETHICS AS A FEATURE OF ECONOMIC DEVELOPMENT –
FACT OR MYTH**

**ETIKA KAO ODLIKA GOSPODARSKE RAZVIJENOSTI – ČINJENICA ILI
MIT**

ABSTRACT

Business ethics is the reflection of culture and and development of countries. Most contemporary economists would agree with Lynn Sharp Paine (2008) who states, in his Value shift, how institutions, especially big corporations, have realized that they are not exempt from sophisticated evaluation criteria. Success and status in market is not measured just by financial indicators but more attentions is given to the companies personality therefore ethics is imposed as an imperative of personality. Criticism towards socially responsible behavior of corporations to employees, consumers and wider community poses high demands on corporations. Corporations are trying to show themselves as socially responsible, consistent in ethical conduct as a basis for success in the long run.

Barković (2009) said that in all transition countries business ethics is very low therefore the top business move was how to deceive opponent, evidence to that lies in the number of failed investments in the eighties.

Examples of lack of ethical behavior have far-reaching consequences to the complete economic success. In the time of economic crises it is more evident relocation of production from developed countries to areas where labor cost are much lower than labor cost in domicile countries. Do ethics have boundaries? Is ethics and to what extent a feature of developed economy? Is ethics form of actions that is not bound to spatial framework of the country or is it ethics a variable which under pressure of success can change, adjust to market conditions? These are just some of the questions that I am trying to give answer in this paper.

This paper shows opinions and views of economists on the subject, research results of paradigm of corruption index and data analysis that show views about role of ethics on the overall performance of economy.

Key words: *ethics, business decision making, recession, country development.*

SAŽETAK

Poslovna etika je odraz kulture i razvijenosti zemlje. Većina suvremenih ekonomista složila bi se s Lynn Sharp Paine (2008.) koji u svom djelu Value shift navodi kako su institucije, posebice velike korporacije, shvatile da ni za njih više ne vrijedi izuzeće od sofisticiranih kriterija procjenjivanja. Uspjeh i status na tržištu ne mjeri se samo financijskim pokazateljima, naprotiv sve veća pozornost posvećuje se osobnošću korporacije, pa se time sve više kao imperativ osobnosti nameće etika. Kritičnost prema društveno odgovornom ponašanju korporacija prema zaposlenicima, potrošačima i široj zajednici, postavlja pred korporacije visoke zahtjeve. Korporacije se sve više trude prikazati uređenim, društveno odgovornim, te dosljednim u etičnom postupanju, kao osnovom za usješćnošću na dugi rok.

Barković (2009.) navodi da je u svim tranzicijskim zemljama poslovna etika jako niska, pa je vrhunski poslovni potez bio kako prevariti protivnika, čemu je dokaz obilje propalih investicija u gospodarstvu osamdesetih godina prošlog stoljeća.

Primjeri izostanka etičnog ponašanja imaju dalekosežne posljedice na ukupnu gospodarsku uspješnost. U vremenu gospodarske krize sve je očitije izmještanje proizvodnje iz razvijenih zemalja u područja u kojima je cijena rada znatno niža od cijene rada u matičnoj zemlji proizvođača. Ima li etika granice? Je li i u kojoj mjeri etičnost odlika razvijenog gospodarstva? Je li etičnost obrazac postupanja korporacije koji nije vezan uz prostorni okvir zemlje ili je etičnost varijabla koja se pod pritiskom uspješnosti može mijenjati „prilogođavati“ uvjetima na tržištu? Ovo su samo neka od pitanja na koje nastoji odgovoriti ovaj rad.

U ovom radu analizirana su mišljenja i stavovi poglavito ekonomista o ovoj temi, rezultati istraživanja paradigme indeksa korupcije, te su analizom podataka izneseni stavovi o ulozi etike na ukupnu uspješnost gospodarstva.

Ključne riječi: *etika, poslovno odlučivanje, recesija, razvijenost zemlje*

1. Introduction

Ethics basically defines rules of moral beliefs, gives critical review, imposes reflection and questioning of views. Ethics raises the question of choices, it defines priorities. Regulated societies are defined by high standards thus high degree of defined “rules of the game”. Kregar (2008) states that “Capitalism does not mean lack of moral requirements and legal standards.” On the contrary, it presumes proper functioning of institutions, rational, effective and legitimate law and moral attitude. Besides that, he assumes that the basis of acquisition is work, dedicated work, and work as a life calling. By Kregar “market economy and capitalistic enterprise demand careful balance between self-interest and profit orientation, between pretense and resource fulness, on one hand and toward honesty, modesty and diligence, on the other.”

Recession and drop of economic activity on one side are imposing the need to fight for every customer, best service, the most quality product; on the other hand, it imposes the need to think about the costs. Competitiveness, globalization, speed of information dissemination gives the option of choice both for the customer and for the enterprise. Cost reduction in the time of economic crisis becomes imperative, so the question of ethics takes new dimension. The paradigm of ethical and unethical behavior is determined by cultural, and personal experience, as well as a system of values that each person carries. Prism of problem considering changes with our role in it, that is how Truman Harry, S. (1952) states. “Recession is when your neighbor loses his job and depression when you lose yours.”

According to Weber, M (1934) “Capitalism is not based on unlimited greed. Greed creates bandits not entrepreneurs. Capitalism destroys societies of tradition but creates new and developed societies, new morals. The universal rule of absolute dishonesty (*absoluter Skrupellosigkeit der*

Geldmachung) in gaining money was specific characteristic of countries whose civic and capitalistic development – by western development was “backward”.

2. Market economy and ethics

Market economy gives the choice of better, more quality, cheaper or by any other criteria desirable product for consumer. Based on competition, is basing on selection. Solidarity is not characteristic of market economy therefore slower or those who less successfully recognize changes in environment or/and not react quickly enough to the same, are failing. By comparing ethics and economics, Babić (2002) says “common denominator of ethics and economics rests in part on the assumption of rationality that is the result of human free will and the ability to rational reasoning and evaluation that they are inherent properties that distinguish humans from other living beings”. Fruther, Kregar J. (2008) says how “capitalist entrepreneurial freedom does not mean just possibility of freedom (in sense that it is allowed what is not forbidden) but also a burden of making self-decision in the light of community moral standards (because one cannot do what freedom allows, but moral prohibits). Capitalism that has emerged without presumptions of developed societies (in sense of elementary honesty), rule of law (*Rechtstaat, rule of law*) and social solidarity (reciprocity), to survive in global environment must fight for these values.”

Father of modern economics Smith (1759) states that a human being is capable of making moral judgments based on compassion and not only on the basis of selfishness. It is compassion that opens space for moral and ethics. Market economy does not include just producers and consumers, it includes all those in the process, hence employees, environment and wider community.

Aleksić (2007) says that successful international and domestic organizations became aware of the fact that in the competitive arena business ethics allows growth and development, increases efficiency and productivity. Many studies have shown that business ethics and profitability are not mutually exclusive and companies that incorporate business ethics in their business system show better results than those that did not do so.

Karpati (2001) states that business enterprise encounters many obstacles, but consistency in decision-making in the context of ethics brings long-term results.

3. "Enron scandal" the question of ethics and business decision making

Enron is a company whose ruin represented the biggest bankrupt in American history. Enron was the 18th biggest company in the USA; it was dominating in the energy sector in USA as well as in the world. With its downfall 4500 people lost their jobs, tens of thousands investors in Enron shares lost their money, because its value from 90\$ per share in August 2000 fell to just 26 cents per share at the moment of Enron collapse. Enron has for years cheated its investors and business partners about successfulness of their business performance by showing false data in their bookkeeping, transferring their debts to companies that were formed by their leaders with international partners, whose books were hidden from independent auditors. Based on false records they received credits from banks and financial funds, sinking deeper and deeper until finally, when big deceit was discovered, ruined many. About 11.000 Enron's employees and former employees lost their pension, because all the Enron pension funds have collapsed, since they were prohibited to own anything else except Enron shares, therefore they could not sell them to buy different shares to make the whole fund much safer. While company was sinking into ruin, leaders were increasing their paychecks and bonuses. Chairman of Enron Kenneth Lay, whose wealth was estimated to 123 mil. \$ only in shares, plus some more tens of million in real-estates and other values, increased his salary in 2001 and just in that year acquired another 25mil.\$. Just a few days before the final bankrupt 500 leading executives and managers paid bonuses worth of total 55 mil.\$.

An example of Enron is very often mentioned in the context of ethics as a good example, how unethical behavior is not worth in the long term, because the fraud is eventually discovered, and the consequences of such behavior are immeasurable.

The impact of this example to the wider community, to former employees, business partners, financial funds etc. was enormous and it is certain that these stories raise issues of morality, ethics and different attitude of environment towards companies and their business.

These kinds of stories are influencing the change of behavior of community to ask questions about responsibility of employees that knowingly failed regardless of their passive or active role in it, but also raising questions of oversight in control both banks and government that had to notice and react to such omissions. Such experiences encourage higher criticism of the company's business in the environment, call for disengagement and even condemnation of other companies, but also the need to build business identity on other principles. However, the question is what is the comfort to all those who in this story were doing honest work and earned their salary, to lose everything because of unfair game of part of employees?

Furthermore, the question arises, if consistency in ethical business is worthwhile, can companies that are doing ethical business in the time of recession survive. If they can, why then examples of successful businesses show tendency to invest in countries where labor costs are lower, and are very often using their position and power of money to exploit.

Why so far the developed habit of critical thinking about modern capitalism did not, with its decisions and consumer decisions to avoid such products, brought change in behavior, imposed new models of behavior in transition economies?

4. Analysis of corruption index and development of country

Corruption index as an indicator of the degree of "moral depravity" or unethical in one country is an indicator of organized country or degree of its readiness to identify, prevent and condemn unethical behavior especially public sector. Transparency International defines corruption as abuse of public service for personal gain. Štimac (2004) says that corruption is reflected as a brake of progress, since it retains acquired privileges of individuals at the expense of overall gain, it "legitimizes" individual usurpation of public goods and wealth, discourages creativity and entrepreneurship, encourages young and talented individuals to emigrate, and also creates inequalities. Corruption is presumed one of the main reasons why investments are avoiding certain countries, and today European Union requires of their candidates willingness and readiness to battle corruption. These kinds of demands were stated in Dayton agreement, Pact of Stability and Cooperation as well as in European Union programs such as CARDS. When analyzing all the previously stated reasons question arises if the corruption and unethical behavior are something bad, why is it so difficult to put an end to such generally accepted "bad" behavior?

Answers to this question primarily we need to find in the cause and circumstances of their formation. Štimac defines causes and circumstances for favoring the corruption in transitional and democratic countries. As causes and circumstances in transitional countries are given old relationships to everything common and social, breakdown of system of state and "social" ownership, creation of atmosphere for "free predatory competition" in privatization and denationalization of the will of former communistic personnel to keep their power and privileges; lack of knowledge and experience of state and its mechanisms and institutions in citizens that for the first time have the opportunity to be in the politics; unclear and very often contradictory rules and loopholes in the law as a result of ignorance for the matter that needs to be legally regulated, too much rules, too much possibilities for political interference, lack of public opinion and their controlling role, lack of open market as a measure and regulator for competition, lack of anti-monopolistic laws etc. On the other hand, developed democratic countries are characterized by globalization of economy and internationalization of financial market, "new products", privatization of some former public services, at times even decentralization that draws into public affairs more people than before that leads to accumulation of elective functions which makes

politicians actions less transparent and finally there is the question of financing of political parties and their election campaigns which in many countries are not clearly regulated by law.

Analysis of the real sector (businesses) shows how the ethics in business decision making is highly correlated with the development of the country. Real and public sector constitutes one economy, therefore ethicality of one reflects on the ethicality of the other because one criticality within the economy develops over time and is not related to the business sector, but rather in a way of thinking about the basic principles of business. Table 1 shows results of an analysis conducted in the countries of Europe. Croatia is not in this table, because by application of this new methodology new report puts her in the countries of Eastern Europe and Central Asia. Nevertheless, data for Croatia are analyzed below.

Table 1 The review of the Corruption Perceptions Index in the countries of Europe in 2012.

Country Rank	Regional Rank	Country Territory	CPI 2012 Score	Surveys Used	Standard Error	90% Confidence interval		Scores range	
						Lower	Upper	MIN	MAX
1	1	Denmark	90	7	2,0	87	93	83	98
1	1	Finland	90	7	3,0	85	95	83	100
4	3	Sweden	88	7	1,9	85	91	82	97
6	4	Switzerland	86	6	2,6	81	90	73	90
7	5	Norway	85	7	1,6	82	87	78	89
9	6	Netherlands	84	7	2,0	81	88	73	89
11	7	Iceland	82	6	4,1	75	89	71	98
12	8	Luxembourg	80	6	2,8	75	85	71	89
13	9	Germany	79	8	2,3	75	83	73	89
16	10	Belgium	75	7	2,4	71	78	71	89
17	11	United Kingdom	74	8	1,3	72	77	69	81
22	12	France	71	8	2,4	67	75	57	79
25	13	Austria	69	8	2,4	65	73	59	79
25	13	Ireland	69	6	3,5	64	75	54	78
29	15	Cyprus	66	4	2,4	63	70	62	71
30	16	Spain	65	7	2,9	60	69	52	73
32	17	Estonia	64	8	3,0	59	69	50	75
33	18	Portugal	63	7	2,5	59	67	54	73
37	19	Slovenia	61	8	3,9	55	67	45	73
41	20	Poland	58	10	2,0	55	62	47	65
43	21	Malta	57	4	2,4	53	61	52	63
46	22	Hungary	55	10	3,5	49	61	37	71
48	23	Lithuania	54	7	5,3	45	63	31	71
54	24	Czech Republic	49	10	2,9	44	53	34	62
54	24	Latvia	49	6	4,0	42	55	31	58
62	26	Slovakia	46	8	4,3	39	53	30	62
66	27	Romania	44	8	3,7	38	50	32	60
72	28	Italy	42	7	2,4	38	46	37	55
75	29	Bulgaria	41	8	3,8	35	47	29	62
94	30	Greece	36	7	3,6	30	42	21	49

Source: <http://www.transparency.org/research/cpi/overview>

Latest survey of global corruption index conducted in the end of 2012 shows that Croatia with 46 points is in the upper half of the countries but significantly below the average of the European Union. This result indicates that the new, updated and substantially more precise methodology, which is based on the findings of a number of independent expert institutions from around the world,

Croatia is on the degree of perception of corruption in the public sector and among politicians on the 62nd place in the world among 176 surveyed countries with 46 out of 100 possible points. Although 46 score is far below average of European Union, Croatia is better than Italy, Rumania, Bulgaria and Greece but weaker than Slovenia. It is interesting a high placement of Austria – 25th on the scale with 69 points or Finland that shares first place with 90 points. Curiosity comes from the fact that in the time of data release there was a trial in Croatia for a corruption case of former Prime Minister for the commission on the Austrian Hypo bank loan as a substitute for privileged position in the Croatian market. Likewise, Finnish Patria was suspected of corruption of the Slovenian politicians about procurement of Finnish armored vehicles.

Even though corruption index is based on assessment, and assessments are always subjective, Štimac (2004) states that “rich and those who “in their own homes” do not bribe are either incorruptible, since they possess live public opinion and effective justice, or often most aggressive bribers in poorer parts of the world”. Furthermore companies from USA or France aren’t any better than those that come from, for instance, Singapore. Krstić (2012) says how Croatia not only has problems with its own corruption but also from its import. The problem is that import of corruption comes from so-called developed countries with high democracies and high scores, wherein when capital is coming it looks for a suitable ground, it seeks associates that will not ask too many questions, that will be well paid to do their jobs even if it would harm the country where the project is realized, but to work for the gain of that capital.

5. Conclusion

Regulation of the country is reflected in its standards, but also the mechanisms by which it monitors, condemns and regulates forms of deviant behavior in relation to what is considered socially acceptable. Criticality in the evaluation on the one hand, but also corporation effort that within their own environment have regulated organizations whose decisions are based on principles of ethical behavior, are the features of developed countries. Self-criticism of large corporations is the basis for business decision making will they choose to invest in the country that is prone to corruption, that is country prone to “look through the fingers”, perhaps even support unethical behavior. Basic setting for market play is adjustment to market conditions, corporations from developed countries show large degree of skill and resourcefulness in identifying potential issues from the environment, as well as turning them into a challenge. Competition to these businesses, gives skill and with time experience to overcome the most difficult obstacles. In an effort to sustain their position in the market, these businesses decide to spread their activity to the areas where tolerance threshold to unethical behavior is higher. Desire for success ability to recognize potential problems and turn the minto challenges set before these corporations yet another new challenge; to change the environment they are coming to and try to enforce rules and behaviors that they apply in their home country or retreat from its own pattern of behavior, and put their own performance in front of the issue of ethics.

Analysis of corruption in transitional countries shows tendency of big corporations, to use unethical behavior in those countries where the same is not prohibited, question arises about limits where the ethics begin and where end. Ethics is a set of acceptable behaviors, which bring order, clearly define rules of the game and put consistency in front of corporations that encourages its use as a basis of business decision making. Ethics should not be determined by borders, corporations should build their identities on what it is, respecting the specificity of countries in which they are investing and respecting the man in the same way as in their own countries. Ethical company should be a promoter of new system of value, even if the environment inclines to unethical behaviors. However, companies are made of people, with all their virtues and flaws, as well as the tendency to, more or less apply their own forms of deviant behavior in countries that are suitable ground for such activities. Business ethics is culture of conduct that takes acquiring and built, and first of all, it takes time. Time and globalization carry new information, and with development of criticality and own

attitude to ethics, business decision making as well as systematic value that will accept, transitional countries have the possibility to determine their own acceptable and undesirable behaviors. From previously mentioned it is possible to derive some conclusions. First of all, criticality is possible in societies that have tradition and experience in defining criteria what is and what is not moral (ethical). Some international examples show how the attitude toward corruption is not possible to derive general conclusion, especially if we are aware that corruption index is based on assessment. This experience does not happen overnight, it builds upon gradually, primarily on painful experiences such as Enron. These kinds of experiences impose the need not just for deeper analysis but also for clearly defined set of rules, adoption of ethical codes as a written proof that company that has them was defining their own set of values, and that that set of values is clear and transparent. Having an ethical code does not mean that corporation is using it, but just the thought it self to set an ethical code is a reflection of management awareness and attitude to ethical and unethical behavior. In the age of globalization in modern societies, informations are available and fast, so negative trends draw reactions that can have far-reaching consequences. In this kind of environment, most companies will decide to have correct business relationship based on ethical (moral) principles. At the same time, countries that have lower labor costs, which are for that matter more interesting to foreign investors, often do not have enough experience or accept these predetermined rules out of necessity. Price that they are paying is not fair, but that is the price for gaining healthy critical thinking, that takes time. Companies that invest in countries with low labor costs, give people the choice, minimal wage is better than losing a job. It is questionable whether the owners and executives of such companies are always happy about their business decision even if they gain financial result. Even though such companies are building a reputation of successful ones since they are well accepted in the countries they invest to, also in their own countries because of the business result and taxes they are paying, in the end every company is made of people. No matter how much they deny this sense of discomfort, even if they justify it by their successfulness, management that is made of people know or at least sense that the set of rules they are implementing are not correct, and they are always fearing that they will be discovered and what would be the reaction of the customers of their services in their own countries to their hypocrisy. We should not believe that business decisions will not be discovered, time is always an ally of the truth, and therefore it is questionable whether the profit made in such short term can justify the loss of trust forever. Although ethical behavior as a pattern of behavior is expected from corporations that originate from developed countries, it is not necessarily so. Ethical behavior is not so much conditioned by the origin but more on the system of values that accepts or refuses certain forms of behavior. Even though there is a tendency of corporations to change their behavior in less developed countries, yet the assumption is that such changes are exceptions not the rule, so the majority of corporations will choose business setting where they feel safety of operations and regulated system.

REFERENCE

Aleksić, Ana: "Poslovna etika –element uspješnog poslovanja ", Zbornik ekonomskog fakulteta u Zagrebu, 5, str.1-11), 2007.

Barković, Dražen: "Menadžersko odlučivanje"; Ekonomski fakultet Osijek, 2009. str. 69-99.

Babić, Zdenko: " Etika i ekonomija", Propitivanje odnosa, Ekonomski pregled, 53 (5-6) 537-547 , 2002.

Karpati, Tibor: "Etika u gospodarstvu ", Grafika, Osijek, 2001.

Kregar, Josip: "Etika i racionalna država", zbornik Pravni fakultet Zagreb, 43(5), str. 577-588

Kregar, Josip, Flego, Gvozden, Ravlić, Slaven : Hrvatska kako sada dalje, Centar za demokraciju i pravo Miko Tripalo i Pravni fakultet Sveučilišta u Zagrebu, 2008.

Lynn Sharp Paine: " Value shift" – Why companies must merge social and financial imperatives to achieve superior performance , vol. 24, No 1, part 1, 2003, str. 1-8.

Weber, M., "Die protestantische Ethik und der geist des Kapitalismus "(J.C.B.Mohr, Tübingen, 1934., 42.)

Šimac, Neven: "Protiv korupcije- stara pošast, nove opasnosti", Mala škola demokracije, Split, 2004. (str. 2-50)

<http://archive.transparency.org/publications/sourcebook>, 19.03.2013.

www.transparency.hr , 15.03.2013.

<http://www.transparency.org/research/cpi/overview>, 13.03.2013.

<http://www.nacional.hr/clanak/10173/enron-skandal-koji-moze-unistiti-busha>, 10.03.2013.

<http://quotationsbook.com/quote/10521/> 26.03.2013.

http://en.wikipedia.org/wiki/The_Theory_of_Moral_Sentiments 26.03.2013.

Jasna Horvat, PhD.

University of Osijek, Faculty of Economics

Gajev trg 7, 31000 Osijek

Phone: +385 31 22 44 41

E-mail address: jasna@efos.hr

Petra Ljevak, PhD student, University of Zadar

Naklada Ljevak d.o.o.

Kopačevski put 1c, 10 000 Zagreb

Phone: + 385 1 4804000

E-mail address: petra.ljevak@naklada-ljevak.hr

Josipa Mijoč, univ. spec. oec.

University of Osijek, Faculty of Economics

Gajev trg 7, 31000 Osijek

Phone: +385 31 22 44 41

E-mail address: jmijoc@efos.hr

SOCIALLY RESPONSIBLE BOOK PUBLISHING AND READING COMPREHENSION STRATEGIES

DRUŠTVENO ODGOVORNO NAKLADNIŠTVO I STRATEGIJE ČITANJA

ABSTRACT

Socially responsible book publishing in neoliberal capitalist economy is characterized by production for the market and for the sake of profit. A group of consumers of publishing goods, who at the same time, consume and produce, are referred to as readers. In the process of reading, reading comprehension strategies are in the hands of a reader, his or hers cultural, educational and intellectual development and socially responsible book publishing is built upon knowledge of reading comprehension strategies.

Besides automatic processes of word recognition, successful reading also requires continuous supervision of the degree of understanding of what was read as well as regulation of the process of reading in the direction of set goals and through usage of reading comprehension strategies. Reading comprehension strategies are processes the reader uses in order to deeply understand the text. The main characteristic of reading strategies is that they are used deliberately and consciously and that they are under reader's control. This paper will introduce the 4-Pronged Comprehension Strategy Framework (McNamara, 2007.), which will help represent main characteristics of main reading strategies, their interaction and dynamic. The 4-Pronged Comprehension Strategy Framework consists of Monitoring Comprehension and Reading strategies in the center of the framework and four categories of strategies that comprise the prongs of the framework, including: a) Preparing to read, b) Interpreting Words, Sentences and Ideas in Text, c) Going beyond the Text and d) Organizing, Restructuring, and Synthesizing Information in the Text.

This paper provides guidelines for socially responsible book publishing, which are based on knowledge about reading comprehension strategies. The book publisher who aids the reader to develop and self-actualize through usage of known elements of reading comprehension strategies when producing a book, is considered to be socially responsible book publisher.

Key words: *socially responsible book publishing, reading comprehension strategies, The 4-Pronged Comprehension Strategy Framework, the contemporary reader, meta-cognitive book*

SAŽETAK

U radu će se govoriti o društvenom odgovornom nakladništvu koje u neoliberalnoj kapitalističkoj privredi istodobno proizvodi za tržište radi profita, ali i za tržište čiji se sudionici razvijaju na temelju onog što nakladnici proizvedu. Razmišljajući o ovom drugom impulsu nakladničke proizvodnje potrebno je poznavati čitatelja kao i strategije čitanja. Strategije čitanja pri tome trebaju biti u funkciji čitatelja i njegovog kulturnog, obrazovnog i intelektualnog razvoja.

Osim automatiziranih procesa prepoznavanja riječi, uspješno čitanje zahtijeva i kontinuirano nadgledanje stupnja razumijevanja te reguliranje procesa čitanja u skladu s postavljenim ciljevima putem upotrebe strategija čitanja. Strategije čitanja su postupci kojima čitač pristupa tekstu s ciljem boljeg razumijevanja. Ključno je obilježje strategija čitanja da se koriste svjesno i namjerno i da su pod kontrolom čitatelja. Radom će se predstaviti četverokraki model strategija čitanja (McNamar i suradnici, 2007.) gdje će se putem ovoga modela razložiti osnovne karakteristike najčešćih strategija čitanja, njihova interakcija i dinamika. Četverokraki model strategija čitanja sastoji se od Nadgledanje procesa razumijevanja i strategije čitanja u centru modela, te četiri kraka modela: a) pripremanje za čitanje, b) interpretiranje riječi, rečenica i ideja iz teksta, c) odlazak "iza" teksta i d) organizacija, restrukturiranje i sažimanje informacija iz teksta.

U radu su postavljene smjernice za društveno odgovorno nakladništvo kao i produkciju onih knjiga koje se naslanjaju na spoznaje o strategijama čitanja.

Ključne riječi: *društveno odgovorno nakladništvo, strategija čitanja, četverokraki model, čitatelj*

1. Introduction

Literacy is one of the main characteristics of contemporary society. It makes it possible for the information to transfer between individuals and to archive information and knowledge for future generations. Literacy is a base of all individual, social and scientific development. Technological development, especially in the area of networks and networking, makes the transfer of information towards an individual easy and accessible. This phenomenon directly affects literacy which is, together with technological development, the base for the creation of new global society.

Great research projects dealing with exploration of reading processes, reading theories and interventions came about in the late 20.th century as a result of realizations about the importance of reading and literacy for the society. The research has proven the reading processes to be more complicated than originally thought and that repeated research deepens the complexity of knowledge about mentioned processes.

The research, therefore, progressed during late 1970s, ranging from research in psychology of reading to reading interventions (Grosman, 2010:12). In her study Mia Stokmans (1999) identified four main dimensions influencing attitude towards reading: individual development, utility, enjoyment and escape from daily life and worries.

The publisher is responsible for the society it operates in. Publishers need to learn basic characteristics of their potential customers/readers (Tomašević, 2008b). One of these characteristics is the ability to apply known reading comprehension strategies during the process of reading. Application of these strategies allows readers to better comprehend the text and learn from it.

This paper presents a theoretical overview of socially responsible business with special accent on publishing practice. Issues such as; the process of reading, some reading comprehension strategies

known in practice of reading and 4-Pronged Comprehension Strategy Framework, suitable for application in publishing business developing socially responsible behavior will be described.

2. Socially responsible business

Social responsibility is an obligation of all companies which work for two main goals; to maximize profit and to maximize positive and minimize negative influence their business has on surrounding society(Krkač, 2007:224). Socially responsible business is widely accepted practice in developed countries. Modern business systems are required to achieve more than what their shareholders demand. They have to fulfill requirements of the society. *World Business Council for Sustainable Development*¹¹⁸ is an organization which defines socially responsible business as a dedication of general economy to contribute to sustainable economical development by working with and investing in employees, their families, local community and overall society in order to promote the quality of living.

Mušura (2007: 437) claims that the term *corporation social responsibility* became an integral part of everyday life of companies, managers, civil society subjects, governments and some individuals in the past ten years. In Croatian language the most common terms are *društveno/socijalno odgovorno poslovanje*“ and „*korporacijska/korporativna društvena odgovornost*“.“It is clear, therefore, that we are dealing with a concept whose precise meaning and definitions often depend on real context.

Socially responsible way of leading a business is important for all companies who nurture trust as one of their key components; most business partners are more inclined to make business with companies who have a reputation of active social responsibility(Ćorić, 2007: 381). Differentiation of relationships is caused by variety of industries various economic subjects are involved in as far as social responsibility and socially responsible business in practice are concerned, as well as by rather complicated processes involved in socially responsible business administration in practice.

Books are means of education and instruments of knowledge and they have social and educational role. It is therefore obvious that publishers will in the near future have to develop specific capabilities which will help them integrate their service in all of its segments– from relevant equipment to strong support of information systems, safe access to communication networks, rich databases, etc. (Tomašević, 2008a: 69). In order to achieve above mentioned “integrated service”, the future will demand improvements in educational structure of employees which should correlate with new requirements of specific industry and technology. Socially responsible publishing and integrated service it provides is surely responsible towards the society it operates in, especially taking into consideration that each published book takes part in the process of (in)formal education. By publishing books that ease the application of reading comprehension strategies, socially responsible book publishing induces the flow of knowledge and information from various fields.

3. Reading as a process

Grosman (2010: 20) describes reading as a cognitive process that consists of early recognition of letters made out of graphic elements (lines and dots), recognizing words and sentences and finally, connecting them into meaningful text. The meaning a reader applies to a text is something psychologists refer to as “mental representation of text”, and textologists and literature experts as “textual world”. The final goal of reading process is understanding the meaning of the text (comprehending). For overall text comprehension it is important to understand all three levels of the text, or, in other words, all three of its components – letters, words and sentences.

¹¹⁸WBCSD–World Business Council for Sustainable Development

Understanding text on the level of words, letters and sentences is referred to as a reading skill. Once adopted, reading skill becomes an automatic function. The reader remembers only those meaning he or she based on previous life experience considers to be important (Grosman, 2010:29). Comprehending what was read is not an easy process and often creates difficulties for the reader, depending on reader himself and characteristics of the text. It is therefore often necessary, and in order to achieve or deepen level of understanding of the text, to use one or more strategies of reading comprehension.

3.1. Strategies of reading and the role of metacognition

According to McNamara and associates(2007) strategies are, compared to skillsdeliberate, conscious and effortful actions aimed at reaching a goal and they can be thought. Reading comprehension strategies allow reader to elaborate, organize and evaluate information from the text. Strategies are under the control of the reader who can consciously use them.

Kolić-Vehovec andBajšanski (2006) define metacognition as awareness of own cognitive processes during reading and self-regulation of the process of understanding. According to this definition, metacognition during reading has two prerequisites: knowledge of reading (knowledge about oneself as a reader and awareness of activities that take place while reading) and mechanisms that regulate reading (processes the reader engages in order to improve reading comprehension). These processes, which a reader uses in order to comprehend the text, are called reading comprehension strategies (Paris and associates, 1983).

Reading comprehension strategies can be divided into two categories: cognitive and metacognitive (Paris and associates, 1983). Strategies belonging to the first category are used during reading and their goal is to derive meaning from given information. Metacognitive strategies, on the other hand, are used as self-regulating functions during reading and can include planning reading activities as well as revising the level of understanding of what was read through summarizing (Kolić-Vehovec andBajšanski, 2006). Using reading comprehension strategies requires concentration and effort as well as knowledge of strategies on the part of the reader. The reader also needs to be willing to use reading strategies when needed.

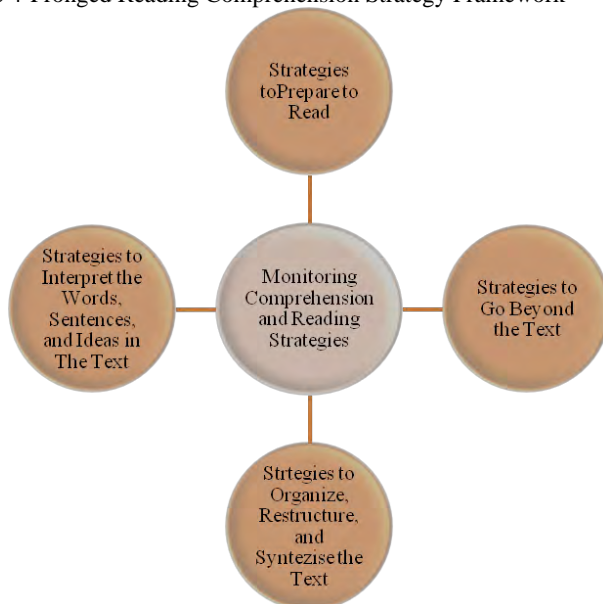
Reading comprehension strategies are, as mentioned above, conscious, deliberate actions, used to reach a set goal-to comprehend a text, to learn from the text. In order to effectively comprehend a text it is needed to start using reading comprehension strategies even before reading itself takes place. It is therefore likely to conclude that readers will in the process of preparing for reading, reading and after reading, be using one or more of these strategies. Publishers try to find out which one of these strategies will be used when reading for a specific book. As a response to this, the researchers have developed models of reading comprehension strategies, which sum up and ease their understanding and use. In the following paragraph one of these models will be represented. The socially responsible publishers will be given recommendations as how to use certain elements of each of the analyzed reading comprehension strategies.

4. The 4-Pronged Comprehension Strategy Framework

In their book “Reading Comprehension Strategies: Theories, Interventions, and Technologies”, McNamara and associates (2007) present their *4-Pronged Reading Comprehension Strategy Framework* where they classify various reading comprehension strategies and organize them within a single framework. The 4-Pronged Reading Comprehension Strategy Framework consists of Monitoring Comprehension and Reading Strategies in the center of the framework and four categories of strategies that comprise the prongs of the framework (table 1.). In next paragraphs each of the four prongs of the framework will be explained and applied to novel *AZ* (Jasna Horvat,

2009). Novel AZ informs the reader about Glagolitic script system and historical context of the 9th century, as well as about St.CirilConstantin's (the inventor of Glagolitic script) biography.

Table 1 The 4-Pronged Reading Comprehension Strategy Framework



There are two underlying notions of this framework. The first notion is that reading comprehension occurs on two levels; a) on the level of understanding words and sentences in the text, and b) on the level of readers understanding that goes beyond the text, that is, integration of the text with reader's prior knowledge. According to the second theoretical notion that drives this network, skilled readers create meaningful mental representations based on world knowledge and experience, understand the text more deeply and precisely and use metacognition during reading in order to oversee the process of reading and using reading comprehension strategies.

The center of the framework (Monitoring Comprehension and Reading Strategies) is linked to the way the reader uses the other four prongs of the framework. This very segment of the 4-pronged model is the most important for socially responsible publisher. What this means is that socially responsible publisher, when producing books, assumes a reader who uses reading comprehension strategies when reading. Not only that, socially responsible publisher uses knowledge of strategies of reading and applies it when shaping and producing a book. By doing this socially responsible publisher helps the reader to define a level of understanding during and after reading. Strategies include conception of key terms from the text, testing and various kinds of mental maps.

The first step of achieving deep text understanding is **preparing to read**– identifying the purpose and goals of reading, browsing through table of content, titles, subtitles and paragraphs, creating concepts and maps that graphically define connections between key concepts, generating prereading questions before reading. Socially responsible publisher uses this set of strategies when shaping the book and helps here with, the reader to formulate his/her goals, define what he/she already knows about the subject of the text, finally to choose a way to process information from the text. As first of *preparing to read strategies* used in novel Az is a structured table of content, which explains two main parts of the book (firs part is St. CirilConstantins's biography told through 29 signs of Glagolitic script and the other one is a *Slovarij* – detailed genesis of each Glagolitic sign also shown through 29 separate chapters). A table of content structured this way helps reader understand the system of Glagolitic signs, their numerical and symbolic value.

Picture 1 Table of content of Az

SADRŽAJ			
PREDGOVOR.....	9	IV. DIO: TISUĆICE JEDNOG GERALIMA.....	173
Tko sam ja?.....	9	1000 Ć - CIRV.....	174
I. DIO: JEDINICE METODOVA DNEVNIKA.....	11	2000 Š - ŠA.....	178
1. A - AZ.....	12	Intermezzi.....	183
2. B - BUKY.....	17	V. DIO: SLOVARIJ.....	185
3. V - VEDE.....	21	1. A - AZ.....	186
4. G - GLAGOLJQ.....	25	2. B - BUKY.....	188
5. D - DOBRO.....	30	3. V - VEDE.....	189
6. E - UJEST.....	34	4. G - GLAGOLJQ.....	191
7. Z - ŽIVETI.....	38	5. D - DOBRO.....	193
8. Š - ŠELO.....	42	6. E - UJEST.....	195
9. Z - ZEMLA.....	47	7. Z - ŽIVETI.....	197
II. DIO: DESETICE CARICE TEODORE.....	51	8. Š - ŠELO.....	198
10. I - IŽE.....	52	9. Z - ZEMLA.....	199
20. I - I.....	68	10. I - IŽE.....	200
30. J - DERV.....	76	20. I - I.....	201
40. K - KAKO.....	86	30. J - DERV.....	203
50. L - LJUDI.....	96	40. K - KAKO.....	204
60. M - MYSLITE.....	105	50. L - LJUDI.....	205
70. N - NAŠ.....	111	60. M - MYSLITE.....	207
80. O - ON.....	120	70. N - NAŠ.....	209
90. P - POKOI.....	124	80. O - ON.....	210
III. DIO: STOFFICE ANASTAZIJA KNUŽIČARA.....	131	90. P - POKOI.....	212
100. R - RCT.....	132	100. R - RCT.....	213
200. S - SLOVO.....	138	200. S - SLOVO.....	214
300. T - TVRDO.....	142	300. T - TVRDO.....	216
400. U - UK.....	149	400. U - UK.....	217
500. F - FRT.....	152	500. F - FRT.....	218
600. H - HĚR.....	156	600. H - HĚR.....	219
700. O - OT.....	159	700. O - OT.....	220
800. Ć - ŠTA.....	164	800. Ć - ŠTA.....	221
900. Ć - CI.....	168	900. Ć - CI.....	222
		1000 Ć - CIRV.....	223
		2000 Š - ŠA.....	224
		POGOVOR.....	225
		Navedi i napomene.....	233
		Tumal.....	239
		Naposljednji izvori.....	243
		Rododoljja.....	245

The second prong of the framework (**Strategies to Interpret the Words, Sentences, and Ideas in The Text**) refers to deriving meaning from explicit information given through the text. Socially responsible publisher is aware that many readers have difficulties with this level of understanding especially when they run into unknown words or complicated syntactic structure which they try to overcome by using reading comprehension strategies (repeated reading, paraphrasing, and chunking, making notes and bridging terms from different parts of the text) and the publisher aids them by adopting the very product (book) to these strategies. In the novel *Az* the reader is provided with special explanation of each of the Glagolitic signs at the beginning of each chapter of the book, and in *Slovarijat* at the very end of the novel.

Strategies to Go Beyond the Text (where information is hidden in previous knowledge and experience) are the third prong of the framework. Socially responsible publisher is aware of the level importance understanding the text and learning from the text has. The publisher is aware of so called conceptual gaps each reader has to fill himself and of the fact that understanding and learning, almost by definition, includes connecting the content of the text with reader's previous knowledge. Novel *Az*, besides graphemes of (proto)glagolitic script consists of various definitions connected to Glagolitic script, family trees and explanations. In this way the reader can deepen his/her knowledge of this script's creator, of the very idea of Glagolitic script, its historical and social value as well as of main characteristics of Glagolitic signs (*Slovarij*).

The fourth prong of the framework deals with **strategies to organize, restructure and synthesize the text**. Socially responsible publisher develops awareness of the fact that the prerequisite of comprehension are well organized mental representations of the content, and helps its readers by creating some of the following input:

- Graphic representations (they help make sense of the whole macro structure and connections among key terms and concepts)
- Reading guidelines
- Summarizing

The strategy of summarizing contributes to better comprehension. Similar to paraphrasing, summarizing is the process of retelling the content in own words. In this process it is more likely that the reader will connect explicit information from the text with previous knowledge.

(McNamara and associates, 2007). Novel Az presents all graphemes of Glagolitic script and in *Slovarij* its genesis is described in so much detail that the reader can learn not only about the genesis of Glagolitic but also Latin script as well as other ancient scripts.

Publishing practice¹¹⁹ shows that good, concise and clear marketing materials help in making a certain title visible on the market. Socially responsible book publishers who are informed about reading comprehension strategies can use this knowledge and turn it into two unique selling propositions: they can differentiate their brand and build loyal customer base. In other words, by using mentioned strategies publishers can attract those readers who are eager on achieving individual development and utility (Stokmans, 1999; Tomašević, 2008). The second group of readers, those who enjoy reading for the purpose of escape will also be able to find that purpose in reading (for example, story of St. Ciril Constantins life), but will not learn with difficulty because the publisher will prepare mental maps which will help them remember content.

Applying knowledge of reading comprehension strategies to their work, socially responsible book publishers fully comply with their role of a socially responsible subject on the market of educational and cultural goods.

5. Conclusion

In the world where all inhabitants of this planet, literate or illiterate, are from morning till night surrounded by words, ability to read becomes necessary for survival. Develop reading skills allows readers to get to various information and general human knowledge and builds critical reading abilities as a main weapon against manipulation with various texts. Developed reading skills also have a positive effect on education and generally, better quality of life (Grosman, 1998).

Book publishing is a business branch dependent on the lows of the market but also has a strong responsibility in creation of social good such as education, culture, critical thinking, all things that have influence on shaping future generations in this age of information overflow (Tomašević, 2008a).

Reading comprehension strategies are techniques that help readers to achieved better comprehension of the text and their effective usage is the main tool to ease this comprehension. Knowledge of reading strategies in publishing business is not only a prerequisite to better understanding between publishers and their customers (readers), but also a tool to build better readers. Producing goods which in this way educate and build new readers contributes to better understanding of published texts.

REFERENCE

Čorić, G. (2007): *Društvena odgovornost poduzeća*. U: Uvod u poslovnu etiku i korporacijsku društvenu odgovornost, Krkač, K. ur, 379-387. Zagreb: Mate d.o.o./ZŠEM

Grosman, M. (1998): *Zakaj je bralna sposobnost skrb vseh nas*, U: Branje skrb nas vseh: 2. strokovno posvetovanje Bralnega društva Slovenije, Novljan, S. ur. Ljubljana, 21. in 22. Novembra 1997. BDS, Ljubljana, pp 9-26

Grosman, M. (2010): *U obranu čitanja*, Algoritam, Zagreb

Horvat, J. (2009). *Az*. Zagreb: Naklada Ljevak

¹¹⁹Novel Azis a winner of the literary prize given by Croatian Academy of science and art in 2010.

Kolić-Vehovec, S. i Bajšanski, I. (2006): *Dobne i spolne razlike u nekim vidovima metakognicije i razumijevanju pri čitanju*, Društvena istraživanja, Vol. 15, No. 6, pp. 1005-1027.

Krkač, K., ur. (2007) *Uvod u poslovnu etiku i korporacijsku društvenu odgovornost*, Zagreb: Mate d.o.o./ZŠEM

McNamara, D. S. ur. (2007) *Reading comprehension strategies: Theories, interventions, and technologies*. Taylor & Francis Group, New York, London

Mušura, A. (2007) *Korporacijska društvena odgovornost i održivi razvoj*. U: Uvod u poslovnu etiku i korporacijsku društvenu odgovornost, Krkač, K. ur, 437-459. Zagreb: Mate d.o.o./ZŠEM

Paris, S. G., Lipson, M. Y. i Wixson, K. K. (1983) *Becoming a strategic reader*. Contemporary educational psychology, 8(3), pp293-316

Stokmans, M. (1999) *Reading attitude and its effect on leisure time reading*. Poetics 26, pp 245-261., DOI: 10.1016/S0304-422X(99)00005-4

Tomašević, N. (2008a) *Tranzicija u izdavaštvu i proizvodnja knjige kao kulturnog kapitala*, Zagreb: Filozofski fakultet u Zagrebu, Doktorska disertacija

Tomašević, N. (2008b) *Istraživanje stajališta o čitanju i njihov utjecaj na nakladništvo*. Libellarium: časopis za povijest pisane riječi, knjige i baštinskih ustanova; god. 1, sv. 2 , pp 221-242

Ana Udovičić, univ.spec.oec.

Veleučilište u Šibeniku

Trg Andrije Hebranga 11, 22 00 Šibenik

Phone: 098 445 745 Fax: 022 311 030

E-mail adress: ana_u@vus.hr

Katarina Marošević, univ.spec.oec.

Pravni fakultet Osijek

Stjepana Radića 13, 31 000 Osijek

Phone: 031 224 500 Fax: 031 224 540

E-mail: kmarosev@pravos.hr

Katarina Arnold Bratić, dipl.oec.

IPK Tvornica ulja Čepin

Ulica grada Vukovara 18, 31 431 Čepin

E-mail: katarnold85@gmail.com

CORPORATE SOCIAL RESPONSIBILITY OF SMALL AND MEDIUM ENTREPRENEURS IN CROATIA

DRUŠTVENO ODGOVORNO POSLOVANJE MALIH I SREDNJIH PODUZETNIKA U RH

ABSTRACT

Corporate social responsibility represent an innovative management response at demanding needs for changing business market, complex business practice and raising competitiveness at business market. Corporate social responsibility is growing into one of the inevitable movements in modern management and it becomes an integrated part of conducting business for a large number of entrepreneurs. Corporative social responsibility represents a relatively new concept and it is mainly limited at large and financially successful organization while the good practices of small and medium entrepreneurs are still unknown at the public domain.

The goal of the research was to determine the level of knowledge and understanding of the basic principles of corporate social responsibility. The results of the research will shown the insufficient developed practice of corporate social responsibility in small and medium organizations in Croatia and insufficient understanding and knowledge about the main principles of corporate social responsibility.

Key words: *Social responsibility, Small entrepreneurs, medium entrepreneurs, Entrepreneurship, Practices*

SAŽETAK

Društvena odgovornost menadžmenta predstavlja inovacijski odgovor menadžmenta na sve zahtjevnije uvijete poslovanja i konkurentnosti na tržištu te polagano prerasta u jedan od nezaobilaznih pokreta u modernom poslovanju koje će sa sigurnošću iznjedruti temeljne promijene na području suvremenog menadžmenta. Društvena odgovornost postaje integrirani dio poslovanja velikog dijela poduzetnika. Društvena odgovornost poduzetnika predstavlja relativno nov koncept poslovanja koji je uvelike ograničen na velike i financijski uspješne poduzetnike dok su aktivnosti društveno odgovornog ponašanja malih i srednjih poduzetnika izuzetno male te javnosti nepoznate.

Svrha istraživanja je utvrditi razinu društvene odgovornosti malih i srednjih poduzetnika u Republici Hrvatskoj. Za svrhu istraživanja kreiran je anketni upitnik namijenjen menadžerima/donositeljima odluka unutar malog i srednjeg menadžmenta u RH koji je kreiran prema uzoru na Likertovu analitičku metoda. Upitnik je sadržajno strukturiranu dvije cjeline: prvi dio odnosi se na osnovne podatke u anketiranim poduzećima (veličina poduzeća, broj zaposlenika, osnovna djelatnost, godina osnutka) dok je drugi dio sadržavao pitanja zatvorenog tipa koji se odnosio na određene aktivnosti društveno odgovornog poslovanja poduzetnika. Istraživanjem se želi utvrditi koji su razlozi malih i srednjih poduzetnika za uključivanje društvene odgovornosti u svoje poslovanje te na koje aktivnosti se društveno odgovorne aktivnosti odnose. Nadalje, istraživanjem se želi utvrditi koji su razlozi zbog kojih poduzetnici odlučuju za odsustvo društveno dogovornih praksi te se želi utvrditi razina upoznatosti srednjih i malih poduzetnika sa konceptima i mogućnostima društvene odgovornosti. Rezultati istraživanja će pokazati na nedovoljno raširenu praksu društveno odgovornog poduzetništva u malim srednjim poduzećima u RH i nedovoljno raširenu svijest uključenosti u prakse društveno odgovornog poslovanja.

Ključne riječi: Društvena odgovornost, Mali poduzetnici, Srednji poduzetnici, Poduzetništvo, Prakse

1. Introduction

Modern market constantly seeks creativity and innovation in business. Managers are faced with the ever changing and demanding needs of the modern market. Customers in today changing market climate reveal need for organization credibility and its business politics. Innovative managers move toward the concept of corporate business responsibility as the one concept that can meet the complex needs of their customer, community and their stakeholders.

Corporative social responsibility represents a relatively new concept that is mainly limited at large and financially successful organization while the good practices of small and medium entrepreneurs are still unknown at the public domain.

Corporative social responsibility become an integrated part of organizations and becomes a business imperative in modern management. Modern management recognized the valued of corporate social responsibility that at the end results in successful financial and socially satisfied practices. Corporative social responsibility in Croatia still represents relatively new and insufficiently researched management concept and it is mainly present in large corporations while the small and medium entrepreneurship (SME) sector is still insufficiently introduced with the benefits and need of the corporative social responsibility.

1.1. Corporate social responsibility

Corporate social responsibility (further in text: CSR) has its origin in social activism during the 1960's and 1970's years of the last century. The raising awareness about the questions such as the equally opportunities for everyone, racial equality and health and safety at the working place had encourage the public to reexamine more adequately the business customs and than to put them in the proper legal frames. (Tafra-Vlahović, 2009, 165). European commission¹²⁰ defines corporate social responsibility as a „concept by which organizations based on voluntary principles integrates care for social questions and environment protection in their business activities and relations with the stakeholders (owners, employers, consumers, government, media and wide public“ (Ćorić, 2007, 379). There is growing recognition of the significant effect the activities of the private sector have—on employees, customers, communities, the environment, competitors, business partners, investors, shareholders, governments and others. It is also becoming increasingly clear that firms can contribute to their own wealth and to overall societal wealth by considering the effect they have

¹²⁰ EC White Paper on Corporate Social Responsibility, Guidance for politics of corporate social responsibility; cited in Ćorić, 2007, 379.

on the world at large when making decisions. Business opinion polls and corporate behavior both show increased levels of understanding of the link between responsible business and good business. Also, investors and financial markets are beginning to see that CSR activities that integrate broader societal concerns into business strategy and performance are evidence of good management. In addition to building trust with the community and giving firms an edge in attracting good customers and employees, acting responsibly towards workers and others in society can help build value for firms and their shareholders (Hohner, 2007, 1). CSR can be a way of matching corporate operations with societal values at a time when these parameters are changing rapidly. As such, ethical behavior is a prerequisite for strategic CSR. CSR requires accountability by all leaders, individuals, organizations, stakeholders, customers, and community members, and yet accountability is complex. The factors which influence the effectiveness of corporate accountability are multiple and tightly interconnected (D'Amato, et al, 2009, 5-6).

1.2. Small and medium entrepreneurship (SME) sector in Croatia

Small business economy in Croatia includes more than 78.000 trades associations and makes 99, 5% registered business subjects in Croatia. SME sector keeps generating the largest and fastest growth concerning the numbers of entrepreneurship and the number of employees, revenues and profits. SME becomes the sector which stimulates and motivates the overall national economy (Kersan-Škabić & Banković; 2008, 60). In Green paper ¹²¹“Entrepreneurship in Europe”, the European Committee emphasizes a social meaning of entrepreneurship (Škrčić, 2006, 200-202). Entrepreneurship helps generating new work places and economic growth: research has shown that entrepreneurship gives a positive contribution for economic growth. In Croatia, small and medium entrepreneurship in period of 12 years (from 1994, till 2006.), enabled 77 000 new working places. Entrepreneurship has crucial importance for competitiveness: new entrepreneurship initiatives have positive effect on competitiveness, on implementation of effective and innovative business solutions which have a positive impact on economy as a whole. But the situation in Croatia is far from ideal. The reason is layering between the economic activities. Over the time, entrepreneurs have concentrated just in few economic activities in which they have recognized the potential of market expansion together with the encounter of the minimum barriers on the path for their final goal achievement. An example is the most expanded sector of retail and wholesale trade which represents 35% of the total entrepreneurship amount while the electric energy supplies represent only the 0.16% (Kersan-Škabić & Banković; 2008, 60). The statistics has shown that the 80.55% of the overall number of entrepreneurs are concentrated in four business activities: already mentioned retail and wholesale trade (35%), real-estate business (22%), processing industry (13, 2%) and architecture (10, 35%) (<http://hgk.biznet.hr/hgk/>). In accordance with the employment rate, above mentioned four business activities still dominate with the slightly change in percentage (trade holds 28.8% and processing industry holds 22,45%) (Kersan-Škabić & Banković; 2008, 60). SME economy in Croatia is characterized also by regional layering with the large dominance of the Town of Zagreb (33% of the overall SME economy by the overall registered companies). The percentages of the registered small and medium companies in other Croatia's counties are: Split-Dalmatia County 10, 9%, Primorje-Grski Kotar County 9,4%, Istra County 9,2%, Osijek-Baranja County 4,3% and Zagreb County 6%. Other 15 Counties hold 27,2%. Dominance of the Town of Zagreb is present in other SME economy indicators – in revenues, profit, lost, import, export, investments and employment rate (Lozić, 2007, 7). In collaboration with the enterprises situated in some of the EU countries, Croatian entrepreneurship can and must use its' individuality, creativity and business spirit. Small and medium enterprises in Croatia have to reduce their business costs, enhance quality, invest in new products and service and explore new markets and new channels of distribution in

¹²¹ Green Paper is the most recent of a series of Reports from the European Commission designed to encourage entrepreneurship². In the United Kingdom, the latest of a series of similar papers was that produced by HM Treasury and the Department of Trade and Industry's (DTI) Small Business Service (SBS) in November 2002.

order to come close to the business practices and business results as those in enterprises in EU countries (Škrtić & Mikić, 2006, 202).

2. Research of the CSR among managers in small and medium organizations

The goal of the research was to determine the level of knowledge and understanding of the basic principles of corporate social responsibility and to determine the main decisions why to choose or not the corporate social responsibility as the business strategy. Questionnaire together with a letter of intent (entitled to managers/directors/decisions makers) was sent to 250 small and medium enterprise based on database of the Croatian Chamber of Economy and the Croatian Company Directory. Total of 59 fully answered questionnaires was returned. Questionnaire was structured in two parts: first part covered basic information of the organization (profile of the researched organizations) and second part was concerned with the practices and understanding of CSR among managers. The questions were closed-type with the given answers (Likert scale, ranging from 1 – do not agree till 4 - agree) and questions with the answers Yes/No.

2.1. Profile of the Researched Organizations

The pattern, according to basic branch of the activity is given in the Table 1.

Table 1 Basic Branch of Activity

Branch of activity	Number of organizations	Structure in %
Agriculture, hunting, livestock farming;	1	1,70
Electricity supply, air conditioning	2	3,39
Architecture	3	5,08
Commerce	25	42,37
Transportation and storage	7	11,86
Accommodation and catering industry	4	6,78
Financial services and insurance	10	16,96
Real-estate	7	11,86
TOTAL	59	100,0

Source: research results

The pattern concerning the number of employees in organizations is presented in Table 1.

Table 2 Number of Employees

Number of employees	Number of organizations	Structure in %
0-9	25	42,37
10-49	34	57,63
TOTAL	59	100,0

Source: research results

In the pattern, (Table 3) the largest numbers of the organizations were trade (35%), followed by Ltd. and joint-stock (12%).

Table 3 Legal Type of the Organizations

Legal type	Number of organizations	Structure in %
Joint-stock	12	20,34
Ltd.	12	20,34
Trade	35	59,32
TOTAL	59	100,0

Source: research results

2.2. CSR among researched organizations

Managers were asked to define whether the organizations have means for internal communication between the management and employees or even with the outside stakeholders (business partners, other organization in local community) that proves that the organizations understands and communicates the questions of special inverters. Further, the managers were asked to define whether they have defined and signed ethical codex and whether the organization have participated in and project of CPS (donations in time, money...). The results are presented in Table 4.

Table 4 Yes /No Statements

Statement	Yes	No
Organizations has means for internal communication	34 %	66%
Organization has signed Ethical codex	12 %	88%
Organization has been included in some CSR actions and projects	57 %	43%

Source: research results

Further, the managers were asked to define the reason for not being social responsible. The large number of managers answered that the financial aspect is the main reason (42 %), further, 20 % do not believe in presented project of social responsibility so far, 19 % answered that they haven't been invited to participate in any action and 19 % answered they are not interested in the concept of CSR.

In the last sections of questions, managers were given questions with the defined answerers (1 – not agree, 2 – somewhat agree, 3 – mainly agree, 4- agree). The purpose of this question section was to define the level of knowledge and understanding the main concepts of corporate social responsibility. The results are given in Table 5.

Table 5 Managers' beliefs about social responsibility based on the research

Questions	Not agreed	Somewhat agreed	Mainly agreed	Agreed	Mean
1. CSR and strategy	0,00	52,54	16,95	16,95	3,51
2. . CSR and profitability	0,00	2,13	17,08	80,85	3,64
3. CSR as business expense	32,10	44,44	32,10	6,17	3,02
4. CSR and large organizations	2,13	19,15	36,17	42,55	3,02
5. CSR and positive effects at the organizational culture	16,95	50,85	8,47	23,73	2,49
6. CSR and ethics	13,56	16,95	54,24	15,25	2,71

Source: research results

Managers were asked to define whether they believe that the CRS should be incorporated as a part of business strategy (Question 1). None of the researched manger answered that they don not agree with this statement, 16. 95 % of them agreed, 16, 95 % of them mainly agreed and 52, 54 % of researched managers' somewhat agreed with this statement. This question shows that the managers have good understanding and knowledge about the CSR and business strategy (mean = 3, 51).

Further, managers were asked to define whether they believe that the CSR has a positive affect at the overall organizations profitability (Question 2). None of the researched manger answered that they don not agree with this statement, 2,13 % believe that CSR has a positive affect at the profitability, 17, 08% are mainly agreed with this statement and 80,85 % agreed that CSR has a positive affect at the overall organizations profitability. Mean is 3,64 that shows that the managers have good understanding and knowledge about the CSR and profitability. Further, managers were asked to define whether they believe that CSR is actual an additional business expense (Question 3). 6,17 % of managers agreed, 32,10 % mainly agreed, 32,10 % do not agree and 44,44 % of managers somewhat agree with this statement. Mean is 3,02 which shows that managers somewhat good understanding and knowledge about the CSR in relation to business expense. Managers were asked to define (Question 4) whether they believe or not with the statement that the CSR is easier deductible and practicable in large organizations. 2,13 % of managers do not agree with this statement, 19,15 % are somewhat agreed, 36, 17% are mainly agreed and 42, 55 % are agreed with this statement. Mean is 3,02 that shows that managers have somewhat good understanding and knowledge about the linkage between CSR and the size of the organization. Question 5 is concerned with the CSR and positive effects being social responsible have at the overall organization culture. 8, 84 % of managers mainly agreed that the CSR has a positive effects at the organization culture, 16,95 % do not agree with this statement, 23,73% agree and 50,85 % of managers somewhat agree. Mean is 2, 49 that shows that the surveyed managers have low understanding and knowledge about the CSR and its connection with the organization culture. Last question, (Question 6) was concerned with the understanding that the CSR is linked with the business ethics and ethical conduct. 13, 56 % managers don't agree with this fact, 15,25 % agree, 16,95 somewhat agree and 52,24 % mainly agree. Mean is 2,71 that shows that managers do not have good understanding and knowledge about the CSRA and business ethics.

4. Conclusion

The research had showed that the managers of SME sector have good understanding and knowledge about the CSR and the need for its implementation in their business strategy. Moreover, the research had showed that the managers of SME sector have good understanding and knowledge about the CSR and its' positive effect at the overall business profitability. The research also shown that managers still perceives CSR as a additional business expense and that managers don't believe that the CSR an influence positively at the organization culture. Research had shown that 57 % of researched managers had been included in some actions or projects of social corporate responsibility, whether in donation of money, time or labor. Negative is the fact that only 12% of researched managers have defined and signed the Ethical codex since it clearly shows that manager do not believe that corporate social responsibility is linked with the ethical conduct.

The results of the research had shown the insufficient developed practice of CSR in small and medium organizations in Croatia and insufficient understanding and knowledge about the main principles of corporate social responsibility. Managers of the small and medium enterprises have to implement the CSP into their business strategy and understand that CSP must become the integral part of their business.

REFERENCES

D'Amato, A., Henderson, S. Floernce, S. (2009) *Corporate social responsibility and sustainable business: A guide to leadership tasks and function*, pp. 5-6. ISBN 978-1-60491-063-6, available at: <http://www.ccl.org/leadership/pdf/research/CorporateSocialResponsibility.pdf>

Lozić, V. (2007.) *Prevelika dominacija Zagreba*, Lider, 13. July 2007., p. 7-9.

Čorić, G. (2007) *Društvena odgovornost poduzeća*. U: Krkač, K., ur. (2007), *Uvod u poslovnu etiku i korporacijski društvenu odgovornost*, Zagreb: Mate: Zagrebačka škola ekonomije i menadžmenta., pp.379-388.

Kersan-Škabić, I. & Banković, M. (2008.) *Malo gospodarstvo u Hrvatskoj i ulazak u Europsku Uniju*, Ekonomska misao Praksa Dbk. 1, (57-76), UDK/UCD: 339.92

Hohnen, P. (2007) *Corporate Social responsibility; An implementation guide for business*, ISBN 978-1-895536-97-3, pp.1-2. Available at: http://www.iisd.org/pdf/2007/csr_guide.pdf

Škrtić, M. & Mikić, M. (2006). *Gospodarsko značenje hrvatskog poduzetništva – šanse i zamke*, Zbornik radova Ekonomskog fakulteta u Zagrebu, 4, (191-203), UDK: 338:65.012(497.5)

Tafra – Vlahović, M (2009) *Konceptualni okvir društveno odgovornog poslovanja*, Hrčak – Portal znanstvenih časopisa republike Hrvatske, Medianali 3 (5), pp. 163-184.

The Commission's Green Paper is the most recent of a series of Reports from the European Commission designed to encourage entrepreneurship; whole document available at:

<http://www.publications.parliament.uk/pa/ld200203/ldselect/ldcom/142/142.pdf>

Official web site: <http://hgk.biznet.hr/hgk/>

Retrieved: (01-03-2013)



**Umjesto
zaključka**

**Instead
of a conclusion**

Umjesto zaključka

Na Drugom međunarodnom znanstvenom simpoziju „GOSPODARSTVO ISTOČNE HRVATSKE JUČER DANAS SUTRA“ znanstvenici i istraživači obradili su osam tematskih područja od mogućih 16 područja postavljenih u pozivu. Najveći interes sa vizijom razvoja dan je u tematskom području Gospodarstvo istočne Hrvatske i Turizam i hotelijerstvo.

Radovi u tematskom području Gospodarstvo, obrađuju analize uzroka gospodarske krize, prijedloge pokretanja razvoja kroz konkurentnost kako na domaćem tako i tržištu EU, ekonomsku opravdanost u korištenju solarne energije, razvoj industrije voća i povrća, uloga klastera u povećanju konkurentnosti, mogućnost samozapošljavanja posebice u razvoju kontinentalnog turizma. Kako smo pretežno poljoprivredni kraj nezaobilazno se dao značaj i uloga poljoprivredne proizvodnje u razvoju poduzetništva.

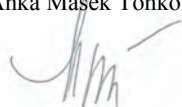
Nisu izostali radovi koji su ukazali na ulogu kulturne i spomeničke baštine u razvoju gospodarstva, s posebnim naglaskom na razvoj turizma.

U poglavlju Školstvo i sport osim povijesnog pregleda razvoja sporta dani su primjeri kako sportske aktivnosti mogu postati uspješno dioničko društvo. Osim toga ukazano je na usku vezu razvoja sportskih aktivnosti s gospodarskim razvojem. Ima radova koji obrađuju značaj ljudskog kapitala u razvoju i potrebu za cjeloživotnim obrazovanjem s primjerom provođenja programa usavršavanja na Ekonomskom fakultetu u Osijeku.

U tematskom području Društveno odgovorno poduzetništvo ukazano je na značaj etike u gospodarskom razvoju, kao i društveno odgovorno poduzetništvo u razvoju malih i srednjih poduzeća u Republici Hrvatskoj.

Svi navedeni radovi plod su znanstvenog istraživanja i analiziranja uz korištenje metodologije prema vrsti rada i potrebi za postavljenim ciljem.

Prof. dr. sc. Anka Mašek Tonković



Instead of a conclusion

At the 2nd International Scientific Symposium entitled ECONOMY OF EASTERN CROATIA - YESTERDAY, TODAY, TOMORROW experts and researchers have explored eight of sixteen topics areas proposed in the invitation. The strongest interest, with the vision of development, was expressed for the thematic field: Eastern Croatian Economy, and Tourism and Hospitality industry.

The papers in the thematic field Economy are concerned with the analysis of the economic crisis; give suggestions for development through competitiveness on the domestic, as well as on the EU market; discuss economic justifiability of solar energy usage, and possibilities for the development of fruit and vegetable processing; investigate the role of clusters in increasing competitiveness; and opportunities for self-employment, especially in the development of continental tourism. As we are predominantly agricultural area, inevitably significance was given to the role of agricultural production in the development of entrepreneurship.

Papers were also presented which point at the role of cultural and monumental heritage in the economic development, with the special emphasis on the development of tourism.

In the Education and Sports section, apart from the historic development of sport, examples are given of how sport activities can become a successful Public limited company. Apart from that, a close relationship between sport activities and economic development is discussed. There are papers that deal with the importance of human capital in the development, as well as the need for life-long learning with the example of a training program at the Faculty of Economics in Osijek.

In the thematic field Social responsible entrepreneurship, the importance of ethics in economic development is emphasized besides social responsible entrepreneurship in the development of small and medium-sized companies in the Republic of Croatia.

All papers mentioned are based on scientific research and analysis, with the use of methodology appropriate to the type of paper and the set aims.

Anka Mašek Tonković, PhD.



Zahvala sponzorima / Gratitude to sponsors

POKROVITELJ:



Ministarstvo gospodarstva RH

SPONZORI:



Osječko-baranjska
županija



Virovitičko podravska
županija



Grad Osijek



studio hs
internet



