SVEUČILIŠTE J. J. STROSSMAYERA U OSIJEKU

EKONOMSKI FAKULTET U OSIJEKU

HRVATSKA AKADEMIJA ZNANOSTI I UMJETNOSTI

1. MEĐUNARODNI ZNANSTVENI SIMPOZIJ GOSPODARSTVO ISTOČNE HRVATSKE - JUČER, DANAS, SUTRA

1st INTERNATIONAL SCIENTIFIC SYMPOSIUM ECONOMY OF EASTERN CROATIA - YESTERDAY, TODAY, TOMORROW

Osijek, 2012.

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

CROATIAN ACADEMY OF ARTS AND SCIENCES

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Sadržaj / Content

Predgovor

Istočna Hrvatska u iskonu bila je središte svjetskih događanja. Kroz nju su prolazili i osvajali razni narodi s Istoka i Zapada, kao što su: Tatari, Mongoli, Rimljani, Germani i drugi. Arheološka istraživanja dokazuju da se na ovim prostorima odvijao život poljoprivrednika, uzgajivača žitarica i stoke, obrtnika koje je još car Hadrijan uz posebne pogodnosti naseljavao na ovim prostorima, jer je znao da bez njihovih aktivnosti nema naselja niti razvoja života u njima.

Uz plodna polja, bogatstvo šuma i divljači, bilo je i brojnih drugih pogodnosti za život. Sva ova bogatstva privlačila su na ove prostore gospodarstvenike iz cijele Europe i svijeta. S obzirom na plovne rijeke Savu, Dravu i Dunav na ovim prostorima razvijali su se trgovački putovi, tako da je istočna Hrvatska postala križišće putova poznatih u svijetu biznisa.

Svi ovi resursi utjecali su na ubrzani gospodarski razvoj tako da je istočna Hrvatska ubrzo postala vodilja u svim gospodarskim sadržajima u vrijeme Austro-Ugarske, Države SHS, prve i druge Jugoslavije.

Odlaskom Turaka iz ovih krajeva, prazne prostore ispunili su doseljenici Njemci, Mađari, Ukrajinci, Česi, Slovaci, Poljaci, Francuzi, Talijani, židovi i sa istoka Srbi i muslimani.

Proizvodnja i trgovina je cvjetala, a ljudi su dolazili svoje uspjehe i zarade proslaviti i potrošiti u poznatim gastro etničkim ugostiteljskim sadržajima (Central, Royal, Psunj, Čingi lingi čarda i dr.)

Osijek je bio središte svijeta. Nema niti jednog uspješnog poslovnog gospodarstvenika koji nije znao za osječki brend, a to je: središte Slavonije, visoka kvaliteta življenja (višestruko nagrađivan zelenom vrpcom), neponovljivo gostoprimstvo, bogatstvo doživljaja, kulturnih i športskih događanja, zadovoljstva i sveopće sreće.

Jer, tu su bile visoko kvalitetne škole (jer su iznjedrile dva nobelovca, nekoliko književnika, kulturnjaka, akademika i športista) i trgovačka društva svih vrsta. Nije bilo niti jedne gospodarske grane koja nije bila zastupljena u Osijeku. Ovdje je bilo mjesta i posla za sve koji su htjeli učiti i raditi. Osijek je bio generator inovativnih primjena u procesima elektrifikacije i informatizacije kao temeljnih pretpostavki globalizacijske preobrazbe.

Posebno je značajno napomenuti da utemeljivanje osječkog sveučilišta ima svoje korijene u primjenjenoj znanosti koju su inaugulirali profesori sa višegodišnjim radom i iskustvom iz različitih oblasti kao što su preminuli: prof. dr. Dragutin Rilke, prof. dr. Slavko Dobrenić, prof. dr. sc. Zvonimir Benašić, prof. dr. Tomislav Salitrežić, prof. dr. Boško Bešir, prof. dr. Tibor Karpati i dr.

Osim toga multikulturalnost Osijeka davalo mu je obilježje koje imaju današnji gradovi europske i svjetske metropole.

Prof. dr. sc. Anka Mašek Tonković

Foreword

In its origins, Eastern Croatia was a center of worldwide events. Various tribes and nations from the East and the West have passed through and conquered it, such as: Tartars, Mongols, Romans, Germans and others. Archaeological researches have proven that people in this region lived as farmers, crop growers and stock breeders, and craftsmen who were settled here with special benefits by the Roman Emperor Hadrian who knew that their activities were necessary for development of settlements and life within them.
Along with its farmlands, forest and game wealth, there were numerous other advantages of living in this region. These advantages attracted entrepreneurs from all over the continent and from all parts of the world. Waterways of Sava, Drava and Danube rivers were suitable for development of trade, and Eastern Croatia served as a crossroads of various global trade routes.
Wealth of resources speeded up the development of economy, and Eastern Croatia soon became the leading region in Austria-Hungary, Kingdom of Serbs, Croats and Slovenes, and later in Yugoslavia.
After the Ottomans left the region, abandoned towns and villages were filled by immigrants from Germany, Hungary, Ukraine, Czech Republic, Slovakia, Poland, France, Italy, Serbia, and also by numerous Jews and Muslims.
Industry and trade were flourishing, and people celebrated their success and spent their incomes in well-known gastronomic and ethnic premises (Central, Royal, Psunj, Čingi lingi čarda and others).
Osijek was in the center of everything. There wasn't a single entrepreneur that wasn't familiar with Osijek brand, which included: center of Slavonia, high quality of life, hospitality (multiple green ribbon award winner), multitude of cultural, sports and other events, high level of satisfaction and happiness.
Osijek was also praised for its schools (which gave two Nobel Prize winners, and multiple award-winning authors, academics and athletes) and various trading companies. There wasn't a single branch of industry that wasn't represented in Osijek, and the city provided job opportunities for everyone willing to learn and work. The city was a generator of innovative processes of electrification and informatization, which were basic prerequisites for globalization.
It is important to emphasize that the founding of University of Osijek stems from applied science, long-time work and experience of professors working in various branches, such as prof. Dragutin Rilke, PhD, prof. Slavko Dobrenić, PhD, prof. Zvonimir Benašić, PhD, prof. Tomislav Salitrežić, PhD, prof. Boško Bešir, PhD, prof. Tibor Karpati, PhD, and others.
Apart from that, one of main characteristics of Osijek was its multiculturalism, a characteristic possessed by today's European and world capitals.

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. Sakralni objekti / Sacral objects

5. Turizam i hotelijerstvo / Tourism and Hospitality industry

6. Trgovina / Trade

7. Sociološki aspekti / Social aspects

8. Školstvo i šport / Education and sport

9. Zdravstvo / Health

10. Nobelovci, znanstvenici, književnici i istaknuti stručnjaci / Nobel prize awarded, scientists, literaries and eminent experts

11. Istaknuti kardinali i biskupi / Notable cardinals and bishops

12.Društveno odgovorno poduzetništvo / Social responsibe entrepreneurship

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Povijesne jezgre istočne Hrvatske

Historical cores of eastern Croatia

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VIRTUAL WALK WITH MARIJA MALBAŠA ALONG THE DIVALD STREET TOWARDS SLAVONIAN ANCIENT FIELDS AND FORESTS

VIRTUALNA ŠETNJA S MARIJOM MALBAŠOM DIVALDOVOM ULICOM PREMA STARIM SLAVONSKIM POLJIMA I ŠUMAMA

ABSTRACT

The best way to learn more about one region and its historical, economic, political and cultural development is through books and other printed materials. In Croatia, there are many regional and local bibliographies. When it comes to Slavonia, the "Osječka bibliografija Sv. I (1742-1944)" by Marija Malbaša provides the list as well as descriptions of all books and materials printed in Osijek, regardless the language they were written in. Although the Turks had left Slavonia after more than a century and a half long occupation, the Austrians expanded its system of military zones to some parts of Slavonia. The land was colonized by strangers, predominantly by the Germans. In the beginning, they lived and worked as farmers and craftsmen and eventually left important and valuable written traces about culture, economy, medicine, industry, military, medicine, religion, agriculture, forestry etc. The "Osječka bibliografija Sv. I (1742-1944)", the local bibliography, contains a large number of publications written in German, many of which were dedicated to the agricultural themes and problems that evolved from everyday life. 3,295 books and other materials printed in Osijek. are recorded in the first volume (1742 1944) of Osječka bibliografija (Osijek Bibliography) by Marija Malbaša. The main focus of our interest were books and other printed material regarding agriculture. The purpose of this paper is to connect the past, present and future, since 2,404 bibilographic units (Essekiana local history collection) are kept in the Museum of Slavonia's library in Osijek. This unique local collection of books has been made accessible to the wider public through a web catalogue in order to present its local history books to the community and raise awareness of the value of the books kept in the biggest museum library in Croatia. Thanks to Marija Malbaša's effort, we witness today that *the importance of agriculture in Slavonia not only has a long tradition, but also that its development and problems have always been a significant and interesting topic to write about.*

Key words: *Marija Malbaša, "Osječka bibliografija", printing, agriculture*

SAŽETAK

Najbolji način kako doznati više o nekoj regiji i njezinom povijesnom, kulturnom, političkom i kulturnom razvoju jest putem knjiga i drugih tiskanih materijala. U Hrvatskoj postoji niz regionalnih i lokalnih biografija. Kada je riječ o Slavoniji, "Osječka bibliografija Sv. I (1742-1944)" autorice Marije Malbaše sadrži popis i opis svih knjiga i materijala tiskanih u Osijeku, bez obzira na jezik na kojem su napisane. Iako su Turci napustili Slavoniju nakon više od jednog i pol stoljeća okupacije, Austrijanci proširuju sustav vojnih zona na neke dijelove Slavonije. Zemlju su naselili stranici, uglavnom Nijemci. U početku su živjeli i radili kao poljoprivrednici i obrtnici, ali su ostavili važne i vrijedne pisane tragove na području kulture, ekonomije, industrije, vojske, medicine, religije, poljoprivrede, šumarstva itd. "Osječka bibliografija Sv. I (1742.-1944.)" jest lokalna bibliografija, koja obuhvaća veliki broj publikacija na njemačkom jeziku, od kojih su mnoge posvećene poljoprivredi i problemima koji proizlaze iz svakodnevnog života. U prvom dijelu "Osječke bibliografije Sv. I (1742.-1944.)" Marija Malbaša popisala je 3295 knjiga i drugih materijala tiskanih u Osijeku. U Muzeju Slavonije Osijek pohranjeno je 2404 bibliografskih jedinica (Zavičajna zbirka Essekiana). Ova jedinstvena zavičajna zbirka knjiga dostupna je široj zajednici putem kataloga objavljenog na internetu, čime se, između ostalog, podiže svijest o vrijednosti knjiga koje se čuvaju u muzejskoj knjižnici. Zahvaljujući trudu Marije Malbaše, danas svjedočimo ne samo značenju poljoprivrede u Slavoniji i njezinom razvoju, već i problemima - tema o kojoj je uvijek bilo potrebno i važno pisati.

Key words: *Marija Malbaša, "Osječka bibliografija", tiskanje, poljoprivreda*

1. "The distiction between the past, present and future is only a stubbornly persisent illusion." (Albert Einstein)

At first glance the title of this paper may seem confusing. The reader could rightfully ask himself about connections between the terms, since they refer to the past, present and, in a way, to the future. But, as quoted above, there are no distinct boundaries. The past influences our lives, takes part in our development, finds its way not only in the present but also in the future.
It was our wish to tell the story about the book that tells a story about the history of our town, Osijek. The book that has itself become a part of the past, but still helps us understand the very moment we live in. A part of the book has found its place in the Internet with the little help of the information and communication technology – for the generations yet to come.

1.1. Marija Malbaša

The entire life of Marija Malbaša (born in Osijek in 1909, died in Zagreb in 1995) was dedicated to her work as a librarian. She is recognized for her outstanding work in the cultural history of the town of Osijek. In 1951, she started to work as a librarian at the Museum of

Slavonia in Osijek (Muzej Slavonije Osijek). The Museum's library had a double function: to take care of numerous old and valuable books (originated from 16th to 20th century) and on the other hand, to serve as a scientific library for Slavonia and the northern part of Croatia. Her work in the field of history of printing and publishing is a permanent monument to her greatness. In this way, she continued the work of Josip Bösendorfer[1] in the recording of the local collection. She is best known for her works *Povijest tiskarstva Osijeka* (The History of Publishing in Osijek) and *Osječka bibliografija* (Osijek Bibliography).

1.2. *Osječka bibliografija* (Osijek Bibliography)

Not only developed countries publish national and various special bibliographies (Sečić, 2006, 91). Croatian bibliography also has a long tradition. According to Malbaša herself, *Osječka bibliografija* (Osijek Bibliography) belongs to the groups of both special and local bibliographies. It is the bibliography of collected books and brochures printed and published in Osijek. It provides information on the printing and publishing activities in Osijek, regardless of the language the books were published in. It was necessary in order to gain insight into everyday life in Osijek in different historical periods as well as under various administrations. Multilingualism that characterized printing and publishing activities in Osijek in the 18th and 19th century reflects the long way this town had to go towards developing from the end of the 17th to the middle of the 20th century (Malbaša, 1981, 6). Every local biography mirrors life manifestations of a smaller community if they are preserved by written and printed words. In this way, such bibliographies may help us to learn more about economic, political, social and cultural history of the community or, better yet, provide us with information that history does not register (Malbaša, 1981, 12).

1.3. Historical background

When it comes to Slavonian history, one has to begin with the liberation from the Turks. One of the most important years for this region is 1699, when the Treaty of Karlovac was signed. However, there was not actual change. The Austrians established a firm and permanent military borderland towards the Ottoman Empire. It ran along the entire southern part of Slavonia. For centuries, Slavonia was the filter which protected Europe from the direct influence of the east. Not only was the abandoned land soon inhibited by nobility from distant regions, but the craftsmen and merchants also became an important factor in everyday life of Slavonia.

Although Osijek was an important centre during the Ottoman occupation (1526-1687), it was almost completely abandoned after the Turks had been expelled (1687). Nevertheless, it was quickly rebuilt and again became an important strategic stronghold, since the fear of new wars against the Turks had not completely disappeared. On the site of the burnt and destroyed fortress, a new was built, designed by Maximilian de Goseau (1712-1721) surrounding the town with a large central square and many streets. Soon the ethnic structure of population in urban agglomerations – Osijek, Požega, Vukovar, Vinkovci, Slavonski Brod was altered. Merchants and tradesmen moved mainly from Styria and Austrian lands. The Book of the Dead in Osijek in the 18th century shows, for example, that most of the population of the centre of the city at that time, Tvrđa, were of Austrian and German descent. In this newly formed region, Osijek began to stand out as the most important, not only military, but equally economic and trading centre of the entire region. It may be said that the city began to attain its

[1] J. Bösendorfer was a respected director of the Museum of Slavonia from 1941 to1949

present status as the Slavonian metropolis at the end of the 18th century (Topić, M., Maković, Z., 2005, 66).

1.4. Printing and publishing in Osijek from the 18th century

Under such political and social circumstances, literacy was a luxury. The first educators were, and remained throughout most of the 18th century, monks: Franciscans and Jesuits (Topić, M., Maković, Z., 2005, 137). At that time, the official language was Latin. Expectedly, in the 18th century bibliography there are many texts in Latin – various forms of prayer books, biographies of the saints, sermons etc. The first book in German was published in 1777[2]. By the end of the century, a few more were published. One of them was the school book about "Slavonian language" (the first edition[3] printed in 1778 and the second in 1789) and the other was the introduction to German ortography[4]. It is clear that there was a necessity to learn languages in order to able to communicate (Malbaša, 1981, 8). Nevertheless, the largest number of books and other printed material is in Croatian.

The very first printings in Osijek were done by the Franciscans. It is recorded that they printed 23 books in the period from 1735 to 1775. The authorities were supposedly not satisfied with the work of the Franciscian printing house due to poor equipment and low income. Since they did not have the imperial licence, the municipality decided to hand it over to someone who would work more efficiently (Plevnik, 1987, 151). There were two printers who competed against each other: Ivan Matin Divald[5] and Ivan Trattner. It was I. M. Divald (1743-1806) who was granted the concession for typography in Vienna in 1775. About his importance not only for Osijek, but also for Slavonia speaks the fact that one of the longest streets in Osijek was named after him in 1925, although he was not a native of Osijek. Despite the turbulent decades of the 20th century, it is one of the rare streets that has never changed its name. It is without a doubt the fact that speaks for itself. I. M. Divald laid the foundations of a new era in graphic industry in Osijek. His family members and heirs continued the tradition. In the decades and centuries to come, the number of printing houses in Osijek increased. By the end of the first half of the 20th century there were 42 of them (Malbaša, 1981, 579).

1.5. *Essekiana* - local history collection

3,295 books and other materials printed in Osijek by the Franciscian printing house, then in the Divalds' family printing house, followed by other eminent printing houses owned by Dragutin Lehman, Julije Pffeifer, Dragutin Laubner or the First Croatian Shareholders Publishing House and The Civil Publishing House are recorded in the first volume (1742 -

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[2] 53. HOHENHAUSEN, Sylvester Joseph
Illyrien/. Hohenhausen/ Diwalt/ Esseg/ 1777. 16° 24 str. (M S O)

[3] 61. LANOSOVIĆ, Marijan
Neue Einleitung/ zur/ Slavonischen Sprache,/ mit einem nützlichen/ Wörter- und Gesprächbuche,/ auch einem Anhange/ verschiedener/ deutscher und slawonischer Briefe/ und einem kleinen Titularbuche/ versehen./ Zum Gebrauch/ aller Liebhaber derselben/ herasgegeben von/ P. Marian Lanossovich,/ Priestern aus dem Orden des H. V. Francisci,/ Kapistraner Provinz./ Mit allerhöchster Erlaubnis./ Esseck, gedruckt bey Johann Martin Diwalt,/ k. k. privil. Buchdruckern. 1778. 8° 12 nepag. + 272 str. (M S O)

[4] 60. KURZE Anleitung
Kurze Anleitung zur deutschen/ Ortographie, oder Rechtschreibung. Esseck,/ bey Johann Martin Diwalt, 1778. 8° 34 str. [paginacija slovima] (M S O)

[5] The uncertainties about the spelling of his family name have never been resolved. In published materials it varies from Dibald, Riwald, Rivalt, Dibaldt to Diewald. The family name Diwaldt is inscribed in his headstone, while the citizens of Osijek use either Divald or Divalt. It is, however, suggested to use – Divald.

1944) of *Osječka bibliografija* (Osijek Bibliography) by Marija Malbaša. In the Museum of Slavonia in Osijek many of these can be found, or to be precise, 2,404 bibilographic units (*Essekiana* local history collection) are kept in the Museum's library. The library's staff decided to make its unique local collection of books accessible to the wider public through a web catalogue[6]. One of the essential goals of the online catalogue of the Essekiana collection is to present its local history books to the community and raise awareness of the value of the books kept in the biggest museum library in Croatia. It is worth mentioning that the Museum of Slavonia is the only museum of a general type in Croatia that made its local history collection available through an online catalogue published on the museum web site (Knežević, I. 2010, 99)

2. Agriculture and forestry

At the end of *Osječka bibliografija* (Osijek Bibliography) there is, among other separate parts that give additional information, the "Index of Disciplines and Subjects". It consists of 57 (sub)disciplines: below the name there are numbers of bibliographical entries listed in numerical order (Malbaša, 1981, 564). The main focus of our interest were:

- No. 38 Agriculture. Pomology. Viticulture. Horticulture.
- No. 39 Forestry. Game.
- No. 40 Cattle Breeding. Bee-keeping. Cocoonery.

Also, great emphasis was put on bibligraphic entries of the books and other published material in German because of its role in the history of Osijek and the previously mentioned multilingualism.

2.1. Agriculture. Pomology. Viticulture. Horticulture.

After the expulsion of the Turks in the wider area of Osijek, Požega and Virovitica there were 70 inhabited and 425 abandoned villages. The state endeavoured to improve agriculture by introducing new cultures, giving out free seed and planting vegetable gardens. Potatoes were accepted with great suspicion (Topić, M., Maković, Z., 2005, 66). The first instruction in written form in Croatian was published in 1796 by Josip Stjepan Relković[7]: for a long period of time, almanacs were the only source in which Slavonian peasants could get useful information such as planting dates, tide tables etc. A major problem in the development of the region were the frequent floods, especially in the Sava river basin, and around the Vuka. In the "Index of Disciplines and Subjects" No. 24 is dedicated to "Water Development. Water Regulation. Flood Prevention. Drainage." (Malbaša, 1981, 564). In 1858 Alexander Nagy made some suggestions regarding the building of the Osijek-Brod Channel[8], while in 1876 Johann Nepomuk Spannbauer[9] wrote about the construction of channels over the flat

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[6] http://www.mso.hr/index.php?page=zavicajna-zbirka-essekiana

[7] 145. RELKOVIĆ, Josip Stjepan
Kuchnik/ shto svakoga miseca/ priko godine:/ u polju,/ u berdu,/ u baschi,/ oko marve i xivadi, oko kuche, i u kuchi/ csiniti,/ i kako zdravlje razloxno/ uzderxavati ima,/ iz dugovicsnog vixbanja starih Kuch-/ nikah povadih, i u slavonskom glasu izdade/ Josip Štipan Relković/ od Ehrendorf/ slavne Diakovacske biskupie shtabski parok/ u Vinkovcih. U Ossiku,/ Slovih Ivana Martina Divalt/ privilegiratog knjigotisca/ 1796./

[8] 612 NAGY, Alexander
Denkschrift über den Essek-Brooder Canal. Essek, Druck von Carl Lehman u. Comp. 1858. 8º 15 str.
(N S B)

[9] 89 SPANNBAUER, Joh/ann/ Nep/omuk/
Die Kanalisierung der Slavonischen Drau-Donau-Ebene. Im Auftrage des Herrn Johann Cap. Adanovich de Čepin, Besitzer der Herrschaften Čepin, Erdöd und Almaš, Ehrenpräsident des

agricultural land between the Drava and the Danube. Only with the foundation of the Slavonian counties did the economic situation improve. Clearing forests and cultivating the land brought very good yields of corn, which was exported, mainly by river, even to Italy via Sisak and Karlovac, and into Germany along the Danube (Topić, M., Maković, Z., 2005, 66). There are 43 references with regard to these (sub)disciplines: 29 printed materials were written in Croatian, 12 in German and 1 in Latin. It is unusual that there is only one book in Hungarian, because of the well known role and influence of the Hungarians for a long period of time.

2.2. Forestry. Game.

There are 22 bibliographical entries, 14 of which are printed in German, whereas 2 of them are bilingual (written both in Croatian and German). It is interesting that the first printed material (German) with regard to forestry was published in 1861 and the last one in 1929. The reason for this lies in the fact that at that time the forests were the greatest natural wealth of this region, since many rivers and exceptionally damp soil encouraged the growth of high quality wood. The oaks were of particular importance. Right up to the 18th century there was no large-scale exploitation of the Slavonian forests. From then, however, the forest area decreased rapidly. Above all, this was due to organized exploitation, then the building of the new roads and villages, but also to the drying out of the soil (Topić, M., Maković, Z., 2005, 29). The author of a suprisingly large number of printed publications in German (10 sic!) regarding forestry is Adolf Danhelovsky: it is in 1865 that he discusses the wood shrinkage problem in Slavonia in one of his works[10]. Since the landowners started to make fortunes trading in furs and game, later publications are dedicated to this subject and all of them are written in Croatian, even the Game Law and the Dictionary of Game Terms (Dragutin Kišpatić).

2.3. Cattle Breeding. Bee-keeping. Cocoonery.

This section involves 40 bibligraphic entries. When it comes to everyday life of the Slavonian peasants of the 18th century, it was very well described by Antun Matija Relković in his "Satir"[11]. From Relković's sources we learn what a typical village household was like at that time. The house faced the street, it had a high roof with an attic for storing the summer crops, a courtyard and beehives, and beside it there would also be a barn and a vegetable garden (Topić, M., Maković, Z., 2005, 63). The very first books regarding sheep keeping in Croatian were written by Ivan Venceslav Pauls in 1771 and in 1776[12], but they were translated from

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slavonischen Bodenculturvereins, wirklichen Mitgliedes der ung. Landw. Gesellschaft etc, etc. Verfast von Joh. Nep. Spannbauer, Cultur-Ingenieur und Oeconomie-Oberbeamten. Mit einer Karte und zwei grafischen Darstellungen. Nebst culturhistorischer Skizze von Johann Peters, Secretär des slavonischen Bodencultur Vereines. Esseg, Verlag von Joh. Cap. Adamovich de Čepin, 1876. Karl Sandors Druckerei (J. Selzer) 8º 147 str. + 2 tabele (MSO)

[10] 689. DANHELOVSKY, Adolf
Ist die Verminderung des Waldstandes Slavoniens wünschenswerth und möglich? Und die dieser Absicht entspringende Behandlung der Wälder nützlich? Im Privat- und Staatswirtschaftlichen Interesse besprochen von Adolf Danhelovsky Freiherrlich Gustav Prandau'scher Forstmeister. 1865, <Druck von Carl Lehmann u. Comp. in Essek, 1864.> 8º 36 str. (M S O)

[11] 69. RELKOVIĆ, Matija Antun
Mathie Antuna Relkovicha/ Satir/ iliti divji csovik./ U pervomu dilu, piva u versi/ Slavoncem/ a u drugom dilu, Slavonac/ odpiva u veshe Satiru./ Od istog pocsetnika, od pomanjkanjah ocsistjen/ uzmloxan, i s'dobronashastjem prividiteljah kako/ i s'dopushtenjem visokih stareshinah drugi/ put na svitlo dat/. U Osiku/ tiskan sa slovih Martina Divalda 1779. 8º 18 + 161 str. nepag (M S O)

[12] 48. PAULS, Ivan Venceslav

German. A large number of printed materials and books regarding bee-keeping proves that it has a very long tradition. Nevertheless, there is another part of Slavonian agriculture that deserves to mentioned in this paper, since it does not exist anymore. In Slavonia, cocoonery began to flourish in the 1760s, which is why white mulberry trees were planted. Silkworms, larvae of a moth (*Bombyx mori*), fed and spin cocoons of silk on their leaves. In 1763, the empress Maria Theresa gave 60,000 forints for the production of silk in Osijek. In 1774 Georg Planck organized mass planting of white mulberry trees. In 1798, the first instructions for cocoonery were written and printed[13] in Osijek. Although in 1979 the City Goverment of Osijek refused further planting of mulberry yards with the explanation that there had been enough leaves to feed silkworms, in 1811 a thousand new plants were divided and in 1822, a hundred copies of books for the popularization of cocoonery were ordered by the City Goverment. Despite the tragic year of 1855, in which a disease destroyed silkworms and mulberry trees (Plevnik, 1987, 142), in 1867 Antun Vukasinović published his book with some practical advice in cocoonery[14] both in Croatian and German.

3. Conclusion

Thanks to Marija Malbaša's great effort, her *Osječka bibliografija Sv. I (1742-1944)* (Osijek Bibliography), *Essekiana* local history collection kept in the Museum's library and the *Essekiana* online catalogue, we witness today that both the importance of not only agriculture but also other disciplines have a long tradition in Slavonia, and that their development and problems have always been a significant and interesting topic to write about.

The authors hope that they have succeeded in giving an insight into a rich source of information not only in printed form, but also on the Internet. Besides, we hope that our paper[15] will encourage fellow students and colleagues to continue their research in this field. There is a good reason for the saying that one has to know his past in order to understand the present. And we would add the future, as well.

Prava, i/ pomljivo ispisana/ ovcsarnica/ iliti uvixbani nauk/ kakose ovce po dobrom go-/ denju u najpodpuniu verstu/ okrenuti, i o njoj uxder-/xati moguh./ Najprie od jednoga punno/ zasluxenog, i vishta domorodca ni-/macski sloxen, zatim na zapovid/ visokih stareshinah u slavonski/jeziik prineshen po/ Mathii Ant. Relkovichu,/ njiova Cesaro-Kraljevskog i apostolskog velicsanstva u Brodskoj Kraishnoj/ regimenti capitanu,. Pritiskano u Osiku. Po Ivanu Martinu Divaltu, Godine 1776. 8º127 + /6/ str. (M S O)

[13] *149. KURZER Unterricht

Kurzer Unterricht Maulbeer-Bäumer zu siegeln and vermehren: dann wie die Seidenwürmer nöthig mit Nutzen auszufüttern und die Galetten mit Vortheil zu erzeugen, für den Umkreis des löbl. Barcser Komitats eingeleitet und bereitet in Jahr 1797. Esseg, 1798. Bey Joh. Mart. Diwalt. 8º 32 l.

[14] 735. VUKASINOVIĆ, Antun

Praktische Regeln zur Maulbeerbaum und Seidenzucht mit besonderer Rücksicht auf Vereinfachung und Zeitersparniss. Für mindervermögende Landleute, deren Weiber und Kinder verfasst und durch vieljährige praktische Erfahrung erprobt von Anton Wukasinoviä, Seidenzucht-Inspektor des löb. Veröczer Comitates, korrespondierendes Mitglied der Landwirtschafts-Gesselschaft und des Seidenbau-Vereins in Prag. Zweite verbesserte und vermehrte Auflage. Essek, Druck von C. Lehmann u Comp., 1867. 8º VIII + 84 str. + 8 tabla, sa sl. (M S O)

[15] All footnotes, with the exception of No. 1, 5 and 6, are bibliographical entries from *Osječka bibliografija Sv. I (1742-1944)* (Osijek Bibliography) by Marija Malbaša.

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GOLDEN RATIO INSCRIBED CODE OF BEAUTY IN CROATIAN TRADITION OF GLAGOLITIC CULTURE

ZLATOREZNI KÔD *LJEPOTE* U HRVATSKOJ TRADICIJI GLAGOLJAŠKE KULTURE

ABSTRACT

The Glagolitic culture is instrumental in defining the Croatian cultural heritage, whose identity is rooted in this very culture. In the modern age of intensified and accelerating globalisation, the Glagolitic culture has become the pivotal point of preserving this centuries-old heritage.
This rich intellectual and spiritual heritage can be explored by using varied methodologies and by applying a range of scientific disciplines. This paper will focus on the gold-inscribed code of the Glagolitic culture, which is present in its different expressive means, from artistic features of graphemes, historiographic-literary works, to construction of sacral buildings.
When considering the golden inscription, we will follow the definition (Pejaković 2000, 17) which states that the golden inscription is "the geometric proportion or scale that divides a given length in such a way that any smaller segment is related to the larger one as this larger segment is related to the whole length".
The introductory assumption that 'beauty' was a crucial component of the Glagolitic culture is confirmed in the conclusion, i.e. beauty was part of expressiveness in which "canonical principles of proportion, executed in a certain format, are meticulously observed" (Pejaković 2000, 125). This will confirm the manifestness of golden inscription in Croatian Middle Ages, the age before the advent of Renaissance and its renewed interest in antique tendencies of creation according to the golden code.

Keywords: *golden inscription, 'beauty', Croatian tradition, Glagolitic culture, grapheme, typogram, book, The Baška Tablet, Spovid općena, sacral building*

SAŽETAK

Glagoljaška kultura umnogome određuje hrvatsku kulturnu tradiciju, čini temelje njezina identiteta, a u novo doba pojačanog i ubrzanog globaliziranja postaje uporišnom točkom očuvanja dugostoljetne opstojnosti. Njezino bogato intelektualno i duhovno nasljeđe moguće je izučavati uporabom različitih metodologija i angažiranjem raznovrsnih znanstvenih disciplina. U ovome radu autori će se usmjeriti na zlatorezni kôd glagoljaške kulture prisutan u različitim variranjima njezinih izražajnih sredstava: počevši od likovnih odlika grafema, preko historiografsko-literarnih zapisa, pa sve do izgradnje sakralnih objekata. U promišljanjima zlatnoga reza držat će se definicije (Pejaković 2000, 17) po kojoj je zlatni rez

„geometrijska proporcija ili razmjer koji zadanu dužinu dijeli tako da se njen manji odsječak odnosi prema većem kao što se ovaj veći odnosi prema cijeloj dužini".
U zaključku se potvrđuje uvodno izrečena pretpostavka kako je ljepota činila bitnu sastavnicu glagoljaške kulture, odnosno, izražajnosti u kojoj se „kanonska načela proporcija provedenih u formatu poštuju do vrhunca obzirnosti" (Pejaković 2000, 125). Time će potvrditi i očitost zlatoreznog egzistiranja u hrvatskom srednjovjekovlju, dobu koje je prethodilo renesansi i njezinu oživljenom zanimanju za antičke tendencije stvaranja po zlatnome kôdu.

***Ključne riječi**: zlatni rez, ljepota, hrvatska tradicija, glagoljaška kultura, grafem, tipogram, knjiga, Bašćanska ploča, Spovid općena, sakralni objekt*

1. Introduction

The golden ratio has been defined by many, and according to Albert van der Schoot (Artman 2006, 46) original representation of the golden ratio was associated exactly with proportions in art, which he documents with an old legend that "Pythagoras' discovery of numeric relations between consonant intervals and rational numbers ratios was the first known aesthetic cognition that has ever been formulated". The same author further refers to ancient debates on the golden ratio and highly commendable quote (of the golden ratio) taken from Euclid's *Elements* - then contemporary ubiquitous mathematical handbook: "5. Its wonderful characteristic: The sum of the squares of the smaller part and the whole is equal to triple the square of the bigger part." (Euclid, *Elements*, XIII, 4)
With the end of antique period and debates related to Euclid, that is, related to the thesis according to which the beauty can(not) be determined by golden ratio proportions, a long period of silence regarding this matter began. The silence lasted until the appearance of Fibonaccio (Leonardo of Pisa, 1175 - 1240) whose cognitions brought a real turnover in mathematics, and, two centuries after Fibonaccio, fra Luca Pacioli (1445 - 1517) who in his manuscript Divine Proportions (1498, printed in 1509) commendably exhibits properties of the golden ratio.
The starting hypothesis of this paper assumes the beauty a significant component of the Glagolitic culture. More precisely, the beauty will be considered a way of artistic expression where "canonical principles of ratios implemented in the format are respected to the ultimate consideration" (Pejaković 2000, 125). Authors will be using examples to question the presence of the golden ratio (the format of beauty) in written and visual-arts components of the Glagolitic culture since its first days to the days of mature Renaissance when an interest of artists for works standardized by the golden rule comes to life again. This will indicate the knowledge that the authors within Croatian Glagolitic circle had about classical doctrines of harmonic composition (written documents, individual graphemes, sacral objects).

2. Written documents (example: The Baška Tablet)

Without entering a deeper debate on what written documents really are, and the Baška Tablet among them, determination of basic characteristics of the Baška Tablet[16] was taken from the

[16] The Baška Tablet is a stone monument (carved white limestone) 99.5 cm high, 199 cm wide, 7.5 to 9 cm thick and weighing approximately 800 kg. Originally, the Tablet was a left pluteus (partition panel) on a stone church bulkhead (septum, canceli). This bulkhead spatially divided the choir in front of the altar, dedicated for monks, from the church nave dedicated for congregation. With its shape and proportions, the Tablet corresponds to plutea from pre-Romanesque and Romanesque periods in Croatia coastal belt (Istria, islands, Dalmatia). The ornamental motive of vine tendril which extends along the protruding border at the upper edge of the Tablet can

web site of the Institute for Croatian Language and Linguistics (Institute for Croatian Language and Linguistics, http://www.ihjj.hr/oHrJeziku-bascanska-ploca.html, retrieved on 1st June 2011).
The Baška Tablet is one of the most valuable monuments of early Croatian literacy, dating around the year 1100. Originally it was a scripture on a partition panel (pluteus) of a partition that separated the monastic choir from the church nave in the church of St. Lucia in Jurandvor (Baška Draga on the island of Krk). Since 1934 it is located in the building of Croatian Academy of Arts and Sciences.

Source: (Institute for Croatian Language and Linguistics, http://www.ihjj.hr/oHrJeziku-bascanska-ploca.html, retrieved on 1st June 2011)

The inscription on the Baška Tablet consists of:

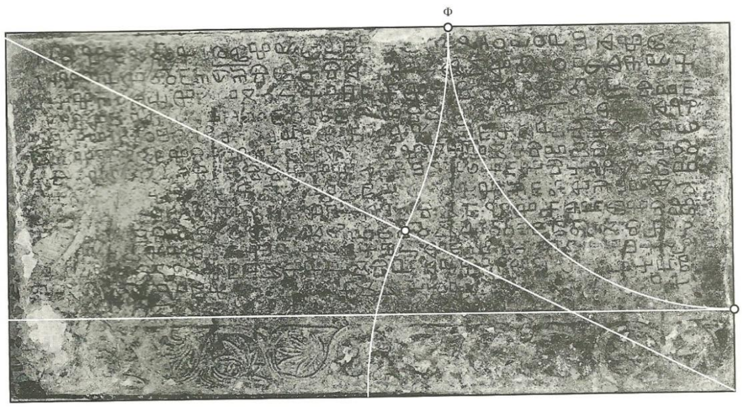
***1.**Invocation*
***2.** Writings of abbot Držiha written in first person, who states that the Croatian king Zvonimir „in his days“ donated land to the church of St. Lucia, and lists witnesses of this donation*
***3.** Intimidation formula against those who would deny the donation.*
***4.** Obligation that the monks of St. Lucia shall pray for the donor (and the wittnesses)*
***5.** Writings of abbot Dobrovit, also written in first person, which note that this abbot with his nine monastic brethren (monks) built this church, and then personally dates that construction with the time of duke Kosmat, who ruled the entire region.*
***6.** An entry which states that "Mikula v Otočcu" and "St. Lucia" were united at that time. It can be concluded from the contents that the text was put together from the parts which didn't originate from the same time period, but in a time span of the rule of at least two abbots, Držiha and Dobrovit. A gradual carving of these component parts of the text on a finished and installed bulkhead canopy is not conceivable. Therefore B. Fučić presumes an existence of a monastic chartulary which served as a contents template to the author of the Baška Tablet.*

Although the exact date of creation of the Baška Tablet is not known, it is unquestionable that it originates from the Middle Ages, that is, late 11th and early 12th century. Anyhow, the Baška Tablet was created before publishing of Fibonacci's famous manuscript Liber abaci (1220). Fibonacci's work brought Arabic numerals to Europe as well as the notion of zero, and at the same time it revived the interest for the antique phenomenon of golden ratio which, as the artistic and literary analysis of the Baška Tablet will show, already existed as an imperative in realization of artistic works in Croatian Middle Ages.

be found in the same style on the decorated parts of church architecture at the Croatian coast in late 11th and 12th century.

3. The Baška Tablet Text as a Work of Art

As it was initially implied, the Baška Tablet intrigues with its form and as a work of art. A valuable analysis of the Baška Tablet's artistic character was brought by Pejaković (2000, 114) who showed that a double square can be clearly distinguished within the Baška Tablet.

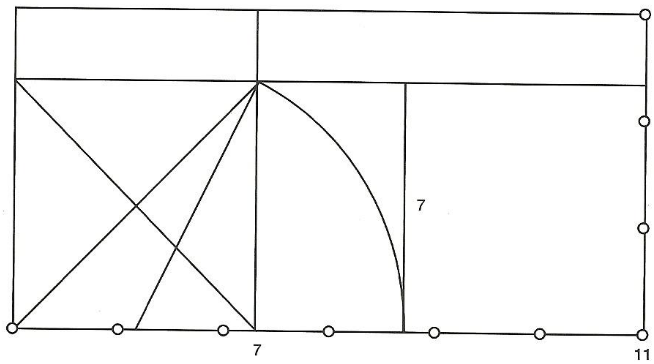


Source: Pejaković 2000, 114.

Pejaković states that „in a double square the construction of a golden ratio is inherent. It establishes a relation between a smaller and a larger side through a diagonal line. The smaller, vertical side of the Baška Tablet transfers to its diagonal, and then the larger remain of the diagonal drops to the basis of the Tablet. Thus the greater length of the Tablet is divided by a golden ratio. The minor in this division then transfers to the vertical of the Tablet. In that way the Tablet is divided in two parts: a narrow zone which is protruding and in which an eleven-part decorative tendril is carved. Under it is a field with carved text. If this division is transferred into numerical relations, then the frieze is two thirds of a foot, and the height of the inscribed field is seven thirds of a foot." (Pejaković 2000, 113-114)

Observing the artistic character of the Baška Tablet, it is clear that elements of Fibonacci's sequence[17] can be found in its golden ratio concept, where ratios of adjacent members make a number *phi* (known as the number of beauty). "The Tablet is three feet high, and two feet wide. If we divide feet on thirds, then the length of the Tablet is 18/3, and the height of the inscribed field 7/3. Numbers seven, eleven and eighteen are members of the golden sequence of numbers. The inscribed field in the Baška Tablet is an image with 7/18 ratio which is a format 1: φ. It consists of a golden rectangle which has been added a square to its smaller side." (Pejaković 2000, 114)

[17] Leonardo of Pisa (1175 - 1240) is known as Fibonacci (that is, the son of Bonacci). In his famous book Liber abaci from 1220, Fibonacci's sequence is a sequence of numbers that starts with numbers 0 and 1, and each following number is given by summation of the two preceding numbers (0, 1, 1, 2, 3, 5, 8, 13, ...). Ratios between the numbers in Fibonacci's sequence (starting with its 9th member) make a golden number, i.e. the number of beauty phi (1.618).



Source: Pejaković 2000, 115

4. The Baška Tablet Text as a Literary Work

The twentieth century offered interpretations of the Baška Tablet as a literary work. In this respect, works of Hercigonja and Stamać single out. Hercigonja thus states that „this prose reveals itself as a distinctive rhythmic structure based on different disposition of members: consecutiveness and alteration of specific prosodic constructions, sequences composed of members with same or different number of units" (Institute for Croatian Language and Linguistics, http://www.ihjj.hr/oHrJeziku-bascanska-ploca.html, retrieved on 1st June 2011). Stamać (2011, 6) states that the Baška Tablet with its composition characteristics is a typical document in a literal-genealogical sense, and that it was written according to clear rules *artis dictandi*[18] widespread over medieval (post-Carolingian) Latinity. Stamać, among other things, sees a difference between the messages of Držiha and Dobrovit within 13 (12, 1) lines of the whole inscription. "This difference is multiple and it is a proof, this viewpoint is accepted,[19] of a diachronic "cut" in original chartulary. However, disposition is actualized, with additional intention, obviously thought-out in the "synchronous" carving skills. Namely, while the first message (naturally) shortened by the invocation, extends over 7.6 lines of the text (starting with az, the last word of the first line), the other, belonging to Dobrovit, extends over exactly 4.5 lines: it starts in the middle of the fifth line from the bottom. So, the ratio is as follows: 12.1 (the whole of "gift" and "building" parts of the text) : 7.6 (Držiha's inscription) : 4.5 (Dobrovit's inscription), and that is the ratio between sizes which is almost identical to "golden ratio": the ideal *sectio aurea* is shown as a 13 : 8 : 5 ratio, which is a numerically expressed demand that the whole relates to a greater part as the greater part relates to the smaller part. Therefore, the whole discourse of the Tablet is its 13 lines through which its language structure extends, organized according to the famous antique plastic and architectural instruction! The stonecutter, and surely before him the notary (Dobrovit?), have

[18] The author further explains that it was a skill of making documents which was taught as a separate discipline in notary schools in Italy during the 11th and 12th century. Ars dictandi, Stamać states, emulated the old document models (formulas), nourishing at the same time the style and the rhythm of the sentence. It was actually a remarkable application of medieval rhetoric: dispositio and elocutio of unequivocal and unquestionable invention. From the many contemporary manuals (and the one probably most used in this area was the Aberik's one from the 11th century, created in the Benedictine Montecessaino), other substantially more compliant names can be extracted, such as ars dictamini, ars notaria...).
[19] Compare. F. Fučić, in the work cited, used frequently.

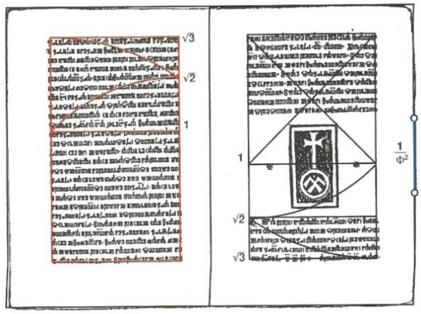
harmoniously "dosed" the graphic symbols of two according but substantially different messages to the descendants. They leveled them and gave them a certain dimension of primarily aesthetic significance!" (Stamać 2011, 7).
To corroborate the importance of the golden ratio noticed in the structure of the Baška Tablet text, it is good to remind ourselves of Pejaković (2000, 130) who states that the golden rectangle is a "rectangle 5 by 8 or 8 by 13, created by using the golden ratio that rules the macrocosm and microcosm."

5. Grapheme, Typogram and Book (Example: *Spovidi općene* by Blaž Baromić)

Considering macrocosm and microcosm brings up the question of whether the form of *beauty* can reflect in a single letter, typogram, or even in a book as a printed product. Artistic principles of Glagolitic letters and books are brought to our attention via many works of Frane Paro, whose contribution is concisely described by Mladen Pejaković (2000, 115)
"The artistic principles of Glagolitic printed letters and books were very successfully studied by Professor Frane Paro, modern Croatian graphic artist (Typographia glagolitica, MH, 1997). Out of that fine literary work, I present you one character retouched by Paro – the letter U, which represents a very consistently executed composition in golden folio."

Source: Pejaković 2000, 115

Besides the golden ratio composition embodied in the letter U (and other letters, too), adeptness in gold format is manifested in Blaž Baromić's typogram – the first typographic character in the history of Croatian printing, carved into wood with dimensions 22 by 37 mm. Blaž Baromić's typogram "is printed in just one copy of final sheet above the colophon *Spovidi općene*, printed in Senj in 1496, as Paro informs us in the beginning of his discussion titled *Angles and caliper of Blaž Baromić...* height of the typogram is determined by the spacing between the golden dividers on the longer border of the book. Lower part of the text is placed under the lower border of page's square. The blank part between upper and lower syllable represents a doubled hexagon. We also make out a high level of attention and consistency put into preservation of triangulation principles reflected in the disposition and size formatting of the elements. The height of the typogram, as mentioned, was 1/φ2 the height of the book's page. If we take into consideration the fact that the ratio 1: √3 is approximately equal to 4:7, it becomes easy to numerically and geometrically decompose Baromić's typogram...the use of golden dividers is also apparent in the character's rectangle. The point above the circle's angles represents the character's golden dividers." (Pejaković 2000, 115-17)



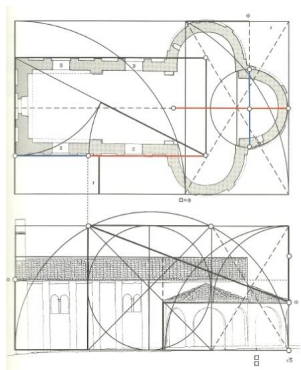
Source: Pejaković 2000, 116-117

As witnessed by the presented schemes, as well as the words of Frane Paro (2008, 159), Baromić’s golden ratio inscribed code implemented *beauty* consistently and purposely. What present analysis has documented was that the Baromić’s auronic approach was implemented in all dimensions of *Spovidi općene* (1496): graphemic, typogramic, and the final one – typographic, which combines figure, as well as gnoseological message emitted via its *beauty.*

6. Sacral Object (St. Martin’s Church in Prigrada near Novigrad and the 9th Century Altar Barrier Plate – Archaeological Museum in Zadar)

Omitting the search for fresh examples, one’s attention will be directed to examples of medieval sacral architecture listed by Pejaković in his work *Golden Ratio* (2000). One of the leading examples is the layout of St. Martin’s church in Prigrada near Novigrad, dating from the 6th century. “This building is, in its layout and elevation, a well-devised aesthetic project with clear-cut proportional program. The church’s nave and trefoil sanctuary form an ideal golden rectangle. This rectangle was generated very spiritedly. The nave is a double square whose longer borders are defined by golden ratio segments, which are also used for scaling of trefoil sanctuary, thus creating a golden rectangle. The minor of the double square serves as the diameter of apse rings, while its major links them to the nave. This determines the centre of the main apse that is the location of the altar where Latin cross is sited, whose borders are determined by the golden ratio code, thus achieving a great symbolical value of this proportional project. Reciprocated golden rectangle serves for inscription of the sanctuary, in a way that the nave’s double square is indented to its diagonals, which represent the centres of side apses. The drawing itself demonstrates these simple, beautiful and symbolic links within the layout. Church’s elevation also demonstrates the environment of golden ratio. Ratio used was 1: √5. Smaller diagonals of the centre square are laid along the horizontal, thus creating two golden rectangles which overlap by a half of a square. The length of the church to its

main apse is determined by the division of reciprocated golden rectangle. Sizing and other elements of the church's cross-section are co-modulated in an equal manner.
With the arrival of Croatian people to their new homeland and their christening, all those experiences will be projected in formation of various types of sacral buildings during Pre-Romanesque period in Croatia. The leading role in this period belongs to priests and Benedictine monks. Golden ratio code will prolong its life span through new sacral objects, their luxuriant wicker furniture, and it will be especially expressed in monastery scriptoriums and the production of medieval hand-written books. (Pejaković 2000, 118)



Source: Pejaković 2000, 119

Although there are many examples to be named, for the purpose of this paper we will name just one more – the altar barrier plate dating from the 9th century, currently kept in Archaeological Museum in Zadar (Paro 2009, 233)

Source: Paro 2009, 232

Among other analyses, Paro states that "at first glance at the photo of the wicker one can notice that the smaller and larger circle make a whole, a ring – a circular wreath – defined by the outer rim of the larger and the inner rim of the smaller circle. The rim that is the diameter of the inner circle within the circular node is somewhat larger than, usually unavoidable, diagonal root module tendered by the cross-section points of the circle and the base square diagonals. One can assume there are two possible causes of the craftsman's constructional "unprincipled" act that is the deviation from geometrical punctuality. One cause could be the need for more space for transposition of nodes within the smaller circle, while the other could be the adaptation to the size of the circular wreath, so that the width of one of the two braids would achieve the length thirty-three times longer than the length of each of the base square borders – thus representing the years Jesus Christ spent on Earth. Close comparison shows that the width of the braids within the wicker varies, and they represent 1/32 or 1/34 of the wicker's total width. Two dominant diagonals of the angular braid (was this for pragmatic or geometric reasons?) do not represent the diagonals of the base square. Upon leaving the larger circles, they do not point the corners of the base square, but the corners of a rectangle that is created when the area of the square decreases by the width of the circular wreath of the wicker rosette. In this particular case, the decrease approximately equals 1/10 x 2 that is 1/5 of the base square border. It is necessary to point out that this refers to the ideal layout value. The points in which the tips of wings of two turtle doves touch the upper border of the wreath confirm that the craftsman who made the wreath maintained the measures from the ideal layout. The length (together with the tip of the lily in the middle) determined by the tips of the wings is in fact the length of the border of the square which encircles the four smaller circles within the circular wreath. Discretely and "poetically", the craftsman points out to the border of the smaller square, which represents 4/5 of the base square border. This 4 : 5 ratio is a rational expression of an irrational double golden rectangle – the *biauron* layout. Therefore, the two cross bred dominant diagonals mark the golden rectangle but they also, which is easy to notice, form a letter X – Jesus Christ's first initial. Thus we have Christ's first initial in a golden rectangle determined by the wings of two turtle doves whose beaks "kiss" the tip of a lily – a symbol of light and purity..." (Paro 2009, 241)

This example clearly confirms the golden ratio approach in sacral expression, in this case the visual formation. The manner in which the aurons construct the visual text, its variations in space and co-significance with other elements within the composition, gives an opportunity for further interpretations, but it also confirms the starting hypothesis of this paper – the presence of code of beauty in medieval art of Glagolitic culture.

7. Conclusion

Considering and illustrating the presence of golden ratio code of beauty in medieval art of Glagolitic culture, the authors tried to obtain a confirmation of the starting hypothesis that the beauty represented a significant component of the Glagolitic culture. More precisely, they tried to show that beauty was way of artistic expression where "canonical principles of ratios implemented in the format are respected to the ultimate consideration" (Pejaković 2000, 125).

By reviewing the Baška Stone Tablet as an artistic as well as literary work; Blaž Baromić's written work *Spovidi općene* with special retrospect to his approach to grapheme, typogram and typography of the entire book, and finally the two pieces of sacral architecture (St. Martin's church in Prigrada near Novigrad and the 9th century altar barrier plate – Archaeological Museum in Zadar), the author concluded that all examples of artistic expression listed above were based on golden ratio code of beauty. Considering the fact that these examples are closely tied to Croatian tradition of (pre)Glagolitic culture, the authors dare to conclude that the culture itself was based on foundations and postulates of the code. In other words, the examples confirm a clearly and exactly defined code of beauty in Croatian Middle Ages, the age before the advent of Renaissance and its renewed interest in antique tendencies of creation according to the golden code. This conclusion leads to new deliberations which could give answer to the question whether the golden ratio code was systematically inherited, but also gives an opportunity of possible decoding of its symbolic messages which were obviously implemented within the forms of graphemes-typograms-texts/typographs-sacral buildings.

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Gospodarstvo istočne Hrvatske

Eastern Croatian economy

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ROLE OF ENTREPRENEURSHIP SUPPORT INSTITUTIONS IN DEVELOPMENT OF THE ECONOMY OF EASTERN CROATIA – CASE OF CENTRE FOR ENTREPRENEURSHIP OSIJEK

ULOGA PODUZETNIČKIH POTPORNIH INSTITUCIJA U RAZVOJU GOSPODARSTVA ISTOČNE HRVATSKE – SLUČAJ OSJEČKOG CENTRA ZA PODUZETNIŠTVO

ABSTRACT

Destroyed industry and infrastructure and high unemployment rate are the main characteristics of economy of Eastern Croatia after 1995. War events, which have significantly affected this part of Croatia, have left a large and indelible mark on the economy, whose recovery has demanded new knowledge, skills and approaches. High unemployment rate, and restructuring destruction and of large systems were incentive for an increasing number of people to solve their subsistence through self-employment. In their attempts to find entrepreneurial ideas, and start entrepreneurial ventures, they came across numerous obstacles, greatest among which were lack of information and entrepreneurial knowledge. Start-up entrepreneurs lacked one of the most important factors for quality and successful start of entrepreneurial career - entrepreneurial environment. Entrepreneurial environment is an environment that ensures access to sources of funding, favourable government policies and programmes, and access to professional services. In that situation, establishment of Centre for Entrepreneurship Osijek, which was among the first entrepreneurial centres that were established in Croatia, seemed as a logical step in fostering economic development of the region.
Centre for Entrepreneurship Osijek was founded in 1977, as a non-governmental organisation, with the aim to promote entrepreneurial behaviour and provide information to all future and current entrepreneurs, related to start-up and development of entrepreneurial ventures. Today, after 15 years of existence, the Centre has become a reference point of

Osijek's entrepreneurial infrastructure, the oldest centre for entrepreneurship in Croatia, Centre which entrepreneurs still visit every day.
Through the case of Centre for Entrepreneurship Osijek, programmes and activities it carries out, and work on encouraging entrepreneurship in Eastern Croatia, this paper will attempt to show the importance of supporting institutions in the development of entrepreneurial environment. By analysing the number of users of services of Centre for Entrepreneurship Osijek, collaboration and networking with other supporting institutions, and institutions of local self-government (Association of Croatian Institutions for Promotion of Entrepreneurship - UHIPP, Business Incubator BIOS ltd., Croatian Employment Service, Regional Office Osijek, Office for Economy of the City of Osijek, Agency for Development of Osijek-Baranja County, etc.), will show the scope of activities of this organisation.
The main objective of this paper is to underscore the importance of supporting institutions in fostering entrepreneurship, that is, development of an enabling and supportive environment, and its importance for starting new, and the growth and development of existing small and medium-sized enterprises in Eastern Croatia.

Key words: *Business support organization, Business support services, Entrepreneurial environment, Small and medium-sized enterprises*

ABSTRACT

Uništena industrija i infrastruktura, te visoka stopa nezaposlenosti, glavna su obilježja gospodarstva Istočne Hrvatske nakon 1995. godine. Ratna zbivanja koja su izrazito pogodila ovaj dio Hrvatske ostavila su veliki i neizbrisiv trag na gospodarstvu, čiji je oporavak zahtijevao nova znanja, vještine i pristupe. Visoka stopa nezaposlenosti, te restrukturiranje i propast velikih sustava, bili su poticaj sve većem broju ljudi na rješavanje svoje egzistencije kroz samozapošljavanje. U svojim pokušajima pronalaska poduzetničke ideje, te pokretanju poduzetničkog pothvata nailazili su na brojne prepreke, među kojima su najveće bile nedostatak informacija i poduzetničkih znanja. Poduzetnicima početnicima nedostajao je jedan od najbitnijih čimbenika za kvalitetan i siguran početak poduzetničke karijere - poduzetničko okruženje. Poduzetničko okruženje jest okruženje koje osigurava pristup izvorima financiranja, povoljne vladine politike i programe, te pristupe profesionalnim uslugama. U toj situaciji, osnivanje Centra za poduzetništvo Osijek, koji je bio među prvim poduzetničkim centrima koji su osnovani u Hrvatskoj, činio se kao logičan korak u poticanju razvoja gospodarstva ove regije.
Centar za poduzetništvo u Osijeku osnovan je 1997. godine kao nevladina organizacija, s ciljem promoviranja poduzetničkog ponašanja i pružanja informacija svim budućim i trenutnim poduzetnicima, vezanih uz pokretanje i razvoj poduzetničkih pothvata. Danas, nakon 15 godina postojanja, Centar je postao referentna točka osječke poduzetničke infrastrukture, najstariji centar za poduzetništvo u Hrvatskoj, Centar u koji poduzetnici svakodnevno i dalje dolaze. Kroz slučaj osječkog Centra za poduzetništvo, programa i aktivnosti koje provodi, te rada na poticanju poduzetništva Istočne Hrvatske, u ovom će se radu pokušati prikazati značaj potpornih institucija u razvoju poduzetničkog okruženja. Analizom broja korisnika usluga Centra za poduzetništvo Osijek, suradnje i umreženosti s ostalim potpornim institucijama, te institucijama lokalne samouprave (Poduzetnički inkubator BIOS d.d., Hrvatski zavod za zapošljavanje, Područni ured Osijek, Ured za gospodarstvo grada Osijeka, Agencija za razvoj Osječko-baranjske županije itd.), prikazat će se doseg aktivnosti ove organizacije.

Osnovni cilj ovoga rada je ukazati na značaj potpornih institucija u poticanju poduzetništva, odnosno razvoju poticajnog i podržavajućeg okruženja za pokretanje novih, te rast i razvoj postojećih malih i srednjih poduzeća na području Istočne Hrvatske.

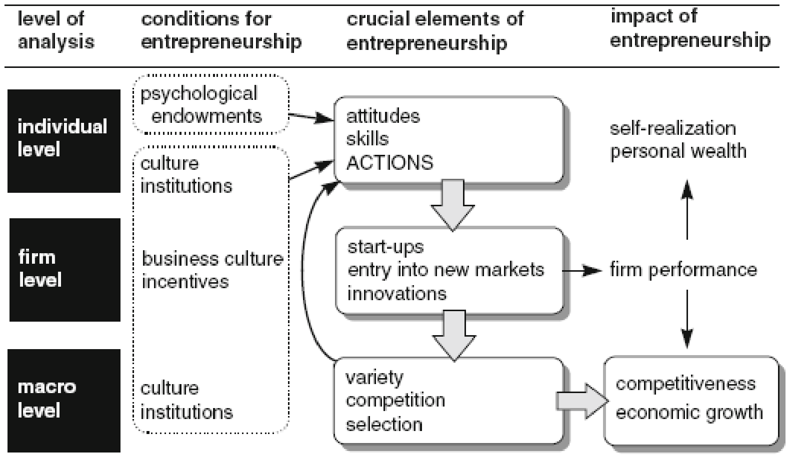
Key words: *poduzetničke potporne institucije, usluge potpornih institucija, poduzetničko okruženje, mala i srednja poduzeća*

1. Influence of entrepreneurship support institutions on economic development

Correlation between the economic development of an economy and the level of entrepreneurial activity has been the subject of study of many researchers for some time (Carlsson, 1992; Acs, 1996; Watson et al., 1998; Wennekers et al, 1999; Audretsch et al, 2002;). Regardless whether conducted at the level of individual industries, region, or at the national level, the common conclusion of all research is that those countries which have increased (or experienced) a higher level of entrepreneurial activity, enjoy greater economic growth at the same time. In doing so, as a very important conclusion of these studies, entrepreneurial environment is especially pointed out as the basis for developing and stimulating entrepreneurial activity. Entrepreneurial environment includes access to sources of financing, favourable government policies and programmes, and access to professional services. But, in order for entrepreneurial environment to be stimulating for entrepreneurial activities, research (Audretsch et al, 2002) indicate the necessity of the interconnectedness of all the elements of entrepreneurial environment for knowledge transfer, creation of new products and services (innovation), as well as greater competitiveness of the small and medium-sized enterprise sector.

Research on the connection of the level of entrepreneurial activity and economic development, which was conducted by Audretsch et al (2002), start from the model in which economic growth is based on the conditions for development of entrepreneurship, level of entrepreneurial activity (attitudes, starting entrepreneurial ventures, innovations, entering new markets, and competition and selection among the started entrepreneurial ventures), as well as their mutual relationship, which leads to self-realization and personal wealth, innovativeness, competitiveness and ultimately to economic growth. In doing so, these researchers define the conditions for development of entrepreneurship at three levels – personal, cultural, and institutional level.

Figure 1. Model of research of the connection between development of entrepreneurship and economic growth



Source: Audretsch, D.B., Carree, M.A., van Steel, A.J., Thurik, A.R. (2002), Impeded industrial restructuring: The growth penalty, Kyklos, 55.

The institutional level, necessary for stimulating entrepreneurial activity, is observed at the company, but also at the macro level - at the level of individual economies. In doing so, Audretsch et al (2002) point out that the importance of institutional support is also reflected in the level of encouraging the individual to pursue personal ambitions through entrepreneurial venture, as well as in determining the barriers in that process, that is, removal thereof. Therefore, according to these studies, the role of support institutions in encouraging entrepreneurial activity and economic growth is extremely important.

Researching the factors of successful development of small and medium-sized enterprises, Watson et al (1998) also emphasize the importance of institutional support. They have summed up the results of their research in an analytical model, where institutional support is observed through the prism of institutions for stimulating entrepreneurship. These institutions are an essential and extremely important element of entrepreneurs' external environment, on which both the survival and further development of enterprises are based.

The world's largest study of entrepreneurship, Global Entrepreneurship Monitor (GEM), also ties the level of entrepreneurial activity of an economy to the level of development of entrepreneurial environment, which consists of social, political and cultural context (investment in education, social norms and behaviours related to personal independence, level of democracy of the country, as well as entrepreneurs' perceptions), general conditions (openness of the national economy, government's role, efficiency of financial markets and the labour market, rule of law, level of investment in research and development, quality and power of physical infrastructure, management competencies), conditions of entrepreneurial activity (availability of financial resources for starting new entrepreneurial ventures, programmes for encouraging new entrepreneurial ventures, access to professional services), entrepreneurial opportunities (existence of market opportunities), entrepreneurial capacity, business volatility and national economic growth. Correlation between the level of entrepreneurial activity and economic growth in this model is shown through mutually dependant variables.

Although access to professional services is considered one of the most important functions of support institutions, these institutions also facilitate access to sources of funding, enable transfer of knowledge and skills necessary for successful launching of entrepreneurial ventures, provide information necessary for making all the important decisions related to staring a business or planning growth and development of a business. Precisely these services of support institutions are the most important for entrepreneurs in the phase of entrepreneurial venture start-up.

The importance of these services is confirmed by research of Watson et al (1998), who proved that the rate of unsuccessful start-up companies is greater among those entrepreneurs who have not used professional services of professional institutions. The research demonstrated the importance of getting advice and knowledge related to writing and using a business plan, market research, and communication and promotion of the business. In doing so, authors point out that professional services of counselling, informing, transfer of knowledge and skills must be customized for the target group of small and medium-sized enterprises i.e., these services must be adapted to the life-cycle stage of enterprise development, which strengthens the conditions for development of entrepreneurship at the mezzo level – company level. Networking of both companies (especially large and small) and support institutions themselves is especially important at this level. Networking contributes to better company performance, exchanging of knowledge and experience, greater competitiveness, and, ultimately, to economic development of the economy. However, networking at the institutional level is also required in order to achieve the same goals that companies have – higher quality product or service, exchanging of knowledge and experience, which is particularly significant in the development of educational programmes. Development of educational programmes and the transfer of knowledge and skills also contribute to creation of entrepreneurial culture, which represents one of prerequisites for the development of entrepreneurship at the macro level – level of economy of a country. At the macro level, creating conditions for development of the small and medium-sized enterprise sector requires a coherent policy, which will encompass all the elements of entrepreneurial environment.

Looking at the conditions for development of entrepreneurship at the level of a country, it can be concluded that there are various measures, programmes and institutions whose task is to encourage development of the small and medium-sized enterprise sector. Numerous programmes and projects, according to research by Buble and Kružić (2006), are focused on: creating positive entrepreneurial climate, building entrepreneurial infrastructure, education and professional assistance to entrepreneurs, technological development, innovation and new production programmes, and encouraging entrepreneurial target groups. Support institutions are irreplaceable in informing the target group, collecting data and information related to specific programmes and projects, and generally in promoting programmes and projects, objective of which is to stimulate development of the small and medium-sized enterprise sector from the macro level. Activities of business support institutions are manifested both at the mezzo level (through networking with companies, mutual exchange of information, as well as through networking with institutions of local government and self-government), at the macro level (through networking with regional offices of government institutions, but also directly with creators of government programmes and projects (employment offices, ministries, etc.). Networking, both with companies and government institutions and among themselves, significantly affects the quality of services offered by support institutions, as well as the quality of programmes and projects that are created at the state level. Therefore, business support institutions play an indispensable role in creating stimulating entrepreneurial environment i.e., stimulating economic development of the economy.

On the market of the Republic of Croatia, as in most countries of the European Union, business support institutions play an important role in implementing programmes and projects which aim to stimulate development of the small and medium-enterprise sector. Along with the Ministry of Entrepreneurship and Crafts, the Croatian Agency for SMEs and the Croatian Bank for Reconstruction and Development, network of support institutions in the Republic of Croatia, according to Ministry of Entrepreneurship and Crafts data, consists of 92 institutions (regional development agencies, centres for entrepreneurship, business incubators and technology parks)[20]. This network of support institutions covers the entire Republic of Croatia and they are thus available to any current or future entrepreneur. They differ among themselves by type of registration, founders, method of financing, but also by types of services offered to end users. But, their common goals is to encourage entrepreneurial activity in their environment, through educational programmes, counselling, informing and connecting entrepreneurs.

The method of work of these institutions will be shown on the example of the Centre for Entrepreneurship Osijek, one of the oldest business support institutions in the Republic of Croatia, as well as the level of their impact on all levels of encouraging entrepreneurial activity – micro (personal level of the entrepreneur), mezzo (company level) and macro (state level), which directly affects strengthening of the economic development of Osijek-Baranja County in which the Centre operates.

2. Role of entrepreneurship support institutions in development of the economy of Eastern Croatia – case of Centre for Entrepreneurship Osijek

High unemployment rate, as the consequence of war devastation of Eastern Slavonia during the Homeland War (1991-1995), because of which large manufacturing companies from this area were almost completely destroyed, destroyed infrastructure, and a large part of the territory still under UN administration, was the picture of Eastern Slavonia at the start of 1997. The solution of this situation, especially the high unemployment rate, could not be achieved through humanitarian aid, but it was necessary to enable the realization of fundamental human rights – the right to work. This economy, which, on top of all that, still had to undergo the process of privatisation from public to private ownership, lacked institutions, information, sources of funding, and knowledge and skills necessary for self-employment of a large number of unemployed people. In such conditions, a group of citizens (professors from the Josip Juraj Strossmayer University and entrepreneurs from Osijek-Baranja County) decided to start working on creating institutional support in processes of launching entrepreneurial ventures. Institutional support was to be achieved by linking university, business sector and local authorities in the institution of entrepreneurial centre. Although the demand for services of such an institution existed, and its establishment was more than a necessary solution of the then situation, Professor Slavica Singer, the initiator of this idea was not met with understanding and support – neither by academic community, nor local authorities. Nevertheless, in the spring of 1997, in accordance with the Associations Act, a group of enthusiasts founded the Centre for Entrepreneurship Osijek. The new support institution, one of the first of its kind in Croatia, lacked the knowledge of institutional

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[20] http://www.minpo.hr/default.aspx?id=83, downloaded on 17.04.2012

management, activities and services that are essential to entrepreneurs, as well as financial resources for its work. Small Business Development Center (SBDC) at University of Wisconsin, Madison, USA was as used as benchmark, and financial support for the work of the organisation was provided by the Open Society Institute Croatia. The mission of the Centre for Entrepreneurship Osijek was „*to promote entrepreneurial spirit by providing mutually beneficial relationships between the academic and the business community, through the exchange of ideas, information and knowledge required to develop and maintain new and existing small and medium-sized enterprises and to promote and support economic development of Croatia (by focusing on problems of economic recovery of Eastern Croatia)*“.[21] In the beginning, the Centre was registered for operation in the area of Eastern Croatia, but since the process of sharing knowledge and information is also required at the institutional level, Centre was re-registered for work at entire territory of the Republic of Croatia the next year. Work of the Centre for Entrepreneurship was envisioned as a „one-stop-shop“, that is, as a place where it is possible to obtain a complete service (information, transfer of knowledge and skills, networking) through the „one-to-one“ approach, i.e., through recognizing the individual needs of entrepreneurs for which solutions have to be found (Lauc, 2004).

The first activities of the Centre were educational in nature, but prior to the commencement of seminars, trainers who were supposed to teach adults, future entrepreneurs, needed to be trained themselves. Although the process of training people from the academic community was well conceived, it was rather difficult in practice to prepare faculty professors to work with entrepreneurs. Majority of experienced professors gave up the project because they were unable to adapt to the new target group, which demanded concrete examples and solutions, and involvement in the education process.

Among the first seminars, as well as activities of the Centre, was education on business planning of potential clients of the Savings and Loan Cooperative (today Credit Union) NOA at the end of 1997, mostly farmers from Vukovar, which was under UN administration at the time. After this education, centre started collaboration with the Croatian Employment Service, Regional Office Osijek, which was implementing a programme for self-employment through crediting business ventures of unemployed persons, where one of the conditions was attending a seminar on business planning. After the first, successfully implemented seminars, Centre began to conduct other seminars and trainings, related to taxes, accounting and legislation, which were an upgrade to consulting services for future entrepreneurs. Column „Be more successful in business“ by Professor Slavica Singer, Chairwoman of the Board of the Centre published in local daily newspaper „Glas Slavonije“ greatly contributed to development of entrepreneurial culture and visibility of the Centre. By the end of 2002, the Centre had developed a wide range of educational programmes, tailored to each stage of life-cycle of small and medium-sized enterprises: Star your own business (composed according to the methodology of the International Labour Organization – ILO), GRAB-IT, How to become a successful entrepreneur, Grow your business, and Franchise from A to Z, with which counselling of entrepreneurs who want to enter the world of entrepreneurship through a franchise or looking to expand their business through a franchise was connected, and a separate organisational unit was created – The Franchise Center.

In the period from October 1997 until today, Centre for Entrepreneurship Osijek has held more than 220 seminars, at which 3,875 attendants were educated. Throughout the years,

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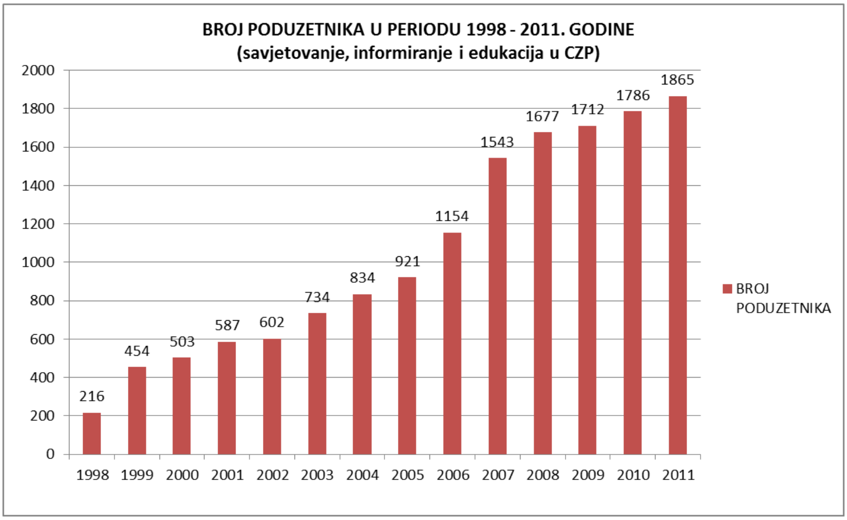
[21] http://www.poduzetnistvo.org/centar/misija.html, downloaded on 17.04.2012

number of entrepreneurs using Centre's services – counselling, informing or participation in educational programmes has been continuously increasing (Figure 2).

Figure 2. Number of entrepreneurs using services of the Centre for Entrepreneurship Osijek from 1998 to 2011



Source: Records of the Centre for Entrepreneurship Osijek, 2012

Centre's educational programmes, always based on the best international experience (International Labour Organization, Durham Business School from United Kingdom, Curtin Business School from Australia, and Business Innovation Programs from Norway), were not implemented only in Croatia. Trainers of the Centre for Entrepreneurship Osijek have also conducted seminars in neighbouring countries – Bosnia and Herzegovina (Sarajevo, Banja Luka and Mostar), and in Serbia (Subotica and Požega).

In addition to educational programmes, the Centre has worked intensively on networking of entrepreneurs, through the forum of small and medium-sized entrepreneurs and the forum of family businesses. Forums always consisted of a short comment on current entrepreneurial issues through lectures of guest speakers, and the greater part of event was dedicated to networking of entrepreneurs. Centre has focused part of its activities on connecting with other support institutions, with which it exchanged „best practices“ in promoting entrepreneurship. On the initiative of Technology Park Zagreb, Business Incubator Porin from Rijeka and Centre for Entrepreneurship Osijek, Croatian Institutions for Promotion of Entrepreneurship Association (UHIPP) was founded in 2000, whose objective was to team up in order to protect and promote common economic, information, technical, scientific and professional interests and goals related to promoting the development of the small and medium-sized enterprise sector. For some time UHIPP truly acted as an umbrella institution that protected the interests of it members, but in 2004 members failed to reach an agreement on future activities of the association and it was disbanded.

Since its inception, Centre for Entrepreneurship Osijek was focused on strengthening the network of support institutions in Croatia, helping with its knowledge and experience in

establishing new institutions – Dubrovnik Centre for Entrepreneurship, Pula Centre for Entrepreneurship and Civil Organization for Society Development GORD from Dalj. But, the biggest project of establishing new institutions was the project that Centre has implemented in collaboration with the City of Osijek – project of Business Incubator BIOS. Within the project, Centre has provided consultant assistance in organisation of operations and a part of financial resources, while the City provided financial resources for the start of incubator's operations (Medić, 2004). Today, Centre and BIOS are two closely related organisations, whose activities are complementary, with the aim of providing a complete information and service to entrepreneurs – at one location.
According to a study on the visibility of support institutions, which was conducted among entrepreneurs from Osijek in 2005, Centre for Entrepreneurship Osijek was the most visible institution, whose services were used by 1/3 of the respondents from the sample.

Table 1. Recognisability of business support institutions and programmes of the City of Osijek

Institution	**Percentage of respondents who are familiar with the work of the institution**	**Percentage of respondents who are not familiar with the work of the institution**
Centre for Entrepreneurship Osijek	88.04 %	11.96 %
Business Incubator BIOS Ltd.	85.42 %	14.58 %
Programmes of the City of Osijek	21.72 %	78.28 %

Source: City of Osijek, Administrative Department of Economy, Business Incubator BIOS, Centre for Entrepreneurship Osijek and Audeo, First step to entrepreneurship: Study conducted in the area of City of Osijek, December 2005

Exchange of knowledge and skills, together with building entrepreneurial culture have always been important activities of the Centre that also took place through publishing activity, which the Centre entered by translating 4 books: How to start a business with less than $1000 (parts I and II), Business plan and Plan of marketing, which were produced in collaboration with small publishing house Jakubin i sin Ltd. By strengthening own capacities and collecting locally specific experiences and examples of good entrepreneurial ventures, Centre's own publications were produced: First step to entrepreneurship: Entrepreneurial guide, Investment guide of Osijek-Baranja County, Franchise – 20 most sought after answers, and Design and verify your business idea: Guide for all who are thinking about entering entrepreneurship.
Collaboration with the SMEs and Entrepreneurship Policy Center (CEPOR) from Zagreb, think tank organisation focused on the issues of the small and medium-sized enterprise sector, has enabled exchange of experiences and proposals for stimulating the development of entrepreneurial environment at the national level. Through organization of round tables, educational programmes, preparation of strategic documents, CEPOR „transforms“ the experience of local support institutions (Regional Development Agency REDEA, Istrian Development Agency IDA, and Centre for Entrepreneurship Osijek) into policy documents and communicates with creators of government policies (relevant ministries) related to stimulating development of the small and medium-sized enterprise sector. In this way experiences and knowledge of support institutions „in the field“ can be translated into legislative proposals, and programmes and projects for stimulating small and medium-sized enterprises, which are implemented at the national level.

With the aim of fostering entrepreneurial culture, Centre has always been associated with the academic community, but collaboration with the Business Innovation Programs from Norway (BIP) has enabled completing of the vertical of entrepreneurial programmes that already exist within the UNESCO Chair in Entrepreneurship of the Josip Juraj Strossmayer University in Osijek (undergraduate, graduate, specialist and doctoral level of studies in entrepreneurship)[22]. The programme that was developed by the Centre for Entrepreneurship in collaboration with Norwegian BIP is designed for entrepreneurial education at secondary level, and 10 secondary schools from Eastern Slavonia were involved in it. Along with education of teachers and students, student enterprise fairs were held each year, at which students had opportunity to present to the wider public their business ideas, business plans, teams, as well as products or services that students have designed within their student enterprises.

Centre for Entrepreneurship Osijek is today located within the Business Incubator BIOS Ltd., and it actively works on devising and implementing programmes and projects aimed at fostering entrepreneurship – educational programmes, counselling and consulting services, informing entrepreneurs, and strengthening entrepreneurial culture. Networking with the academic community (primarily with the Faculty of Economics in Osijek), units of local self-government and other support institutions make the Osijek Centre one of the best known and most successful business support institutions in the Republic of Croatia, often referred to as „the Osijek case“ – and an example to follow.

3. Conclusion

Economic development of a country or region is highly correlated with the level of entrepreneurial activity, and the level of entrepreneurial activity depends on the extent to which the environment in which entrepreneurial ventures are created supports their development. Since 1997, Centre for Entrepreneurship Osijek has been actively working on creating the prerequisites for the emergence and development of entrepreneurial ventures in Eastern Croatia, through providing information, transfer of knowledge, development of skills, and facilitating the process of networking of entrepreneurs. In its approach Osijek‘s Centre recognises the importance of adjusting its products and services to different developmental stages of companies, and applies an individualised approach in identifying entrepreneurs' problems and needs. This approach is particularly manifested in the creation of products and services that make the Centre unique in Croatia (Grow your business, Center for Franchise, etc.), and it is in accordance with the recommendations of researchers dealing with the analysis of importance of access to professional services for success of entrepreneurs, and advocate the necessity of profiling professional counselling services at the company level (mezzo level).

The capacity to build a network of contacts with the key stakeholders from the environment has special importance for successful development of organisations – both companies and institutions that provide support to their development. For years, Osijek Centre has been providing a platform for exchange of information and knowledge among entrepreneurs, and it also actively applies this approach in its work, through networking with businesses, local authorities, regional offices of government institutions, creators of government policies and programmes, and other institutions for fostering entrepreneurship in Croatia. Centre for Entrepreneurship Osijek has built particular recognisability and visibility by starting

[22] www.ices.hr, downloaded on 18.04.2012

initiatives for the exchange of knowledge and information among business support institutions in Croatia (establishment of UHIPP, participating in establishment of centres for entrepreneurship in other parts of Croatia).

However, the best indicator of successfulness of the Centre in providing quality professional services and support to entrepreneurs is the data on the growing number of users of Centre's services since its inception until today, which makes it, as a business support institution, an important factor for the development of entrepreneurial environment and the economy of Eastern Croatia in general.

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THE INFLUENCE OF ENTREPRENEURIAL ZONES ON URBAN COMPETITIVENESS OF THE TOWN OF VALPOVO

UTJECAJ PODUZETNIČKIH ZONA NA URBANU KONKURENTNOST GRADA VALPOVA

ABSTRACT

The aim of this paper is to attempt to determine the influence of entrepreneurial zones in town of Valpovo on its urban competitiveness. Valpovo is a town in eastern Croatia which is located in Osijek-Baranja County. This town is still facing with such problems as lack of job opportunities, concentration of low-income families, inadequate public infrastructure and depopulation, which is becoming an increasing problem in Valpovo. One of the attempts to improve the economical circumstances in the town was the establishment of the entrepreneurial zones in Valpovo. These zones are comprised of a small enterprise zone, a business and an industrial zone. Statistical methods are used in order to investigate the influence of entrepreneurial zones of town of Valpovo on its urban competitiveness. Urban competitiveness is the ability of an urban area to use the factors of competitiveness in order to make a competitive position and maintain it among other urban areas. Urban competitiveness is often closely related to a town or city's economic performance, which is the viewpoint applied by the authors. Thus measurement of competitiveness is accomplished by measuring its economic competitiveness, which is being determined through variables of town's overall revenues, its revenues from taxes and the number of the unemployed. The analyzed data refer to the data collected before and after the establishment of the entrepreneurial zones. The analysis indicates that the influence of the entrepreneurial zones proves to be beneficial to some of the observed indicators. The entrepreneurial zones, however, do not provide an adequate boost to the urban competitiveness of Valpovo, since economical problems it is faced with are still not being solved. In order to support the development and influence of the entrepreneurial zones on urban competitiveness of Valpovo, the local government must develop links among the key institutions, an entrepreneurial spirit and a commitment to risk taking and risk sharing by its inhabitants.

***Key words**: Valpovo, entrepreneurial zones, urban competitiveness, statistical methods, improvement of urban competitiveness.*

SAŽETAK

Cilj ovog rada je utvrditi utjecaj poduzetničkih zona u gradu Valpovu na urbanu konkurentnost Grada. Valpovo je grad u Istočnoj Hrvatskoj koji se nalazi u Osječko-baranjskoj županiji. Ovaj grad i dalje se suočava s problemima kao što su nedostatak radnih mjesta, koncentracija obitelji s niskim primanjima, neadekvatna javna infrastruktura i depopulacija, koja postaje sve veći problem u Gradu Valpovu. Jedan od pokušaja da se poboljša gospodarske okolnosti u gradu bila je uspostava poduzetničkih zona u Gradu Valpovu. U ove zone se ubraja zona malog gospodarstva, poslovne zone i industrijska zona. U radu se koristi statističkim metodama kako bi se istražio utjecaj poduzetničkih zona u Gradu Valpovu na njegovu urbanu konkurentnost. Urbana konkurentnost je sposobnost gradskog područja da koristi faktore konkurentnosti kako bi stvorilo vlastitu konkurentsku poziciju i održavalo je u odnosu na ostala gradska područja. Urbana konkurentnost često je usko povezana s ekonomskom učinkovitošću grada, što je i gledište koje u radu primjenjuju autorice. Tako se mjerenje konkurentnosti postiže mjerenjem gospodarske konkurentnosti Grada, što se utvrđuje putem varijabli gradskih prihoda od poreza, omjera nezaposlenih osoba s radno sposobnim stanovništvom i podataka vezanih uz investicije u Gradu. Analizirani podaci odnose se na podatke prikupljene prije i nakon uspostave poduzetničkih zona. Analiza pokazuje da je utjecaj poduzetničkih zona pozitivan i povoljan za neke od promatranih pokazatelja. Međutim, poduzetničke zone ne pružaju adekvatan poticaj gradskoj konkurentnosti Grada Valpova, jer se ekonomskim problemima s kojima se suočava još uvijek ne rješavaju. Kako bi se podržao razvoj i utjecaj poduzetničkih zona na poboljšanje urbane konkurentnosti Grada Valpova, lokalne vlasti moraju razviti veze između ključnih institucija, poduzetnički duh i opredjeljenje za preuzimanje rizika i podjelu rizika od strane njegovih stanovnika.

Ključne riječi: *Valpovo, poduzetničke zone, urbana konkurentnost, statističke metode, poboljšanje urbane konkurentnosti.*

1. Introduction

The town of Valpovo is located in the eastern part of Osijek-Baranja County, 25 km northwest of Osijek. Industry, commerce and catering services are the most important economic activities in Valpovo, but agriculture remains the most developed branch of the economy. Despite many advantages and natural resources, Valpovo still deals with development issues such as lack of job opportunities, concentration of low-income families, inadequate public infrastructure and depopulation, which is becoming an increasing problem in Valpovo. In order to resolve these issues, Valpovo is setting up entrepreneurial zones to increase economic activities which should have a positive impact on employment rates, personal incomes, and the levels of tax revenues.

2. Entrepreneurial zones

Entrepreneurial zones are a part of a municipality or a town, in which the infrastructure has been built and the municipality provides additional benefits with the aim of stimulating economic activities. The main goal of developing entrepreneurial zones in Croatia is stimulating a more balanced development of its regions and an increase in employment (Lončar, 2008). Entrepreneurial zones are being established in order to create working conditions for entrepreneurs and to allow the use of a common infrastructure and connections among entrepreneurs located in the same area. Specific goals of entrepreneurial zones are creating new jobs, rational use of the resources, increase of revenues of local communities, increase in exports etc. (Plan razvoja poduzetničkih zona na području Osječko-baranjske županije za razdoblje od 2008. do 2012. godine).

Entrepreneurial zones of the town of Valpovo

Entrepreneurial zones in Valpovo were established to create spatial conditions for conducting entrepreneurial activities and encourage the development of local economy. After the first entrepreneurial zone was founded in 1996, new ones have continually been developed. Entrepreneurs who decide to start their business in an entrepreneurial zone are offered incentives: lowered communal contributions and fees, tax relief, purchasing plots with deferred payments or loan and lower land price. Furthermore, the town offers support to entrepreneurs by providing consulting services, information on projects and programs in entrepreneurship, business mediation, preparation of business plans and investment studies, coordination of business activities etc. (Investment guide of the town of Valpovo).

Small enterprise zone, located in the southeast part of town, was the first entrepreneurial zone founded in Valpovo. There are 17 enterprises in foodstuff industry, metal processing, wood processing, services etc. The zone is completely infrastructurally equipped (road, water supply, effluent disposal system, electricity and gas supply, and phone) and currently employs 153 workers. Small enterprise zone II was founded in 2010, and is located in direct proximity to the small enterprise zone. It is partially infrastructurally equipped and only one enterprise, which employs 62 people, is currently conducting its business in this zone. Business zone Valpovo was established in 2004; located in the southern part of town and furnished with complete infrastructure. There are four entrepreneurs in this zone, who employ 46 workers. The second business zone[23] is located in the northwestern part of town, and is furnished with complete infrastructure. Three entrepreneurs, who employ 40 workers, are currently conducting their businesses in this zone. K-III economy/business zone is located in the western part of town. The infrastructure is only partially built, so there are yet no enterprises in the zone, but business activities in catering, tourism, services and commerce are planned to be conducted. K-VI zone is located in the southeast part of town, near the town ring road. The zone was established in 2007, and there are seven entrepreneurs who employ 42 people. Industrial zone in Valpovo, located in the southern part of town, was founded in 2008. Activities to be performed in the zone are: business, administrative, office, trading, services and construction activities which do not endanger the natural environment.

3. Urban competitiveness

Measuring urban competitiveness is becoming more interesting to scientists, politicians, investors, and tourists, since understanding performance of cities points to the possibilities of improving their position in relation to other cities. Cities compete for jobs, investments, new technologies, tourists, projects and so on, in order to avoid long-term out migration, stagnant investment, falling per capita incomes and raising unemployment (Camagni, 2002). Thus every town should struggle to enhance its competitiveness, that is, its ability to compete against other comparable towns (Kresl, 2007). The World Bank defines urban competitiveness as the ability of an urban region to produce and market products when competing with comparable products from other urban regions. Similar to this view, many

[23] Known as business zone in J.J.Strossmayer Street

authors consider concepts of urban and urban economic competitiveness to be interchangeable (Begg, 1999, Kvainauskaite and Snieska, 2002, So and Shen, 2004, Saboniene, 2009, Jiang and Shen, 2010, etc.) and measure it with indicators of activity of firms, conditions which make firms competitive, business structure or market demand, exports etc. The World Bank states that economic structure of urban competitiveness can be determined through variables of analysis of output, employment and investment data. Since some of these aspects of development are also listed as a goal of establishing entrepreneurial zones in Valpovo, there was a need for analyzing the influence of the establishment of entrepreneurial zones in Valpovo on improvements of some of the aspects of urban competitiveness of the town.

4. Analysis of the influence of entrepreneurial zones on urban competitiveness of the town of Valpovo

Data for the analysis were collected due to cooperation of Centre for Entrepreneurship Valpovo, Bureau of Economy and Social Affairs Valpovo and Employment Bureau in Valpovo. The data on total revenues for the town of Valpovo, as well as those on revenues from taxes on income and profits, were deflationed with average yearly indices of consumer prices in order to gain insight into the development of real values. The data on unemployment represent average unemployment per year in the town of Valpovo. After the analysis was conducted, several conclusions were made. From 1998 till 2010 real revenues of the town indicate an ascending trend with some oscillations. Chart 1 indicates real revenues of the town of Valpovo, and it is noticeable that a minor increase in revenues occurs in 2002, 2004, 2007 and 2008, which is in concordance with the years of establishing and beginning of development of entrepreneurial zones (2004 and 2007). A conclusion that the development of business zones allowed for an increase in town’s revenues can be made. Unfortunately, the fact that the revenues began to decrease in 2009 and 2010 indicate that this beneficial impact was not as significant as the impact of negative trends in the economy (economical crisis, decrease in employment and economic activity). Chart 2 shows that in years relevant for entrepreneurial zones and also in consequent years there was no considerable decrease in unemployment. A more considerable decrease was noted in 2002 and 2003, while a smaller decrease is present until 2008, when the number of unemployed is again increasing. A conclusion can be made that establishing entrepreneurial zones had no significant effect on the decrease in unemployment. Revenues from taxes on income and profit were chosen as the only tax revenues which can be comparable for the entire analyzed time period. Chart 3 indicates real revenues from taxes on income and profit, and it can be read that establishing and the beginning of operations in the entrepreneurial zones has not made a significant impact on those indicators either. Increases in these revenues were achieved in years 2002, 2004, 2006 and 2009, with a significant increase in 2007. It is clear that some increases coincide with the years relevant to entrepreneurial zones (such as 2004), and that the largest increase happened in the year when K-VI economy/business zone was founded in 2007. Although there is an increasing trend of these revenues with a few oscillations, it cannot be claimed that it is the result of the influence of entrepreneurial zones.

In order to sustain development and a positive influence of entrepreneurial zones on the urban competitiveness of the town, the local government must develop links among the key institutions, an entrepreneurial spirit and a commitment to risk taking and risk sharing by its inhabitants. These measures would ensure a decrease in unemployment of local inhabitants and encourage their involvement in economic development of the town, and the cooperation among the key institutions would ensure a more transparent sale of plots, better control of entrepreneurships and success of present and future enterprises, and also better incentives for starting up enterprises.

Chart 1. Real overall revenues of the town of Valpovo

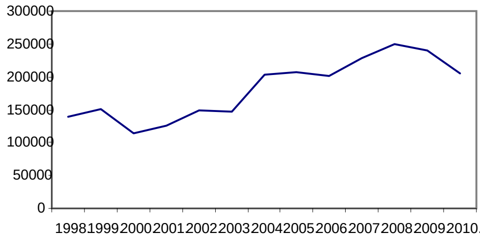


Chart 2. Average annual unemployment in Valpovo in numbers

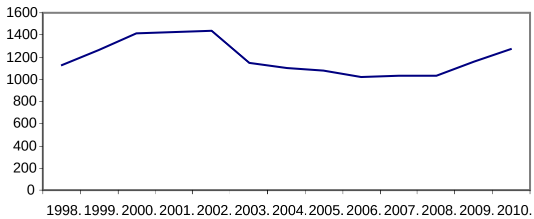
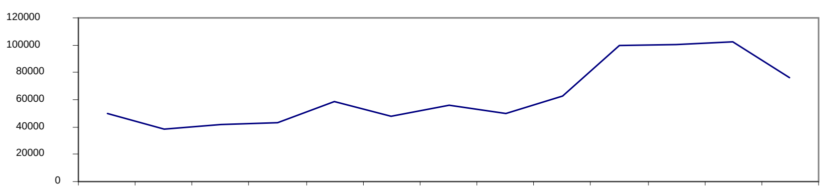


Chart 3. Real revenues from taxes on income and profit of the town of Valpovo



Source: authors' calculations.

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THE IMPACT OF BELJE ON ECONOMIC DEVELOPMENT OF BARANJA

UTJECAJ BELJA NA GOSPODARSKI RAZVOJ BARANJE

ABSTRACT

For centuries, the fertile plains of Baranja, a region between the Danube and Drava, produces food.
The beginning of Belje dates back to 1697th year when Prince Eugene of Savoy, for his many military successes, especially for the victory over the Turks at Senta, received a feudal estate as a gift from the Austrian Emperor Leopold I which he called Bilje (the Hungarian pronunciation of the village, Bellye). For centuries, Belje has been and still is the mainstay of the development of Baranja. This paper will focus particularly on the development of Belje and Baranja, since Agrokor's entering as a majority owner, and on many capital investments that were carried out during this period, which greatly helped the development of Baranja. Entering Agrokor concern on 21st March 2005, Belje builds its future within the largest food manufacturer in this part of Europe. Agrokor connects all companies in the concern into a unique managing, financial and business system. This way the strategic position and development of Baranja and Belje were influenced, while exploiting all the synergies and other potentials in order to achieve maximum results, winning market positions in Croatia and abroad, ensuring full employment, utilization of production capacity, achieving maximum revenue and profit for both the Belje, and for the region where the company gravitates. Introducing the world's most advanced technology, Belje also follows the trend of organic food production, environmental standards and is completely market oriented. As it can be seen from the title of the paper, the purpose of the research is to determine the effect of a large company like Belje d.d. on the development of a region, in this case, Baranja.
The primary method of the research is analysis, with emphasis on the analysis of the impact of the development of Belje, primarily towards Baranja. Years after Agrokor's entering were marked by significant investments, new pig and cattle farms, new crops, new livestock products factory, "Vina Belje" wine complex, complete renovation of agricultural machinery... The period that follows provides a number of investments, such as a new hotel on the site of the old winery, the new slaughterhouse, bio facilities ...

Keywords: *Belje, Baranja, investments, Agrokor, development*

SAŽETAK

Stoljećima se na plodnoj ravnici Baranje, u međurječju Dunava i Drave proizvodi hrana.
Počeci Belja sežu u 1697. godinu kada je princ Eugen Savojski za svoje brojne vojne uspjehe, osobito za pobjedu na Turcima kod Sente od austrijskog cara Leopolda i dobio na poklon

veliki feudalni posjed koje je nazvao po mjestu Bilje(prema mađarskom izgovoru tog sela, Bellye). Belje je stoljećima bilo i ostalo glavni oslonac razvoja Baranje. U radu ću se fokusirati pogotovo na razvoj Belja odnosno Baranje od ulaska Agrokora kao većinskog vlasnika, te na brojne kapitalne investicije koje su odrađene u tom razdoblju, a koje su uvelike pomogle razvoju Baranje. Ulaskom u Agrokor koncern 21. ožujka 2005.g., Belje gradi svoju budućnost unutar najvećeg proizvođača hrane u ovom dijelu Europe.Agrokor povezuje sve kompanije u sustavu koncerna u jedinstven upravljački, financijski i poslovni sustav. Na taj se način utjecalo i na stratešku poziciju i razvoj kako Baranje tako i Belja, a pri tome se iskorištavaju svi sinergijski i ostali potencijali u svrhu ostvarivanja maksimalnih rezultata, osvajanja tržišnih pozicija u Hrvatskoj i inozemstvu, osiguranje pune zaposlenosti, iskorištenje proizvodnih kapaciteta, ostvarivanje maksimalnih prihoda i dobiti kako za Belje, tako i za regiju kojoj kompanija gravitira. Uvođenjem najsuvremenijih svjetskih tehnologija Belje istovremeno prati trend proizvodnje zdrave hrane, ekološke standarde i potpuno je orijentirano tržištu. Kao što je i iz samoga naslova rada vidljivo je da je svrha istraživanja utvrditi utjecaj jedne velike kompanije kao što je Belje d.d. na razvoj jedne regije tj. Baranje.
Osnovna metoda istraživanja je analiza, pri čemu se naglasak stavlja na analizu utjecaja razvoja Belja prema prvenstveno Baranji. Godine nakon ulaska Agrokora obilježile su velike investicije, nove svinjogojske i govedarske farme, novi nasadi, nova Tvornica stočnih proizvoda, vinski kompleks Vina Belje, potpuna obnova poljoprivredne mehanizacije… Također u razdoblju koji slijedi predviđena su brojna ulaganja kao što je novi hotel na mjestu stare vinarije, nova klaonica, bio postrojenja…

Ključne riječi: *Belje, Baranja, investicije, Agrokor, razvoj.*

1. Geographical location of Baranja

Baranja is a geographical region administratively divided between Croatia and Hungary. The Hungarian part of Baranja is a separated county, while the Croatian part belongs to Osijek-Baranja County. Baranja is located in the furthermost Northeast of Croatia, bounded by The Rivers of Danube and Drava. It is a typical Pannonian lowland, exceptionally fertile, where the only altitude is Banova kosa, Banovo brdo or Baranjska planina, with the highest point of 243 m above sea level, known for its famous vineyards, cellars in loess and recognized wines. With its large expanses of forest along the Danube and the Drava, the richness of fauna, particularly deer and other wildlife, the fish-rich large bodies of water, stands out Kopački rit that presents a unique reservation in Europe, an oasis of over 260 bird species, everything in one place, which offers exceptional benefits for vacation, recreation, sport, possibilities for sightseeing and residential tourism to develop.

1.1. The history of Baranja

The Baranja region was inhabited by the Slavs in the 6th century and since the 9th century it was a part of Blatonski Koštel, a slavic political formation. After the Hungarians came in this area in the 9th century, Baranja county was formed in the 11th century as one of the first counties within Hungary. With the arrival of the Turkish invaders in the 16th century, Baranja became a part of Mohački sandžak, whose headquarters were in Mohač. By the end of the 17th century, Baranja was taken by the Habsburgs and was a part of Hungary. During the revolution in 1848, the borders of Srpska Vojvodina included Baranja, but the Serbian army failed to control the region. With Austria-Hungary having fallen apart, today's Croatian part of Baranja came in the composition of Vojvodina, within the State of Slovenes, Croats and

Serbs. The state remains the same, even after the union with the Kingdom of Serbia, when it becomes Kingdom of Serbs, Croats and Slovenes.

According to the Treaty of Trianon in 1920, the official territory of Baranja was divided between Hungary and Kingdom of Serbs, Croats and Slovenes, but the whole region stayed, in fact, under the jurisdiction of the Kingdom of SCS until 1921. On August 14th, 1921 Serbian-Hungarian Baranya-Baja Republic was briefly declared, and it was composed of Baranja and the northern part of Bačka. From August 21th until August 25th, 1921 this territory was again divided between Hungary and the Kingdom of SCS, just like it was intended by the Treaty of Trianon. The northern part of Baranja became the Baranja county in Hungary, while the south part of Baranja was first in the composition of Bačka county from 1918 until 1922, then a part of Bačka oblast from 1922 to 1929 and, at the end, a part of Dunavska banovina, which was included in the Kingdom of Yugoslavia. In 1941, the Yugoslavian part of Baranja was taken by Hungary, but the area was returned to Yugoslavia in 1944.

From 1945, south Baranja is a part of Socialist Republic of Croatia, composed in the Socialist Federal Republic of Yugoslavia. In 1991, this area was occupied and connected to so-called SAO Istočne Slavonije, Baranje i Zapadnog Srijema which was a part of Serbian para-state RSK on Croatian territory. After the operation Storm and the fall of the western part of RSK, from 1996 this area was a part of the UN's administration for eastern Slavonija, Baranja and western Srijem, and from 1998 it is under the total jurisdiction of the Republic of Croatia and today it is a part of the Osijek-Baranja county.

1.2. The history of Belje

A prince, Eugen Savojski, receives a large feudal estate in 1697 as a gift, and a few years later he builds a castle in the village of Bilje, according to which the entire property got the name Belje. In 1911 agro-processing facilities were founded, to be precise, the sugar factory in Branjin Vrh and the factory of dairy products. Within the dairy factory, a slaughterhouse with a salami factory was built, and also, in the same year, a mill in Beli Manastir, which still works. In 1955, after the post-World War II renewal period, Belje becomes a federal farm of different organizational forms, and since 1953 it is organized as the first social enterprise: Agricultural industrial combine Belje. The year 1990 is a time of great democratic changes, War of Independence, the occupation of Baranja and Belje in which everything is destroyed and devastated, while in 1998 Baranja is reintegrating and it is a time of renewal and return, during which Belje makes great efforts to capacitate production. Entering the Agrokor concern on March 21st, 2005 Belje builds its future within the largest manufacturer of food in this part of Europe. By introducing the world's most advanced technology, at the same time it follows the trend of producing organic food, environmental standards and is completely market-oriented.

2. Baranja and Belje

Those who know Baranja well, realize that it is impossible to talk about Baranja without mentioning its greatest economic organization that employes most of its workers and to which Baranja owes its reputation, development and future to the fullest extent. Belje was and still is, three centuries after its establishment, a large agricultural enterprise, considering the expanse on which agricultural products are produced, as well as the size of actual production.

For all that time it produced on the fertile land of Baranja, which, according to all principles of scientific economics, achieves differential rent by soil fertility, regardless of how low can the national or global needs for food products drop. This value, connected with comparative advantages in the soil, caused the need, and simultaneously allowing Belje to introduce in its producing all the achievements of modern technology.

2.1. The role of Agrokor on the development of Baranja and Belje

Belje, joint stock company for the food industry and agricultural production with headquarters in Darda, is, since 2005, in the composition of Agrokor concern, the largest food manufacturer in this part of Europe. Our own farms and fields are the basis of agricultural production in Belje. Natural raw materials of controlled origin from our own breeding are transfused into well-known products of the Belje food industry. The company's facilities, located throughout Baranja, with more than 20.000 ha of arable land, numerous farms and industrial plants, as well as 2000 employees, are the best indicators of the size and power of Belje. It's been almost six years since Belje joined Agrokor concern. During this time, including recapitalization, almost 1,6 billion HRK were invested in the company. The income of Belje had also increased by more than 3,5 times, and Belje has grown into the largest agricultural company in the region, considering not only the value of production, but the number of businesses it is engaged in, too, and there are 13 of them in total. Investments in Belje make a total of 60 % of Agrokor's investments in agriculture. Until today, 15 new farms were built and 14 of the existing reconstructed, a new animal feed factory and a new winery were also built, alongside with many surfaces that are irrigated. Today Belje produces 10.000 tons of seed a year, 200.000 tons of fodder, 10.000 tons of dairy products, 300.000 pork pieces and 20.000 pieces of fattening cattle.

Great investments in Belje are focused on all segments of production, from farming, through livestock, mechanization, viticulture and wine production, to services that imply the existence of their own professional offices within the company. A complete process of producing food in Belje begins with agricultural production on the fields and farms, held by the company, by using the latest agricultural machinery and equipment. Controlled raw materials from our own production are processed into finished products in one of many plants known for manufacturing indigenous products of high quality. Belje places the products on the market with the help of other parts of Agrokor. What is interesting about Belje and Agrokor is that they have taken advantage of all the resources of the system at their disposal, so the offer now includes agritourism, outlined on the wine tour which includes visits to the new winery that cost 20 million euros. From everything here stated, it is evident that Agrokor has put in a lot of effort to revive Belje and to turn the company into what it is today, a regional leader. Therefore, Baranja got a huge swing in development.

2.2. The future of Belje and Baranja

Agrokor has announced entry into the energy sector and one of two planned locations of the construction of biogas plants is Baranja. The reason is raw material base from Belje's own farms and fields. This year the plan is to build an 8.3-megawatt plant in Belje. Into two mentioned plants Agrokor will invest 25 million euros. In order to achieve the planned production and export of pork meat, Agrokor will continue the investment cycle through construction of several new farms. The following capital investment is certainly the long-awaited Belje slaughterhouse, the largest in the region.

The new pig slaughterhouse will be the capacity of 600.000 pieces of fatteners per year and the whole investment is worth 20 million euros. A techonological plant is defined for the slaughterhouse, the contracts with the equipment suppliers are signed and currently the obtaining a building permit is in its final stage. Having built the new winery, the construction of a new hotel in Kneževi Dvori starts, which proves that Agrokor has a great interest in investing in tourism. That is why a few centuries old wine cellar has recently been renovated and has become a Mecca for wine lovers. As for the other plans, the expansion of Belje in the segment of tourism should be mentioned. The investments in the tourist offer of Belje will be continued by expanding the old basement in Knežev Dvor, above which will be built a wine hotel with accompanying offer. That way, the offer regarding wine tourism of Belje will be rounded, as well as of the region. Two million euros are planned to be invested in the expansion of the capacity of Belje dairy, as well as in the increase of cheese spreads production. From all the above, it is clear that a bright future lies ahead of both Belje and Baranja and that the vision of the local people is coming true, Belje as a leader in agricultural production and food industry, and focused on the quality of products, employees and the community.

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PROGRAM OF EFFICIENT USE OF ENERGY IN FINAL ENERGY CONSUMPTION ON THE AREA OF EASTERN CROATIA

PROGRAM UČINKOVITOG KORIŠTENJA ENERGIJE U NEPOSREDNOJ POTROŠNJI NA PODRUČJU ISTOČNE HRVATSKE

SUMMARY

According to provisions of the Act on the efficient use of energy in final energy consumption, each county in the Republic of Croatia is obliged to make a plan and program of energy efficiency in energy consumption. Until now this programs and plans in the Croatia have been prepared only by the City of Zagreb and the Osijek-baranja County (OBC). The results of conducted research and the purpose of energy efficiency programs for OBC are presented. Measures for increase of energy efficiency for the OBC area are proposed for: buildings, transport and public lighting infrastructure sectors, and also measures that relate to the whole eastern Croatia area - since the number of activities in the field of EE needs to be implemented regionally.

Key words*: energy efficiency, final energy consumption, building construction, transport, public lighting, Eastern Croatia*

SAŽETAK

Sukladno odredbama Zakona o učinkovitom korištenju energije u neposrednoj potrošnji svaka županija u RH obvezna je izraditi Program i Plan energetske učinkovitosti (EnU) u neposrednoj potrošnji energije na svome području. Do sada su ove programe/planove u Hrvatskoj izradili samo Grad Zagreb i Osječko baranjska županija (OBŽ). U radu se kratko prikazuju rezultati istraživanja provedenih u cilju izrade Programa energetske učinkovitosti u OBŽ, prijedlog mjera za povećanje EnU na području OBŽ u sektorima: zgradarstvo, promet i javna rasvjeta te predlažu infrastrukturne mjere koje se odnose na cijelo područje istočne Hrvatske – budući da se niz aktivnosti u području EnU treba regionalno realizirati.

Ključne riječi*: energetska učinkovitost, neposredna potrošnja energije, zgradarstvo, transport, javna rasvjeta, istočna Hrvatska*

1. Obligation of program preparation of effective energy consumption

According to provisions of the Act on the efficient use of energy in final energy consumption [8] each county in the Republic of Croatia (RoC) is obliged to make a Plan and Program of energy efficiency (EE) in final energy consumption in its area. Provisions of this Act have determined that are the Programme and the Plan of energy efficiency, three-year/annual planned documents which defining the implementations of politics to improve energy efficiency in the county. The final energy consumption is defined as the deli-very of energy to the industry, transport, households, services, agriculture and civil engineering. In accordance with those certain sectors of final energy consumption; this includes the following three sectors: a) buildings; b) transport and c) public lighting. In the analysis of each sector is divided to subsectors based on technology and consummation specific qualities; from analysis has been excluded energy consumption in the industry and the energy for energy transformation. [24]

1.1. Paradigms of post-war rebuilding and developments

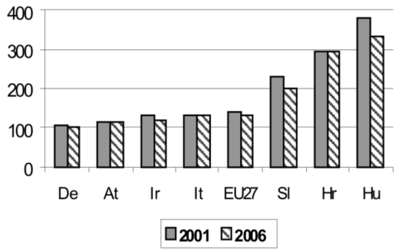
Faculty of Electrical Engineering Osijek in the beginning 2011 yr. started with the scientific project *Energy efficiency in the OBC area*. Based on research EE Program for OBC was later developed. The fundamentally postulate in this energy efficiency analysis on the OBC area – but also the entire Slavonia-Baranja regions (SliB) - must accept the fact of war aggression on the RoC and the ravages of war – which on this area created a great human casualties, large number of wounded and displaced people, with enormous material destructions industry and communal infrastructure and residential buildings, with broken societal relations and the low level of social cohesion. All this had a negative impact on the economic activity, public utility and the living standard of inhabitants as well as in the field of living building constructions, transport and public lighting, and power consumption. [1] [5] [6]

1.2. The national energy framework

The EU has adopted the strategy of energy development in order to: a) increase of quality and the safety energy supply, b) to increases economic competition and c) mitigating of climate changes. To ensure the new local energy sources and reduces greenhouse gas emissions EU decide on the greater usage of renewable energy sources (RES) and on the increase of the energy output-efficiency, especially in the buildings construction. The main objectives of EU energy policy to 2020 yr. are: a) 20 % decreases of green house gas emissions, b) 20 % the energy production of the RES, c) 20 % energy savings and d) 10 % bio-fuels consumption of motor fuels. Croatia has adopted the EU goals, but consumes 125 % more energy per GDP than the EU-27. [11] Besides decreases the amount of supply with own primary energy sources in consumption [2], while at the same time there are significant potentials RES which are not in function of energy and the economic development. [3] [4] [5] RoC is the energy intensity significantly below the EU average; on 1000 € GDP RoC uses 295 kg oil equivalent; EU-27 consumes 131 kg, and the Germany 98.9 kg. [9]

[24] Industrial consumers prepare their own special programmes;

Figure 1. Energy intensity of EU countries and RoC in 2001 and 2006 yr. (kgoe/1000€ GDP)



Source: [9]

2. Final energy consumption on the OBC

The largest final energy consumption in 2010 yr. on the OBC area was in the building sector (60.7 %), second is the transport sector (38.5 %) and the public lighting (PL) is with amount of energy almost negligible in the total of final energy consumption (0.8 %). [6] These facts are respected when defining the objectives of energy savings and corresponding measures for their realization. Main energy sources in the final energy consumption in OBC area is: natural gas (26.3 %), diesel fuels (24.6 %), electricity (21.2 %), motor gasoline (12.6 %) and heat from centralized heating system (7%). In the period of 2007 - 2010 yr. has accomplished the increase of total energy consumption from 11.123 on 11.532 PJ on the average annual rate of growth (ARG) 1.2 %. [6] Total the final energy consumption on the OBC area in 2007-2010 periods on sectors shows tab. 1 and fig. 2;

Table 1. Final energy consumptions on the OBC area in 2007 - 2010 yr. (GWh)

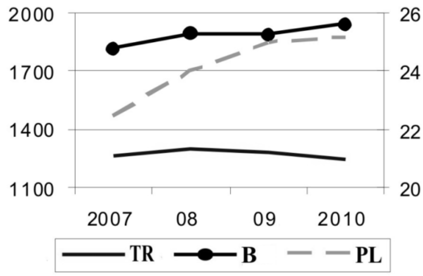
Sector	*2007*	*2008*	*2009*	*2010*	*AGR*
Public lighting	22.4	23.9	24.9	25.2	3.9
Transport	1,259	1,299	1,277	1,244	- 0.4
Buildings	1,808	1,887	1,885	1,934	2.3
Total	3,089	3,210	3,187	3,203	1.2

Source: Ivanović, Glavaš, Blažević (2011)a

2.1. Buildings

The total final energy consumption in the buildings on observed period increased from 6.474 to 6.928 PJ (petajoul) with an annual growth rate (AGR) of 2.3 %. The following is a representation of used energy sources: natural gas (43.8 %), el. energy (33.8 %), heat CTS-and (12.0 %), fuel wood (3.9 %), fuel oil (2.8 %), liquefied petroleum gas (2.7 %), agricultural waste (1.5 %) and the geo-thermal energy (1.3 %). Analysis has included sectors: public education, health care, social care, local government, culture and the sport, services and households. [6] [7]

Figure 2. Total final energy consumption on OBC in 2007 - 2010 yr. - on the sectors (GWh)



2.2. Transport

Energy consumption in transport (+ agriculture and civil engineering) in the period of 2007 - 2010 yr. is decreased; AGR = - 0.4 %. At the passenger transport needs point out the increase to the EE in the public transport of passenger and will grow the passenger transport in plane and river transport, and fall in the passenger transport in the railway. Especially worries increase of freight transports (and energy consumptions) in the road transport in addition to the simultaneous fall of freight transport in railway, river and the air transport (tab.2). Railway and river transport is economic, energetically and environ-mentally far more acceptable and more efficient from the road transports which in addition to told insufficiencies causes increased investments in the maintaining of road infrastructure, contributes to traffic congestion and traffic accidents. The transport of brick, roof tile, cement, fuel wood and sugar beets by truck transport (if there is railway and river transport infrastructures present) on EE is not reasonably. [6] [7]

Table 2. Freight transport on OBC area in period 2007 - 2010 yr. (000 t)

Transport sector	*2007*	*2010*	*AGR*
Road transport	4,097	6,514	16.7
Railway transport	1,369	835	-15.2
River transport	2,475	1,426	-16.9
Plane transport	0,271	0	-
Total	7,941	8,775	3.4

Source: Ivanović, Glavaš, Blažević (2011)a

2.3. Public lighting

From 67 urban settlements in the OBC area 30 settlements don't have built public lighting (PL) in 125 streets in the overall length from 48.9 km. From 161 settlements in municipalities 6 settlement there is no PL, in 40 settlements there is no PL in 152 street with a total length of 51.5 km. Total consumption electricity for PL in OBC increase from 22.4 GWh (2007) to 25.5 GWh (2010) an increase of 12 %; tab.3. In the observed period the share of OBC electricity consumption for PL in the PL sector of RoC increase from 5.38 to 5.63% [1] [6]

Table 3. Consumption electricity for PL and stoplight in OBC 2007 – 2010 yr. (MWh)

Sector	*2007*	*2008*	*2009*	*2010*	*AGR*
Towns	14,747	15,437	16,077	16,527	3.9
Municipalities	6,784	7,541	7,853	7,576	3.7
Stoplights	918	1,001	1,043	1,053	4.7
OBC	22,449	23.979	24.973	25.156	3.9

Source: Ivanović, Glavaš, Blažević (2011)a

3. Measure for increase of energy efficiency on the OBC area

Facts on the energy consumption in buildings, transport and the public lighting in the area OBC impose the need of complex approach in the proposing measures for increase of the energy efficiency. Preparation this Programme the series of problematic occasion in determination of the state, as well as results of this state points out the kind of neglect in final energy consumption in OBC starting from the register of data on the energy consumption, code of system at energy service providers and distributors of energy sources, lacks of coordinate actions to improve energy efficiency, evaluate potential of RES to the lack of awareness of modern technological and organizational solutions in the field of energy efficiency and lack of engagement on the issues of energy efficiency to create a positive attitude about energy efficiency. [6]

Existing knowledge and expert teams in academic and public institutions in the OBC area represent the potential that provides relevant insight into contemporary technical solutions and their application in the final energy consumption, but focus and coordination of activities are insufficiently. The implementation of proposed measures can mobilize all important subjects in the field of final energy usage. Their action will be create professional backgrounds which can: a) prepare and implement a research and technological studies, b) prepare and implement educational programs, c) prepare and implement pro-motional campaigns, d) prepares the project on tender for (co)financing of modernizations facilities for EE increase from domestic and international funds, and e) implement procedures to rationalize energy and efficient energy consumption in OBC.

Here are the most important measures of education; it is difficult to implement a program without sufficient awareness and education of participants in the process. Educated participants are far easier to be motivated and mobilize for the implementation of process and achieving the goal. Besides measures of education and measures of standards require much less funding and at the same time reduce the required amount of investment in modernization. Proposed measures for all sectors are discussed in the annual OBC plans (for 2012 and 2013), and here is given just a short review. [6]

3.1. Buildings

Measures for the buildings are sub-divided according to subsectors: a) buildings in the public sector, b) residential buildings and c) building of enterprise/offices and services; measure are ranked towards: rate of financial expenses and terms of realization from smaller/shorter toward larger/longer.

Table 4. EE measure for OBC buildings sector in period of 2011- 2013 yr.

N°	*Name measures*
	Buildings in the public ownership
1.	Education of users of buildings of public institutions on the importance of EE
2.	Green public procurements for building of public institutions
3.	Modernizations of lighting in school classrooms
4.	Energy saving light bulbs in buildings of public ownership
5.	Installations of thermostatic regulators in buildings of public ownership
6.	Replacements of carpentry in buildings of public ownership
7.	Thermal insulation of buildings in public ownership
8.	Solar collectors implementation in LSGU institutions
9.	Boiler replacements in educational institutions
	Residential buildings/households
10.	Education and promotions of energy efficiency for citizens
11.	Usage of renewable energy sources in households
12.	Improving local markets of the heating fuels
13.	Alternatively heating of households in emergency situations
14.	Reconstruction of thermal protection on residential buildings
15.	Installation thermostat regulator for buildings connected at central heating system
16.	Installations of solar collectors for hot water in the house and apartments
17.	Encouraging installation of solar collectors for hot water in new buildings
	Building of commercial activity and services
18.	Education and promotions EE for commercial and service sector
19.	Connection of prefabricated offices on central heating system and gas
20.	Installations of solar collectors for hot water in enterprise buildings

Source: Ivanović, Glavaš, Blažević (2011)a

3.2. Transport

In the transport sector measures are divided into four subsectors: a) vehicle for the passenger transport owned by public institutions, b) public transport passenger, c) personal and commercial vehicles for passenger transport and d) freight transport. First three subsectors have counted in the final energy consumption which under the authority of counties, and fourth subsector only partially. However, because of the important issue of road freight transport - which on the OBC area is over-emphasized while more environmentally friendly types of transport with lower external costs is neglected in the measure, is involved and fourth sub-sector freight transport.

Table 5. EE Measure for OBC transport sector in period of 2011- 2013 yr.

N^o	*Name measures*
	Vehicle for the passenger transport owned by public institutions
1.	Education of user of vehicle in public institutions on the importance EE
2.	The systematically energy management in vehicles LSGU
3.	The green public tender procedure for the vehicle owned by LSGU
4.	Use of same car for employees of public companies
	Public transport passenger
5.	Implement. Greens public tender procedure for vehicle of public transport
6.	Changing the system of pay for transport costs from home to the workplace
7.	The new schedule in city / the suburban passenger transport
8.	Implementation of public transport in towns OBC
9.	Networks of bicycles for rent
	Personal and commercial vehicles for passenger transport
10.	Education of users of personal vehicles on the importance EE
11.	Educational-promotional campaign „ Ride a bike “
12.	Construction and the marking of bikeways in all settlements
13.	Go to work with public transportation
	Public freight transport
14.	Education of freight users and transport operators on importance of EE
15.	Reduction of road and increase of railways and river freight transports

Source: Ivanović, Glavaš, Blažević (2011)a

3.3. Public lighting

In the sector of public lighting, because of specific qualities of situations in this sector, measures for increasing the quality of public lighting in the OBC area are suggested in addition to the simultaneous increase of EE. Until the year 2016 the quality and EE of PL in OBC is supposed to reach the EU level.

Table 6. EE Measures for OBC public lighting in OBC for period 2011- 2013 yr.

N^o	*Name measures*
1.	Education on the importance EE in the sector of public lighting
2.	The green public tender procedure for the public lighting
3.	The obliged yearly debate in the LSGU on the state of public lighting
4.	Publishing of data on qualities of public lighting in the LSGU
5.	Report on possibilities of Public Private Partnership in the sector of PL
6.	Preparations of local land registries of public lighting
7.	Regionally markets of designs and maintaining public lightings
8.	Action „*With Light Against Our Dark*“
9.	The electric-power inspection of PL in the area OBC
10.	Modernisations of public lighting
11.	Installation of public lighting

Source: Ivanović, Glavaš, Blažević (2011)a

4. EE infrastructure measures

In order to realize above mentioned measures an adequate infrastructure framework is essential. Process of energy development in OBC and entire SliB region needs to be managed on scientific base and with insight to the broader context. Besides the national interest accents are placed at and development of local areas. Energy consumption in the RoC is still far above the GDP respective ratios, with significant proportion of imported energy and energy sources RoC imports around 40 % primary energy sources) that strongly affect economies operating costs and social services as well as living costs of citizens. Prognoses for the future are that the negative effect of dependency on imported energy sources will affect economy and GDP even more strongly. [4] [6]

SliB region has significant potentials the area of RES which, if and when put in use, can change the negative trends in energy production and, at the same time, solve series development problems. Development of local energy plants and setting of resource in function can contribute to the solution of dependency on imported sources and improve stability of local energy supply. Also it should solve series developmental problems of SliB region which can result with more new jobs, increased employing, development of local science and professions in energy sector, development of local companies and employment of local population. Therefore, six infrastructure measures, which correspond to a) County developments of strategy and b) Strategy of energy development of Croatia, are proposed.[25] [9]

4.1. Regional energetic council

Strategic decision concerning development of energy sector cannot be made at lower levels (towns, counties), and the national level often cannot objectively observe regional specific features. Therefore geographic and territorially organized regions are the first level for projecting development of energetic with the respect to the national framework. [6] Five counties in the SliB area have more similar and common economic and developmental assumptions, tradition and resources, and similar developmental problems. Energy sector and the development of local energetic are areas of common interest for all five SliB counties and that are recognized as a regional framework which can be optimally managed for further development. There by, foundation of regional council for the energetic are proposed, as the high body which considers/adopts development plans of the strategic importance for the development of energetic on the area of all five counties SliB regions. Regional energetic council of county heads (currently on function) of five SliB counties and six professionals from the scope of energetic would form. In accordance with the European civil system of value, six members of Regional energetic council would be selected as citizens of five counties and professionals from public companies and scientific communities, based on the public tender procedure and excluding the persons from private sector. The later precaution is to ensure that council’s decisions take into account public interest over the interest of private companies and corporations. [9]

4.2. Regional RES strategy

All counties of SliB region have considerable potential of renewable energy sources (RES), but they are not valorised nor are realistic plans for their development and realization made. Strategy of energy development of RoC points out the importance of energy sources, but (on developmental aspect of SliB region) small concrete plans are developed. Several Slavonian

[25] For each proposed measure projected time schedule and financial mechanisms for their implementation.

authors, in last few years, pointed to this potential and try to estimate their potential energetic value. Based on rough estimates annual RES potential in the SliB region is around 3 mil. tones of oil equivalent. [5] [6] [9] For the purpose of evaluation of RES potentials on the SliB region it is necessary to make regional development strategies for implementation of RES which would determine exploitable amounts in short-term and the medium-term period, would define technology for their exploitation and would supply economically frameworks of bringing into operation. Special reference should be set on the developmental element of local communities. The regional development strategy of RES implementation would represent the detailed specific of national strategy in the regional segment for SliB, and this measure need to be realised by regional researchers in cooperation with *Institute Hrvoje Požar*, Zagreb.

4.3. Regional EE Fund

All five counties of SliB region have suffered large damages from aggression on the RoC and in all counties GDP per capita is under average for RoC. Therefore all five counties have needs for finance support from EE projects. Therefore the initiation of decentralisation process of national EE fund and founding Regional EE fund which would co-finance local EE project are proposed. Rational presumptions are that: a) national EE fund needs to be released from small projects which are not of significant importance for national EE politics, but are important for the local community, b) faster bringing into operation of separate financial resources for EE on a national scale, c) respect of the regional specific characteristic and d) additional mobilizations of free assets from the regions. Substance of regional fund would accumulate and through the participation on international tenders and of legal and individuals donations.

4.4. EE project in the Slavonia-Baranja region

The energy development in contemporary conditions is not possible without the continuous goal oriented scientific research. University J.J. Strossmayer in Osijek has posse's relevant research and technical potential which can completely answer to the challenges of the contemporary energy processes. Researchers from the SliB area in cooperation with professionals of the economy and administrative bodies have, in recent decades, realised large number of scientific works which significantly contributes to the energy development of the region [6] [9]. Focus on importance of energy supply for development, in the RoC and its surroundings, is put by dynamic social, economical, politically and technological processes. Therefore proposal to *J.J. Strossmayer University* is initiative of *EE project in Slavonia-Baranja regions* as integral framework of the existing scientific projects and future researches which need include all key elements of energy development and application of emerging technologies in SliB energetic.[26] Model of co-financing projects as well as the communication model on research reports and their application in practice would discuss and adopt Regional energetic council.

4.5. Regional ESCO company

In Croatia currently operates only one ESCO company - HEP ESCO which has been established in year 2003.[27] In last years HEP ESCO successfully implemented more than 60 projects in different sectors e.g. public lighting, buildings, industry and energy supply systems.

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[26] I that goal propose that preparations of graduation theses on all faculties of technical sciences thematically be on EE function in every municipality/town in the area of region.

[27] HEP Inc. for the development this project has got World Bank loan assets in the amount of 4,4 mil. € and donation of Total Environment Facility of 5 mil. US $.

Limitations concerning financing of EE projects in SliB region impose the need to establish funding mechanism for EE projects trough ESCO model. For a number of reasons (times, presence on site, costs of realization, supervision on the im-plementation of projects, deve-lopment of own experts teams) it would be necessary to found new ESCO compa-ny in RoC which would operate in SliB area. [9]

ESCO is abbreviation from *Energy Service Company* and present concept on the market service in energetic field. ESCO model includes development, execution and financing projects of improvements energy efficiency. Project goal is the cost reduction for the energy and maintaining the installation of the new more effective equipment and optimizing energy systems, by which en-sures repayments of investment through achieved savings in the period of several years depending on the client and the project. Risk of achievements of savings, in general, assumes ESCO company providing guarantees, and in addition to the implementation of emerging technologies and decrease of energy consumption widely proffer and financial solutions for the realization

4.6. EE monitoring system in public sector

It is necessary to develop system and corresponding software support for monitoring and control of EE in the public sector in the OBC area (and other SliB counties). In this way, the LSGU in all five counties receives unique IT tool for the monitoring effects of economic and energy efficiencies in energy consumption. Especially interesting are educational and health institutions, social welfare institutions, culture and sport and public transport. Based on above system it should be possible to budget and perceive effects of energy sources price changes and - in crisis situations (reductions of respective kind energy) the regional government and distributors of energy sources have adequate parameters for control the „crisis“ consumption.

5. Conclusion

Croatia has taken over the EU energy policy objectives which have been integrated within the Strategy of the energetic development. Part of its implementation - in the segment of local government - has been transferred on to counties through the Act of the efficient use of energy in final consumption. Four out of five counties in eastern Croatia have not yet fulfilled their obligation of the programme and the plan elaboration of final energy consumption on their areas.

Programme and plan elaboration is complex professional and the re-search process. It requires an accurate system and up-to-date documentation on the distribution of energy consumption according to consumer groups, effective team work during the elaboration phase and explanation of these facts as well as a good understanding of modern technologies and organisational models for the planning of rational use of energy and the increase of energy efficiency. There are not many expert teams in Croatia which could respond to these challenges and this is one of the reasons for the insufficient implementation of regulation commitments.

The Faculty of Electrical Engineering in Osijek has formed such a team of experts. It successfully carried out a Plan and Programme of energy effi-ciency in the Osijek-Baranja County in 2011. Researching energy efficiency in OBC area the team of experts have identified the problem of infrastructure framework for the implementation of the Programme and proposed several measures for a more qualitative access to energy efficiency referring to all five SliB counties. Implementation of these measures would significantly contribute to an efficient use of energy in the commercial and communal sector as well as in public institutions (budget users) and households. What is more, these measures would solve a number of developmental questions, the most important being: efficient exploitation of natural resources, development of research institutions and new business entities as well as creating employment for the local population.

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ECONOMICS OF FAMILY FARMS BUSINESS IN VUKOVAR - SRIJEM COUNTY

EKONOMIKA POSLOVANJA OBITELJSKIH POLJOPRIVREDNIH GOSPODARSTAVA U VUKOVARSKO SRIJEMSKOJ ŽUPANIJI

SUMMARY

The paper deals with the issue of business economics in family farms and the poor knowledge level on business's internal economics by family farm members. It is assumed that the owner of a family farm is an entrepreneur who manages the business venture. Many family farms use assets that are not registered on farm's asset list in production processes. In addition, family farms which produce more than one primary product do not know the economics of internal operations and the profitability of individual sorts, cultures and products. Is there a financial model that solves this problem? Do the owners of family farms consider the information about the internal economics of their business as important for further business decisions? This paper is based on a tested statistical sample of family farms in Vukovar-Syrmia County and proves that their knowledge level of crucial internal-economic information, which is necessary in successful decision making, is very poor. In addition, the paper explains the causes of this poor knowledge level and gives a conclusion as a recommendation of how the authors consider it necessary to solve this problem.

Key words: *internal economics of the business, family farms, prices, costs*

SAŽETAK

U radu se obrađuje tema problematike nepoznavanja ekonomike poslovanja obiteljskih poljoprivrednih gospodarstava od strane njihovih članova. Pretpostavlja se da je vlasnik OPG-a poduzetnik koji upravlja svojim poslovnim poduhvatom. Mnogi OPG-i koriste imovinu koja nije u popisu imovine OPG-a u vlastitoj proizvodnji. Također OPG - i koji proizvode više primarnih proizvoda ne poznaju internu ekonomiku poslovanja i rentabilnost pojedinih sorti, *kultura i proizvoda. Postoji li uopće financijski model koji rješava ovaj problem? Smatraju li vlasnici OPG-a da su informacije o internoj ekonomici poslovanja važne za daljnje poslovno odlučivanje? Rad se temelji na ispitanom statističkom uzorku OPG-a Vukovarsko – srijemske županije i dokazuje nepoznavanje elementarnih informacija koje su nužne za poslovno odlučivanje. Također u radu se objašnjavaju uzroci nepoznavanja interne ekonomike poslovanja. U radu se daje zaključak kao preporuka na koji način autori smatraju potrebnim riješiti ovaj problem.*

Ključne riječi: *interna ekonomika poslovanja, obiteljska poljoprivredna gospodarstva, cijene, troškovi*

1. Introduction

During 2011 around 9.548 family farms have operated in Vukovar-Syrmia County (*hereinafter referred to as* VSC), whereof 33% did not own any land, 53% owned 0-20 ha of land and 9% owned more than 20 ha of land (Matić, 2012). It is not necessary to give proofs that the owner of the family farm is an entrepreneur since the practicing of agricultural activities requires a business to be registered either as a natural person (craft, family farm), a legal entity (Inc., Ltd.) or a cooperative. The basic hypothesis is that the largest number of family farms produces two or more products and that the owners of family farms and their family members do not know the internal economics of their businesses.
The authors believe that the assumption is determined by to two key factors: lack of basic education in economics and financial valuation models which are not adequately adjusted for valuations of agricultural production. This hypothesis is supported by the fact that agricultural production of certain cultures requires a significant portion of production resources to be used in a previous time period while the revenues are generated in the current time period. Family farms use single-entry accounting which is very similar to craft accounting. Accounting phrases and terms used in family farm accounting are not synonymous with those that are used in corporate accounting (Inc. and Ltd) and the terms such as *receipts and disbursements* have different meaning for those two types of entities. Family farm accounting is not familiar with the terms *revenues and expenditures*. Corporate accounting considers receipts as collection of receivables (in cash, rights or assets) and does not take them into account when calculating corporate profits. Family farm accounting considers receipts as collection of receivables (in cash, rights or assets) as well but together with disbursements they represent a basis for a calculation of total income. The solution to this problem should be viewed from the expertise point of view and should presume a valuation model which should value the agricultural product correctly by taking into account logical methods.

2. Methodology

We have randomly surveyed 30 family farm owners in VSC. The owners have responded to 23 questions that aimed to determine whether they and their family members know the internal economics of their businesses. The questions were classified in three main groups: the first group refers to general information about the owner and the family farm (total receipts, age of owner, etc.), the second group is related to the internal economics of family farms (number of different products, production costs, the usage of fixed assets per cultivated culture, etc.) and the third group considers strategic management (vision, long-term objectives, business plans etc.). The third group of questions is not a subject of this work and will be discussed in another research paper.

3. Research results

Family farm owners who are younger than 30 years represent 10% of the surveyed sample, 30% are 31-40 years old, 23% are 41-50 years old, 30% are 51-60 years old and 7% are 61 years old or older. The small number of family farm owners who are younger than 30 years indicates that the number of young persons in the role of entrepreneurially active farmers is very poor. The lack of young and educated farmers represents a significant problem for future development of agricultural sector which is a strategically important activity in Croatian economy.
More than 83% of all respondents are men while less than 16% are women. A reason for this could be the evolution of agricultural production from a labor intensive activity to highly capital-intensive production. The farmers in the VSC cultivate mainly traditional cultures that do not require high levels of humidity. The VSC does not have melioration systems. Due to insufficient rainfalls the melioration systems are necessary for cultivation of some other (vegetable) cultures.

According to our research around 40% of respondents reached a production value of less than 200.000 HRK in 2011, some 47% reached a production value between 200.000 and 1.000.000 HRK in 2011 and slightly more than 13% reached a production value between 1.000.000 and 2.000.000 HRK in 2011. The results point out the fact that most family farms are still engaged in a type of agricultural production that was typical for the period prior to 1990's.

During last year 10,34% of surveyed family farms have produced only one agricultural product while 89,66% of family farms have produced two or more products. This confirms our basic assumption that the majority of family farms produces two or more products and that the valuation of specific products presumes the knowledge the internal business economics.

All respondents who had produced two or more products during previous year listed at least three pieces of fixed assets (agricultural machinery) which were used in the production of all of their products.

Only 10% of respondents have kept record about the usage of fixed assets (agricultural machinery) per agricultural acreage or per specific product while 90% of respondents did not keep track of such information.
Additional fixed assets that were not registered on farm’s fixed asset list were used in production by 40% of family farms. 60% of owners confirmed that they do not use additional (not registered on farm’s fixed asset list) assets in agricultural production.
Around 87% of family farms produce at least one agricultural product whose production requires the production resources to be used in previous periods while the revenues are generated in the current period.

87% of family farms do not have any kind of written price calculation for their products, 10% of family farms have a written price calculation for some of their products while only 3% of family farms have a written price calculation for all of their products.
59% of family farm owners did not know the production costs of their products after the production process; only 17% of family farm owners knew it for some of their products while 24% claimed to know it for all of their products.
The following questions were answered by choosing one option on a scale from 1 to 5 (5 - highly important, 4 - important, 3 – intermediate, 2 - less important and 1 - not important). When asked how important it is to know the production costs of each product after the

production process, 43% of the respondents have answered that it is *highly important*, 43% have answered that it is *important*, 11% said that it is *intermediate* while 3% consider it as *less important*
When asked if it would be important for them to know the production costs before the actual start of the production 37% of family farm owners responded that it would be *very important*, 37% claimed that it is *important*, 10% considered it *intermediate*, 10% said it is *less important* while 6% answered that it is *irrelevant.*

4. Interpretation of research results

The research results confirm our hypothesis: *the largest number of family farms produces two or more products and does not know the internal economics of its business.* Why does the production of two or more products presume the ignorance of the internal economics knowledge? The basic assumption of managerial accounting is the double-entry accounting system, cost center tracking and cost unit tracking. Such information provides much clearer insight into the basis of primary expenses in industrial production. However, such cost tracking is not usual in agricultural production. The legislature has appointed clear accounting rules only to simplify the tax collection.
FADN (Farm Accountancy Data Network) is a database of agricultural accounting data that is collected in the EU, and its aim is *"... the efficient collection, processing and dissemination of agricultural statistics and determination of income in farms which voluntarily engage in researches."* (FADN.hr., 2009). The main objective of the database is to provide information to: the state administration; representatives of farmers; advisors; scientific researchers; farmers (to make the decision making process more effective). The aim and purpose of the database is not the taxation process at all. Thus, the FADN does not provide us with the necessary information to monitor the internal economics of family farms either.

We can perceive a clear discrepancy. On one hand, there are rigid accounting rules which basically aim to determine the tax base and on the other hand there is a sophisticated FADN system that evaluates agricultural producers (mainly corporations) through a system of financial and structural data. This raises a reasonable question: *is there a model that can evaluate the agricultural product after it has been produced*? It seems that there is no such model; at least there is not a well-known and widely accepted model. We can conclude that the monitoring of internal business economics is left to be conducted by every individual advisor separately on a basis of its own individual knowledge. Using only its own individual knowledge every individual advisor is trying to evaluate the agricultural product.
On one hand, almost 86% of family farm owners think that it is important or very important to know the internal economics of their businesses and to know the production costs of each of their product after the production process. On the other hand 59% of all respondents claimed that they did not know the production costs for none of their products while 17% of all respondents said that they knew it only for some of their products. Moreover, it remains questionable if anyone of all respondents does know the exact production cost of its product since the models as well as the methods which were used to evaluate the production costs are not known. Clear evidence that the evaluation approach was wrong is the fact that nearly all respondents have used at least three pieces of fixed assets in production of two or more products but at the same time did not keep record on the usage of fixed assets per specific product or per agricultural acreage. If there is no accurate record of used machinery hours, used human labor, used energy and other costs per specific product or agricultural acreage it is impossible to allocate some of other common costs also (accounting services, telephone etc.). Another evidence is that fact that 87% of surveyed farmers produce at least one product

whose production requires the production resources to be used in previous periods while revenues are generated in the current period.

We can draw a conclusion that a financial model for evaluation of agricultural products in family farms which produce more than one product does not exist.

5. Conclusion

It is necessary to approach the problem from the expertise point of view. The largest number of experts and scientists who are engaged in cost accounting, internal economics of businesses, profit-center and managerial accounting base their knowledge on double-entry accounting data from corporations (Inc. and Ltd). Single-entry accounting system, agricultural economics and especially internal economics of family farms are not in the focus of their work and research.

It is impossible to evaluate agricultural products without the basis knowledge in management accounting, the knowledge of IAS 2 – inventory - and the knowledge of single-entry accounting systems used in family farms. Agricultural production is an activity of strategic importance for Croatian economy. It is not necessary to give proofs that family farms, cooperatives and crafts are also small and medium sized entrepreneurs.

This research points out that there is a need for specific expertise which should deal with problems that are related to the internal economics of family farms. Feasibility studies and other financial analyses are essential for business decision making. Certainly, this type of entrepreneur invests a significant portion of its own assets and its own labor force in order to achieve targeted business success. The risks which arise from their business decisions are high. It is not a coincidence that most family farm owners considered it important or very important to know and to track their businesses per specific business segment.

The authors believe that it is necessary to create a clear and logical model which should be used to evaluate the business results of specific business segments and the profitability of specific products. To create such a model interdisciplinary knowledge in corporate accounting, cost accounting, family farm accounting and managerial accounting is a key predisposition.

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ORGANIZATIONAL INNOVATION DIAGNOSIS: A CASE STUDY

DIJAGNOSTIKA ORGANIZACIJSKE INOVATIVNOSTI: STUDIJA SLUČAJA

ABSTRACT

Modern business is focused on innovation. Organizational innovation diagnosis is the first step in building a culture that supports and applies innovation as a key driver of competitive advantage. The aim of this research is to diagnose the current situation of organizational innovation in a domestic production organization from the chemical industry. The method is based on organizational innovation diagnosis model, which assumes the existence of four key factors needed for successful innovation implementation: Strategy, Process, Ideas and Climate. The model was customized for use in a specific company for the purpose of conducting structured interviews on a sample of 33 mid-level managers. The main problems of this research are to examine whether there is a difference in the prevalence of particular innovation factors within the organization and whether there is a difference in the perception of the indicated (key) factors between functional units of the organization. Qualitative data analysis showed that the factors of Ideas and Climate are more developed in the organization than the Strategy and Processes factors. The results also showed no statistically significant differences in the perception of organizational innovation factors between functional units which are directly involved and responsible for the development of new technologies, products and processes in relation to the perception of these factors in the remaining organizational units.
The results of this qualitative research might be useful in focusing management efforts in overcoming the crucial organizational innovation weaknesses using the recognized organizational innovation strengths.

Key words: *organizational innovation, organizational diagnosis, factors of organizational innovation*

SAŽETAK

Inovativnost je imperativ suvremenog poslovanja. Dijagnostika organizacijske inovativnosti prvi je korak u izgradnji kulture koja potiče i primjenjuje inovativnost kao ključ za postizanje kompetitivne prednosti. U skladu s navedenim, cilj je ovoga rada dijagnosticirati aktualno stanje organizacijske inovativnosti u domaćoj proizvodnoj organizaciji iz kozmetičke industrije.
Metoda je utemeljena na modelu dijagnostike organizacijske inovativnosti koji pretpostavlja postojanje četiri faktora ključna za uspješnu implementaciju inovativnosti: Strategija, Procesi, Ideje i Klima. Model je prilagođen upotrebi u konkretnom poduzeću u svrhu pripreme i provođenja strukturiranog intervjua na uzorku od 33 rukovoditelja srednje razine.
Glavni su problemi rada ispitati postoji li razlika u zastupljenosti pojedinih faktora inovativnosti unutar organizacije te postoji li razlika u percepciji navedenih faktora inovativnosti među funkcionalnim jedinicama organizacije.
Kvalitativna analiza podataka pokazala je kako su faktori Ideje i Klima značajno razvijeniji od faktora Strategija i Procesi. Nadalje, rezultati pokazuju kako ne postoji statistički značajna razlika u percepciji faktora organizacijske inovativnosti između funkcionalnih jedinica organizacije neposredno zaduženih i odgovornih za razvoj novih tehnologija, proizvoda i procesa i percepcije istih faktora u preostalim organizacijskim jedinicama.
Rezultati ovog kvalitativnog istraživanja mogli bi usmjeriti napore rukovodstva na prevladavanje ključnih slabosti inovativnosti u poduzeću koristeći prepoznate snage organizacijske inovativnosti.

Ključne riječi: *organizacijska inovativnost, organizacijska dijagnostika, faktori organizacijske inovativnosti*

1. Introduction

Organizational innovation refers to inventing or importing technologies, products, services, or administrative practices that are new to the organization (Harrison and Shirom, 1990). Innovativeness contributes to organizational adaptation, especially in industries faced with challenges of adaptation to rapid changes in the environment. Factors that are considered to help large organizations develop and sustain organizational innovativeness are the following: strategic thinking and decision making, resource allocation, human resource management and structure (Klein and Sorra, 1996; Harrison and Shirom, 1990; Kanter, 1983). Studies of organizational innovation frequently show that creative businesses manage the environment more and they record a higher degree of adjustment to changes in the environment when compared with others (West and Farr, 1990). Researchers agree that both the top and middle level management are responsible for the development and implementation of innovation in the organization (Legrand and Weiss, 2011; Smith and Hall, 2012). Knowledge and understanding by the management of the internal situation of the organization is of key importance for the development of effective strategies for facing changes in the environment. Therefore, it is imperative to properly diagnose the current situation of organizational innovation. For the purpose of organizational diagnosis, researches use various models (Harrison and Shirom, 1990; Vitale, Armenakis and Feild, 2008). The organizational innovation diagnosis model used in this research was developed by the consultant firm Futurethink, specialized in this area, with the aim of determining factors that differentiate innovative and non-innovative organizations (Waghorn and Hagerman, 2007). The model is based on four key factors of organizational innovation: *Strategy* - how companies focus their innovation in areas that enhance their core business, *Climate* - how they build a thriving culture that stimulates innovative behavior across their organization, *Process* - how they create a streamlined and objective process to capture, evaluate and launch their best ideas and *Ideas* - how they know how to generate innovative ideas based on their business objectives. The fundamental assumption of the model is that the presence of all factors is equally important for organizational innovation. The aim of this research is to diagnose the current situation of organizational innovation in a domestic production organization from the chemical industry. The main problems are to examine whether there is a difference in the prevalence of particular innovation factors within the organization and whether there is a difference in the perception of the indicated (key) factors between functional units of the organization. In the absence of statistical prove on alternative hypotheses, the assumption is that all four organizational innovation factors will be equally prevalent within the organization and that there will be no difference in the perception of the four factors between groups of indicated functional units.

2. Method

2.1. Sample

The organization in this case study employs approximately 850 workers, which is organizationally divided into nine functional units, each of which is hierarchically organized from an unequal number of smaller organizational units of a total of thirty three. The managers of these organizational units (N=33) are chosen as subjects in this research for at least three reasons. First, the assumption is that mid-level managers have the most complete insight in the current situation of organizational innovation considering their direct cooperation with the rest of management levels and employees. Second, the vertical flow of information in the hierarchical organizational structure depends to a greater extent on that management level. Finally, in the development process and implementation of organizational innovation, the role of mid-level managers, next to the top-managers, is considered essential (West and Farr 1990).

2.2. Instruments and procedure

In order to collect data about the innovation situation in the organization, a structured interview was developed. Questions that were used in the interview are constructed and tailored on the aforementioned organizational innovation diagnosis model which is composed of four factors. In order to test the presence of each of the innovation factors, 10 questions were prepared for each factor (see Table 1 in the annex).

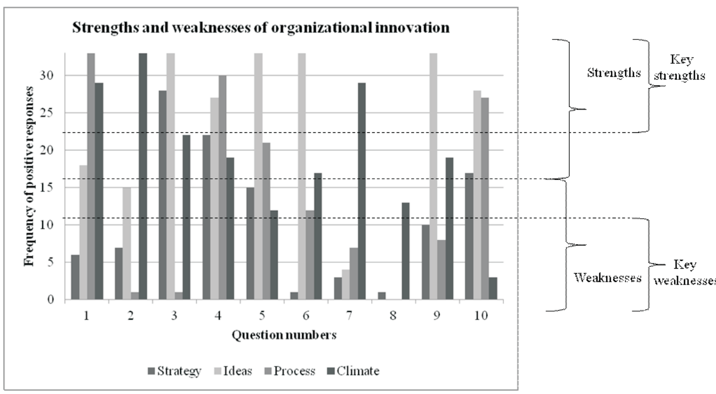
The conducting research was previously approved by the top-management.
Interviews lasting in approximately 45 minutes were conducted successively, with each of the mid-level manager by functional units, individually. Interviews were conducted during working hours in a time-span of three weeks. During the interviews, the answers of the respondents were recorded by the interviewer in the way that each answer was immediately marked as positive (+) or negative (-), or as a strength or weakness of organizational innovation. Each response was supported by a note on the key argument and/or concrete examples from organizational practice.

3. Results

3.1. Strengths and weaknesses of organizational innovation

The strengths and weaknesses are used in the original model of organizational innovation as the common denominator of the qualitative analysis, or the interpretation of the responses. This defines the representation of each individual factor in the overall organizational innovation. The results of the research (see overall data in Figure 1) show that key strengths of innovation in this firm are in the area of the factors *Ideas* and *Climate*, while key weaknesses of organizational innovation are in the area of the factors *Strategy* and *Process.*

Figure 1. Strengths and weaknesses of organizational innovation in the studied firm



Source: authors

A more detailed insight in the responses on individual questions (*see Figure 1 and Table 1*) shows that key strengths of this organization with respect to innovation are the following:

- continuous work on improving offerings, identifying customer needs, successful collaboration with other firms in order to generate and implement new ideas, strong belief that innovation is about solving big problems (*Ideas*);
- senior managers believe in the importance of innovation, dedication of their time and budget to it, failure and risk-taking is accepted within the organization (*Climate*);
- shaped multiple idea submission channels to get ideas from diverse sources, conducted evaluation criteria for identifying the best ideas, practice to start with many ideas with minimal investment, and gradually increase resources as focusing on the best ones (*Process*);
- clearly identified issues that have blocked innovation in the past and outlined ways for overcoming them, vision that outlines a path or direction for innovation (*Strategy*).

Also, with regards to responses, the following key weaknesses of organizational innovation were identified:

- lack of a clear vision and strategic initiatives for innovation, different viewpoints about what innovation means for the business, deficiency of holistic and consistent set of metrics for tracking innovation activities (*Strategy*);
- deficiency of the particular resource (individual/group) empowered to make „yes/no“ decisions and lack of a central repository/pipeline that contains every generated idea,

ambiguous criteria for judging ideas, poorly defined approach to take ideas from generation to launch in a timely manner, lack of a holistic perspective of a pool of innovation projects (*Process*);

- organization is the follower and it doesn't have a track record of setting new standards in its industry, employees aren't encouraged to generate ideas to shake up the status quo (*Ideas*);
- there is no formal rewards/recognition program in place that motivates people to participate in innovation (*Climate*).

3.2. Statistical verification of established hypotheses

The hypothesis of equal representation of individual innovation factors within the organization is verified by the Chi-squared test. It shows that there is a statistically significant difference in the representation of individual factors within the organization: *Idea* and *Climate* are evaluated as significantly better than *Strategy* and *Process* (χ^2 = 660,74; $df=40$; $p<0.05$). The hypothesis on the non-existence of differences in the perception of innovation factors between functional units of the organization that are directly responsible for the development of new technologies, products and processes and the rest of the organizational units was verified in the same way. The results show that there exists no statistically significant difference in the perception of the innovation factors between aforementioned functional units (χ^2 = 1,11; $df=1$; $p=0.05$). Therefore, in those parts of the organization where a potentially higher engagement in the area of innovation is expected, the significance of innovation in business is perceived as equally important as in the rest of the organizational units.

4. Discussion

The results of the conducted research coincides with the results of Waghorn and Hagerman (2008) which show that during the development of organizational innovation, organizations go with the „line of least resistance": in a higher degree, they are focused on the development of *Idea* and *Climate*, neglecting the development of *Strategy* and *Process*. In order to secure long-term business success, it is imperative to equally develop all four innovation factors because the weaker development of only one of them will result in business failure.

The qualitative analysis shows, in terms of innovation strategy, problems that were identified in the organization and which prevented innovation in the past as well as an indication that there is a fundamental awareness on its importance of success in business. The challenge to the management of the firm represents clear, not only declaratory, strategic initiatives aimed at stimulating innovativeness and creation of consistent policy and measures for its monitoring and encouragement. Empirical research confirms that specific innovation strategies enable the organization to use strategic resources with the aim to achieve competitive advantage and financial gain (Wei and Wang, 2011). Krall (2001) states that the highest levels of management are expected to develop and support the vision of innovation, while the middle management, whose opinions and attitudes about innovation were examined in this study, is expected to transfer, interpret and implement this vision of innovation through the organization. Managers have a critical role in creating the culture of innovation. As with all strategic initiatives, innovation also must start at the very top and it needs to be lead with the active involvement and support of management at all hierarchical levels (Smith and Hall, 2012).

Even though strategic objectives of this company in foreseeable future (probably) will not favor a market repositioning and/or change the „game rules" in the industry, the organization will undoubtedly have to not only support but also enhance observed strengths of organizational innovation. In this sense, management should aim their strategic efforts towards a gradual, and necessary, overcoming of key weaknesses of organizational innovation as well as the development of the process of organizational innovation. Primarily, this refers to the central gathering and „warehousing" of new ideas, defining unambiguous criteria for their evaluation and facilitating later application of innovations in the organizational practice. In addition, a systematic identification of innovations, with recognition and awards to innovative employees, would eliminate the only diagnosed weakness of the innovative climate in the firm. In fact, research from social psychology of creativity shows that employees are more encouraged to explore new areas and new ways of problem-solving in the organization in which they feel safe (in which they will not be punished for that kind of behavior) and in which they are adequately evaluated for their contribution (Ekwall, 1996; West and Altink, 1996; Jelinek, 1979).

According to the results, the most valuable thing for the innovativeness of this organization is the knowledge and willingness of its employees geared to overcoming organizational problems, as well as the attitude of the employees towards acceptance of failure and learning from mistakes. True innovators are in search for new achievements and are ready for failure, and it is failure that usually leads to new and valuable information necessary for organizational innovation (Ramadani and Gerguri, 2011). Results are encouraging with regards to the regular low tolerance of failure of traditional organizations (Nordström and Ridderstråle, 2002) and relatively weaker development of innovation climate and culture of organizations from central and east Europe when compared to those from Western countries with longer tradition of market economy (Sušanj, 2000).

The findings of this research, according to which factors of organizational innovation are not increasingly present in those functional units that are directly responsible for organizational innovation, perhaps should not be seen as defeating. The division of organizational innovation in technical and administrative terms is generally accepted (Damanpour, 1987). The first is directly concerned to the activity of the organization or the development of its products or services while the other is concerned with the improvement of various administrative processes and procedures in the organization. Given that both types of organizational innovation are important for the improvement of business and because some studies show that administrative innovation encourages technical innovation (Kanter, 1983; Damanpour and Evan, 1984), it can be concluded that in this case, the significance of innovation in business is perceived equally in the rest of the organizational units, which can be useful.

In conclusion, the conducted research for the purpose of the organizational innovation diagnosis enables not only an evaluation of the overall organizational capacity for innovation, but it represents a clear path to management towards ways and means in which business can be improved. Also, this research only confirms conventional opinion according to which different factors are equally important for the development and maintenance of organizational innovation.

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Annex

Table 1. Question for factors: Strategy (S), Ideas (I), Process (P) i Climate (C)

S-Q1. Do you have a vision for innovation that is aspirational for all your employees? S-Q2. Does everyone have the same viewpoint about what innovation means? S-Q3. Have you clearly identified the issues that have blocked innovation in the past? S-Q4. Do you have a vision that outlines the path or direction of your innovation efforts? S-Q5. Do you have a full time resource assigned to innovation? S-Q6. Is there a specific individual/group that has a central picture of innovation efforts? S-Q7. Do you have a holistic set of metrics that measure inputs, development and outputs? S-Q8. Do you rely on a consistent set of metrics to track your innovation activities? S-Q9. Has innovation been identified as one of the key strategic initiatives? S-Q10. Is it clear who the „go-to"resource for innovation assistance is?
I-Q1. Do you engage in futuring techniques to generate ideas? I-Q2. Do you have a pipeline of ideas that will keep the organization growing well? I-Q3. Are you constantly looking for new ways to improve your offerings? I-Q4. Do you have a series of future enhancements to your offerings in place? I-Q5. Do you have an intimate relationship with customers that helps you intuitively understand their need even when unspoken? I-Q6. Do you conduct formal studies to familiarize yourselves with your customers? I-Q7. Are you encouraged to generate ideas to shake the status quo in your industry? I-Q8. Are you known as a „rule-breaker"? I-Q9. Do you have collaborated with other firms to generate and implement new ideas? I-Q10. Do you believe that innovation is about solving big problems?
P-Q1. Do you have a multiple idea submission channels to get ideas from different source? P-Q2. Are all ideas directed to the resource empowered to make go/no-go decisions? P-Q3. Do you have a central repository/pipeline that contains every idea that's generated? P-Q4. Do you rely on set of evaluation criteria that helps you identify your best ideas? P-Q5. Are you stopping to work on unnecessary ideas? P-Q6. Is your criteria for judging ideas widely understood and accepted? P-Q7. Do you have a well defined approach to take ideas from generation to launch? P-Q8. Do you always launch your innovations in a timely manner? P-Q9. Do you have a holistic perspective of your pool of innovation projects? P-Q10. Do you start with many ideas and then you focus on the best ones?
C-Q1. Does management strongly believe the innovation is the lifeblood of business? C-Q2. Does management play an active part in innovation with dedicated time/budget? C-Q3. Are the senior managers respected role models when it comes to innovative thinking? C-Q4. Are your innovation efforts organic and self-sustaining? C-Q5. Is there a clear definition of what failure means? C-Q6. Are people encouraged to take risks within your organization? C-Q7. Is failure and risk-taking celebrated within your organization? C-Q8. Is there an active culture of dialogs between roles, departments and levels? C-Q9. Do you have a formal training programs that push new thinking/develop new skills? C-Q10.Do you have a formal rewards/recognition program in place that motivates people to participate in innovation?

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EVOLUTION OF PROJECTS FINANCED BY INTERNATIONAL FUNDS IN OSIJEK-BARANJA COUNTY AND THEIR INFLUENCE TO LOCAL ECONOMY AND SOCIAL LIFE

EVOLUCIJA PROJEKATA FINANCIRANIH OD STRANE MEĐUNARODNIH FONDOVA NA PODRUČJU OSJEČKO-BARANJSKE ŽUPANIJE I NJIHOV UTJECAJ NA LOKALNO GOPOSDARSTVO I RAZVOJ DRUŠTVA

ABSTRACT

This paper aims to define the direct and indirect influence of projects funded by international funds to the local economy and social life in the region.
The project is a series of activities that together achieve clearly defined objectives in a specified period of time and with a clearly defined budget and sources of funding. Such an inflow of capital has an impact on the local economy but also to the society itself.
During the early nineties projects mainly dealt with direct distribution of goods through various chains of humanitarian aid distribution. Free food and clothing had negative influence to the retail of these goods, being a direct and unfair competition.
End of nineties transfers the focus to works. Various programs for reconstruction with secure funding caused the founding of numerous construction companies and associated businesses.
After the peaceful reintegration of territories direct help shifts towards services. UNHCR (United Nation's High Commissioner for Human Rights) and various foundations financed civil associations specialized for offering various forms of legal aid. These associations point out to faults in public practices, institutions or even laws. Skill of writing projects is present in associations exclusively. Large number of associations is founded and civil society is growing.
CARDS (Community Assistance For Reconstruction, Development and Stabilisation) program started at 2000. Program focuses on administration and puts pressure to associations to turn to cooperation with public administration instead of being an informal opposition. Cross-sector cooperation is developing to deal with public problems.
*PHARE (Pologne et Hongrie - Aide á Restructuration Economique – Program for the Reconstruction of the Economy of Hungary and Poland), ISPA (Instrument for Structural Policies for Pre-accession) and SAPARD (*Special Pre-accession Assistance for Agriculture and Rural Development) *programs bring concrete projects but also concrete rules for spending funds. Associations struggle to cope with complex procedures and face specialization or closing down while public administration is getting involved more. There is still a prevailing belief that complexity of these procedures makes national funding preferable. Consulting agencies for international funds are emerging. Project management relies to informal education and foreign consultants dominate. Reducing incentives in agriculture is putting pressure but adjustment to EU rules is upgrading production quality.*

*IPA (*Instrument for Pre-Accession assistance) *Program comes parallel with administrative reforms on the national level. Writing projects remains a problem. Regional development agencies are founded and adjusted development strategies made to deal with the problem. Project manager becomes an occupation and formal education necessity. Cooperation becomes an obligation.*
Upcoming period 2013-2020 will be emphasizing cross-border cooperation and multi-annual planning. Project managers will become consultants and associations will specialize or close. Preparation for this period will mean the difference between success and lagging behind.

Key words: *Project; Program; Project Manager; Consultant*

SAŽETAK

Rad ima za cilj definirati direktan i indirektan utjecaj projekata financiranih od strane međunarodnih fondova na lokalno gospodarstvo i razvoj društva u regiji.
Projekt je serija aktivnosti koje zajedno postižu jasno definirane ciljeve u zadanom vremenskom roku sa jasno određenim proračunom i izvorima financiranja. Takav ulaz kapitala u regiju ima utjecaj na lokalno gospodarstvo ali i na razvoj samog društva.
Tijekom ranih devedesetih projekti su uglavnom bili usmjereni na direktnu razdiobu dobara kroz različite lance distribucije humanitarne pomoći. Besplatna hrana i odjeća imaju negativan učinak na trgovinu na malo tih dobara kako čine direktnu a nelojalnu konkurenciju.
Kraj devedesetih prebacuje fokus na radove. Različiti programi obnove sa osiguranim izvorima financiranja uzrokuju nastanak brojnih građevinskih tvrtki i nagli razvoj srodnih djelatnosti.
Nakon mirne reintegracije, direktna distribucija pomoći se prebacuje na usluge. UNHCR (United Nation's High Commissioner for Human Rights) i brojne fondacije financiraju udruge civilnog društva specijalizirane za pružanje različitih oblika pravne pomoći. Te udruge ukazuju na greške koje se pojavljuju u novom sustavu u razvoju, institucijama pa čak i zakonima. Vještina pisanja projektnih prijedloga prisutna je gotovo isključivo u udrugama. Osniva se velik broj udruga i civilno društvo se naglo razvija.
Program CARDS (Community Assistance For Reconstruction, Development and Stabilisation) u Hrvatskoj starta 2000. godine. Program se fokusira na upravu i stavlja pritisak na udruge se okreću suradnji s javnom upravom umjesto djelovanja u svojstvu neformalne opozicije vlasti. Razvija se međusektorska suradnja kod rješavanja javnih problema.
Programi PHARE (Pologne et Hongrie - Aide á Restructuration Economique – Program for the Reconstruction of the Economy of Hungary and Poland), ISPA (Instrument for Structural Policies for Pre-accession) i SAPARD (Special Pre-accession Assistance for Agriculture and Rural Development) donose konkretnije projekte ali i konkretna pravila za trošenje sredstava fondova. Udruge se bore sa složenim procedurama te se suočavaju sa specijalizacijom ili zatvaranjem dok se javna uprava sve više uključuje u utrku za privlačenje sredstava. Još uvijek prevladava mišljenje da je, zbog složenosti procedura ovih fondova, bolje koristiti nacionalne izvore financiranja. Uslijed toga nastaju konzultantske agencije za rad s međunarodnim fondovima. Upravljanje projektima je sfera pokrivena samo kroz neformalnu edukaciju tako da tržištem u to vrijeme dominiraju strani konzultanti. Postupno smanjivanje i ukidanje poticaja stavlja pritisak na poljoprivredu, ali prilagodba EU fondovima i regulaciji jača kvalitetu proizvodnje.

Program IPA (*Instrument for Pre-Accession assistance) dolazi paralelno s opsežnim reformama na nacionalnoj razini. Pisanje projektnih prijedloga je i dalje problem. Osnivaju se regionalne razvojne agencije a razvojne strategije na svim razinama prilagođavaju se radi što boljeg korištenja EU sredstava. Biti projektni menadžer postaje zvanje i zanimanje a formalna edukacija za projekt menadžera nužnost. Suradnja između institucija postaje obveza.*
Nadolazeće razdoblje 2013 – 2020 donijet će naglasak na međunarodnu suradnju i višegodišnje planiranje. Projektni menadžeri će postati konzultanti a udruge će se specijalizirati ili ugasiti. Priprema za ovo razdoblje činit će razliku između uspjeha i zaostajanja.

Ključne riječi: *Projekt; Program; Projektni menadžer;* Konzultant

1. Introduction

Croatia started its transition from the communist system to market oriented economy in 1991. One of the aspects of this transition is also the development of projects as a tool of regional development. Development of projects was necessarily tied to the funds available. Funds can be national or international and, considering that Republic of Croatia aspired to become a member of the European community, very soon EU funds dominated. First EU funding comes in a way of humanitarian aid. Second part was reconstruction and funding is implemented on the national level. On the local level knowledge on the possibilities of project management come with human rights and legal aid projects, at first only through civil society organizations. With the process of obtaining the EU membership, EU funding programs are gradually involving all the parts of the society. One of the main characteristics of EU funds is its orientation to regions. Although the development of regions in Croatia that followed the EU predetermined characteristics started in 2007 through forming of statistical regions, until that time the relevant territorial unit was a county. Very soon these funds started to influence the civil society, the regional and local government, development planning and projects, even the way we do business.
This paper will focus on the projects funded by EU funding programs. We are now at the end of the current seven-year programming period that started in 2007.
This paper will provide an overview of development of projects in the Osijek-Baranja County and the influence they made.

2. Direct distribution of humanitarian aid

Direct distribution of aid follows large-scale devastations that caused the regular functioning of the society to be stopped. General population lost the access to basic necessities, generally food, clothing, shelter, medical aid, etc. The problem needs to be addressed immediately, in the shortest time possible to prevent possible loss of lives. However, some information is necessary like estimated number of beneficiaries (affected population) and channel of distribution. Information on number of affected population is crucial to ensure sufficient quantity of help.
Croatian Red Cross has distributed 70.000 family packages monthly during the 1992 and this number increased in the following years. Red Cross Osijek recorded over 30.000 refugees and displaced persons. Direct distribution of free goods has a negative influence to retail reducing the demand for these types of goods. Whole economy in the region, including the retail has been badly affected by the war and this situation added to the problem. Analysis described by

Prof. Zdenko Segetlija shows that the decline in retail turnover lasted until 1994 (Segetlija Zdenko: Maloprodaja u Republici Hrvatskoj, 2009, 145).

3. Reconstruction

EU Program “Obnova” was in Croatia in operation from 1996 to 2000. Program financed reconstruction of infrastructure, public and private objects damaged during the War, development of democracy and civil society, return and reintegration of refugees and displaced persons, reconstruction of the economy, promoting the investments and development of civil society organizations, cultural and educational institutions. Entire Program had a total allocation for Croatia of 62,45 millions of Euros. Other available funds include various foundations, individual countries through their embassies and national funds.
Program focussed on the problem, trying to reconstruct as much as possible of public infrastructure, private houses, residential buildings etc. According to the Law on Reconstruction from 1996, 18 towns and municipalities in the Osijek-Baranja County had damage to the property, caused by the war. Efforts on the national level have been focussed on the preparation for reconstruction and getting to a coherent list of what needs to be reconstructed and in what order. Simple procurement rules meant creation of numerous new companies in the construction sector. Not all these companies were successful and some closed their business contributing to the accumulation of inner debt in the region. This made it very difficult to follow and ensure the quality of work. Reconstruction is programmed on the national level and there are very few projects made locally.

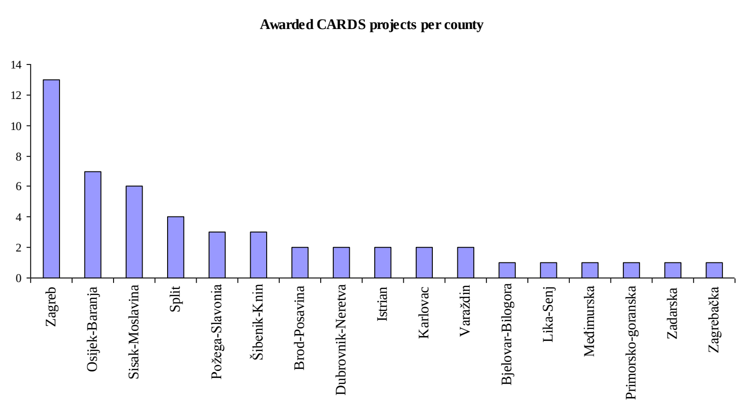
4. Human rights protection and democracy

Peaceful reintegration in 1998 opened many issues that needed to be resolved. People that lived in the reintegrated territories needed help to resolve their status problems. People that fled the occupied territories needed help to return to their property (often occupied by someone who lost the property in some other territory).
Similar to the previous situation of increased demand for works (reconstruction), reintegration created increased demand for the legal help and services. UNHCR (United Nation’s High Commissioner for Human Rights) mission in Croatia (field office Osijek in Osijek-Baranja County) provided some counselling. Increased demand meant that they had to outsource this service. UNHCR outsourced the service by forming implementation partnerships with non-governmental associations capable of providing legal aid. Implementation partner for Osijek-Baranja County was CZMOS (Centre for Peace, Non-violence and Human Rights Osijek). The UNHCR was not the only funding organization. Other foundations were financing projects from the field of democratization and human rights causing development of civil society sector (ADF – American Development Foundation, Charles Stewart Mott Foundation, Herbert Neuman Stiftung Foundation, etc.).
Project proposals as such were simple and follow up and control activities focussed on the work. Donors visited events as a form of ex-ante evaluation. However, some funding programs already demanded project proposals with project cycle management methodology (EIDHR – European Initiative for democracy and Human Rights) and trainings were available for preparation of these complex project proposals. These trainings represent the basis of the knowledge of project management and are one of the main reasons for the leading role of the Osijek-Baranja County in getting the EU funding in the region today.
Development of civil society organizations was a welcome employment opportunity, especially in reintegrated parts of the Osijek-Baranja County. For example, CZMOS, through the Project “Active Listening”, employed 40 people (30 newly employed) in Osijek, Beli

Manastir, Tenja, Dalj, Vukovar and Okučani. Besides working with individuals, legal aid and counselling, civil society organizations also worked on the problems of the society in general mostly by pointing out to problems in some public practices, procedures and even laws. This situation made civil society organizations informal political opposition putting them at odds with local, regional or national authorities.
Using the experiences of associations that provided free legal aid, the Law on Free Legal Aid was adopted by Croatian parliament in 2008. Process of its improvement is ongoing.

5. CARDS

CARDS Program (Community Assistance For Reconstruction, Development and Stabilisation) was available in Croatia after signing of the Agreement on Stabilization and Accession in 2001. The Program had national and regional component.
National component CARDS 2001 – 2004 allocated 262 millions of Euros for Croatia. Ministries and state institutions implemented projects. Regional component of the Program had open calls for proposals. Such Program structure had a strong emphasis on the cooperation. Total allocation for the regional component of CARDS was 179,6 millions of Euros. Projects from the CARDS program were completed in Croatia in 2009.
There are still not enough experts in project management of EU funded projects so foreign consulting companies dominate the market, mostly from Germany, Great Britain and Denmark.
CARDS projects require knowledge of project cycle management according to the LFM (logical framework matrix) principle. LFM projects did not focus only on results but also on relevance to the program and the region where it is implemented, to methodology used and sustainability of results. Organizations competing for funds also needed to meet certain criteria to ensure the successful implementation of activities.
In Osijek-Baranja County some civil society organizations already have experience with logical framework matrix projects. When we compare the results of open calls for proposals for CARDS according to the awarded organizations we can see that organizations from Osijek-baranja County are first after the City of Zagreb according to the number of awarded projects.
Civil society organizations from Osijek-Baranja County with awarded projects are: CZMOS, PRONI Centre for Social Education Osijek, OGI Organization for Civil Initiatives, Green Osijek, etc. It is evident that developed civil society and experienced civil society organizations contributed to this result.



Source: Author

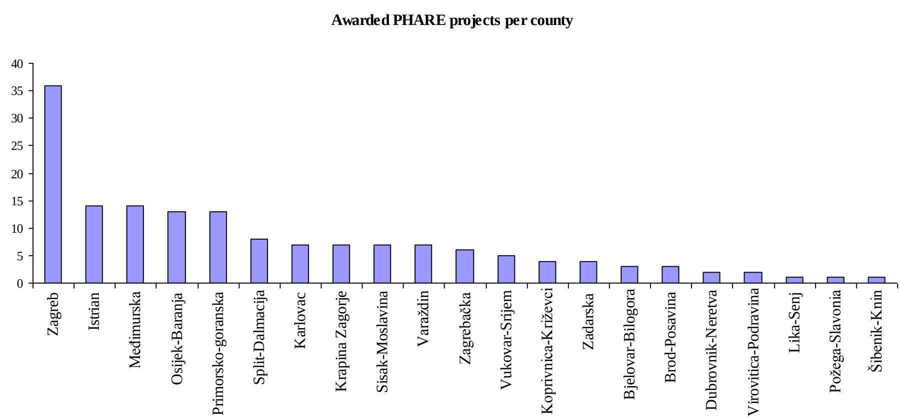
CARDS also focussed on cooperation so civil society organizations started to cooperate with local and national authorities and institutions and not just pointing to the problem. Since CARDS projects needed to be co-financed by the applicant, it was another enticement for civil society organizations with no available co financing funds to turn to cooperation to obtain funding for projects.

6. PHARE, ISPA and SAPARD

These three programs were available in the Republic of Croatia after the status of the country – candidate. These three distinctively different programs started in Croatia in 2005 and the projects were running until the end of 2010. Emerging of the pure investment-type projects has caused a colloquial division of projects to "hard" (projects with a component of investment or equipment) and "soft" (trainings, planning, public advocacy, etc.).

6.1. PHARE

PHARE (Pologne et Hongrie - Aide á Restructuration Economique – Program for the Reconstruction of the Economy of Hungary and Poland) had an allocation for the Croatia of 167 millions of Euros (PHARE 2005 – 87 millions, PHARE 2006 – 80 millions). PHARE Program was similar to CARDS in Croatia using the LFM method for creating project proposals.
During PHARE program 30% of consultancy services are awarded to Croatian companies acting in consortium with foreign companies or alone.
Looking at the CFCU (Central Financing and Contracting Unit) data on awarded projects, Osijek-Baranja County is still very successful according to the number of awarded projects to organizations from the County.



Source: Author

Calls for project proposals include cross-border cooperation, increasing competitiveness of SME (small and medium enterprise), business related infrastructure, contribution of civil society to various social issues like Roma minority, youth, ecology, etc. Calls directed to civil society were very similar to CARDS program, but the other programs were new. Co-financing of projects by applicants remains. Another problem of co-financing is that the contracting authority delivers only 80% of the approved funds and the rest 20% after the Project is completed.

6.1.1.Cross-border cooperation

Cross-border cooperation from 2001 to 2006 was financed through Program INTERREG III. For Croatia funds were allocated through PHARE or sometimes CARDS programs. Calls for proposals for cross-border cooperation came in three types of cooperation: direct cross-border cooperation, transnational cooperation and inter-regional cooperation. Direct cross-border cooperation required for the applicant to be from the county with a direct border with an EU country. In the case of the Osijek-Baranja county there had to be at least one local partner organization and at least one from Hungary. CADSES or Central-European Adriatic Danubian South-Eastern European Space is a trans-national cooperation, meaning that projects involved multiple partners for several EU and candidate countries. Managing such cooperation demanded high level of experience. This resulted in Croatian partners adapting to existing projects and cooperation instead of starting them. Inter-regional cooperation intended to strengthen the cohesion through the cooperation of the regions. This program was also open in Croatia. Osijek-Baranja County participated in inter-regional Project ICNW (International Communal Network) that dealt with land use planning and communal infrastructure.

Direct cross-border cooperation was most common. Partners could cooperate in three different types of Projects: Cooperation projects, “Mirror” Projects and Associative projects. Intended to develop cooperation in managing the border regions these projects were even more useful to Croatian partners as training for management of EU funded projects.

Cooperation projects represent an actual cooperation. Evaluation process was giving the highest grade to these projects. That means that there are at least two partners (at least one on each side of the border) and that there is a just ratio of funds depending on the responsibilities and activities of partners. These projects showed to the local level benefits of international cooperation and the accession process. Bodies of government that participated in these projects usually continued developing projects through this and other funds available. One positive example of such a project is “CoCuCo” cooperation between the counties of Osijek-Baranja and Baranya and between cities of Osijek and Pecs. One investment completed by the project is the reconstruction of traditional house in Topolje to be used as a tourism attraction.

“Mirror” projects were being conducted on one side of the border with funds going to one partner. Evaluation graded “mirror” projects with a middle grade. It was expected for these projects to copy successful projects from one side of the border to the other. In reality, great majority of these projects were implemented with the foreign partner being the recipient of funding. This form of cooperation gave the bad name to the international cooperation. Later programs cancelled the possibility for “mirror” projects.

Associative projects are projects where, in order to complete the project in one country, the organization needs the service obtained in the other country. This form of project had a low grade in evaluation. Such projects were extremely rare.

Cross-border projects strengthened the international relations of Osijek-Baranja County, especially with the Hungarian region Baranya because of the direct state border. Joint work with more experienced cross-border partner organizations also provided training in management of EU funded projects.

6.1.2. Business related infrastructure

Projects available for funding were entrepreneurial zones and tourism infrastructure. Aside for project proposals, applicants needed to make the feasibility study and cost-benefit analysis to justify the investment and they needed to prepare the tendering documentation for the construction company to be contracted. This call for proposals was training for financing of investments through EU funding schemes.

The successful example of project in Osijek is the BIOS business incubator. Total value of the Project was 1,4 million Euros.

6.2. ISPA

ISPA (Instrument for Structural Policies for Pre-accession) financed large-scale investment projects. These projects were selected on the national level and there were no calls for proposals available on the local level because of high preparation costs. ISPA financed some 6 projects including Karlovac wastewater treatment plant and Vinkovci – Tovarnik railway. Osijek wastewater treatment plant competed unsuccessfully for the ISPA funding. ISPA financed projects in the total amount of 53 millions of Euros.
The challenge for local and regional authorities was to get their projects sufficiently prepared to be eligible for funding and placed on the list of priorities. Using the experiences from IPARD some local authorities prepared their projects for the IPA allocation 2007-2013 by preparing the investments, resolving the ownership issues or by crating joint projects.

6.3. SAPARD

SAPARD (Special Accession Program for Agriculture and Rural Development) was a program for rural development, but most importantly, intended also for agricultural producers. Total available funding in 2006 was 25 millions of Euros through four calls for proposals. The SAPARD contracted only a little over 60% of available funds. Highly complex procedure was often too much for farmers. Second problem of SAPARD were high subsidies in agriculture that were obtainable easier than demanding SAPARD.
SAPARD financed 50% of the Project and the remaining 50% was financed by the applicant. SAPARD delivers approved amount after the investment is completed and verified so the applicant needs to finance the entire project in advance. This is compensated with specialized crediting line.
SAPARD is not using standard application forms. Applicants need to prove that their business is healthy, that their planned endeavour is economically sound and that their production meets the EU standards. Similar to business and tourist related infrastructure, procurement needs to be planned and documented in advance.
Since the Osijek-Baranja County is among the counties with focus on agriculture, there were applicants for SAPARD funds from the County with 4 approved projects.

7. IPA

Program IPA (Instrument for Pre-Accession Assistance) is an ongoing program for the period 2007 – 2013. Financial allocation for the period 2007 – 2012 amounts to 910,2 millions of Euros. The IPA program is divided into 5 components.

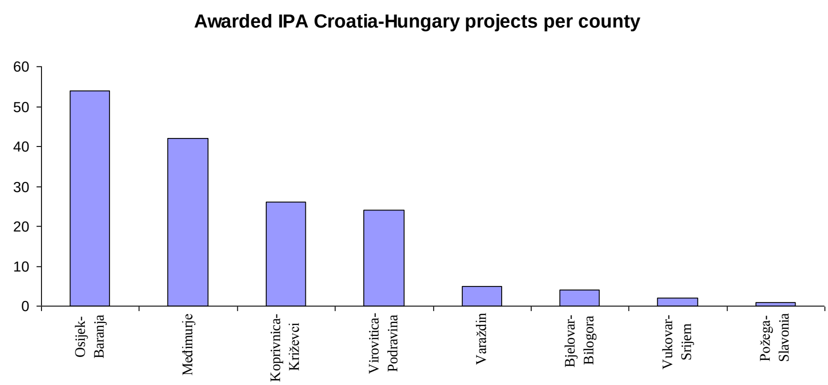
7.1. IPA I

IPA I – Assistance to transition and development of institutions mostly finances projects of ministries and state institutions. Open calls for proposals are intended mostly for civil society organizations dealing with issues like battling corruption, rights of women, promoting equal opportunities, etc. Civil society organizations with successful projects in Osijek-Baranja County include Center for Peace, Nonviolence and Human Rights Osijek, “Izvor” Association for women rights Osijek, Croatian Institute for Local Government “HILS”. Necessary co-financing of projects remains an issue for civil society organizations.

7.2. IPA II

IPA II is financing cross-border cooperation and trans-national cooperation. Applicants from Osijek-Baranja County can participate in cross-border cooperation programs with Hungary and Serbia because of the direct border, cross-border cooperation with Bosnia and Herzegovina as a partner from an associated county in the reduced amount of 30% of the project value and in trans national cooperation SEE (South East Europe) and MED (Mediterranean).

Cross-border cooperation with Hungary brings several changes. Projects still use the project cycle management system but not the LFM. Project proposal is in excel format with built in system for recognizing errors in writing project proposals. The biggest change is in the financing. Applicant finances the activities himself for a four-month period, and is reimbursed by the contracting authority after the verification of costs (verification procedure lasts approximately six months). Such financing is a huge obstacle for civil society organizations with no available free funds. Ironically, civil society organizations can apply for co-financing funds nationally so they do not need to co-finance projects. Still, pre-financing projects remains much bigger problem than co-financing. Despite this drawback Osijek-Baranja County is the most successful in both the number of approved projects and funds allocated.



Source: Author

The data represents first two calls for proposals; the third is in the evaluation process. Varaždin, Bjelovar-Bilogora, Vukovar-Srijem and Požega-Slavonija counties participated not in full but as associated counties in the reduced amount of 30%. Total value of Osijek-Baranja County projects is 6.5 million Euros.

Cross-border cooperation with Serbia retained LFM projects and pre-financing method from previous programs. Applicants from Osijek-Baranja County had 7 out of 11 projects from the first call for proposals with the total value of 1.2 millions of Euros. Second call is in the process of evaluation and third is pending. Civil society organizations participating with projects are Nansen Dialogue Centre Osijek and "Slap" Osijek.

These two Programs alone represent a significant inflow of capital into the Osijek-Baranja County. Cross-border cooperation programs are using the complex PRAG (Practical Guide to Contract Procedures for EC External Actions) procurement rules. Rules are subjected to interpretation by controlling bodies. Variations caused by these interpretations are major implementation difficulty, especially for larger budgetary organizations (cities, counties, institutions, etc.).

7.3. IPA III

IPA III Regional development is a direct continuation of the ISPA program and business related infrastructure and raising the competitiveness of SME of PHARE Program. It is divided into three components. First two components do not have open calls for proposals. Large scale investments are funded according to the national lists of strategic projects. IPA Traffic is financing railway and internal waterways as an ecological means to travel. Osijek river port relocation is listed for financing. IPA Environment finances large wastewater treatment plants (Osijek and Đakovo treatment plants are on the list) and communal waste management facilities on the county level. Main problem of high-level investment projects is resolving of the ownership issues. IPA Regional Competitiveness finances business related and tourist infrastructure (applicants from Osijek-Baranja County were awarded four projects with total value of 4.36 Euros) and raising the competitiveness of SME.

7.4. IPA IV

IPA IV Human Resource Development finances projects of employment, education, social inclusion, etc., equivalent to ESF (European Social Fund). Calls for proposals are managed by Croatian Bureau of Employment and Agency for Vocational Education and Training and Adult Education. According to the data of Regional Development Agency of Slavonia and Baranja there are 16 projects completed or in progress in the Osijek-Baranja County financed through IPA IV. Half of these projects are implemented by civil society organizations specializing in education or work on social inclusion of marginalized groups.
Main problem for IPA IV projects is participation of educational institutions (vocational schools, high schools, elementary schools…). Employees (mainly teachers) have fixed working hours and cannot part of working hours to participate in projects and school cannot compensate with new employment. This is limiting the participation of schools in IPA projects.

7.5. IPARD

IPA Rural Development is a direct continuation of SAPARD program. Regional Development Agency of Slavonia and Baranja lists 15 projects in Osijek-Baranja County financed by IPARD.
Building on the experiences from SAPARD the succeeding IPARD program has a list of Croatian consultants helping in the preparation of projects, obtaining documentation and handling the investment.
Subsidies are being reduced and gradually cancelled altogether, forcing farmers to turn to EU funding, improving their farms in the process. Main problem for farmers, beside lack of knowledge concerning the project management procedures, is the lack of knowledge about the EU standards in their field of work.

8. Other funding schemes

IPA is the most common but there are many other funding opportunities available in Croatia. Mostly specifically thematic these include scientific cooperation (FP7 – 7th Framework Program), cultural exchange (CULTURE), traffic (Marco Polo), education (ERASMUS, TEMPUS), sustainable energy (IE - Intelligent Energy), social inclusion of young people (YOUTH), etc. Most of these are cooperation program requiring several partners from several

different EU and associated countries requiring expert project management skills. This made IPA an excellent training for preparation for these, more demanding programs.
Many civil society organizations use these and other funding opportunities like NANSEN Dialogue Centre Osijek, Local Democracy Agency Osijek, Volunteer Centre Osijek, “Breza”, minority organizations, etc.

9. Conclusion and preparation for future 2013 – 2020 period

Croatia is currently at the end of the 2007 – 2013 programming period. This is an excellent opportunity to reflect on the previous period and to try to remove the recorded obstacles and to improve the using of future funding opportunities.
Civil society organizations had significant positive impact in acquiring EU funds and project management skills causing the Osijek-Baranja County to become one of the leading counties in using of EU funding opportunities. It is important to maintain this by helping the civil society organizations during transition of EU funding programs.
Majority of the available programs will be orienting towards post-financing. Applicants will finance the projects themselves (in four-month periods, semi-annual periods, or annual periods) receiving return of funds after the verification of costs. This will prevent organizations with no available project funds, mainly civil society organizations, from using these funds. This will in turn cause gradual closing of civil society organizations damaging the development of civil society and loosing the great capital of experienced project managers capable of drawing the capital into the region. It is important to find the solution for financing, either through the National Foundation for Civil Society Development or through other means to preserve this capital in civil society organizations.
Universal procurement rules need to be developed corresponding to EU procurement rules to eliminate differences in procurement in various programs or differences caused by interpretation of controlling bodies. This could be developed through a nation level web site publishing the rules and changes to the rules with the possibility for questions and interpretations by experts.
In order to maximize the efficiency of international funds, one of the main requirements is quality information on the projects and needs in the Osijek-Baranja County. This information is provided in local and county development strategies. Strategies should focus on using funds for major investments adapting them to EU requirements and using the national resources in resolving the ownership issues. Concerning the disaster management, Osijek-Baranja County is currently working on integration of the GIS (Geographic Information System) into disaster management to provide the accurate information in time using the know-how and experience of Hungarian partners (Project DRAVIS 2 funded by the Hungary – Croatia cross-border cooperation program).
Schools should be enabled for participation in projects. This can be achieved by employment of project managers or through strategic partnerships with civil society organizations in projects.
Farmers will need experts for project management but there could be specialized counselling organized for farmers concerning the EU standards in their field. This would raise the interest of farmers for this type of financing that would improve their businesses to EU level and reduce the possibility for failed project.
As programs and projects grow in complexity simple 1-2- day training programs are just not sufficient any more. Project cycle management program started by the Economical faculty of Osijek represents a good investment into future however, education concerning the project management needs to be upgraded as a separate cathedra or even integrated into one of the existing education programs of the university or even high-school level.

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SOCIAL ENTREPRENEURSHIP IN CROATIA - OPPORTUNITIES AND CHALLENGES

SOCIJALNO PODUZETNIŠTVO U HRVATSKOJ – PRILIKE I IZAZOVI

ABSTRACT

Social entrepreneurship can be found in any kind of organization – from state schools to a retail business. Organizations which belong to sector social entrepreneurship have focus on social problems and initiate social change.
Social entrepreneurship in Croatia has not yet received the right opportunity. Individual efforts exist, but the real momentum and for meaningful results require systematic support of all social structures, education and networking.
Social entrepreneurship in practice faces with major obstacles and any attempt to systematically work on recruitment more difficult employ categories of society faces problems: lack of professional managerial structure capable of managing such enterprise, and sometimes even employees are not proficient enough; insolvency of civil society organizations in social enterpreneurship; very easy ability to turn into a gray zone of operations, primarily due to legal loopholes, and lack of sufficient support programs, political and general public are not sufficiently familiar with the concept and benefits of social entrepreneurship.
The aim of this paper is to analyze the current state of social entrepreneurship in Croatia and defining the direction of development of social entrepreneurship in Croatia in the future.

Key words: *entrepreneurship, social entrepreneurship, Forum of Social Entrepreneurship*

SAŽETAK

Socijalno poduzetništvo može egzistirati unutar različitih tipova organizacija - *od državnih škola do maloprodaje. Organizacije koje pripadaju sektoru socijalnog poduzetništva usredotočene su na rješavanje* socijalnih *problema i pokretanje društvenih promjena. Socijalno poduzetništvo u Hrvatskoj još nije dobilo pravu priliku. Pojedinačni napori postoje, ali je pravi zamah i smisleni rezultati zahtijevaju sustavnu podršku svih društvenih struktura,* sektora obrazovanja *i umrežavanja.*
Socijalno poduzetništvo u praksi suočava se sa velikim preprekama i svaki pokušaj da se sustavno radi na zapošljavanju teže zapošljivih kategorija društva nalilazi na brojne

probleme, kao što su: nedostatak stručne upravljačke strukture, a ponekad čak i zaposlenici nisu dovoljno iskusni, insolventnost organizacija civilnog društva uključenih u socijalno poduzetništvo, vrlo jednostavna mogućnost prelaska na poslovanje u sivoj zoni zbog prvenstveno pravnih praznina i nedostatnih programa podrške, političke i opće javnosti nisu dovoljno upoznate s konceptom socijalnog poduzetništva i koristima koje ono donosi.
Cilj ovoga rada je analiza trenutnog stanja socijalnog poduzetništva u Hrvatskoj i definiranje pravca razvoja socijalnog poduzetništva u budućnosti.

Ključne riječi: *poduzetništvo, socijalno poduzetništvo, Forum socijalnih poduzetnika*

1. Introduction

Social entrepreneurship can be found in any kind of organization – from state schools to a retail business. Organizations which belong to sector social entrepreneurship have focus on social problems and initiate social change. Social entrepreneurship is result of: the crisis of traditional welfare state and incresed competition within the nonprofit sector (Perrini, 2006). Perrini quotes Borozga and Defourny, 2004; Matten and Crane, 2005; Matten, Crane and Chapple, 2003, the crisis of the traditional welfare state characterized by general slowdown in national economic growth rates and high unemployment, has been accompained by a deep reconsideration of the social strategies employed by governments. In the process of global shift away from a social welfare state approach to development and towards a neoliberal approach has left unfulfilled an increasing number of social needs. In addition, cuts in public grants have compounded the problem, causing an unprecedented rivalry among nonprofit organizations, which, in the same time, are facting a greater demand for their services (Perrini, 2006).

Geoff Mulgan (2006) says that there are three areas where social entrepreneurship likely to have a comparative adventage over private enterprise or public enterprise:

- Ability to mobilize inputs – notably the contribution of voluntary labour or the wilingness to work for less than a for-profit. Social entrepreneurship may be able to achive a cheaper cost of capital through investors´ wilingness to take lower returns.
- Ability to design and run more effective processes – ways of working, motivating teams, distinct methods (like small schools), or business model which are not transferable to for-profit or state organizations.
- Their outputs contain an added value embedded in the product or service itself either through the ethos of the organization or through the ways in which the service is shaped.

Authors Alex Nicholls and Albert Hyunbae Cho (2006) defined social entrepreneurship as a dynamically evloving phenomenon that engages a broad range of stakeholders and is articulated across different organizational approaches. The same authors in defining social entrepreneurship, where the market orintation is point of view, use definition of the Institute for Social Enterpreneurs (2005) which defines social entrepreneurship as the „art of simultaneously pursuing both a finacial and social return on investment“ (the „double bottom line“), clearly enumerating the market orinted dimensions of social entrepreneurship. Perrini quoted „social entrepreneurship shares its business couterpart´s strong drive toward innovation and change (Dorado and Heattich, 2004:6) and the ability to dicover unmet needs and entrepreneurial opportunities (Casson 1982; Leadbeater, 1997; Shane, 2000). That, what it distinguishing from business couterpart´s is different long-term objective: the enhacement of global or local social conditions starting from a percived social gap. Social enterprises have two aims: create economic value and in the same time achive its´ social mission. According to Perrini (2006) entrepreneurship, innovation and social change represent the ingredients or the social entrepreneurship formula. In that sense, *Entrepreneurship* is related by creating opportunity to launch a venture that generates profit by alleviating a specific social problem, and the more profits made, the more problem is alliviated (MacMillan and McGrath, 2000; Prahalad, 2004; Prahalad and Hammond, 2002); by looking identification of opportunities to bring into existence new goods, services, raw materials, and organizing methods that allow outputs to be sold in sustainable manner.

Schwab found organization defined social entrepreneurship as a approaches in solving economic and social problems to create social value. According to this social entrepreneurship is[28]:

- About applying practical, innovative and sustainable approaches to benefit society in general, with an emphasis on those who are marginalized and poor.
- A term that captures a unique approach to economic and social problems, an approach that cuts across sectors and disciplines, grounded in certain values and processes that are common to each social entrepreneur, independent of whether his/ her area of focus has been education, health, welfare reform, human rights, workers' rights, environment, economic development, agriculture, etc., or whether the organizations they set up are non-profit or for-profit entities.
- It is this approach that sets the social entrepreneur apart from the rest of the crowd of well-meaning people and organizations who dedicate their lives to social improvement.

Social entrepreneurs often seem to be possessed by their ideas, committing their lives to changing the direction of their field. They are both visionaries and ultimate realists, concerned with the practical implementation of their vision above all else.

Social entrepreneurs themselves want to achive social outcomes; that is what generally motivates them more than anything. Theories of social change have concentrated more on how ideas move people than how people move ideas (Bornstein, 2007:93). According to Schwab (2000) social entrepreneurs create social value through innovation and leveraging financial resources. They transform groups, organizations, or institutions. Social entrepreneurs take risks, they act courageously, they persue new ways, and they are engaged and committed to crate social value, to serve society, particulary the poor and marginalized.

Entrepreneurs tend to be the drivers of innovation in business, creating new business models that can turn into successful industries, social entrepreneurs are the frontline innovators who create new, more successful ways of bringing about positive social change. At the same time, it's important to develop knowledge around the innovations and successful paradigms that social entrepreneurs create, so that the media and researchers and policy makers have access to the data needed to convince people that these new models are primed for the level of investment required to bring about large-scale social change.

The Skoll Foundation (2005) noted that „unlike business entrepreneurs who are motivated by profits, social entrepreneurs are motivated to improve society“; they are „change agents for society, seizing opportunities others miss and improving systems, inventing new approaches and creating sustainable solutions to change society for the better“. In other words and by this definition of social entrepreneurs, creativity, innovation and resourcesfulness are the elements

[28] http://www.schwabfound.org/sf/SocialEntrepreneurs/Whatisasocialentrepreneur/index.htm (20.04.2011.)

of entrepreneurship most relevant to social entrepreneurship. J. Gregory Dees (2001) defined social entrepreneurs as „change agents in the social sector“ who do the following:

- adopt a mission to create and sustain social value (not just private value);
- recognize and relentlessly persue new opportunities to serve that mission;
- engage in a process of continuous innovation, adaptation and learining;
- act boldly without being limited by resources currently in hand;
- exhibit a heightened sense of accountability to the constituencies served and for outcomes created.

2. Differences between business and social entrepreneurship

Just as entrepreneurs change the face of business, social entrepreneurs creating solutions to change society for the better. While a business entrepreneur might create entirely new industries, a social entrepreneur comes up with new solutions to social problems and then implements them on a large scale.
According Eleanor Shaw and Sara Carter (2007) business and social entrepreneurship differ in at last five important ways (Light, 2008:89):

- business entrepreneurship focuses on profits, while social entrepreneurship addresses unmet social needs.
- business entrepreneurship engeges market forces, while social entrepreneurship draws upon and builds community support.
- business entrepreneurship involves financial risk, while social entrepreneurship depends on organizational and personal credibility.
- business entrepreneurship produces individual financial gain, while social ntrepreneurship generates collective public goods.
- business and social entrepreneurship both involve creativity, but business entrepreneurship uses creativity to enter new markets, while social entrepreneurship uses creativity to solve intractable problems.

Roger L. Martin and Sally Osberg (2007:34-35) believe that the critical distinction between entrepreneurship and social entrepreneurship lies in the value proposition itself. For the entrepreneur, the value proposition anticipates and is organized to serve markets that can comfortably afford the new product or service, and is thus designed to create financial profit. From the outset, the expectation is that the entrepreneur and his or her investors will derive some personal financial gain. Profit is sine qua non, essential to any venture’s sustainability and the means to its ultimate end in the form of large-scale market adoption and ultimately a new equilibrium. The social entrepreneur, however, neither anticipates nor organizes to create substantial financial profit for his or her investors – philanthropic and government organizations for the most part – or for himself or herself. Instead, the social entrepreneur aims for value in the form of large-scale, transformational benefit that accrues either to a significant segment of society or to society at large. Unlike the entrepreneurial value proposition that assumes a market that can pay for the innovation, and may even provide substantial upside for investors, the social entrepreneur’s value proposition targets an underserved, neglected, or highly disadvantaged population that lacks the financial means or political clout to achieve the transformative benefit on its own. This does not mean that social entrepreneurs as a hard-and-fast rule shun profitmaking value propositions. Ventures created by social entrepreneurs can certainly generate income, and they can be organized as either not- for-profits or for-profits. What distinguishes social entrepreneurship is the primacy of social benefit, what Duke University professor Greg Dees in his seminal work on the field characterizes as the pursuit of “mission-related impact“ (Dees, 2008).

The traditional distinctions between the for-profit and nonprofit sectors are blurring. Sally Osberg[29] explains: „In some cases, the single bottom line is no longer a sufficient measure of whether a public company is doing well or not. Take the reality of climate change and the environmental and economic risks inherent in continuing our reliance on fossil fuels. We're beginning to see more and more businesses and their management teams come to the realization that our dependency on oil comes with costs that eventually will impact their businesses, if not their bottom lines, and they're beginning to appreciate the importance of factoring those costs into their business models. In fact, there's a growing awareness in corporate America that companies need to have a triple bottom line — that they should be accountable for the social and environmental impacts of their activities, as well as their profits.“[30]

Entrepreneurs are driven to demonstrate results, they're driven to prove that their innovation is worthy of investment and can achieve the kind of impact they think it can. For a more traditional organization the increased emphasis on demonstrating results could dampen its desire to innovate. But not for the entrepreneur, and certainly not for the social entrepreneur.

3. Social entrepreneurship in Croatia - opportunities and challenges

Social entrepreneurship in Croatia has not yet received the right opportunity. Individual efforts exist, some of them are very successful story, but the real momentum and for meaningful results require systematic support of all social structures, education and networking. The concept of social entrepreneurship in Croatia, was introduced as an exit strategy of foreign donors who wanted to strengthen the association and ensure their sustainability, to prepare them for a period after they leave Croatia. But apart from them and organizations on the field, no one had recognized the importance and opportunities of social entrepreneurship. The government doesn´t deal with these issues, which are extremely important for future development. "Social entrepreneurship has been identified as one of the themes in the Strategy for creating seminally environment for the development of civil society, but it is negligble what is done in accordance with the set objectives. The reasons are various, but one of them that was provided a lot of carriers of development, but they all had at least questionable decision-making power."[31]

Forum of Social Entrepreneurship in the Republic of Croatia was established in 2009, and the initiative for its establishment initiated by the Association Slap from Osijek. Forum is an informal network of organizations, individuals and other interested stakeholders with the aim of creating an enabling environment for social entrepreneurship and human economy in Croatia. In its nature, Forum promotes and positions the concept of social entrepreneurship as a model of integrated and sustainable social development in Croatia. Empowerment, advocacy, education and networking are essential elements of the mission of the Forum, which should contribute to the creation of new economic and social platform in Croatia. With civil society organizations, they are interesting cooperatives, companies, public sector, entrepreneurs, educational institutions, experts, social banks, investors, funds, unions, business centers, and ultimately all citizens. Forum members see their role in creating the

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[29] SALLY OSBERG has served as president and CEO of the Skoll Foundation since 2001. Before joining Skoll, Osberg was executive director for the Children's Discovery Museum of San Jose. She sits on the boards of the Oracle Education Foundation and the Children's Discovery Museum. Her essay on philanthropy's changing landscape is included in Social Entrepreneurship: New Models of Sustainable Social Change, published in 2006 by Oxford University Press.

[30] From interview with Sally Osberg 2006 (http://www.skollfoundation.org/sally-osberg-interview-with-mitch-nauffts-for-philanthropy-news-digest-building-the-field-of-social-entrepreneurship/ 15.05.2011.)

[31] Sonja Vuković, President of Forum of social entrepreneurship in Croatia, december 2010

Croatian society and economy which will be based on universal human values of solidarity, unity, social responsibility, social and economic sustainability. And with respect to labor as the fundamental social, creative and spiritual values that give joy and provide earning potential and quality of life for all community members.

“Forum should have the leading role in the region in promotion of social and economic changes with the built Croatian model of encourage the development of social entrepreneurship. That is planned to accomplish through an effective and influential systems and support networks and resources that promote social and human economy, civic engagement, and the integration of all three sectors. The idea is to establish of financial institutions to support socially responsible investing.”[32]

The idea is to develop a model of corporate investment in social entrepreneurship. Among other things, the idea is to encourage international cooperation with the themes of social entrepreneurship and development of education for social entrepreneurship. Record unemployment in 2010 and the generally poor state of the economy had slowly forced the state institutions to consider alternative means of employment. One of those ways is socially employment. “In 2009 the nonprofit sector in Croatia was employed 19 228 persons. When you add the number of employees in cooperatives, which by its definition is something that might get into social entrepreneurship, then get a figure of 22 230 employees in that sector. This is 1.5% of total employment in Croatia and this figure is considerably smaller than, for example, the Netherlands, where we talk about 10%, but was still higher than in Slovenia, which is 0.5%.”[33]

Social entrepreneurship in practice faces with major obstacles and any attempt to systematically work on recruitment more difficult employ categories of society faces problems: lack of professional managerial structure capable of managing such enterprise, and sometimes even employees are not proficient enough; insolvency of civil society organizations in social enterpreneurship; very easy ability to turn into a gray zone of operations, primarily due to legal loopholes, and lack of sufficient support programs, political and general public are not sufficiently familiar with the concept and benefits of social entrepreneurship. Therefore, areas of intervention Forum social entrepreneurs are[34]:

1. The legislative framework (creation of an enabling legislation, define the principles, areas of activity, the subjects who may be carriers of social employment conditions, rights and obligations);
2. Construction of capacities and creation of support infrastructure for all subjects of social entrepreneurship by creating a reference support centers, and establishment of regional and national forum for social entrepreneurship;
3. Provide funding support for both the initial investment in social entrepreneurship, and sustainability in the later stages of the entrepreneurial business;
4. Encourage businesses to be more actively involved in social programs, employment programs, both through co-financing of the non-profit enterprises, and ensuring market access and the provision of mentoring services to organizations that deal with non-profit enterpreneurship;
5. Encourage joint public social employment programs, for public, business and civil society at local levels;

[32] Sonja Vuković, President of Forum of social entrepreneurship in Croatia, april 2011
[33] Igor Vidačak, Office for Cooperation with NGOs of Government of the Republic of Croatia, december 2010
[34] Sonja Vuković, President of Forum of social entrepreneurship in Croatia, march 2010

6. Through the media to promote best practices and systematic work on education of public sector about the possibilities of social enterpreneurship;
7. Encourage networking with similar organizations in Europe and worldwide.

4. Conclusion

Social entrepreneurs themselves want to achive social outcomes; that is what generally motivates them more than anything. Theories of social change have concentrated more on how ideas move people than how people move ideas (Bornstein, 2007:93). According to Schwab (2000) social entrepreneurs create social value through innovation and leveraging financial resources. They transform groups, organizations, or institutions. Social entrepreneurs take risks, they act courageously, they persue new ways, and they are engaged and committed to crate social value, to serve society, particulary the poor and marginalized.
Social entrepreneurship in Croatia has not yet received the right opportunity. Social entrepreneurship in practice faces with major obstacles and any attempt to systematically work on recruitment more difficult employ categories of society faces problems. Forum of Social Entrepreneurship in the Republic of Croatia takes signifficant efforts to develop social entrepreneurship in Croatia and create a legal framework for its action.
Partnerships and regional cooperation are one of the most important factors in the development of social entrepreneurship. Collaboration with local communities in achieving greater social inclusion of Croatian citizens it is important in that matter.

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WHAT IS ENTREPRENEURIAL UNIVERSITY AND WHY WE NEED IT?

ŠTO JE PODUZETNIČKO SVEUČILIŠTE I ZAŠTO JE NEOPHODNO?

"... Society's most important investment is in the education of its people. We suffer in the absence of good education: we prosper in its presence."
(Donald J. Johnston)

ABSTRACT

Entrepreneurial answer (proactivity, innovativeness, capacity to assume risk, and managing change) of university is a chance for active participation in development of the society, in which knowledge becomes a right and an obligation for all. Entrepreneurial answer offers a formula for institutional development of university in which university defines and determines its autonomy, ensures diversified financing (and thus decreases its dependence on the state), develops new university departments and activities in accordance with society's demand, and leads to structural changes, which are ensuring better university's capacity in responding to changes. In order for that to be possible, the assumption is that university is unified, but also subsidiary and autonomous, and responsible towards the environment in which it operates. The role of entrepreneurial university is emphasized in the Triple Helix concept of regional development, using current discussion on interconnection and functioning of three forces (actors) in society: university, business sector and government (Blenker et al. 2006; Etzkowitz et.al. 2000; Etzkowitz and Leydesdorff 2000).
Integrating discussions about the characteristics of entrepreneurial university stated by various authors (especially Clark 1998 and Gibb 2005) with knowledge on functioning of entrepreneurially oriented organizations (e.g. Lumpkin and Dess 1996), a model of entrepreneurial university is developed (Oberman Peterka, 2008).
By comparing the model of entrepreneurial university with situation at the J. J. Strossmayer University of Osijek, it is concluded that some elements of this model are now present at the university: some of the periphery institutions, there is diversified financing; interdisciplinarity of teaching is manifested through several university interdisciplinary graduate programs; connections between individual elements of the model exist at the Osijek University, as well as some of the connections with value components of the model (autonomy and responsibility of

university), but these are insufficiently developed and aren't contributing in the full sense to the development of the model. The goal of this paper is to see whether J.J. Strossmayer University in Osijek is entrepreneurial and what needs to be done in order for it to become entrepreneurial and why it is important to any university with particular focus on this University.

***Key words**: entrepreneurial behaviour, entrepreneurial university, model of entrepreneurial university, Triple Helix concept*

SAŽETAK

Poduzetnički odgovor (proaktivnost, inovativnost i kapacitet za preuzimanje rizika i nošenje s promjenom) sveučilišta je prilika za aktivno sudjelovanje u razvoju društva, u kojem znanje postaje pravo i obveza za sve. Poduzetnički odgovor nudi formulu za institucionalni razvoj sveučilišta u kojem sveučilište definira i određuje svoju autonomiju, osigurava diverzificirano financiranje (a samim tim i smanjuje ovisnost o državi), razvija nove sveučilišne odjele i aktivnosti u skladu s zahtjevima društva što osigurava kapacitet sveučilišta za odgovor na promjene u okruženju. Kako bi ovo bilo moguće, pretpostavka je da je sveučilište jedinstveno, ali subsidijarno i autonomno, te odgovorno prema okruženju u kojem djeluje. Uloga poduzetničkog sveučilišta naglašena je u Triple Helix konceptu regionalnog razvoja, baziranom na međuovisnosti i funkcioniranju tri snage (aktera) u društvu: sveučilište, poslovni sector i vlada (Blenker et al. 2006; Etzkowitz et.al. 2000; Etzkowitz and Leydesdorff 2000).

Integrirajući diskusije o karakteristikama poduzetničkog (poduzetnog) sveučilišta različitih autora (posebno Clark 1998 i Gibb 2005) sa znanjima o funkcioniranju poduzetnički orijentiranih organizacija (e.g. Lumpkin and Dess 1996), razvijen je model poduzetničkog sveučilišta (Oberman Peterka, 2008).

Uspoređujući model poduzetničkog sveučilišta sa stanjem na sveučilištu Josipa Jurja Strossmayera u Osijeku, zaključuje se da pojedini elementi ovog modela postoje na osječkom sveučilištu: neke od perifernih institucija, postoji diverzificirano financiranje, interdisciplinarnost podučavanja se manifestira kroz nekoliko sveučilišnih interdisciplinarnih poslijediplomskih studija, veze između individualnih elemenata modela postoje, kao i neke veze između vrijednosnih komponenti modela (autonomija i odgovornost sveučilišta), ali one su nedovoljno razvijene i ne doprinose u punom smislu razvoju modela poduzetničkog sveučilišta. Cilj ovog rada je vidjeti je li Sveučilište Josipa Jurja Strossmayera u Osijeku poduzetničko(poduzetno) i što je još potrebno napraviti kako bi postalo poduzetničko (poduzetno), te zašto je to potrebno i važno za svako sveučilište.

***Ključne riječi**: poduzetničko ponašanje, poduzetničko sveučilište, model poduzetničkog sveučilišta, Triple Helix concept*

1. Introduction

Of the institutions that had been established in the Western world by 1520, 85 still exist – Catholic Church, the Parliament of the Isle of Man, of Iceland and of Great Britain, several Swiss cantons, and 70 universities. Of these, perhaps the universities have experienced the least change. (Kerr 2001, p.115)

Universities are facing great political and economic changes. Pressures of the public for easier access to higher education, expectations of governments on involvement and contribution of university to socio-economic development of the country, and demands for application of principles of market economy and organisational management in their own organisation, have created a new context of development of higher education. Universities can no longer be regarded only as parts of the national education system, protected by the state and in charge of study and research programs. In the highly competitive world, universities must fight for students, research and financing, they must devote more attention to development of relations with external stakeholders, which demands a complete change of their previous methods of management, financing, internal structure and external relations, as well as the methods of performing activities (van Ginkel 2002).

Survival and development of the university depend on the extent to which the university will want and know to incorporate into its functioning the principles of efficiency (internal performance) and effectiveness (external performance). The inertia of the university system, which exclusively uses efficiency as a measure of quality of its activities (using partial indicators: grades, number of students, length of studying, etc.), not taking effectiveness into account (through contribution to the process of change of society for the better, through decrease of unemployment, etc.) leads to creation of a gap between the society's development demands and the university' ability to respond to those demands (Singer 1996).

There is increasing pressure to overcome the gap between universities and the society, in order for the universities to become active partners in defining and solving social issues and leading the society towards international competitiveness.

Universities in the organisational form and with functions that are dominating (and which have been in stable existence for more than 2500 years) are on verge of collapse (Abeles, 2001). The reason for this is in the inability of university organisation to adjust to the development of modern technology, which inevitably leads to the creation of alternative forms of higher education (virtual universities). University has no longer the role of "enlightenment" of society, which it once used to have; its role is turning towards a place for communicating knowledge in society (Delanty, 2001). In order to respond to changes that occur in society, university must be restructured. The strategic question with which higher education is faced today is not whether, but how to cope with changes, which characterise the modern society of today.

Emergence of entrepreneurial university is a consequence of internal development of the university and external influences on the university, coupled with the increasing role of knowledge in society, and knowledge-based innovation. University is becoming entrepreneurial in order to address the needs of its own environment, and contribute to regional and national economic development (Gibb, 2012), but also to improve its own financial situation and the position of its employees.

Entrepreneurial university refers to the university, which is able to survive and adapt in highly complex and uncertain conditions of the environment in which it operates (Clark, 2001). However, many scientists are opposed to the creation entrepreneurial paradigm, which they perceive as a threat to the traditional integrity of the university (Pelikan, 1992), and excessive emphasis on profit leads to the loss of university's role as an independent critic of the society (Krimsky, 1991, cited by Etzkowitz et al., 2000). These critics of the entrepreneurial modality of university believe that producing students and publishing research should remain university's fundamental roles. But, despite the criticism, creation of entrepreneurial university is evident, although its development, organisation and management impose many questions.

The transition towards entrepreneurial university does not mean that university becomes less oriented towards research, but that research and educational activities are seen as capital, and university expects to generate profit from its activities, primarily through projects with the business community (Blenker et al. 2006).

2. Emergence of entrepreneurial university: USA vs. Europe

There is a significant difference in defining and the meaning of entrepreneurial university in the USA and Europe (Blenker et al. 2006). The process of transformation of university towards entrepreneurial university in the U.S. is a bottom-up process, while in Europe this process is more top-down, that is, initiative for university transformation starts from the government; the European Commission and other similar institutions (Etzkowitz, 2004).

An example of direct government intervention in fostering and accelerating the process of transformation of university to entrepreneurial and innovative university is the Enterprise in Higher Education (EHE) initiative of the Department for Education and Employment (DFEE) of the United Kingdom Government, which, in the period between 1987 and 1998, has invested 60 million GBP in order to make university more aware and accountable to local, regional, national and international development needs. Strengthening the legitimacy of university through increasing employability, enterprising thinking and behaviour of students is stated as the main result of this initiative – summed up as "a changed mindset" of the university (Hagen 2002:208).
Another example of a top-down process of development of entrepreneurial university is the Berlin Propositions 1999. In this detailed study by a group of researchers from German universities, ten propositions for the development of entrepreneurial culture at German universities have been put forward (Blenker et al. 2006). In market conditions, these propositions would represent the prerequisites for the survival of the organisation. In the case of universities, they are only a guide for organisational development process, passed by the government (top-down), which does not bind anyone, and its non-implementation does not necessarily result (at least not presently) in any consequences.

Success of the top-down process is possible only in combination with the bottom-up process, i.e., in order for some process "imposed from the above" to be successfully implemented, belief about the need and desire to implement that process have to exist in the organisation. Otherwise, failure of such *(*top-down*)* process is inevitable. Governments cannot carry out university reform, nor it is their task. Universities alone have to take steps and activities towards their change and transformation into entrepreneurial institutions (Blenker et al. 2006, Clark 2001).

American interpretation of the term entrepreneurial university is very clear: entrepreneurial university is associated with doing business in the market, satisfying the needs of its customers. Stanford University is stated as one of the first examples of entrepreneurial universities (Lenoir et al. 2003, cited by Blenker et al. 2006). After the World War II, Stanford University found itself in a difficult financial situation. The then rector Frederick Terman saw the solution of the crisis and return to a high scientific level in collaboration with the business community. However, the business community was willing to pay only as much as it could get back, which meant that there was no money for fundamental research and similar activities. When the university succeeded in restoring the level of its research activities through a large number of projects, collaboration with the business community was continued, but under the condition not to compromise the fundamental principles of university's independence and quality of work. As a result of such relationship, the university was able to create technological innovations that led to the creation of today's Silicon Valley. However, Stanford University cannot be given acknowledgement for the establishment of the Silicon Valley without acknowledging the business community for the development of Stanford. It can be argued that the success of Stanford University was in the creation of both internal (among university teachers) and general (across the university) entrepreneurial culture, which has enabled synergies and produced excellent results.

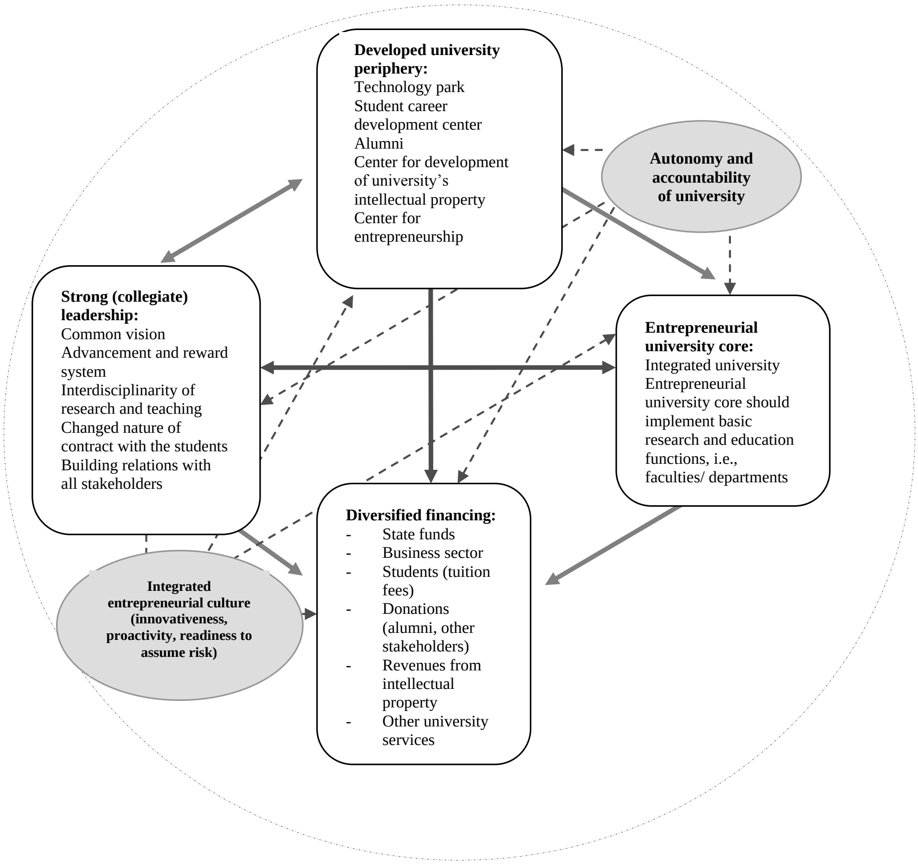
If creation of entrepreneurial university is seen as university's response to changes occurring in the environment, as well as the need of internal adjustment of university to these changes, the conditions and the necessity of creating entrepreneurial university are the same in the U.S. and Europe, as well as in other parts of the world. The difference between these two cultures lies in the different available sources and methods of funding, and the manner in which this change occurs (Blenker et al. 2006:55). Hence, no matter where they are, universities must find answers to external influences. Evidence of this is also given by Clark, who describes various cases of creation of entrepreneurial universities around the world (Clark 2004a, 2004b).

However, there is no single solution for transforming university to entrepreneurial university. Each university must discover its own mode of transformation, which best fits the situation, resources and environment of the university (Clark 2004b).

3. Model of entrepreneurial university and its characteristics

Integrating the discussions about characteristics of entrepreneurial university by various authors (particularly Clark 1998 and Gibb-a 2005) with the knowledge on functioning of entrepreneurially oriented organisations (e.g. Lumpkin and Dess 1996), proposed is the model of entrepreneurial university (Oberman Peterka, 2008), as the answer to the research question *What kind of university we need today in order to best meet the needs of the turbulent environment in which we live* (Figure 1).

Figure 1. Model of entrepreneurial university



Source: Oberman Peterka, 2008

The model consists of four basic elements, two value components and a system of connections between basic elements and value components (Oberman Peterka, 2008):

Basic components:

1. Entrepreneurial university core consists of university components which perform the basic research and education functions (faculties, departments...), and supra-organisational structure of integrated university.

2. Developed university periphery represents university's interdisciplinary, project-oriented research centres, which work on the transfer of university's knowledge and technology to the business community (applied research), develop and take care of university's intellectual property, organise and implement (in cooperation with other university departments) continuous education programs (Lifelong Learning), help with university fundraising activities, develop contacts with the alumni, help with the development of their students' careers, and organise and participate in all the activities through which university establishes contacts with its environment.

3. Strong (collegiate) leadership; university leadership capacity is very important in the creation of entrepreneurial university. Strong leadership is essential in the process of university transformation. If university leadership doesn't accept the concept of entrepreneurial university, it is unlikely that transformation to entrepreneurial university will take place. Collegial leadership relates to creation of governance structure which motivates and encourages all parts of the university to proactive and enterprising behaviour, achievement of team goals is ahead of realization of personal goals ("we" vs. "I").

4. Diversified financing; creation of financially independent (on state sources of financing) university is an important prerequisite for creation of entrepreneurial university. Financial independence (of university) creates a sense of controlling one's own destiny, because it allows the university to launch and implement projects according to its own wishes and priorities, and prevents unwanted commercialisation of university services, because it provides the freedom to choose projects.

5. Value components

1. **Accountability and autonomy** of university are two inseparable characteristics of entrepreneurial university: through responsible behaviour towards environment university obtains the right to autonomy in performing of its activity. Accountable behaviour of the university implies caring for the needs of the environment, desire to implement projects which will contribute to solving problems in the environment (research and educational). In this way university achieves a good relationship with its environment, environment accepts university as a partner, involves it and seeks its contribution to defining and implementing its projects and solving problems, thus affecting an increase in university income and strengthening university independence.

2. **Integrated entrepreneurial culture** presumes high integration of all university elements around the value dimensions of entrepreneurship (proactivity, innovativeness, readiness to assume risk), and high decentralization of university on the principle of subsidiarity in reacting to changes in the environment. For the emergence of entrepreneurial university it is necessary that university core (integrated university, university components in basic research and educational functions), university periphery, as well as two management functions (leadership and financing) are capable of entrepreneurial behaviour. Entrepreneurial/ enterprising behaviour relates to:

- Proactive activity towards its environment, in terms of prediction of possible changes in trends, demand, and adjustment of own activities accordingly;
- Continuous thinking about innovating products (educational programs, research topics...), processes (methods of teaching, methods of research, methods of transfer of knowledge to the environment...), about new organisational solutions, about new markets, etc.
- Tendency to take risks, that is, make decisions and operate in conditions of great uncertainty, when it is impossible to gather all the necessary information, required for a safe outcome.

6. Connections

The model is based on a systematic approach, which presumes connection of all parts of a system: in the model of entrepreneurial university this means mutual connection of each component and value determinant, and openness towards the environment. The fundamental characteristic of this model is alignment of internal connections on which universities' capacity to recognize opportunities in the environment and convert them into their ventures depends. Thus, for example, entrepreneurial university core influences the development of university periphery, which creates opportunities for additional sources of financing for the university; precondition for successful implementation of such interactions is the existence of strong collegial leadership at the university. Influences of one sub-system of entrepreneurial university on the other are valid in all directions.

For the process of creation of entrepreneurial university it is not important from which part of this model the process starts, it is important that leadership capacity for managing such a complex change exists.

If the model of entrepreneurial university compare with the situation at the J.J. Strossmayer University in Osijek, we can conclude the following: much is missing, from institutions, functions to elements of entrepreneurial organisational culture. The lack of connections between individual components of the model is the biggest obstacle to the emergence of integrative and then entrepreneurial university. Some connections do exist, but they are insufficiently developed and do not contribute to development of entrepreneurial university in the full sense.

The missing components can be built in into functioning of the university with different intensity of investment (dedication, time, money);

- Relatively quick and without greater financial strain: interdisciplinarity of research will be easily achieved if the way of financing by the Ministry of Science, Education and Sports is changed; starting university alumni organization and career development office;
- More time and great financial investments: technology park, enabling faculties / departments for entrepreneurial acting in implementing their basic functions (e.g. development of new educational programs, virtual learning platforms...).
- Demand dedication of all actors at the university and time, but not money: developing a joint vision, integrated entrepreneurial culture, social responsibility, organizationally integrated university with a network of relations among all components of entrepreneurial university (organizational and commercial, and value), development of new business functions (fundraising campaigns, collaboration with business sector).

Building entrepreneurial university is a lengthy process work on which must be continuous and systematic. This particularly applies to the mechanisms of internal connections and the value components of the model. It is not not enough to make a decision to create entrepreneurial culture within university and create a responsible university; what is required is to work on building such value awareness through a series of measures and activities, and show on examples what responsibility of university is, and encourage entrepreneurial and responsible behaviour of everyone at the university.

7. Conclusion

Entrepreneurial university is a university which closely monitors what is happening in the environment and readily responds to changes and signals from that environment. It educates people who are able to cope with the ever increasing uncertainty and complexity on both global and personal levels, creates knowledge that has practical application and contributes to solving of specific problems in the environment.

The entrepreneurial character of university, because of its relationship with stakeholders and the concern for the development of the environment (both internal and external) also contributes to creating a good image of the university, which plays a very important role in university development. A good image brings in more students, larger number of projects, and consequently a higher income, essential for normal functioning and development of the university.

The objective of building entrepreneurial university is to generate accomplishments that will allow achievement of a sustainable university, a desirable partner to the business and government sector within the stimulating Triple Helix development spiral. This can be possible only under the assumption that university is integrated, but also subsidiary and autonomous, and accountable towards the environment in which it operates.

Each university needs to find its own way to transform into entrepreneurial university depending on the situation it is in, resources and environment of the university.

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THE AMBIVALENCE OF THE EU AGRICULTURAL POLICY AND THE FUTURE OF SMALL AND MEDIUM-SIZED FAMILY FARMS IN CROATIA

AMBIVALENTNOST POLJOPRIVREDNE POLITIKE EUROPSKE UNIJE I BUDUĆNOST MALIH I SREDNJIH OBITELJSKIH GOSPODARSTAVA U HRVATSKOJ

ABSTRACT

Croatia has 2.95 million hectares of farmland, of which it uses only 1.2 million hectares. The areas are exploited to produce inefficiently, and so is the system of incentives and subsidies. Therefore, Croatia is highly dependent on food imports. Although there are still one in three people living in agricultural households, only a few food products are being produced in quantities sufficient for national needs. On food imports such as the one in 2008, Croatia has spent $ 1.5 billion. Rural areas occupy about 85 percent of the territory, and 85 percent of villages are affected by depopulation. Residents of rural areas are characterized by increasing life expectancy and a fifth of the rural population aged between 25 and 40 years wants to move to the cities. In fact, almost half of agricultural land is classified in the group threatened by erosion. Nearly a third of all agricultural land suffers from acidity. More and more farmland is lost by converting agricultural land into construction land. For these reasons, the strategic goal of increasing agricultural production will not be easy to achieve. To achieve this we need to change priorities in national policy towards agriculture and rural areas. It is considered that a major obstacle in the way of raising productivity is the small area (approximately 1.9 hectares) owned by agricultural households. These households, on the other hand, have approximately 80 percent of agricultural resources. Fragmentation of agricultural land does not adopt the global economy, but emphasizes large, easier and faster cost-effective systems. Small agricultural households are facing destruction, and without them there is no life in rural areas and caring for the environment. The imperative to raise productivity in agriculture comes into conflict with the objectives of rural development and sustainable development. In order to counter such trends, the EU wants to use incentives to adjust small and medium-sized farms to market conditions. However, the distributional impact of incentives is such that large manufacturers picked the most money, rather than small and medium producers. This effect leads to land consolidation, the creation of large landowners and the development of profitable food industry. Deregulation and the promotion of competitiveness in agriculture and food industry further complicate the survival of viable rural communities. In surviving villages, the EU wants to develop the competitiveness and diversification of agricultural production in rural households (e.g. tourism and rural crafts). In this paper we explore the ambivalence of European agricultural policy and its impact on Croatian agriculture and countryside, and try to answer the question whether this policy, in the case of Croatia, will lead to the collapse of local agriculture, the disappearance of rural *communities and food price increases. Based on experiences of other countries and theoretical models, the paper gives outlines of a national agricultural policy which would, for example, through the development of cooperatives and clusters protect family farms and households living in rural areas. At the same time such a policy could affect the increase in agricultural yield and income of small and medium-sized farmers.*

Key words: *EU agricultural policy, agricultural corporation, small and medium-sized farms, competitiveness and diversification of production, agricultural cooperatives and clusters*

SAŽETAK

Hrvatska ima 2,95 milijuna hektara poljoprivrednih površina, od kojih iskorištava samo 1,2 milijuna hektara. Područja za proizvodnju se iskorištavaju neefikasno, a takav je i sustav poticaja i subvencija. Zbog toga je Hrvatska veoma ovisna o uvozu hrane. Iako u njoj još uvijek svaka treća osoba živi u poljoprivrednom kućanstvu, svega se nekoliko prehrambenih proizvoda proizvodi u količinama dovoljnim za vlastite potrebe. Na uvoz hrane Hrvatska je npr. 2008. g. potrošila 1,5 milijardi dolara. Ruralna područja zauzimaju oko 85 posto teritorija, a čak je 85 posto seoskih naselja zahvaćeno procesom depopulacije. Stanovnike ruralnih krajeva obilježava sve veća prosječna životna dob, a petina seoskog stanovništva u dobi između 25 i 40 godina želi što prije odseliti u grad. Pri tome gotovo polovinu poljoprivrednih zemljišta svrstavamo u skupine ugroženih erozijom. Skoro trećina svih poljoprivrednih zemljišta trpi od zakiseljenosti. Sve se veće poljoprivredne površine gube prenamjenom poljoprivrednog zemljišta u građevinsko. Iz navedenih razloga strategijski cilj povećanja poljoprivredne proizvodnje neće biti lako ostvariti. Da bi se to postiglo potrebno je promijeniti prioritete u nacionalnoj politici prema poljoprivredi i selu. Kao glavna prepreka na putu podizanja produktivnosti smatra se mala površina (prosječno 1,9 ha) koju posjeduju poljoprivredna kućanstva. Ova kućanstva, s druge strane, posjeduju približno 80 posto poljoprivrednih resursa. Usitnjenost pak poljoprivrednih površina globalna ekonomija ne prihvaća već potencira velike, lakše i brže isplativije sustave. Sitna poljoprivredna kućanstva se nalaze pred uništenjem, a bez njih nema života u ruralnim područjima i brige za očuvanje okoliša. Imperativ podizanja produktivnosti u poljoprivredi dolazi u sukob s ciljevima ruralnog razvitka i održivog razvoja. U želji da suzbije takva kretanja, EU u globalno kriznom ozračju poticajima nastoji prilagoditi mala i srednja poljoprivredna gospodarstva tržišnim uvjetima. No, distribucijski učinak poticaja je takav da veliki proizvođači ubiru najviše novca, a ne mali i srednji proizvođači. Takav učinak vodi do okrupnjavanja zemljišta, stvaranja velikih zemljoposjednika i razvoja prehrambene industrije. Deregulacija i promicanje konkurentnosti u poljoprivredi i prehrambenoj industriji dodatno otežavaju opstanak održivih seoskih zajednica. Kako bi selo ipak opstalo, EU rješenje vidi u razvoju kompetitivnosti i diverzifikaciji proizvodnje poljoprivrednih kućanstava (npr. u bavljenju turizmom i tradicionalnim obrtima). U ovom se radu istražuje ambivalentnost europske poljoprivredne politike i njezin utjecaj na hrvatski agrar i selo, te se pokušava odgovoriti na pitanje da li će ova politika u hrvatskom slučaju dovesti do propasti lokalne poljoprivrede, nestanka ruralnih zajednica i poskupljenja hrane. Na temelju iskustava drugih zemalja i teorijskih modela u radu se daju obrisi nacionalne poljoprivredne politike koja bi, kroz npr. razvoj zadruga i klastera, mogla zaštititi obiteljska poljoprivredna kućanstva i život u ruralnim područjima. U isto vrijeme takva bi politika mogla utjecati na povećanje poljoprivrednih prinosa i dohotka malih i srednjih poljoprivrednika.

Ključne riječi: *poljoprivredna politika EU-e, poljoprivredne korporacije, mala i srednja obiteljska gospodarstva, kompetitivnost i diverzifikacija proizvodnje, poljoprivredne zadruge i klasteri*

1. Introduction

Agricultural production has in the past fifty years changed more significantly than during the whole ten- thousand-year-old period from the Neolithic revolution to this day. Still, the multi-millenary progress in food production for the consumption of a great number of people who do *not* participate in food production is one of two most important foundations of our civilization. When observed at the level of individual groups of humans, ever since the emergence of first economies, agricultural production has been the key production branch. Due to its function of satisfying basic human needs food production is today still too sensitive and complex an economic area to merely abandon it to the fluctuations of the all-dominating market and free trade as modes of management. This logic is strictly held by the greatest world powers such as USA, EU and China who still protect their agricultural sectors with subsidies, limits on export and/or destruction of food surplus. Numerous agricultural subsidies are helping the USA and EU to keep their status as food exporters, although in this way they grossly violate the rules of free competition and trade they proclaim.

The role of Croatian agriculture is also to produce food that will satisfy local demand, and due to its natural advantages it is expected over time to become a significant exporter of agricultural products. However, poor yield currently realized by domestic agriculture makes it another problem-ridden part of national economy. Therefore, this paper generally researches the effects that current market-inspired and managed national and European (EU) agrarian reforms will have on the efficiency, fairness and sustainability of local agriculture. Within the framework of this broad subject we will particularly analyze the current and future positions of small and middle-sized farmers who are feared to become the biggest losers due to neo-liberal agrarian reforms. What is at stake, are the destinies of 100,000 people who live today in Croatia on independent agricultural production and do not employ external workforce. They can hardly adjust to the market conditions, fend off corporate agricultural production and fight free trade of food products. Their prospective pauperization and proletarianization is not sufficiently taken care of, and neither are the spatial, demographic, social, cultural, environmental, and other social consequences of their demise and disappearance.

In order to prove the conclusions on effects of neo-liberal transformation of the Union's agricultural policy (CAP) and the Croatian agricultural policies on small and middle-sized farms, in the second and the third part of this paper we shall theoretically analyze the attributes and the goals of the European agricultural policy and the state and problems of Croatian agriculture and agricultural policy. We also conclude that after Croatia's entry into the EU the differences between these agricultural policies will increasingly diminish, especially in the circumstances of strong links between the crisis-ridden Croatian and European economies.

In the concluding part of the paper, based on the most important preliminary insight, we shall form a model according to which the local agricultural sector should function. In accordance with this model agrarian reforms will in Croatia, as shown in analyses of similar reform in other moderately developed countries, lead to the concentration of agricultural real estate, as well as to concentration of agricultural production, exclusion of poor/ non-competitive manufacturers and the increase of their proletarianization. Aside from problematizing long-term economic benefits from initial growth, the conclusion also includes the environmental, cultural and other criticism of the conceived neo-liberal institutional framework in which

local agricultural production will have to find its place in the future. It makes the most sense to question the logic of sacrificing everything – fairness, solidarity, health, tradition, security, free time, dignity, and life in harmony with nature – for the purpose of efficiency increase and wealth of the very few in the context of production and distribution of basic foodstuffs.
At the end of the final discussion we will also give suggestions, which could, if they become an integral part of Croatian agricultural policy, help the survival of small and middle-sized manufacturers, moreover which should alleviate their problems and prevent the most damaging consequences of this agricultural shock-therapy. These suggestions call for an increase in agricultural intervention, but do not erode the rules of the free agricultural market and international trade.

2. Common Agricultural Policy (CAP) and the agriculture of the EU

In the highest developed countries in the world agriculture has a small share in the gross domestic product, and therefore agriculture and agricultural policy are very rarely the focus of discussions on national economic policies. Even though the share of agricultural production in EU's common GDP is similarly low, only ca. seven percent with employment of around seven percent of the workforce, agriculture and agricultural policy have for decades taken almost the most important place within the common economic policy of the EU.
This placement can easily be explained on the example of the founding Treaty of Rome in which the Common Agricultural Policy (CAP) is the only explicitly mentioned area of economic policy. Furthermore, from the time of its establishment until recently the EU has spent most of its budget on managing and subsidies in agriculture (today it comprises less than 40 percent of the budget), and an equally great attention was being given to making numerous provisions and spreading the power of the EU in the area of agriculture. All the money and effort invested are a reflection of European agricultural protectionism which did not even shirk from direct meddling in formation of agricultural products' prices and the amount of European farmers' income. Western European countries have long known that without subsidies their agriculture cannot survive in the global market or maintain the same level of competitiveness. Through high pricing of agricultural products (subsidies are compensation for reduction of prices) which makes the essence of continually criticized European agricultural policy, CAP simultaneously tries to provide i) high food production, ii) existential security for agricultural manufacturers, and iii) self-reliance and solidity of European citizens' consumption (McCormick, 2010, 169-170).
Next to its economic (in the year of establishment agriculture of the founding six employed 20 percent of the workforce and had a share of 12 percent in the gross domestic product) and safety importance (as a consequence of the food trauma of the Second World War), agriculture is also traditionally considered important due to some other reasons such as, maintaining the rural way of life and production, protection of countryside, caring for the animate and inanimate environment, etc. Due to noted multifuncionality and simultaneous vulnerability of small and middle-sized farms the Union decided to protect not only that which is of economic importance, but also that which can contribute to some extra-economic values. The contribution to such a view of the Union on the function and importance of agriculture and farmers was given by the strongly union-organized farmers and rural lobbies at the national and EU-level.
Although over time the CAP has started to gradually open more economies of member states to market competition, similar processes mostly bypassed European agriculture and farmers protected by tariffs. In contrast to the agriculturally most powerful France, Germany placed more importance on its industry and did not, therefore, raise any issues on development of a complex and expensive system of common agricultural incentives or protectionist system.

Common incentives were also a solution to the issue of national incentive which could, if there was no standardized incentive policy, come into conflict with the concept of the single market. As a result of the CAP European farmers were until recently guaranteed a minimum price for their products regardless of the amount of production, world prices or the supply/ demand ratio (McCormick, 2010, 171). The CAP funds also finance the investment in new agricultural technologies, but also the health, retirement and other related incentives for farmers. The CAP has managed to achieve extraordinary results which include, among others, a high standard of living for European farmers, the largest amount of product export (the share of EU in the world is 43 percent). The CAP was also subjected to numerous critiques because of the mistakes it was credited with: production of vast food surplus, increase in prices of agricultural land, not reducing the chasm between the income of rich and poor farmers and the agricultural North and South, environmental damage arising from the growth of agricultural holdings and their increased efficiency, increase of food prices despite the surplus, “devouring” funding from the European budget, distortion of international food prices and creating an economic dependency and malverzation in subsidized farmers. Reform measures taken reduce the guaranteed prices of some products and direct payment to larger farms, and subsidies are not connected with over-production but with the size of arable lands (around 250 euro of subsidy per hectare). Also, instead of quantity the Union starts promoting quality since the goal has now become the production of higher quality food and larger income (Grgurić, 2010). The creators of this reform claim that these measures will distort the trade in agricultural products less, as well as that agriculture will become more market-oriented and diversified (McCormick, 172-173). The Union also argues that conditions are now right for an additional increase in agricultural products’ export to the vast markets of the newly developed India and China (Rademacher, 2003, 182), in which process the most contribution is expected from increasing production in Eastern European agriculture. However, through the enlargement of the EU to Eastern Europe some new challenges were posed before CAP. Due to vast agricultural areas and fragmented holdings and a relatively low productivity of the most Eastern European farmers (these countries have as much as 7 million farmers in contrast to the 6 million in older and more populated member states), the Union was forced, due to some political and social reasons, to invest large funds (McCormick, 173-174). However, they were still smaller than the ones in the old member states in order to protect the small and middle-sized farmers in these countries from new competition.

Regardless of vague and in the time of austerity questionable promises of the Union of a gradual increase of funds allocated to the agriculture of transitional countries (including Croatia), the reformed CAP has some features of ambivalence because it imposes on newly accepted member states a reduction of state incentives and opening of their economies to the market game. Many are of the opinion that in the circumstances of structural differences between the member states of the EU-15 and the ones of the EU-12 these measures favor the western European farmers and their cheaper products, which will consequently flood Eastern European food markets. The victims in this case will be small and middle-sized Eastern European farmers.

3. The effects of CAP on Croatian agriculture and the position of small and middle-sized farmers

The forthcoming entry of Croatia into the Union has found the local agriculture, the manufacturers and the consumers of food in a hard situation. Namely, even though there are 2.95 million hectares of agricultural areas, Croatia uses only 1.2 million hectares for production. In addition, these areas are used inefficiently, and the like can be said about the existing system of incentives and subsidies. Due to this Croatia is very dependent on food import. Between 2000 and 2009 Croatia imported from the EU market food in the amount of 9.15 billon euro, while during that same period it exported agricultural and food products in the amount of 2.96 billon euro. In this same period agriculture was given 27 billion in incentives, but self-reliance was achieved only for a few products with a modest increase in export. In the previous five years only sugar, fish and meat products have noted a positive balance in the total exchange of goods with the member states of the European Union (Babić, 2012). An insufficient production is compensated by an almost unlimited import of food. This situation can be blamed on non-selective incentive measures, trade barriers which are imposed by the Union on potential local exporters and the benefits that local importers of food have from a stagnation of local production. For instance, it is not clear how the most incentive monies end up in Agrokor (annually between 150 and 200 million owing to which it successfully increases food production on its land) while simultaneously the very same Agrokor as a concern owns half the companies of ten greatest local food importers (Čulić, 2012). We import the most food from producers in Germany. Altogether, in the year 2010 the total production in the sector of agriculture was valued at 21.2 billon kuna, while the gross added value was 9.7 billion kuna (the net added value was 7.1 billion kuna). In contrast to 2005 the value of local agricultural production increased 3.4 billion kuna (around 16 percent) and the gross added value 4 billion kuna. For the sake of comparison we will state that in that same period the agricultural production in the newcomer EU-12 member states was on average increased 12.7 percent. The highest was in Poland with an increase of 45.2 percent, while Slovenia noted an almost 8 percent decrease of production (Babić, 2012).

The problems of long-term insufficient production, large export which destroys local production and an expensive food bundle which local consumers have to pay are not the only problems related to Croatian agriculture. There is the problem of rural areas which comprise 85 percent of the territory, where every third person in Croatia lives in a farm household. Out of the total number of rural settlements as much as 85 percent of them are affected by the process of depopulation. The inhabitants of rural areas are marked by an increasingly higher average age, and a fifth of the total rural population (1,971,005 in 2001) in the age group between 25 and 40 years wants to move as soon as possible to the city. In Croatia around a million people i.e. around 50 percent of total workforce still gain at least a part of their income from farming. One should include in the problems mentioned the increasingly worsening state of agricultural land bio-capacity. Almost a third of all agricultural land is affected by acidity, almost half is in danger of erosion, and ever larger agricultural lands are lost to conversion into construction land. Artificial fertilizers are excessively used and it affects a poor quality of the soil (reduced resistance to drought and climate variability) and water and air pollution. (Šimleša, 2010, 184-186).

In the context of the above mentioned it is clear that in the future Croatian agriculture, farmers and rural areas will be under an increasing preassure of market-based views on the structure and function of agricultural production and neo-liberally inspired reform of agricultural policy of the EU (from 2003), as well as gross disappointment with the absence of a more significant development of local agriculture despite the billions of funds invested. Croatian agricultural policy (if we agree that it even exists today) will most probably strive to reduce agricultural incentives, abandon farmers' protection measures (deregulation) and concentrate agricultural production under the umbrella of local and foreign corporations. National agricultural policy will also strictly follow other guidelines from the CAP, a policy which is primarily directed towards reducing the number of subsidized commodities, i.e., redirection of subsidies to commodities which bring the most income per unit of area (e.g. ecological products). This means that in the entire area of the EU, including EU-12 and Croatia, products with low added value will be produced in large agricultural corporations (and to some extent in large family farms), who need large areas in order to funciton profitably. Corporate-based and

capital-intensive production will certainly increase yield, execute pressure on prices aiming downwards and strengthen the agricultural export of the EU. It is believed that it will be a further contribution to European food security, but also to an even easier access of wider strata of population to cheaper food (the quality of the food is a different issue). In tte implementation of the new agricultural model the Union must heavily rely on large food production corporations, and in accordance with the continuing policy of promoting national agricultural interests the largest share of the profit which will be crated in Eastern European agriculture will be seized by the highest developed states and their agricultural corporations. How lucrative a business agriculture can become in the future is also shown by projections of the international charity organization *Oxfam* which predicts a 70 to 90 percent increase in food prices in the next twenty years in the world.
Critics of this model argue that production organised through large agricultural systems is very vulnerable due to high specialization and prevailing monocultural production. Namely, despite the technological development (or just because of it) contemporary agriculture faces a great challenge which e.g. growing energy resources prices, and especially climate change bring with them (Faber, 2012). At present they already affect the decrease or stagnation in crop yield in the world and the depletion of its reserves, i.e. the weakening of total biological productivity of our planet (Flanery, 2007, 228-231). According to extreme scientific views the most severe climate changes could relatively quickly incapacitate the supply of larger cities with food, water and energy, and thus wipe out the whole civilization. If we are hit by such climate change or some other severe environmental crisis, the experts are of an opinion that the downfall of our civilization would only be survived by those who live in smaller communities, such as villages, produce their own food at small farms and apply their numerious and various abilities. Therefore, with the growth of global agricultural production food security is not guaranteed to anyone forever, and this indicates that we should not carelessly get rid of the "primitive" rural life and the ways of food production appropriate to it. In this context the counter-arguments advocating de-globalization and de-liberalization of agricultural production and strengthening local production and manufacturers seem rational enough. Such production would increase local productivity, and decrease prices, since food must not become the object of speculations, and raise the security of local food.
Within the model of agricultural production which is dominated by large corporations and a few large family farms it is almost inevitable that most small farms and a good deal of middle-sized family farms will disappear. The combination of low costs of corporate production, high subsidies for corporations and decreasing the ones for small manufacturers can, economically speaking, be survived by only a small number of peasants. It will depend on their success in the demanding process of transition from the conventional to organic production, i.e. to high-quality products, with significant added value and additionally subsidized by the Union. However, since even the turn towards new products and ecological production is insufficient to create a significant income, small and middle-sized farmers (we are talking about more than 100,000 Croatian peasants) will under the conditions of increased deregulation and competitiveness have to look for their salvation from utter pauperization in *diversifying economic activity*. The Union believes that everywhere in Europe relativelly wealthy rural communities can survive based on the "idea of creating few rural farming households which will, when possible, have the funciton of tourist sights" (Kikaš, 2011). Thus, small and middle-sized farmers who have weak resources and knowledge will also have to become service workers and have to deal in addition to agriculture with tourism, traditional crafts, entertainment and ecology.
The neoliberal policy intends to *proletarianize* everyone who has not managed to raise competitivenes and succesfully further their activities. Failed farmers will head for the cities hoping for employment and new life. Due to the economic crisis which has not been

overcome, but also for some other reasons, in those cities there will not be nearly enough jobs for them and they will turn into the poorest precariate. In accordance with this solution, there will not be neglected agricultural lands because they will be taken over by corporations and large family farms, but there will be abandoned houses and farms.

In the case of Croatia, the final result of the European agricultural reform will be a drastic reduction in the share of farmers in active workforce, and will fall far beneath the current 8 percent, and even under the 5 percent of the Union. The conventional economics considers this trend of reduced share of agricultural population still to be a positive occurence and a sign of progress. From its narrow viewpoint it estimates that agricultural products are very simple and that they bring a small added value into the capital invested. Therefore it claims that the increase of national income can only happen through redirecting the workfoce from agriculture into other more profitable sectors, such as pharmaceutical industry or telecommunications (Grgurić, 2010). However, it is a logic inherent to capitalism which faces more and more criticism, revalorization and demontage because it does not take into account any other economic interest or social value. It does not even take into account the pressures described which are already burdening contemporary agriculture.

4. Instead of the conclusion: guidelines for the national agricultural policy with the function of protection of small and middle-sized agricultural farms

If Croatia needs to take the same road that was already taken by modern developed and wealthy countries, it is an intriguing issue whether it must “reduce its actual agricultural population to an ever smaller and sometimes *absurdly* small share in total population” (Hobsbawm, 2009, 252)? In solving the problem of insufficient agricultural efficiency, in a way which is deeply connected to short-term and short-sighted profit interests of the few, does it need to sacrifice not only small and middle sized farmers but also numerous other parts of the whole society and through this show a profound economic and social irrationality? How to organize an agriculture which will reconcile the imperative of efficiency, on the one hand, and the preservation of the rural way of life and survival of small and middle-sized farmers and protection of the environment on the other? While searching for answers it is evident that economic/profit logic cannot and must not be the only one through which we view the future of the strategically most important sector of economy and its weakest participants. The analysis of the results of other market-lead agrarian reforms which were implemented in other moderately developed countries similar to Croatia show an increasing deregulation and decreasing state incentives create “a tendency towards concentrating land ownership, exclusion of the poorest and a growing proletarianization” (Oya, 2012). During and following the implementation of such reforms there arises social stratification, and growing inequality, the winners are the few capitalists and large agricultural farms located close to the cities, and the losers poorer peasants with low competitive value and those that live only on rural income.

In order to reconcile the goals of increase of production and the survival of small and middle-sized farmers (with a decent standard) and rural areas in the context of the above considerations the local agriculture would have to:

1. understand the ambivalence of the European CAP and its catering to the interests of foreign agricutlural corporations and food security of the highest developed western states;
2. change the overwhelmingly negative image the public has of agricultural produciton, the village and life in rural areas through positive propaganda on economic, security, social, areal, spatial, demographic, environmental and cultural importance of farmers and the village;

3. remove obstacles to the development of competitiveness of local farmers through supporting their linking and joining into cooperatives and clusters which are a guarantee of farmers remaining in villages;
4. organize a widespread and continuing education of farmers on technological development, organic production, product health safety, tax, credit and accounting system, subsidies and preparation of European projects, managing skills and lobbying, managing agricultural lands owned by units of local governemnt, building and maintenance of basic communal and social infrastructure, environmental protection, etc.;
5. establish and support a financial institution which would ensure cheaper loans, production materials and equipment for the local farmers as well as debt recovery;
6. stop delays in subsidy payments, strictly control their utilization and penalize offenders;
7. protect the arranged redemption prices in case of pressures from large buyers and generally reduce tax rates on food;
8. invest in agricultural scientific and research activities and public infrastructure of irrigation/ drainage;
9. pursue a policy of constant negotiations with the EU on access of imported food to local agricultural market and preferential agreements within the regulated framework of CAP;
10. ensure that every agricultural reform is well prepared and gradually implemented (with no shock-therapy), and that it is followed by programs and measures providing for the most endangered farmers.

We believe that the proposed guidelines are neither romanticist, nor naive and politically short-sighted. If they are not implemented local agriculture, regardless of its own potentials, cannot develop significantly in unequal competition with the more efficient agricultural sectors of Western European states. Small manufacturers have a right to protection of their own production in the name of preventing the emergence of numerous political, social, spatial, cultural and environmental anomalies and victims. Moreover, the intersts of capital, European export and the growing world-wide demand for food can be realized without trampling the interests of small farmers and agricultures, regions and states.

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PRIORITY DEVELOPMENT PROGRAMS FOR PROCESSING OF AGRICULTURAL PRODUCTS IN EASTERN CROATIA

PRIORITETNI PROGRAMI RAZVITKA PRERADE POLJOPRIVREDNIH PROIZVODA U ISTOČNOJ HRVATSKOJ

ABSTRACT

In the Eastern Croatia, there are natural conditions for developing food industry and small family entrepreneurship for agricultural product processing. Favorable conditions include sufficient areas of high quality soil, good climate conditions for agricultural production and irrigation possibility. In addition, there are many years of experience in the production, the old tradition, a sufficient number of highly trained personnel and quality of research institutes in that area. Production of agricultural products is relatively well developed in relation to the other regions in Croatia. However, production of certain agricultural products is not sufficiently developed and represented in relation to the natural capacities (fruits, vegetables industrial crops and cattle products). In the Eastern Croatia, there are certain capacities for processing of agricultural products. That processing involves mostly so-called basic food industry, namely, production of sugar, flour, meat, milk and to some extent edible oil. In the past several decades, the development of agricultural product processing was not sufficiently monitored the possibilities of the agricultural production. Because of that, the basic food industry was not enough developed and less than above mentioned was developed the food industry with higher level of product finalization. Croatia, but especially the Eastern Croatia is lagging in the production of foods preserved by low temperatures, cooling and freezing.
In this paper, the production, import, export and consumption of food in Croatia from 1997 to 2010 years were analyzed. The priority programs of processing of agricultural products and other conditions necessary to initiate the development of these processing, were defined too. Guidelines of structural sowing changes in agricultural production were given and identified the other problems important for development of agricultural processing.

Key words: *Eastern Croatia, economy, development, agricultural products, processing, food industry*

SAŽETAK

U istočnoj Hrvatskoj postoje prirodni uvjeti za razvoj prehrambene industrije i malih obiteljskih gospodarstava na području prerade poljoprivrednih proizvoda. Pod prirodnim uvjetima podrazumjevaju se dovoljne površine kvalitetnog poljoprivrednog zemljišta, povoljni klimatski uvjeti za poljoprivrednu proizvodnju i mogućnost navodnjavanja. Pored toga postoji dugogodišnje iskustvo u toj proizvodnji i višestoljetna tradicija, dovoljan broj visoko obrazovanih kadrova i kvalitetne znanstvene institucije na tom području. Proizvodnja poljoprivrednih proizvoda je relativno razvijena s obzirom na druge regije u Hrvatskoj. Međutim proizvodnja nekih poljoprivrednih proizvoda nije dovoljno razvijena i zastupljena u odnosu na prirodne uvjete (voće, povrće, industrijsko bilje, stočarski proizvodi). Na području istočne Hrvatske postoje izvjesni kapaciteti za preradu poljoprivrednih proizvoda. Ta prerada obuhvaća pretežito tzv. osnovnu prehrambenu industriju sa proizvodnjom šećera, brašna, mesa, mlijeka i manjim dijelom jestivog ulja. U prethodnih nekoliko desetljeća razvoj prerade poljoprivrednih proizvoda nije dovoljono pratio mogućnosti poljoprivredne proizvodnje. Zbog toga niti tzv. osnovna prehrambena industrija nije dovoljno razvijena, još manje je razvijena prehrambena industrija s višim stupnjem finalizacije. Istočna Hrvatska je pored prirodnih uvjeta i solidne sirovinske osnove zaostajala u razvoju prehrambene industrije i sve više postajala sirovinska baza. Zaostajanje je evidentno u svim granama prehrambene industrije a posebno u proizvodnji i preradi voća, povrća, mlijeka i preradi industrijskog bilja i mesa. U cijeloj Hrvatskoj ne postoji mokra prerada kukuruza dok je proizvodnja kukuruza najzastupljenija u ratarskoj proizvodnji. Također Hrvatska zaostaje a posebno istočna Hrvatska u proizvodnji hrane konzervirane niskim temperaturama hlađenjem i smrznute hrane. U ovom radu analizirana je proizvodnja, uvoz, izvoz i potrošnja hrane u RH od 1997 do 2010 godine. Definirani su prioritetni programi prerade poljoprivrednih proizvoda i ostali uvjeti koji su potrebni za pokretanje razvitka prerade poljoprivrednih proizvoda. Dane su smjernice promjene strukture sjetve u poljoprivrednoj proizvodnji te identificirani ostali problemi bitni za razvitak prerade poljoprivrednih proizvoda.

Ključne riječi: *Istočna Hrvatska, gospodarstvo, razvitak, poljoprivredni proizvodi, prerada, prehrambena industrija*

1. Introduction

Agriculture, food industry and processing of agricultural products are the most important branches of Eastern Croatia economy. Besides tourism, these natural resources should be the priority directions of Croatia economic development. The time in which we live today is marked as a transition from industrial to information society. Economic trends in developed countries are showing increase of information and services in the economy and decrease of agricultural and industrial production (Baotić, 1997). Croatia cannot completely avoid these trends and development cannot be based only on the development of agriculture, food industry and tourism but also on the development of other sectors of the economy. To achieve development and prosperity Croatia must primarily develop agriculture, processing of agricultural products and tourism as natural advantages.

2. Resources for food production in Croatia

- Significant areas of fertile and quality agricultural land especially in Slavonia, Baranja and Srijem,
- Favorable climatic conditions for food production,
- The experience and population traditions in agricultural production,
- The possibility of irrigation,
- A sufficient number of qualified personnel,
- Universities and research institutions.

Thus there are the conditions for producing enough food for their own needs, the needs of tourism and the export (Pozderović, 1997-2011).

3. The situation in the production and consumption of food in Croatia

Besides all above mentioned potentials Croatia doesn´t produce enough food to feed its population. The situation in the food sector is the following:

- Lack of processing of agricultural products and food industries,
- Lack of refrigeration and cold storage space for receiving, processing, storage and packaging of fresh food primarily of fresh fruit and vegetables,
- Unsatisfactory structure of agricultural production,
- Insufficient food production,
- Excessive import and further increase in food import.

Table 1. Import and export of some vegetables in Croatia in the period 1997-2010

Vegetables	**Import (t)**				**Export (t)**			
	1997	**2000**	**2005**	**2010**	**1997**	**2000**	**2005**	**2010**
Tomato	9672	8377	10191	8987	200	129	179	116
Onion,shallots, fresh chilled	10446	12290	11980	13919	181	56	499	1258
Garlic	1814	2209	2385	2040	7	11	1	0,16
Leek	561	245	181	223	14	4	8	8,4
Cauliflower, broccoli	2385	792	1638	1704	30	12	20	330
Cabbage	2701	2265	2054	3485	590	113	1025	291
Lettuce	1908	517	534	3345	181	68	6	164,5
Carrots, turnips	4756	431	7748	7397	35	1	12	28,2
Other root veget.	1047	630	194	384	11	10	0	9,3
Seed potatoes	5729	7820	8239	6793	24	-	22	0
Potatoes, other, fresh chilled	4108	17051	17325	19218	3126	210	393	1268
Brussels sprout	290	6	79	43	10	-	1	13
Other edible brassicas	491	184	639	441	22	83	16	3,4
Chicory, radish	870	1404	635	526	-	1	0	0
Cucumbers and gherkins	2304	1063	1953	5969	520	321	197	62
Peas fresh	18	2	5	8	2	-	-	0
Grean beans and other	368	671	79	321	16	1	5	0
Eggplant	303	11	479	700	63	-	0	9
Celery	315	465	680	628	3	1	50	0,2
Paprika	3847	2844	2324	5945	350	388	1058	423
Spinach	452	132	67	123	-	1	0	0
Other veget.	1100	1 441	1333	1181	21	94	125	320,7
Total	**55485**	**60850**	**70742**	**83380**	**5 406**	**1 504**	**3617**	**4304,8**

Source: Croatian Bureau of Statistics

The current food industry in Croatia, especially in Slavonia and Baranja is not sufficiently developed with regard to the possibilities of agricultural production. The basic food industry, which includes the wet processing of corn in starch, hydrolysate and modified starches, production of quality wheat and corn flour, soybean processing plants, production of vegetable oils, meat and fish, milk and oil isn´t sufficiently developed. Processing with higher degree of finalization such as: production of frozen food, fruit, vegetable, meat, milk and vegetable oils processing are even less developed. The development of food industry must be based on agricultural production adjusted according to the needs for processing of these products. Better evaluation of these products with higher degree of finalization would give the new added value contributing to employment rate and food import reduction (Pozderović, 1997-2011). Data in Table 1 shows that in 2010 import of fresh vegetables was significantly greater than 1997, it increased from 55 485 t to 83 380 t which represents an enormous increase in import. Import of fresh fruit (Table 2) significantly decreased in last five years from 77 858 t in 2005 to 35 416 t in 2010 due to higher domestic production and less import of apples and grapes for processing. However there is still insufficient production and high import of fresh fruit. An enormous import of fresh vegetables is due to the lack of its domestic production.

Table 2. Import and export of some fruit in Croatia in the period 1997-2010

Fruit	**Import (t)**				**Export (t)**			
	1997	**2000**	**2005**	**2010**	**1997**	**2000**	**2005**	**2010**
Apple	10621	14250	20372	8840	3774	1943	9245	19598
Pear and melon	7076	2675	7210	5476	11	11	2	79
Sweet and sour cherry	541	209	919	1302	-	-	43	189
Apricots	1916	1569	2204	1679	1	-	2	16
Peaches	7328	8124	9282	7380	67	7	0	0
Strawberries, raspberries	1169	737	5416	988	2	3	17	133
Plums	2362	1686	894	660	6	15	65	400
Grapes for processing	11776	8831	14343	1327	224	11	26	8
Grapes for eating	9475	8771	13917	7293	5	10	25	37
Other fresh fruit	699	252	3301	471	1	1	6	32
Total	**52963**	**47104**	**77858**	**35416**	**4091**	**2001**	**9431**	**20492**

Source: Croatian Bureau of Statistics

There are several reasons for the insufficient production of fruit and vegetables. One of the most important reasons is that there are no cold storage and facilities for receiving, washing, screening, storing and packing of fresh fruit and vegetables. Compared to Europe and the World Croatia is lagging behind in the production and consumption of frozen food and application of refrigeration for food preservation. The annual consumption of frozen food per capita in Croatia was 15 kg and thus multiple smaller than that in some West Europe countries with 50 kg per capita and US over 60 kg per capita (Figure 1). Even more significant was that Croatia with its agricultural potential in total annual consumption of frozen food in 2010 with 80 434 tones, imports 87,4 % or 70 295 t.

Table 3. Production and consumption of frozen food in Croatia in the period 1997 – 2010

Product	**Production (t)**				**Consumption (t)**			
	1997	**2000**	**2005**	**2010**	**1997**	**2000**	**2005**	**2010**
Other bakery products, fresh, frozen	4515	5247	6007	240	4515	5247	6007	240
Fruit pulp and mash frozen	100	0	0	0	311	1187	905	0
Frozen fruit	25	0	0	651	201	2279	2032	0
Frozen paprika	0	0	0	0	1162	317	66	480
Other frozen fruit	5	55	0	0	6562	6611	12415	18281
Frozen semi-prepared meat dishes, shaped meat	-	-	-		1445	396	37	199
Sea fish, frozen, crustaceans and molluscs	154	185	364	3677	3463	18795	33580	27735
Semi-frozen fish dishes	588	92	78	903	2574	1547	1743	2775
Ice cream	8548	9503	9293	13524	10387	10604	10683	13067
Edible offal by-products frozen	11	230	4	0	365	535	230	513
Poultry sliced frozen	2	-	-	5340	87	542	1 616	17144
Total	**13948**	**15312**	**15746**	**24335**	**31072**	**48060**	**70114**	**80434**

Source: Croatian Bureau of Statistics

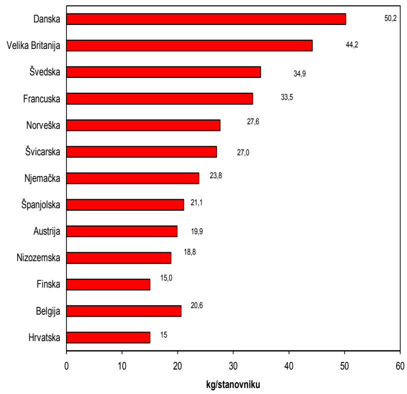
Production of frozen food in Croatia increase from 1997 to 2010. In 1997 it was 13 948 t and in 2010 24 335 t. However, the consumption of frozen food significantly increased from 31 072 t in 1997 to 80 434 t in 2010 which is more than double (Table 3). Due to such large increasement in consumption of frozen food import enomously increased from 18 779 t in 1997 to 70 295 t in 2010 (Table 4).

Table 4. Import and export of frozen food in Croatia in 1997-2010

Product	**Import (t)**				**Export (t)**			
	1997	**2000**	**2005**	**2010**	**1997**	**2000**	**2005**	**2010**
Fruit pulp and mash frozen	212	1187	926	-	1	-	21	-
Frozen fruit	395	3243	3689	1537	219	964	1657	2609
Frozen paprika	1163	382	66	480	1	65	-	-
Other frozen veget.	6629	6621	12482	19954	72	65	67	1673
Frozen semi-prepared meat dishes, shaped meat	1 455	1 003	884	264	10	607	47	65
Sea fish, frozen, crustaceans and molluscs	3629	19296	34040	28758	320	686	824	4700
Semi-frozen fish dishes	1986	1461	1735	2047	-	6	70	175
Ice cream	2686	2631	2735	2343	847	1530	1345	2800
Edible offal by-products frozen	432	305	226	1029	78	-	-	516
Poultry sliced frozen	192	1329	3686	13883	107	787	2 070	2079
Total	**18779**	**37458**	**60469**	**70295**	**1655**	**4710**	**6101**	**14617**

Source: Croatian Bureau of Statistics

Figure 1. Consumption of frozen food in Europe per capita without ice cream



Source: Croatian Bureau of Statistics; Frigoscandia, Sweden

Table 5. Import and export of animal meat (beef, pork etc.) in Croatia in the period 1997 – 2010

Meat	**Import (t)**				**Export (t)**			
	1997	**2000**	**2005**	**2010**	**1997**	**2000**	**2005**	**2010**
Beef, fresh chilled	3084	596	5514	5259	1621	703	528	5586
Beef, frozen	6637	4890	3589	3122	10	27	27	8
Pork, fresh chilled	9753	1772	17594	12057	20	0	82	787
Pork, frozen	11767	13474	20522	27696	67	57	74	123
Sheep, goat, fresh chilled	1102	456	1468	1439	0	0	0	0
Sheep, goat, frozen	279	21	934	103	140	0	0	0
Total	**32622**	**21209**	**49621**	**49676**	**1858**	**787**	**711**	**6504**

Source: Croatian Bureau of Statistics

In our previous works (Pozderović, 1997-2011) we estimated increase in consumption of frozen food and that it needs to be used to develop our own processing of agricultural products, but it was not achieved although there are ready-made projects and feasibility studies.

Table 6. Import and export of poultry in Croatia in the period 1997-2010.

Meat	Import (t)				Export (t)			
	1997	2000	2005	2010	1997	2000	2005	2010
Chicken, fresh chilled	39	213	20	1381	100	364	131	1139
Chicken, frozen	247	266	967	8245	712	444	58	1437
Hen, fresh chilled	17	0	304	84	264	0	2355	42
Hen, frozen	0	1 037	3896	2721	75	326	752	268
Turkey, fresh chilled	0	0	135	88	484	0	68	487
Turkey, frozen	20	20	1228	2557	74	17	127	374
Other poultry (duck, goose…)	35	12	60	99	1	0	0	0
Total	**358**	**1548**	**6610**	**15175**	**1710**	**1151**	**3491**	**3747**

Source: Croatian Bureau of Statistics

According to the data in Table 4 export of frozen food increased from 1 655 t in 1997 to 14 617 t in 2010. Export structure analysis reveals that this was a result of import because of export, rather than increasing domestic production of frozen food. In addition Croatia doesn´t have enough production of other basic food like meat, milk, semi-finished food products, food with higher degree of finalisation or preserved by other methods. Because of that such products are imported (Table 5 and 6). Due to the range and quality of products the highest degree of development in Croatia has milk processing industry, though this industry is far behind in Eastern Croatia in relation to other parts. However, the production of these products is not enough and these products are imported significantly (Table 7).

Table 7. Import and export of milk, cream and milk products in Croatia in the period 1997 – 2010

Product	Import (t)				Export (t)			
	1997	2000	2005	2010	1997	2000	2005	2010
Milk and cream	83506	80910	13030	45009	15524	11436	19826	25998
Other dairy products	48176	26604	26913	32345	11462	16362	19088	24658
Total	**131682**	**107514**	**39943**	**77354**	**26987**	**27798**	**38914**	**50656**

Source: Croatian Bureau of Statistics

Over the past few years began the production of organically produced food. Previous attempts were related to agricultural production, but there wasn´t some significant processing of these products. Without adequate refrigerated space for the storage and processing capacity it will be difficult to evaluate these products. Given the lack of processing there is unfavorable structure of the sowing and the total agricultural production. Due to the underdevelopment of the food industry and the lack of processing many agricultural products in Croatia are detoriating and Croatia import significant quantities of food. With development of food industry and processing of agricultural products according to the natural capabilities Croatia could become from importer a significant exporter of food.

4. Trends in food production

In the last few decades significant improvements in food production technology are achieved based on the results of research and technology development (development of new process solutions). Current trends in food production and food technology are:

1. Storage and use of food in fresh state as much as possible,
2. Preserving of food by freezing,
3. Minimally processed food and the application of nonthermal preservation methods,
4. Application of physical processes in the preservation of food,
5. Preserving the quality and nutritional value of food as much as possible during processing,
6. Organic food production.

The best nutritional value and food quality are achieved by using fresh food for cooking and eating. An attempt is made to certain agricultural products to keep them as much as possible in the fresh state for use in diet. It is successfully achieved by storing such products in the refrigerator. Agricultural production of these products must be accompanied by the presence of cold storage for keeping them in the fresh state or the appropriate processing primarily by freezing.

5. Priority development programs for processing of agricultural products in Eastern Croatia

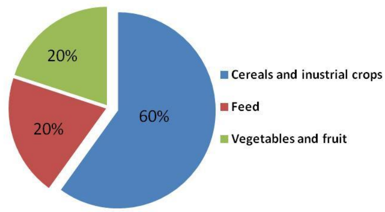
Due to the natural resources and current trends in food technology processing of agricultural products in Slavonia and Baranja are necessary to develop in the following directions:

1. Construction of cold storage for receiving, packaging and storage of fresh fruits, vegetables and other agricultural products.
2. Construction of the plants for the production of frozen food.
3. Construction of the food industry plants with a higher degree of finalisation, processing of fruit and vegetable, meat and milk, vegetable oil processing, production of semi-finished products.
4. Construction of the plants for basic food industry that are not sufficiently developed or nonexistent. Wet and dry corn processing, manufacturing quality and targeted types of wheat flour, oilseeds processing, vegetable oil and meat production, processing soybeans.
5. Small and medium-sized family farms for the production and processing of agricultural products. Production, processing and refridgerating of fruit and vegetables, meat, milk, flour, production of quality and high quality wines and brandies.
6. Organic production and processing of biologically valuable food
7. Other measures.

Modify the structure of agricultural production, coordinate it with processing programs and population needs. Use state measures to stimulate the production of processing products. Encourage the cultivation of vegetables, fruit, meat, fish, milk, wheat varieties, subsidies and purchase price to align it with the quality of wheat.

Acoording to our estimation agricultural production in Eastern Croatia should be as shown on figure 2.

Figure 2 Structure of agricultural production.



Source: authors

For each segment there must be appropriate processing, at feed milk and meat production and at vegetable and fruit processing in frozen products and cold storage of fresh produces. Agricultural producers must to decide for one of these segments. Farmers with smaller agricultural surfaces (less than 80-100 acres) must decide for fruit and vegetables with which they can achieve higher revenue per unit area or feed with meat or milk production, because on smaller areas they can not achieve cost-effective production of cereals and industrial crops. State incentives and other measures should encourage such commitment. This will ensure production of fruit and vegetables for use in fresh state and raw materials for processing primarily frozen fruit and vegetables that are significantly imported.
Use state measures to stimulate foreign and domestic investors to invest in processing of agriculturale products, tax exemption, allocation of state land to build new factories and plants, etc.

6. Conclusion

The main objectives in Croatian food production should be: Fulfilling our own needs, needs of tourism and manufacturing for export. In the Development Strategy of Croatian food industry and processing of agricultural products it should be given the same meaning as agriculture. The Development Strategy must to define priority directions of food industry development and processing of agricultural products and agricultural development and manufacture of these products comply with these directions. It is our wish that this work contribute to this strategy which should be based on the facts presented in this paper.

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FORMAL INSTITUTIONS IN EASTERN CROATIA

ABSTRACT

This paper has two purposes. First, it provides an assessment of the factors framing entrepreneurship in Croatia and how they influence the predominantly necessity-oriented entrepreneurship in the nation. The factors considered include – economics, formal institutions, culture, the industrial structure, human capital and social capital. The second purpose is to present possibilities on how different institutions, through their policies, programs and implementing organizations, impact the above factors. Understanding the sources influencing necessity entrepreneurship is important because the Croatian government's goal is to reach 75% of the EU25 mean GDP by 2013, partly using entrepreneurship development as an engine of this growth.[35]

The method of research supports national economic strategies for increasing growth-oriented entrepreneurship because entrepreneurship is considered to be an effective way to raise national GDP (van Stel, Carree et al. 2005), increase employment (van Stel, Carree et al. 2005) create more robust industrial structures (Marshall 1919; Saxenian 1994; Uzzi 1997) as well as increasing social capital (Dakhli and De Clercq 2004). There are even benefits of growth-oriented entrepreneurship specific to the transition context. Researchers believe that it is a key factor in insuring the success of transition from Socialism to Capitalism (Ireland, Tihanyi et al. 2008; Smallbone and Welter 2009). The main results include three effects CEE that entrepreneurs have on economic development: being mechanisms for privatizing and restructuring state-owned enterprises; helping to transform the distorted and monopolistic centrally-planned industrial structure; and finally, establishing a private enterprise sector (Smallbone and Welter 2006).

Key words: *entrepreneurship, opportunity/growth entrepreneurship, institutions, policies, programs*

SAŽETAK

Ovaj rad ima dvije svrhe. Prvo: pružanje ocjene čimbenika koji uokviruju poduzetništvo u Hrvatskoj te kako utječu na poduzetništvo koje je u naciji pretežno egzistencijalno orijentirano. Razmatrani čimbenici uključuju ekonomiku, formalne institucije, kulturu, industrijsko ustrojstvo, ljudski i društveni kapital. Druga svrha je predočavanje mogućnosti kako različite institucije svojim politikama i programima te provedbene organizacije utječu na gornje čimbenike. Razumijevanje izvora koji utječu na egzistencijalno poduzetništvo je

[35] This is explicitly stated by the Croatian Ministry of Economy, Labour and Entrepreneurhship's website as well as a variety of pre-EU Accession reports. (Source: telephone conversation with Ministry official)

važno, budući da je cilj hrvatske vlade ostvarenje 75% EU25 prosječnog BDP do 2013. godine, djelomično koristeći razvoj poduzetništva kao motor ovog rasta.[36]

Metoda istraživanja podupire nacionalne ekonomske strategije za rastuće poduzetništvo koje je orijentirano na rast, budući da se smatra kako je poduzetništvo efektivan način povećanja nacionalnog BDP-a (van Stel, Carree et al. 2005). Njime se povećava zapošljavanje (van Stel, Carree et al. 2005), stvaraju robustnija industrijska ustrojstva (Marshall 1919; Saxenian 1994; Uzzi 1997) te ostvaruje povećani društveni kapital (Dakhli i De Clercq 2004). Čak postoje beneficije na rast orijentiranog poduzetništva, a koje su specifične za kontekst tranzicije. Istraživači vjeruju kako je to ključni čimbenik u osiguranju uspjeha tranzicije od socijalizma u kapitalizam (Ireland, Tihanyi et al. 2008; Smallbone i Welter 2009). Glavni rezultati uključuju tri CEE efekta koje poduzetnici imaju na ekonomski razvoj: mehanizmi za privatizaciju i restrukturiranje poduzeća u državnom vlasništvu; pomoć pri transformaciji središnje planiranog, iskrivljenog i monopolističkog industrijskog ustrojstva i, konačno, stvaranje sektora privatnog poduzeća (Smallbone i Welter 2006).

Ključne riječi: *poduzetništvo, poduzetništvo mogućnosti/rasta, institucije, politike, programi.*

1. Introduce

Of course, entrepreneurs do not function in a vacuum. Their actions are partly defined by their environment (Shane and Venkataraman 2000). Factors in the environment affecting entrepreneurship can, for example, include the macro-economic landscape as well as the way the entrepreneur's capability set is influenced by education, cultural norms, and career experience. Further, this "environment" is defined and controlled by the formal and informal institutions of a society. The operative part of institutions, their policies, programs and implementing organizations, are the focus of this research because they have direct and indirect effects on both the supply and demand of entrepreneurs. They do this by impacting the access to capital and other resources, as well as the entrepreneur's perception of opportunities. The formal/informal institutions in CEE still remain key obstacles in promoting entrepreneurship because of their incongruent transitions (Smallbone and Welter 2009). One of the largest problems for economic, institutional and entrepreneurship development in CEE is that formal institutional policies and structures supporting a free market have steadily emerged but informal institutions have not been able to catch up.[37] Therefore, understanding the present entrepreneurial milieu of transition Croatia and assessing its potential for development begins with these research questions:

1) **What are the characteristics of the factors framing necessity-based entrepreneurship in Croatia?**
2) **What institutions, policies and organizations impact these factors of entrepreneurship and how do they do it?**

[36] Ovo izričito navodi web stranica hrvatsko Ministarstvo gospodarstva, rada i poduzetništva, kao i niz izvješća pred pristupanje EU. (Izvor: telefonski razgovor sa službenikom Ministarstva)

[37] Formal institutions refer to the rules, regulations, laws and supportive apparatuses that establish order in economic, legal and political frameworks. Informal institutions include the norms, beliefs, values and conventions that form the socio-cultural relations within a society. North, D. (1990). Institutions, Institutional Change and Economic Performance, Cambridge University Press.

Informed by the answers to questions 1 and 2, the last question is answered in the conclusion:

3) **Where is the potential for changing Croatian entrepreneurship into a more knowledge-based, growth-oriented entrepreneurship?**

This paper is organized in the following manner. First, the theoretical portion is inspired by the Theory of Institutions and Institutional Change as brought forth by Douglass North (North 1990) and Richard Scott (Scott 1995) and Resource-Based Theory as defined by Edith Penrose (Penrose 1959) These theories are transposed into the entrepreneurship research paradigm with the help of studies by Boettke & Coyne (Boettke and Coyne 2007) and William Baumol (Baumol 1990). The theories are used to display a cause and effect dynamic between institutions, resources and the outcome of entrepreneurship. After that, the methodology is presented explaining my rational choice, constructivist approach. Here, the research framework is introduced. After the methodology, the research is presented in two ways. First, there is a descriptive part examining the factors framing entrepreneurship in Croatia, specifically, the economic, institutional, cultural, industrial, human capital and social capital factors. Some clues are sought within these factors to explain the predominance of necessity entrepreneurship in Croatia. Second, there is an explicative part which, through analysis, explains how the Croatian entrepreneurship framework is influenced by policies and organizations from international, national, and regional institutions. The conclusion provides insight into the potential of Croatian entrepreneurship evolving into growth-oriented, knowledge-based forms. The conclusion also provides some suggestions for policy-makers and other stake-holders.

2. Theoretical background

The theoretical portion of this paper explores ideas from previous researchers which shed light on how the outcome of entrepreneurship is determined by the institutional control of resources[38]. First, some definitions are presented. Then the types of institutions and their control mechanisms are examined from the perspectives of North and Scott. Third, a look is taken at how entrepreneurship researchers use Institutional Theory to explain the outcome of entrepreneurship. Resource-based Theory (Penrose 1959) is used as the link between institutions and the entrepreneurial outcome.

2.2 Theoretical Framework

With the exception of an eclectic approach to entrepreneurship (Verheul, Wennekers et al. 2001; Shane 2003) and a population ecology approach (Aldrich 1999), most entrepreneurship theories focus on micro-level influences in order to explain new venture creation and development, taking the institutional environment for granted (Smallbone and Welter 2009). Empirical evidence from transition economies shows the external environment to be one of the dominant features influencing the development of entrepreneurship (Peng and Heath 1996; Smallbone and Welter 2006; Welter and Smallbone 2008). According to Smallbone & Welter's (2009) recent review of entrepreneurship theories, there is a growing body of literature which explicitly links entrepreneurship to the overall institutional environment [e.g. (Acs and Karlsson 2002)]. Few studies, however, examine informal institutions such as values and social norms, in other words, the influence of culture on entrepreneurship. The research which exists looks at countries with different institutional profiles and/or linking Hofstede's cultural dimensions to entrepreneurship (Audretsch, Thurik et al. 2002; Hofstede,

[38] In this paper, resources are implied when the term "factors of entrepreneurship" is used.

Nooderhaven et al. 2004). Moreover, important for this paper, Wright et al (Wright, Filatochev et al. 2005) point out that little institutional theory related research has been done on start-ups in transition economies.

3.Types of Institutions and their Control Mechanisms

Douglass North expressed that the formal and informal institutional environment determines the rules of engagement by placing constraints on human action. Institutions may increase or reduce uncertainty (North 1990), which can increase or reduce transaction costs associated with entrepreneurship. Formal institutions include the constitutional, legal and organizational framework for individual actions, while informal institutions adopt "uncodified attitudes", which are embedded in society and regulate individual behaviour (North 1990). After North's seminal work, later research differentiated institutions along other characteristics. For example, formal and informal institutions have different enforcement methods. Formal institutions are enforced by rules, while informal institutions are enforced by private actors using "psychological sanctioning" as a compliance device (Knight 1997). Formal and informal institutions have different channels of accessibility. Formal institutions are seen to be accessible to all, while informal institutions can be restricted to specific groups (Ebner 2006). Richard Scott links the role of institutions to their enforcement mechanisms (Scott 1995). Placing these mechanisms in the context of entrepreneurship it can be stated that **regulative** control defines the way trade is supported or not supported through various laws, statutes and informal rules. **Cognitive/cultural** control defines the way the individual views entrepreneurship and the process of trade based on the cultural framework. **Normative** control influences whether entrepreneurship is a socially accepted activity and under what norms and values is it practiced (Scott 1995). These control mechanisms are embedded in how policies, programs and organizations go about applying the goals of the envisioning institution.Such clean theoretical and definitional delineations may tempt one to think that formal and informal institutions as separate constructs in society. In reality, both formal and informal institutions are mutually dependent and they co-evolve (Ebner 2006). It is in this mutual dependence where institutional change can be hampered and where formal institutions evolve only as far as informal ones will allow. This tension highlights the dynamic of institutions in a transition context and their impact on entrepreneurship.

Institutions, Entrepreneurship and the Transition Context

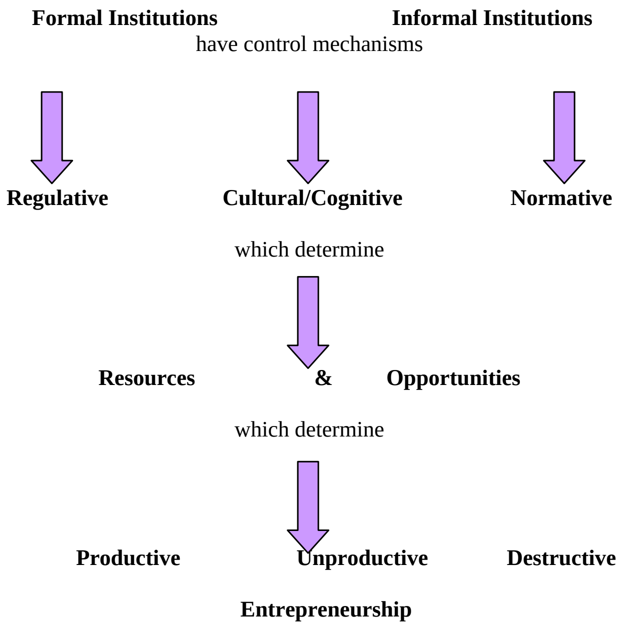
Formal institutions engender policies, programs, organizations and behaviors which affect entrepreneurship through the control of resources (Boettke and Coyne 2007). In an entrepreneurship context, resources can be found in the individual and his/her environment. Edith Penrose (1959) first put forth that resources imperative for firm growth could be found in individuals (Penrose 1959). She states that "heterogeneous, non-imitable resources, especially human and managerial", are responsible for the creation and growth of firms (Penrose 1959). Since the entrepreneur functions as a firm, his/her capability set defines the outcome of entrepreneurship. In Baumol's view, what matters is *how* institutions influence individual capability sets and how they channel the efforts of individuals. He believes it depends on the quality of the prevailing environment which he sees as the political, economic and legal institutions of a nation. He, like Mises (1949), believes that entrepreneurship is a characteristic of human action and is present anywhere and at anytime. Therefore, institutions decide whether the outcome of entrepreneurship will be productive, unproductive or destructive (Baumol 1990).

The role institutions have on entrepreneurship in a transition context is not different from any other in that they play a constraining and enabling role. Examples of **formal institutions** affecting entrepreneurship include the legal framework, the regulatory & policy framework, and the financial system. Laws might create new opportunities for entrepreneurship in transition countries with, for example, the introduction of property rights. On the other hand, a deficient legal infrastructure, manifested by inefficiencies, lack of judges, and courts lacking economic expertise, could restrict entrepreneurship. The presence of an institutional void allows for arbitrary actions by administrators which, as research in Eastern Europe tells us, fosters rent-seeking, corruption and non-compliant or defiant behavior of entrepreneurs (Lorentzen and Rostgaard 1997; Singer, Pfeiffer et al. 2003; Smallbone and Welter 2009).

Informal or normative/cultural-cognitive institutions can be portrayed on three levels. First, there is the societal level, where norms and values form attitudes towards entrepreneurship. Second, at the sectoral level, trade organizations and professions dictate codes of conduct through informal institutions. Finally, institutions exist on the level of communities, such as religious, kinship or ethnic groups. Normative elements contain the collective sense-making of a society, while cultural –cognitive elements refer to the individual's perception of societal rules and values, which is influenced by the individual's education and experiences. According to Smallbone and Welter (2009), there is a negative heritage of socialist experiences not supporting entrepreneurial action. These negative Socialist experiences influence the cognitive/cultural and normative elements of informal institutions. Some proof of this is found in empirical studies showing that variations in entrepreneurial behavior can be accounted for by entrepreneurship's image in a specific country [e.g. (GEM 2006)]. What these theories and concepts warn of is that even if formal institutional structures to support entrepreneurship are well engineered, informal (societal, sectoral and community) institutions may derail the process if they are not aligned.

Therefore, in conclusion, institutions not only have an effect on the supply of resources but also govern how entrepreneurs view and use them. With the aid of theories from North, Scott, Penrose, Boettke & Coyne and Baumol, a stream of cause and effect linking institutions, control mechanisms, resources and entrepreneurial outcomes can be made. It can be described like this: Formal and informal institutions exercise cognitive/cultural, normative and regulative control affecting the availability of resources which determine the outcome of entrepreneurial activity into productive (opportunity), unproductive (necessity) or destructive forms. This interaction is seen in Figure 1. Further, if formal and informal institutions are not aligned in their goals then any changes will certainly be impeded.

Figure 1: Theoretical Framework - The Interaction between Institutions, Control Mechanisms, Resources to Define Entrepreneurship



Source: Author

This theoretical framework in Figure 1 captures the interdependence of institutions, resources and entrepreneurship. The figure appears to be linear but it is not. The outcome of entrepreneurship returns through the chain and affects resources, the control mechanisms and the institutional structure. In short, there is a recursive relationship. This interaction sheds light further along in the paper on why Croatia is mostly capable of engendering a certain type of entrepreneurship - the necessity variety – from the perspective of its institutions and their influence on the factors of entrepreneurship.

3. Methodology

In this section, an explanation of the research approach is given which focuses on secondary sources and telephone conversations/email exchanges with individuals in Croatian institutions. Second, the analytical framework is presented using a matrix which helps characterize the institutional presence in Croatia, its effect on the factors of entrepreneurship, the control mechanisms used, and the resources provided.

3.1 Research Approach

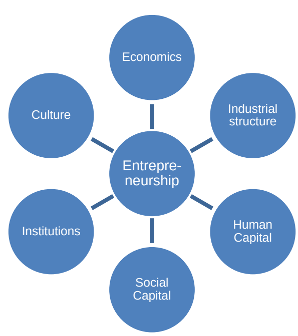
To answer the third research question, what is Croatia's potential for developing a larger supply of growth oriented entrepreneurship, two objectives have to be met. The first objective is to assess Croatia's necessity-based entrepreneurial environment by examining the economic, institutional, cultural, industrial, human capital, and social capital factors. When the focus of the entrepreneurship research community turned away from individual psychological traits as an explanation for entrepreneurship and more to the intersection of the individual and the opportunity, a group of authors suggested taking a closer look at the opportunity creating environment (Shane and Venkataraman 2000; Verheul, Wennekers et al. 2001; Shane 2003). The factors listed above are adapted from these studies and used to define the "environment" which I interpret as being instrumental in defining the opportunities available. The second objective is to understand how formal institutions in Croatia, through their policies/programs/organizations impact the environmental factors listed above.

This study is exploratory in nature using a qualitative research approach by assessing secondary sources and informal, unstructured interviews. The secondary sources of information are examined from an internal and external perspective. The internal sources are those published or presented by Croatians in the form of: Croatian National Bank statistics, entrepreneurship research carried out by Croatian researchers, policy documents, strategic plans and mission statements from institutions supporting entrepreneurship. The external sources are what "outsiders" say about Croatia. These come in the form of research from international organizations (OECD, EU, World Bank, GEM) and from assessments by non-Croatian researchers. Having this "internal/external" perspective should give a more balanced view. Informal telephone interviews were conducted with Chamber of Commerce employees, Croatian academics and Croatian representatives from business associations. The interviews were only used when published information needed clarification.

3.2 Analytical Framework

The analytical foundation is presented below in Figure 2 and is the paradigm for the analysis of the descriptive and the explicative parts of this research. The **descriptive part** characterizes the state of entrepreneurship in Croatia by briefly assessing, first, the influence of history on entrepreneurship and second, the qualities of the factors in Figure 2. These factors were isolated from previous authors' contributions (Verheul, Wennekers et al. 2001; Shane 2003).

Figure 2: Factors Influencing Entrepreneurship



Source: Adapted from Verheul & Wennekers (2001), Shane (2003)

The **explicative part** of this research turns to an examination of the institutions active in Croatia accounting for the quality of the above mentioned factors. This examination includes information about relevant policies, programs and organizations. The institutions are assessed as to their impact on the factors of entrepreneurship, which control mechanisms they tended to use, and what resources (or barriers) were made available. Table 1 sums up this process of analysis:

Table 1. Croatian Institutional Assessment

	International Institutions	National Institutions	Regional Institutions
Impact on…			
Economy			
Institutions/Policies/ Organizations			
Culture			
Industry			
Human Capital			
Social Capital			
Control Mechanisms…			
Cultural/Cognitive			
Normative			
Regulative			
Resources Provided…			
Financial			
Physical Infrastructure			
Education			
Awareness			
Networks			
Knowledge			

Source: Author

The first step before applying this framework was to isolate which institutions were active in Croatia. After reading a variety of Croatian government, OECD, EU and World Bank reports, I soon began to see strong presences of certain institutions which I later sorted into the geographic categories, international, national and regional, in Table 1. After reading hard-copy and electronic documentation about their activities in Croatia, I targeted their impact through assessing their formally written goals and/or the manifestation of their actions. Their control mechanisms could often be identified in their mission or goal statements. Otherwise, I judged this based on the "way" they went about reaching their aims which was often found in the documentation of their procedures. The resources or opportunities they wanted to make available were often explicitly stated in their official documentation. Interestingly, I came across no internal documentation of "self-assessment" from the institutions nor of any of their policies/programs or implementing organizations. I found three external reports assessing the performance Croatian institutions: the OECD's, the World Bank's Global Competitiveness Index, and a report for the Global Entrepreneurship Monitor from Croatian researchers. These reports were used to assess the barriers the institutions create for entrepreneurship in Croatia. They provide assessments of the informal institutional environment which adds some depth to my formal, more structural assessment.

A possible challenge with using the above framework is that it is a snapshot which does not take into account the dynamic, learning nature of institutions. Therefore, there is no way to make room for or explain change. Also, because this study does not go in-depth in any one institution, only the broad-strokes of each institution's actions could be captured and not their finer, more subtle goals and actions.

4. Conclusion

Therefore, in conclusion, institutions not only have an effect on the supply of resources but also govern how entrepreneurs view and use them. With the aid of theories from North, Scott, Penrose, Boettke & Coyne and Baumol, a stream of cause and effect linking institutions, control mechanisms, resources and entrepreneurial outcomes can be made. It can be described like this: Formal and informal institutions exercise cognitive/cultural, normative and regulative control affecting the availability of resources which determine the outcome of entrepreneurial activity into productive (opportunity), unproductive (necessity) or destructive forms. Further, if formal and informal institutions are not aligned in their goals then any changes will certainly be impeded.

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SOCIAL MEDIA AS A DEVELOPING POTENTIAL FOR EASTERN SLAVONIA

DRUŠTVENE MREŽE U ULOZI RAZVOJA ISTOČNE HRVATSKE

ABSTRACT

Social media marketing has changed the surface of marketing. Tourism, SME's and big companies have intensively used social marketing techniques to improve their brand strategy and sales promotion. The old and expensive media is no more an obstacle in market approach because they can be very cheap. The example of the Swiss village Obermutten (2011) has proved that you can achieve high engagement, visibility and media equivalent of several million € without any knowledge of sophisticated technology or programming skills. This case study has shown that SME's can achieve great success.

'....The amount of information on the web is really exploding. They say that from the beginning of human history all the way up thru 2003 you took all the information that has ever been recorded, you take all the books that have been written, all the films that's been produced, that's about 40 egzabytes of information that was produced in all human history up to 2003. This year (2011) the World is producing about 800 egzabytes of information... and all that lines up on the web...' (Denis Woodside, 2011).

Key words: *SMM, Social media marketing, Facebook as an economy development tool, Tourism on social networks*

SAŽETAK

Razmjerno nova pojava, internetske društvene mreže, prilično su promijenile načine promišljanja promocije. U turizmu, malom i srednjem poduzetništvu, ali i kod velikih tvrtki, izazvana je pomutnja u kreiranju planova za predstavljanje tržištu i osmišljavanju strategija prodaje. Nekada skupi i nedostupni oglasni kanali postali su vrlo dostupni i prilično jeftini. Aktivnosti na društvenim mrežama povećavaju vidljivost svakoga tko se njima bavi, čak i bez značajnih financijskih ulaganja. Primjer Švicarskog mjestanca Obermutten, pokazao je da se bez velikog poznavanja tehnologije ili programiranja može postići medijski ekvivalent od nekoliko milijuna € s vrlo malo ulaganja. I danas je to jedan od najboljih primjera kako mali poduzetnici mogu postići veliki uspjeh.

Osim toga interent kao medij kao medij je doživio snažan uzlet u razmjeni informacija. Procjenjuje se da je od početka pisane povijesti do 2003 godine sve što su ljudi stvorili moguće spremiti na 40 egzabyta (1 Egzabyte = 1 milijarda Gigabyta) diskovnog prostora, a *samo 2011 godine na internetu se pohranilo 800 Egzabyta informacija.*

Key words: *Društvene mreže, Facbook u službi razvoja istočne Hrvatske, Razvoj turizma temeljen na društvenim mrežama,*

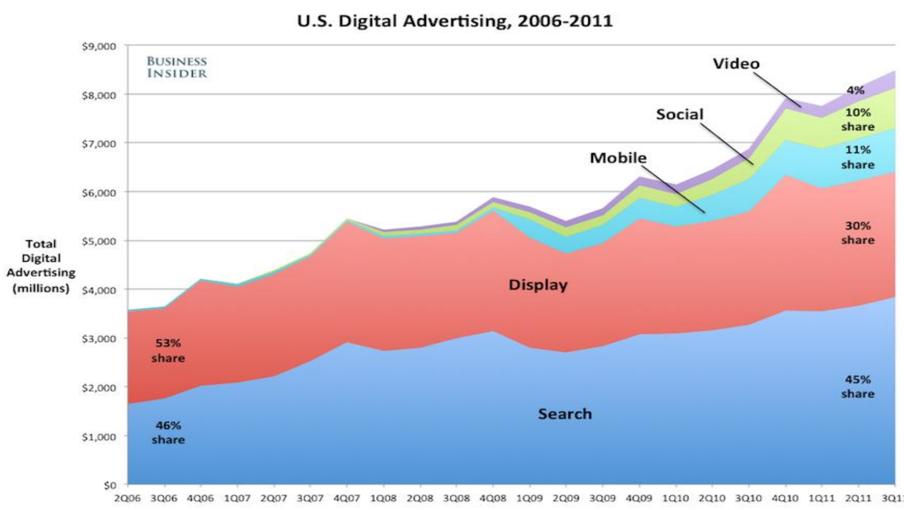
1. Introduction

Facebook, Twitter, Youtube, Qoura, Pinterest, Foursquare and a lot of other social networks have caused the phenomenon that’s began to be called Socialnomics. It was coined of the terms Social and Economics. These new term best describes the impact of social networks on business and show that social networks are now indispensable in the business. Estimates go up to the point that Eric Qualman (Qualman, 2009, p. 186) predicts that companies not using social marketing will not exist more than 5 years from today..

2. How Social media marketing hapend

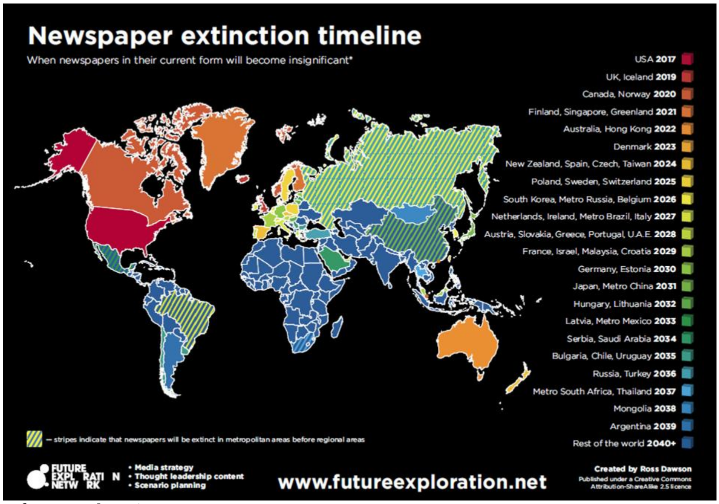
The most famous social network today, Facebook, developed in 2004 but until 2007 had not had a significant penetration among the population. Twitter has experienced its full affirmation during the Earthquake in Haiti when all communication channels broke down except the transmission of small packets of information - which Twitter actually is. Technological development and low price of Hardware capable of Internet access, made it possible to have a great acceptance rate among the general population. The emergence of so-called smart phones (smartphones) has strengthened the penetration process. According to a survey conducted by Microsoft and MIT, the fastest growing group of users of social networks today is people 50+ without any programming knowledge. Easy to use and inexpensive devices lead to the rapid adoption of social networks among the 50+ population. Of course, companies accepted this challenge because they’re investing in advertising where the customers are. Last year it was around $45 billion in the U.S. according to magazine Business insider (2011).

Picture 1. U.S. Digital Advertising, 2006 - 2011



Immense growth of the Internet usage didn’t leave everywhere positive results. According to a survey conducted by www.futureexpoloration.net (December 16, 2009) the end of press in Croatia could happen by 2023.

Picture 2. Newspaper extinction timeline



Source: www.futureexploration.net

Also, television is losing the race with Internet. Based on Forrester Research results, Forbes article predicts that by 2016. the investment in web marketing will reach today's investment in television advertising (Forbes, 2011).

Where is Croatia?

Croatia has quite a good position based on the research published by the companies Drap and Netokracija (Netokracija and Drap, 2011). Because of a slightly delay, we accept what has survived the test of time and proved to be best practice at more developed markets. It is important to mention that Internet penetration has reached a high 70% of households in Croatia and this can be classified as regional leader. According to a study (Ringel-Morris, Teevan &, Panovich 2010.)
the majority of activity on social networks is related to technology, tourism and entertainment facilities.

Table 1. What Do People Ask Their Social Networks, and Why? A Survey Study of Status

Message Q&A Behavior

Question Type	Percent	Example
Recommendation	29%	Building a new playlist – any ideas for good running songs?
Opinion	22%	I am wondering if I should buy the Kitchen-Aid ice cream maker?
Factual knowledge	17%	Anyone know a way to put Excel charts into LaTeX?
Rhetorical	14%	Is there anything in life you're afraid you won't achieve?
Invitation	9%	Who wants to go to Navya Lounge this evening?
Favor	4%	Needing a babysitter in a big way tonight… anyone??
Social connection	3%	I am hiring in my team. Do you know anyone who would be interested?
Offer	1%	Could any of my friends use boys size 4 jeans?

Question Topic	Percent	Example
Technology	29%	Anyone know if WoW works on Windows 7?
Entertainment	17%	Was seeing *Up* in the theater worth the money?
Home & Family	12%	So what's the going rate for the tooth fairy?
Professional	11%	Which university is better for Masters? Cornell or Georgia Tech?
Places	8%	Planning a trip to Whistler in the off-season. Recommendation on sites to see?
Restaurants	6%	Hanging in Ballard tonight. Dinner recs?
Current events	5%	What is your opinion on the recent proposition that was passed in California?
Shopping	5%	What's a good Mother's Day gift?
Ethics & Philosophy	2%	What would you do if you had a week to live?

Source: Ringel Morris M., Teevan J., Panovich K. (2010) What Do People Ask Their Social Networks, and Why? A Survey Study of Status Message Q&A Behavior, Microsoft Research Redmond, WA, USA; Massachusetts Institute of Technology Cambridge, MA, USA 2010.

Croatia's has proclaimed Tourism as one of the most important industries. Coordinated activities on social media could increase passengers in transit (especially in Eastern Slavonia because of the construction of the Corridor Vc) and tourists who visit the Croatian coast. The example of the Swiss village Obermutten showed the potential impact of social networks on tourism.

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THE ROLE OF REGIONAL POLICY IN DEVELOPMENT OF EAST CROATIA: OPPORTUNITIES AND POTENTIALS

ULOGA REGIONALNE POLITIKE NA RAZVOJ ISTOKA HRVATSKE: PRILIKE I MOGUĆNOSTI

SUMMARY

Regional (or Cohesion) policy is one of the oldest and financially the most abundant policies of the European Union which aims to reduce development disparities between regions of Member States. Adoption of the Lisbon strategy in 2007 brought the reform of EU Regional policy which is to achieve the ultimate goal of balanced economic development of regions focused on those investments that are necessary for economic growth such as research and development, innovation, entrepreneurship, human resource development and information and communication technologies. Emphasis was placed on a new approach to Regional policy that integrates the different growth strategies at European, national and regional level, while strengthening the principles of partnership and involvement of regional and local levels since finds there the experience and expertise required for identifying problems and finding appropriate solutions.

This paper will describe the process of integration for Croatian regions into the regional structure of the European Union within the existing institutional framework, when the readiness for long-term strategic planning of regional development for key development institutions in the Republic of Croatia at all levels is expected. The accession of Croatia into the EU opens up a situation for responsible thinking of development priorities and the preparation of appropriate project pipeline with a high level of readiness. Assuming that national level is qualified for the effective management of the Structural Funds and the Cohesion Fund, the effectiveness of using EU funds for financing development projects will certainly depend on quality of capacities for their preparation and implementation. The paper will give an overview of the main stakeholders and their efforts to build such capacities in the two most eastern Croatian counties pursuant to open opportunities through EU programmes and sustainable model of cooperation at the statistical NUTS 3 and NUTS 2 level, resulting in the preparation of projects of wider significance. Joint planning and operation of local and regional authorities, research institutions, development agencies and other organizations, businesses and civil society, becomes a necessary prerequisite to reach economic and social cohesion as the main objectives of regional policy.

Key words: *Regional policy, development, strategy, partnership, capacity, development agencies, funds, projects*

SAŽETAK

Regionalna (ili Kohezijska) politika jedna je od najstarijih i financijski najizdašnijih politika Europske unije kojoj je cilj smanjenje razvojnih razlika među regijama zemalja članica. Usvajanje Lisabonske strategije 2007. donijelo je reformu Regionalne politike EU koja se u ostvarivanju krajnjeg cilja ujednačenog ekonomskog razvoja regija usmjerila na ona ulaganja koja su nužna za gospodarski rast kao što su istraživanje i razvoj, inovacije, poduzetništvo, razvoj ljudskih resursa i informacijsko-komunikacijske tehnologije. Stavljen je naglasak na novi pristup Regionalne politike koji integrira različite strategije rasta na europskoj, nacionalnoj i regionalnoj razini, uz jačanje principa partnerstva i uključivanje regionalne i lokalne razine obzirom da tamo pronalazi iskustvo i stručnost potrebnih za identificiranje problema i pronalaženje odgovarajućih rješenja.

Ovaj rad će prikazati proces integracije hrvatskih regija u regionalnu strukturu Europske unije unutar postojećeg institucionalnog okvira, a u trenutku kada se od ključnih razvojnih institucija u Republici Hrvatskoj na svim razinama očekuje spremnost na dugoročno i strateško planiranje regionalnog razvoja. Ulazak RH u EU otvara situaciju odgovornog promišljanja razvojnih prioriteta te pripremu baze odgovarajućih projekata visoke razine spremnosti. Uz pretpostavku osposobljenosti nacionalne razine za efikasno upravljanje sredstvima iz Strukturnih fondova i Kohezijskog fonda, uspješnost korištenja fondova EU za financiranje razvojnih projekata će svakako ovisiti o kvalitetnim kapacitetima za njihovu pripremu i provedbu. Rad će dati pregled glavnih dionika i njihovih aktivnosti u izgradnji takvih kapaciteta u dvije najistočnije hrvatske županije sukladno prilikama otvorenim kroz programe EU, te održivih modela suradnje na razinama statističkih regija NUTS 3 i NUTS 2 koji rezultiraju pripremom projekata od šireg značaja. Zajedničko planiranje i djelovanje lokalnih i regionalnih vlasti, znanstveno-istraživačkih institucija, razvojnih agencija i drugih organizacija, poslovnog i civilnog sektora, postaje nužan preduvjet u ostvarivanju gospodarske i socijalne kohezije kao osnovnih ciljeva regionalne politike.

Ključne riječi: *Regionalna politika, razvoj, strategija, partnerstvo, kapaciteti, razvojne agencije, fondovi, projekti*

1. Introduction: context of the Regional policy of the EU

The Cohesion Policy is one of the EU policies aimed at eliminating the development discrepancies between regions and strengthening their competitiveness, as well as ensuring harmonious development of the whole territory of the Community. Enormous resources from the EU budget are earmarked for implementation of the Cohesion Policy. The Cohesion Policy is strongly targeted at implementation of the EU strategic objectives (Ministry of Regional Development, 2009, 3).

One of the biggest problems for defenders of Cohesion policy is the difficulty in providing a credible economic case for the policy, based on conclusive evidence of effective results. After more than thirty years of intervention, the contribution of Cohesion policy to economic development and growth remains contested and uncertain (Bachtler J. and Gorzelak G., 2007, 309).

As a result of the new challenges that have to be faced by Europe the European Commission decided to allocate EUR 350 billion for regional policy in 2007-2013. These enormous resources are to contribute to a significant increase in the quality of life of the inhabitants of the European Union and greater economic, social and territorial cohesion between individual EU regions. The regional policy is referred to as the Cohesion Policy partly because of the objectives it has to face.

The resources for the development of European countries, including resources for implementation of the Cohesion Policy, are planned within the frameworks of seven-year budget periods. Today the received resources are programmed for 2007-2013 and the next period will cover the 2014-2020. Despite the introduction of several important changes for the 2007-2013 period, similar objections have begun to surface in the context of the current debate on the future of Cohesion policy post-2013 (Bachtler J. et al., 2009, 67).

Objectives of the Cohesion Policy responds to the major problems of the European Union. The resources were divided between three priority objectives:

- Convergence – aid directed to the poorest regions for reducing gaps between them and other regions; tasks are implemented through the European Regional Development Fund, European Social Fund and the Cohesion Fund
- Regional competitiveness and employment – support to areas at the stage of economic and social transformations; tasks are implemented through the ERDF and ESF.
- European Territorial Cooperation – strengthening cooperation at the cross-border, transnational and interregional level. The tasks are funded from the ERDF.

Twenty-seven countries at different economic level constitute a big challenge for the European Union. In order to uniform the Common Market and bring the countries closer together a lot of effort and resources are needed. The new Cohesion Policy tries to bridge the development gaps between countries by shaping the budget in a manner allowing to target the greatest amount of aid at the countries that are most in need of support. Strong regions become the driving force of the weaker regions (Ministry of Regional Development, 2009, 5-6).

A major objective of Regional policy is to prepare the country for the introduction of EU Cohesion Policy and the Structural Funds. The situation in Croatia today is that while balanced regional development is one of key government priorities, there is still no clear definition of what this means and this article will try to response to these questions.

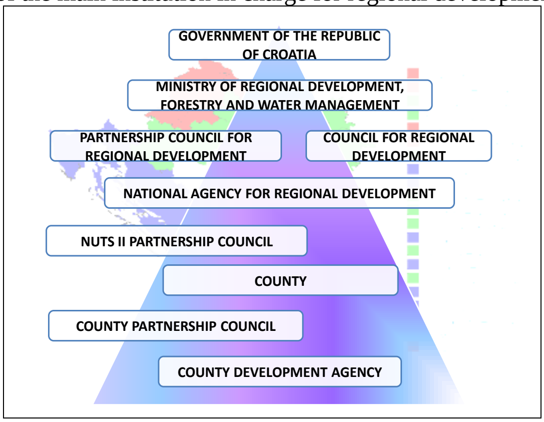
2. Regional policy in Croatia, institutional framework and preconditions for balanced development of Croatian regions

Regional development in Croatia has been clearly defined and regulated by law and National Strategy for Regional Development in 2010 but unfortunately from the perspective of the regions it is still just on the paper, there is still no activities and visible results on these issues in any part of Croatia, including the most eastern counties.

The implementation of regional policy in Croatia will probably start on 1st of July 2013 when Croatia will become 28th EU Member State. Regional policy in Croatia must be placed in the context of EU accession and this is especially important considering that the EU emphasizes that Member States must be in a position to withstand competitive pressures in the single market as a key condition for accession. In this context, regional policy in Croatia is closely tied into the accession strategy.

Below is the picture which shows the institutional framework of regional policy in Croatia.

Picture 1: Piramid of the main institution in charge for regional development



Source: Draft NSRD, February 2010

National Strategic Reference Framework 2007-2013 (NSRF) is a document presenting a way , in which every Member State intends to use resources from Structural Funds and from the Cohesion Fund in order to achieve the basic aim of the Cohesion Policy of the European Union, to decrease disparities in social and economic development of individual regions of the European Union (Ministry of Regional Development, 2009, 5).

Programming of NSRF in Croatia is ongoing together with 5 belonging Operational programmes which should answer the regional development needs in the area of environment, transportation, human resources development, rural development and most important regional competitiveness. It is questionable how the NSRF and accompanying Operational Programmes will meet key regional requirements without permanent and thorough discussion with regional level. This could be done if national level ensured Regional Operational Programmes of statistical NUTS II regions which should be in line with priorities and measures of NSRF.
Till now, a centralised approach prevails when referring to regional development issues. However, the quite big differences in regional development at the county level and the specific problems of particular counties require also reinforcement of a bottom-up approach. (Davey; 2003, 153)

3. Socio-economic picture of the most eastern Croatian counties – are there opportunities within the EU funding?

Osijek-Baranja and Vukovar-Srijem counties, the areas of special state concern before, belong today within the context of regional development to group of „lagging behind“ regions. East of Croatia experienced heavy and immeasurable war destruction of both physical infrastructure and human capital which together with misled privatization, collapse of agro-industrial combinats, downfalls of major industries and depopulation resulted with poor economy and living standard nowadays.

Selection of few figures indicate the socio-economic scan of these two counties in Croatia: since twenty years ago, two counties of almost 600.000 experienced very serious depopulation of 113.418 inhabitants[39] (Vukovar-Srijem county has lost almost the same number of inhabitants from census 2001-2011 as it was after the war census 1991-2001), the two counties are among the first counties on the list of of unemployed persons per county[40], GDP per capita in Vukovar–Srijem county is almost three times less than GDP of the most developed counties of Croatia[41], and both counties together attracted less than 2% of total FDI in Croatia in period from 1993-2006[42]. The latest "Regional Competitiveness Index of Croatia 2010"[43] ranks Osijek-Baranja on 14th position and Vukovar –Srijem on 20th position among 21 county.

Still, there are more than few very strong features which are characteristic for East of Croatia, identified as true potential, around which the new county development strategies[44] are shaped into development options:

- ✓ Geographical location and transport connections with European countries and regions (with underused potential of airport and waterways),
- ✓ Human Resources potential in University J.J.Strossmayera, over 20.000 students enrolled in 11 faculties (incl.medicine, agriculture, food.technology, polytechnics and electrotechnic faculty), 4 departments (mathematics, physics, biology, chemistry) and 1 academy,.
- ✓ Good level of secondary education, with over half of pupils in vocational schools,
- ✓ Agriculture and raw-material base and tradition of processing, food processing and energy production,
- ✓ Tradition of industry and handicrafts,
- ✓ The availability of infrastructure and land with convenient rates for construction and rental, and
- ✓ Preserved, rich natural resources (land, air, water, forests) and biodiversity which is internationally recognized.

Vision and leadership, along with determination for strengthening of local capacities, based upon radically clear strategic planning may result in mobilization of resources and utilization of EU funding as clear chance for developmental revulsion. As the majority of EU funds are linked to regional projects, the necessary precondition is having well prepared and mature projects of wider regional significance which could absorb EU funds. There are controversies in debate if every euro invested will have a many times greater effect on the growth of the domestic economy after Croatia becomes a Member State.

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[39] Croatian Bureau of Statistics, census 1991., 2001., 2011.

[40] Croatian employment service: Mjesečni statistički bilten 1, 2012, shows that Osijek-Baranja (with 35 238 unemployed) and Vukovarsko-srijemska (20 104) are on the top of the list of unemployed by county

[41] Croatian Bureau of Statistics; In 2007, the difference was 1 to 3.14 (GDP per capita in Vukovar-Srijem County and GDP per capita in the city of Zagreb); although the GDP per capita has to be concerned within the socio-demographic-economy context but still, differences are obvious even at the NUTS2 level: the regional GDP per purchase parity is only 34,5% in Panonian Croatia compared to 64,3% in North-West Croatia NUTS2

[42] Croatian Chamber of Economy

[43] United Nations Development Programme and National Competitiveness Concil*: Regional Competitiveness Index of Croatia* 2010 (2011.)

[44] County development strategy (Županijska razvojna strategija) is the main document for the planning and guidance of the regional development at county level in Croatia

4. Key stakeholders and their role in the regional development of Osijek-Baranja and Vukovar-Srijem counties: what can be done to get prepared for effective use of the Structural Funds?

Stakeholders which play an important role in the regional development relate in the context to all parties who have interest and capacities to participate, create and influence the development of the region.

Key stakeholders in the regional development in Croatia on the county level are as follows:

Counties as regional administrative units[45] and institutions started to invest in strenghtening capacities for preparation and implementation of EU funded projects early enough; however, the level of reached strategic planning capacities has more space for improvement as this could be the decisive factor in the process of effective withdrawal of EU financing in due to achieve true developmental impacts. Therefore the main output at the regional level, the Regional Operational Programme is expected to be a real strategic tool in its full meaning when prepared for new EU financing period from 2014. to 2020.

County Development Agencies are operative entities of regional development which serve as a link between public, private, civil sector and academia in building up of strategic partnerships, with aim of preparation and implementation of projects that contribute to raising of life standard[46]. CDAs are the most active actors in providing daily information, consultations, education and mentoring in relation to project application to interested parties in the region. Except RDAs there are local development organizations which also succesffully participate in EU programmes.

Cities and most of *municipalities* have staff working on development issues at both planning and project levels, but overall, their capacities are insufficient. The current level of decentralization is often an obstacle for local and regional governments' involvement into large projects. Not many local governments make efforts in developing project teams; even less are committed to associate in due to share or build together needed capacities. Generally, low awareness of opportunity prevails - in spite of widely spread information on EU funding.

Non-governmental organizations (NGO's) were from the very beginning among the most active ones participating in EU programs – the first competent staff for preparation and implementation of projects by the PCM methodology came from civil sector.

Local Action Groups (LAG) are public-private entities which implement rural development strategies at micro-regional level, but they are not yet fully operational in Croatia due to the fact that LEADER approach is implemented only when Croatia becomes the member of the EU.

Some *public companies* are already deeply involved in the process but there is a huge difference in interest and readiness for participation – many public companies still watch and wait. Undertaking additional efforts in due to compete on EU funds market beside regular work, as for local governments – is still not the option for all; however some public companies are extremely successful in realization of their planned investments via EU

[45] This text doesn't refer in particular to NUTS2 units as the topic covers two counties at the very East of Croatia.
[46] www.slavonija.hr: Regional development agency of Slavonia and Baranja, amended „vision"

funding. Accepting new mindset brought by EU funds' rules and procedures is also considered as a burden from administrative side, therefore such capacities are also limited.

High-educational institutions are much more involved in Community programs than in other EU programs but they become very important stakeholder in projects connecting research and development programmes with the business sector.

Business sector is not to be forgotten although there was not much funding for them directly[47], but indirectly they could benefit of EU projects through delivery of works, goods and services. With Structural funds the situation will be changed.

Regardless of sector or stakeholder, lack of staff and financial resources could have implications for future absorption capacity of EU funding.

5. Conclusions and recommendations

Finally, based upon experience of two counties and related development institutions the following was identified as recommendation for improvement of the current state of play of regional policy in Croatia:

- Establishing of inter-.ministerial working groups in due to make EU programming more efficient
- Opening of public discussion on NSRF and Structural Funds Operational Programmes and involvement of regional and local level
- Strategic planning, monitoring and evaluation as continuous bottom-up process growing from local to microregional to county and statistical regions, in accordance with national and EU policies
- Communication from local and county (regional) to national level insisting on free flow of relevant information between all interested parties
- Work with national level on capacity building of local and regional stakeholders
- Reinforcement partnerships between sectors and stakeholders on local, county and regional level especially NUTS II Partnership Councils
- Merging of horizontal measures between development strategies and start creating Regional Operational Programmes and sectoral strategies
- Creating regional projects in line with relevant sectoral and ROP strategies
- Building development project teams and sharing resources
- Creation of Regional Development Fund with the aim of co-financing and especially pre-financing of regional projects

Two counties have successful record of joint projects and will continue to make all needed efforts to get prepared for EU Structural Funds and EU membership.

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TRIPLE HELIX IN ENERGY EFFICIENCY PROJECTS

TRIPLE HELIX U PROJEKTIMA ENERGETSKE EFIKASNOSTI

ABSTRACT

Triple Helix model was developed by prof. Henry Etzkowitz of Stanford University, who proposed an innovative approach to knowledge-based society. Balanced Triple Helix model provides a comprehensive collaboration of university, industry and local government.

This paperwork represents the application of model to a program of systematic energy management in Croatia, particularly in public buildings, owned by local governments. So far, the team of UNDP Croatia in assistence with scientists has developed the project and training models, engaged in the project and educated local government in all five counties of eastern Croatian. Within the EU project Chee curriculum for interdisciplinary postgraduate studies at the University of J.J. Strossmayer, Osijek has been prepared.

Energy efficiency measures by ECSO model (insurance funds from energy savings through energy efficiency measures), are planned to be implemented in selected public buildings. In the practice, it will be implemented by local companies. Thereby, a circle from the initial training of local government to energy savings and reduced CO2 emissions in actual objects. An additional benefit is the starting flywheel of manufacturing equipment and service development , as well as better living conditions in the reconstructed buildings, all with the return on investment through energy savings in several years. The basic assumption for such activities is narrow and well-managed group of specialists with a new and specific knowledge from research institutions, industry, and local government as the owner of the facilities, on interdisciplinary activities in implementing energy efficiency measures.

Key words: *energy efficiency, science, saving, renewable sources, Triple Helix*

SAŽETAK

Triple Helix je model koji je razvio prof. Henry Etzkowitz sa Stanford Univerziteta, a koji predlaže inovativan pristup ka društvu baziranom na znanju. Balansirani Triple Helix model predviđa sveobuhvatnu suradnju univerziteta, gospodarstva i lokalne samouprave.

U ovom slučaju radi se o primjeni modela na program sustavnog gospodarenja energijom u Hrvatskoj, konkretno u javnim zgradama u vlasništvu lokalne samouprave. Do sada je tim stručnjaka UNDP-a Hrvatska uz pomoć znanstvenika projekt i modele edukacije, uključio u projekt i educirao sve lokalne samouprave u svih pet županija istočne Hrvatske. U sklopu EU projekta CHEE pripremljen je kurikulum za interdisciplinarni poslijediplomski studij na Sveučilištu J. J. Strossmayer.

Planira se provedba mjera energetske efikasnosti na odabranim javnim objektima koje će se provoditi po ECSO modelu (osiguranje sredstava iz ušteđene energije putem mjera energetske efikasnosti), a u praksi će ih provoditi tvrtke sa područja regije. Time se zatvara krug od početne edukacije lokalnih samouprava do uštede energije i smanjena emisije CO2 na konkretnim objektima. Dodatna korist je pokretanje zamašnjaka proizvodnje opreme i razvoj usluga, te bolji uvjeti boravka u rekonstruiranim objektima, a sve to uz povrat investicije za nekoliko godina kroz uštedu energije. Osnovna pretpostavka za takve aktivnosti je uska i dobro vođena suradnja stručnjaka sa novim i specifičnim znanjima iz znanstvenih institucija, gospodarstva i lokalne samouprave kao vlasnika objekata na interdisciplinarnim aktivnostima u provedbi mjera energetske efikasnosti.

Key words: *energetska efikasnost, znanost, ušteda, obnovljivi izvori, Triple Helix*

1. Introduction: Triple Helix - cooperation of science, industry and local government

1.1 Triple Helix - Theoretical Framework

The Triple Helix Concept defines how educational sector, business sector and government should cooperate at national and regional levels, in order to align the educational system and labor market needs, and encourage innovation. Originator of the Concept is Dr. Henry Etzkowitz, research professor at Stanford University.

The Triple Helix concept comprises three basic elements: (1) a more prominent role for the university in innovation, on a par with industry and government in a knowledge–based society; (2) a movement toward collaborative relationships among the three major institutional spheres, in which innovation policy is increasingly an outcome of interaction rather than a prescription from government; (3) in addition to fulfilling their traditional functions, each institutional sphere also “takes the role of the other” performing new roles as well as their traditional function. Institutions taking non-traditional roles are viewed as a major potential source of innovation in innovation.

The increased importance of knowledge and the role of the university in incubation of technology-based firms have given it a more prominent place in the institutional firmament. Universities, heretofore primarily seen as a source of human resources and knowledge, are now looked to for technology as well. Many universities have developed the internal organizational capabilities to formally transfer technologies rather than relying solely on informal ties. Universities are also extending their teaching capabilities from educating individuals to shaping organizations in entrepreneurial education and incubation programs. Rather than only serving as a source of new ideas for existing firms, universities are combining their research and teaching capabilities in new formats to become a source of new firm formation, especially in advanced areas of science and technology. Universities increasingly become the source of regional economic development and academic institutions are re-oriented or founded for this purpose. New organizational mechanisms, such as incubators, science parks, and networks among them become a source of economic activity, community formation, and international exchange. New modes of interdisciplinary knowledge production, involving Triple Helix partners, inspire research collaboration and firm-formation projects.

2. Triple Helix in the projects of energy - efficient building reconstruction

2.1. The current situation and conditions in Croatia

More than 40% of energy in Croatia is consumed in the buildings. Approximately 80% of energy is consumed for heating, cooling, and hot water, and even 85% does not meet current building regulations on thermal protection. With the reconstruction of buildings 70 to 90 percent of energy savings could be acheaved. Those result have already been achieved in some realized reconstruction - examples of good practice. Additional to reducing energy consumption and CO2 emission, significant financial savings are realised, and comfort of living in the buildings and the value of the property are increased. EU Directives provides for the annual implementation of energy efficient reconstruction of at least 3% of facilities, which is also accepted in Croatian plans for energy efficiency projects.

UNDP's project entitled "EE in buildings in Croatia," found out that in about 9,000 public buildings in the Republic of Croatia energy costs amount to around EUR 200 million. According to estimates, 80% of the total number of flats and houses in Croatia is located in the two lowest categories of energetic (energy consumption for heating larger than 200-250 kWh/m2). Application of energy efficiency measures, by conservative estimates, could save more than 30% of energy. It could be achieved through the energy services market, thus the companies would finance EE measures through energy savings in buildings.

2.2. Potentials and Challenges

The introduction of EE in 20% of the total number of housing units in the RC (280.000) over the next 10 years, can create 7000 direct "green jobs" per year, and at least as many more indirect jobs. Investment would amount to over 2 billion euros. Previous experiences show that the reconstruction plans of EE facilities will not be acheaved without significant changes in all fields related to the construction sector, financing activities and education. As the main challenges and obstacles in achieving of EE object reconstruction plans - lack of awareness on energy saving, underdeveloped financial instruments for EE activities, and the lack of specific knowledge and innovation among all stakeholders, owners of buildings, architects, and contractors could be sorted out.

What has been done in Croatia so far? The legal framework for energy efficiency - a national program (2008 - 2016) and the National Action Plan (2011-2013) has been set out. Measures for energy efficiency to retail, transport, public and commercial services, and industry are planned. Part of the measures are implemented in the practice – less in industry and trade, and more in the service sector and households. Most has been achieved in public sector facilities, though they represent a small part of the activities to be undertaken. UNDP Croatia`s projects SGE and HIO, which are partialy financed from EPEEF funds. With those projects part of the preconditions for the implementation of energy efficiency in buildings is made. In the national registry for energy has been enrolled and treated 1350 public facilities and over 100 000 energy bills, just for the Region of Slavonia. The amended ZUKE`s law (Law on energy efficient management) will soon be adopted, which has overaken the obligations of the EU Directive 2010/31/EU of 19 May 2010 "on the energy performance of buildings." Besides a series of guidelines that define the current tasks, the most important guideline for the future is the adoption of national plans for increasing of the number of buildings that are "nearly zero energy house" - buildings with very high energy efficiency, and energy consumption for heating less than 15 kWh/m2, which provides that up to 31.12. 2020th all new buildings should be "nearly zero energy".

2.3. How to implement the Triple Helix model in practice?

Initial experiences of the project of reconstruction of public facilities in organization of the Ministry of Construction which started in April, 2012. has confirmed the correctness of the model - without cooperation of the scientific community and professional chambers, state and local governments, state and commercial banks, trained and qualified construction companies and superior quality control of all activities, realisation of such a complicated project can not suceed. In this particular case, the State set a task in front of the actors in the project, without sufficient preparation. Other actors were included in the project afterwards, in consultation process, decision making and implementation activities.

2.3.1. <u>Preparation of program concept, using the foreign experience</u> –

In the phase of program preparation advantage of the positive and negative experiences of EU countries in implementing various energy efficiency measures in public, residential and commercial buildings, should be taken. They show all the challenges and problems in implementation, therefore it is easy to point out mistakes that are already committed elsewhere. In this segment of the program close cooperation between government bodies is required, in order to set up a basic "Wish List" and selection of scientific institutions in the field of public administration, EU funds and finance, construction and engineering. Respecting their suggestions, and reaction of local and regional government, terms of reference for the implementation of the project could be set up. The step should not be skipped, because later changes and corrections of the program are expensive and difficult to implement. The role of the scientific community - multidisciplinary teams of experts is of the most importance in the preparation phase, but The State and the local government must clearly express their intents and set a framework, which the activities should take place within.

2.3.2. <u>Determination of project framework:</u>

Models of funding - through the ECSO companies; by means of the owners of buildings, local government and The State; through the EU programs and funds; through public-private partnership; through a combination of financing
The legal framework - enabling the realization of projects by changing the rules on borrowing og LGUs through the ECSO operations and EU programs and funds

Comprehensive training of - owners of the facilities, government agencies, local governments, planners and contractors (funding from EU programs,methodologies, methods of reconstruction)
Technical requirements for the reconstruction of objects - depending on climate zone and facility types
Logistics implementation of the program - set a time frame, timetable of activities, responsibility for the selection of objects, responsibility for each project step

2.3.3. <u>The implementation of project activities</u>

The choice of funding depending on the resources and capacities of LGUs
Selection of facilities, preparation of project documentation, Tender
Works under the supervision of the designer and the evaluation results

3. Examples of good practice - Triple Helix methods in EE projects

3.1. EU IPA project CHEE – energy efficient reconstruction of public facilities

Chee IPA Cross-border project is a classic example of successful implementation of activities through the Triple Helix model, written and performed two years ago in a cross-border program Croatia - Hungary. The project has been prepared by professional experts in energy efficiency projects in the EU and the UNDP Croatia, i consulting with experts on passive and low-energy building of the Faculty of Architecture in Zagreb. Cost benefit analysis was prepared at the Faculty of Economics in Osijek. The partner in the project was The city of Osijek, because the author of the project has already successfully implemented two EU projects eith them, so the City has operational experience in the implementation of EU projects.

Through the project, Eastcroatian cities were trained to carry out energy efficiency activities. A series of activities to increase visibility in Croatia and Hungary were geld. The Faculty of Economics Osijek and The faculty of Economics Pecs participated in the project as well. One of the valuable results of the project is the development of Curriculum for Interdisciplinary Postgraduate Studies of energy efficiency.

The most important result is the reconstruction of primary school "Ljudevit Gaj" by energy efficiency principles upon which this school became the best isolated school in Croatia, and a great example of good practice. More contractors from Slavonia was taught to do complex reconstructions to the level of low-energy standards.
Good results were outcome of pervasive collaboration of few faculties, development institutions, local governments, manufacturers and contractors by Triple Helix model. Overall

reconstruction will be completed by replacing the heating system and installation of ventilation and heat recovery, after which the expected energy savings of 80 percent.

3.2 Reconstruction of children's nurseries "Ivančica" in Osijek

Pilot project of children's nurseries "IVANČICA" in Osijek is an example of reconstruction of the existing building in order to permanently reduce energy needs with sustainable costs.
It is also an example of a sustainable project, because the entire investment returned exclusively through the recovery of energy savings.
The reduction of heat consumption by 74% was achieved.

BEFORE RECONSTRUCTION: ► 238.531 kWh, or 278 kWh/m2
AFTER RECONSTRUCTION: ► 61.790 kWh, or 72 kWh/m2

Pilot project realized in cooperation of the Energy Institute Hrvoje Pozar, The City of Osijek, and several construction companies which were educated, while the works were performed under the supervision of experts.

The results of the measurement represent well the success of reconstruction and indicate the extent to which the object is an example of good practice.

Likewise, the whole activity is a good example of cooperation between scientific institutions, universities, local government and the economic sector.

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ANALYSIS OF AVERAGE DELAYS OF ROUNDABOUT VINKOVAČKA - DRINSKA IN OSIJEK

ANALIZA SREDNIH VREMENSKIH GUBITAKA U KRUŽNOM RASKRIŽJU VINKOVAČKA - DRINSKA U OSIJEKU

ABSTRACT

The intersection traffic analysis involved the assessment of capacity and adaptability of the observed traffic solution to the needs of different types of traffic and users. Indicators analyzed in the qualitative assessment are: capacity reserve, degree of saturation, delays and queue length at the intersection. Delays are an indicator that directly affects traffic users, considerably more than engineering-oriented capacity or capacity reserve. The same indicator was used to evaluate the level of service of the intersection. The microsimulation models are very useful tool for the analysis and prediction of traffic conditions on existing and planned intersections. However, it is questionable whether they can be expected to give realistic modeling results that can be applied in the methodology of analysis and design of roundabouts in local conditions. The VISSIM microsimulation traffic model used for traffic simulation and the traffic indicator which had been selected to analysis was the indicator of a delay. The best insight into the applicability of a VISSIM microsimulation traffic model on roundabouts in local traffic conditions is provided by the comparison of modelled and measured data. The process of model calibration and validation implements the comparison with values of traffic parameters measured in real traffic conditions. The selected traffic indicators for the calibration and validation procedure were travel time and queue. The analyses third traffic indicator of average delay at the observed roundabout was chosen to serve as an efficiency measure of the calibration. Measured delay was compared with modeled delay for the same traffic stream with calibrated and default values of input model parameters. Results of analysis and comparison measured and modeled data of average delays are given in this paper.

Key words*: roundabout, microsimulation, delay, level of service*

SAŽETAK

Analiza funkcionalnih prometnih karakteristika raskrižja uključuje ocjenu propusne moći i sposobnost prilagodbe promatranog prometnog rješenja potrebama različitih vrsta prometnih korisnika. Pokazatelji koji se analiziraju u okviru kvalitativne ocjene raskrižja su: rezerva propusne moći, stupanj zasićenja, vremenski gubitci i dužina kolone vozila. Vremenski gubitci su pokazatelj koji ima direktan utjecaj na prometne korisnike, znatno više od inženjerski

orijentirane propusne moći ili rezerve propusne moći. Vremenski gubitci se koriste i za ocjenu razine uslužnosti raskrižja.
Mikrosimulacijski prometni modeli su vrlo koristan alat za analizu i predikciju prometnih uvjeta na postojećim i planiranim raskrižjima. Ono što je upitno, može li se očekivati da će model dati realne rezultate modeliranja, tako da se može primijeniti u metodologiji analize i projektiranja kružnih raskrižja u lokalnim uvjetima.
VISSIM mikrosimulacijski prometni model odabran je za potrebe prometnih simulacija, a srednji vremenski gubitci su odabrani prometni pokazatelj za analizu. Najbolji uvid u primjenjivost VISSIM mikrosimulacijskog prometnog modela na kružna raskrižja u lokalnoj sredini dobije se usporedbom modeliranih i izmjerenih podataka. Postupak kalibracije i validacije modela u lokalnim uvjetima implementira usporedbu sa vrijednostima prometnih pokazatelja koji su izmjereni u stvarnim prometnim uvjetima. Za postupak kalibracije i validacije modela odabrani su prometni pokazatelji vrijeme putovanja i dužina kolone vozila. Analiza trećeg prometnog pokazatelja, a to su srednji vremenski gubitci u promatranom kružnom raskrižju, napravljena je da bi poslužila kao mjera efikasnosti postupka kalibracije. Izmjereni vremenski gubitci uspoređeni su sa modeliranim vremenskim gubitcima za promatranu prometnu struju u raskrižju, sa kalibriranim i nekalibriranim (default) vrijednostima ulaznih parametara modela. U ovom radu su prikazani rezultati analize i usporedbe izmjerenih i modeliranih srednjih vremenskih gubitaka u kružnom raskrižju Vinkovačka-Drinska u Osijeku.

***Ključne riječi**: kružno raskrižje, mikrosimulacije, vremenski gubitci, razina uslužnosti*

1. Introduction

Nowadays, justifiability and efficiency analysis and evaluation of economic, environmental and other influences of construction of new structures and introduction of new technologies into the traffic system are done by computer simulation modelling. Success of modelling of urban traffic network and its segments is in the service of successful modelling of critical elements of the network. According to a large number of criteria, the critical points of a traffic system are the intersections. Intersections are places of large traffic concentration and distribution which are filling and emptying traffic routes. Delays at intersection take 17%-35% of the overall travelling time [8]. Researches [4] made on a large population of school children show that approximately 75% of traffic accidents which include children occur on intersections. In an urban traffic network of a primary functional level, two types of intersections prevail – the ones with traffic lights and roundabouts. Experiences in application of microsimulation models on intersections with traffic lights are numerous and positive. Modelling of roundabouts with simulation tools has its distinctions which may cause larger deviations between modelled and measured data [10]. This paper supports the evaluation of microsimulation tools applicability to roundabouts, and as an experimental basis a chosen roundabout in the traffic network of the city of Osijek has been used.

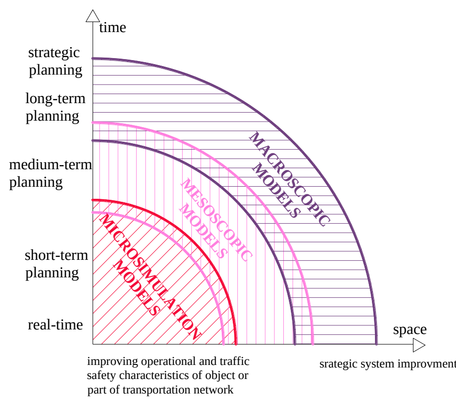
2. Functional characteristics of intersections

Indicators analyzed in the qualitative assessment of an intersection are: capacity, capacity reserve, degree of saturation, delays (which affect level of service) and queue length at the intersection. Intersection capacity (C) is defined [3] as the maximum number of vehicles that can pass the intersection (the measured section of each traffic route) at a given time period and in defined traffic, weather and other conditions. Capacity reserve (R) is the difference between intersection capacity and its actual traffic volume and is expressed by the number of vehicles. Degree of saturation (A) is defined by the ratio of actual traffic volume and intersection capacity and is expressed in percentages. Delays are defined as the total waiting time of vehicles at the intersection due to traffic and weather conditions, traffic regulation, intersection geometry, sight distance at the intersection, deceleration and acceleration of vehicles, and other factors. Queue length is the number of vehicles in a queue on access roads in the intersection zone. Level of service indicates the degree of traffic quality. Levels of service according to a criterion of average delays are given in the references [2, 5,11].

3. Microsimulation traffic models

The application of various simulation models needs to be considered within the temporal and spatial scope. Specific simulation models are developed for certain types of traffic analysis and are intended for decision makings which differ in temporal and spatial coordinates (Figure 1). Microsimulation models are able to model the stochastic nature of traffic flow at the multi-modal level: car - truck – bus/tram - a cyclist- pedestrian, through a detailed movement modeling of each entity.

Figure 1 Temporal and spatial scope of simulation models



Source: author

3.1. VISSIM microsimulation model

VISSIM is a stochastic, discrete, micro-simulated model designed for traffic analyses. It started to develop in Germany at the University of Karlshruhe in the early 70-ies of the last century. For the longitudinal vehicle movement (car-following movement) the model implements the sub-model of psycho-physical modeling of car following behavior (Wiedemann psycho-physical submodel), and for lateral movement (lane changing) there is the sub-model based on the defined rules of acceptable time gap for changing lanes in vehicle moving [6].

4. Application of the VISSIM for modelling the observed roundabout

Model calibration is, according to the Highway Capacity Manual (2000), the process of comparing model parameters with actual data obtained by counting and measuring at a local network [9]. The aim is to reduce the discrepancy between output results of a simulation model and data obtained by measurements and observations in the field. Model validation is evaluation of calibration model efficiency by comparing modeled and measured traffic parameters.VISSIM microsimulation model is calibrated for local traffic conditions in the network of the city of Osijek by application of neural networks. Validation of the calibrated model on one-lane roundabouts in Osijek has shown a good match between measured and modelled data for examined traffic parameters – time of travel and length of a queue of vehicles at the entrance into the intersection [5]. Analysis of a third parameter, like delays, which has not been considered in the process of calibration, will provide a new insight into the success of the calibration process.

4.1. Roundabout Vinkovačka-Drinska

Vinkovačka-Drinska intersection is one-lane roundabout with a primary functional level. Outside radius is 30m, and the width of one-lane entrances into the intersection ranges from 2.75 to 3.5m (Figure 2). Before the reconstruction, done in 2005, the examined Vinkovačka-Drinska intersection used to be a classic four lane intersection. The basic reason for the reconstruction was the fact that there were large delays on the side rout from the direction of Drinska Street. The critical traffic streams were left turns from Drinska to Vinkovačka Street, average delays were longer than 50 seconds per vehicle which implied the lowest (F) level of service [5].

Figure 2 Roundabout Vinkovačka- Drinska

Source: author

4.2. Analysis of delays of the roundabout

Total delay is a total amount of time which vehicles loose at an intersection. Geometric delay, specific for roundabouts, is caused by intersection geometry. Pure geometric delay is delay of an isolated vehicle which is safe from being obstructed by a vehicle from conflicting traffic flow. It is theoretical and such delays are not measurable in normal traffic conditions. The difference between total delay and geometric delay, which is also called control delay, is conditioned by traffic volume of the main traffic flow and traffic regulation. Increased total delay will lead to the decreased impact of geometric delay.

4.2.1. Measured delays

Measuring of input parameters for the model (volume and distribution of the traffic volume) and traffic indicators, like time of travel and delays, at the examined intersection, has been done on March 3rd 2010 in the afternoon traffic peak hour between the 3 and 4pm. For the purpose of assessment of geometric delays inside the intersection, numerous measurements of time of travel in daytime and night-time conditions and with a small traffic volume in the intersection were made. The shortest time of driving between measuring points in the real traffic conditions was 13 seconds.

4.2.2. Comparison between measured and modelled delays

From the comparison between the traffic flow from Drinska Street into the roundabout measured at the site and the number of vehicles in simulated traffic flows, it is obvious that the VISSIM model does not generate the same number of vehicles as the one counted at the field and entered into the model, but it rather sticks to the given traffic distribution (Table 1). In order to make it comparable, the traffic volume is conditionally homogenized by introduction of equivalent units of personal vehicle (PCE). There is a more detailed explanation in the references [1,11].

Table 1 Traffic volume of observed traffic stream - measured vs. modelled

	TRAFFIC VOLUME (PCE/h)	
TRAFFIC STREAM	**MEASURED**	**MODELLED**
LEFT:Drinska-Vinkovačka south	139	152

Source: author

Delays for the measured section (which consists of the traffic stream of the left turn from Drinska to Vinkovačka Street – South) are measured and compared to the modelled delays for the same stream with calibrated and non-calibrated (default) values of model input parameters. Comparison between measured and modelled delays is shown in the Table 2.

Table 2 Comparison of modelled and measured delays

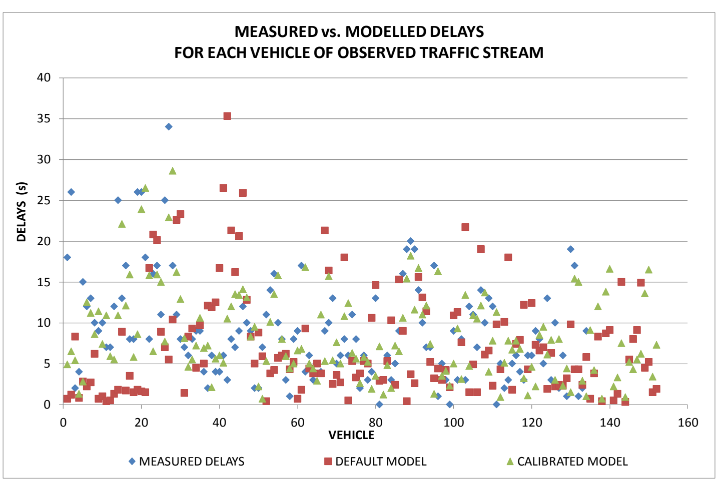
TRAFFIC STREAM LEFT: Drinska-Vinkovačka south		**AVERAGE DELAYS (s/veh)**
MODELLED VALUES	**CALIBRATED**	8,4
	DEFAULT	7,3
MEASURED VALUES		8,9

Source: author

The difference between measured data of average delays and modelled data (Table 2) gathered by application of calibrated model is 5.6%, and it is 17.9% by application of non-calibrated model.

The comparison between results of measuring and results of modelling for delays of each vehicle for the observed traffic stream in the given time is given in the Figure 3.

Figure 3 Comparison of modeled and measured delays for each vehicle



Source: author

5. Conclusion

Results of analysis of average delays at Vinkovačka – Drinska roundabout in Osijek by application of the chosen VISSIM model, confirm applicability of microsimulation modelling in local conditions. In the process of delay simulation, compared to measured delays at the intersection, the calibrated model offers better results than non-calibrated one. Analyzed traffic indicator of traffic delays, which is not used in the process of model calibration and validation, offers a valuable insight into a success of the calibration process. At Vinkovačka-Drinska roundabout, the critical traffic, stream which caused long delays at the intersection before the reconstruction (level of service F), has been analyzed. Calibrated model and measurements give 8-9 seconds average delays per vehicle, which implies the highest level of service (A). The conducted analysis shows that the reconstruction of the intersection has made the expected impact on delays at the examined intersection of the primary functional level.

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CONSTRUCTION AS A MODERATOR OF THE NATIONAL AND REGIONAL DEVELOPMENT

GRADITELJSTVO KAO MODERATOR GOSPODARSKOG RAZVITKA

ABSTRACT

All the frequent cries of our indigenous politicians for speeding up the necessary national and regional development are very weak or are not even scientifically or economically based. In conjunction with the desired development goals stand out as new jobs and reduce unemployment recent and potential relative growth of the gross domestic product, regardless of who contributed to this economic segment. Mentioned in this and the necessary structural changes, but does not define what it means under them, although due to the absence of global definitions are absent (a) knowledge of the real and the possible origin of the realized social product, and (b) knowledge about the possible impact on its partial and global growth. At the same time in the practice of developed countries, the social origin of products from certain segments of the economy has received much attention, these structures are carefully planned and initial measures of economic policy is consistently controlled and directed. Simplified terms, takes into account how much the gross domestic product within a national framework is realized in the industry, in agriculture or in construction ..... and other economic sectors, and to take measures of economic policy that will, at any given time, heading to enable faster increase in the share of each economic segment in the domestic product.

Through the structure of the social origin of products on the international level to identify the level of recent development of a country or its region. Through measures of current and developing policies that directly affects the structure, causing acceleration or deceleration of development and the effects which it is measured. Common to all developed countries in this important moderator to consider economic development and construction as the economic field, because it is rooted in the research proved that the economic developments in this segment, with a time lag, always accelerating or slowing down the overall economic and social development of the product which the same extent.

Our recent specific-and desirable-relationship to the economy segment in general and global management at national and regional development, the contents of the paper is announced under the title "Construction as a moderator of the national and regional development." The stronghold of his research findings from long-term research project, Faculty of Engineering, University of Josip Juraj Strossmayer, "Long-term development of Croatian civil engineering."

SAŽETAK

Sve učestaliji vapaji naših domicilnih političara za neophodnim ubrzavanjem nacionalnog i regionalnog razvoja vrlo su slabo ili uopće nisu ni znanstveno ni ekonomski utemeljeni. U svezi sa željenim razvojem kao ciljevi se ističu otvaranje novih radnih mjesta i smanjenje recentne nezaposlenosti, te eventualni relativni porast društvenog bruto proizvoda bez obzira na to koji je gospodarski segment tome pridonio.
Spominju se pri tom i neophodne strukturne promjene, ali se ne definira što se pod njima podrazumijeva, iako zbog izostanka ove globalne definicije izostaju (a) spoznaje o stvarnom i mogućem porijeklu ostvarenog društvenog proizvoda, te (b) spoznaje o mogućem djelovanju na njegov parcijalni i globalni rast. Istovremeno se u praksi razvijenih zemalja porijeklu društvenog proizvoda iz pojedinih gospodarskih segmenata poklanja velika pažnja, ta se struktura inicijalno pomno planira i mjerama se ekonomske politike konzistentno kontrolira i usmjerava.
Pojednostavljenim rječnikom, vodi se računa o tome koliko se društvenog bruto proizvoda unutar nacionalnih okvira ostvaruje u industriji, u poljoprivredi ili u građevinarstvu..... i drugim gospodarskim granama, te se poduzimaju mjere ekonomske politike koje će- u danom odsječku vremena- omogućiti brže povećanje udjela pojedinog gospodarskog segmenta u stvaranju društvenog proizvoda. Preko strukture porijekla društvenog proizvoda na međunarodnom se planu identificira i razina recentne razvijenosti jedne zemlje ili pojedinih njenih regija.
Preko mjera tekuće i razvojne politike na tu se strukturu posredno djeluje izazivajući ubrzavanje ili usporavanje razvoja i efekata kojima se on mjeri. Zajedničko svim razvijenim zemljama pri tom je da se bitnim moderatorom gospodarskog razvoja smatra i graditeljstvo kao gospodarska oblast, jer je s uporištem u istraživanjima dokazano da zbivanja u tom gospodarskom segmentu, s određenim vremenskim pomakom, uvijek ubrzavaju ili usporavaju sveukupni gospodarski razvoj i društveni proizvod kojim se isti mjeri. Naš specifični- recentni i poželjni- odnos prema ovom gospodarskom segmentu općenito i pri upravljanju globalnim nacionalnim i regionalnim razvojem, sadržaj je priloga najavljenog pod nazivom „Graditeljstvo kao moderator nacionalnog i regionalnog razvoja“. Uporište su mu istraživačke spoznaje iz dugoročnog istraživačkog projekta Građevinskog fakulteta Sveučilišta Josipa Jurja Strossmayera u Osijeku- „Dugoročni razvoj hrvatskog građevinarstva“.

1. Introduction

When speaking of civil engineering, it is necessary to primarily define the term, because it has various conceptual, historical, economical and other dimensions.

With that in mind, we can, for starters, point out that this is a human activity as old as society itself, and when talking about engineers who are subjects of this activity, civil engineering represents one of the oldest professions.

Evidence which substantiate this statement is found everywhere, but one of the most conclusive can be found looking at the degrees of education of civil engineers across the world.

The education process for graduate civil engineers in any part of the world, in any given time, is the same as anywhere else, giving the civil engineers an opportunity to successfully get involved into building process of any kind anywhere in the world. A very small number of professions share this characteristic.

Civil engineering could also be defined and observed by types of objects that are built, their building styles, or some other characteristics.

Within this paper, civil engineering will be regarded as an industry that is a structural element of world, as well as national economic system, which with its natural function complies with a wide range of social and economic, and individual population needs, while using input from other branches of economy and, what is most important for this topic, generates a significant portion of world, and national, gross domestic product.

Civil engineering is therefore a source of larger (or smaller) part of gross domestic product, and planned activities within this industry can, under certain circumstances, affect the gross domestic product by speeding up or slowing down its movement dynamics. This learning is well-known and widely used in mastering economic growth, its programming and dynamics within national economic policies.

This theory also includes known methods and means of dinamyzingof civil engineering, as well as the framework for inducing or slowing down engineering activities in a certain economic area.

When observing possible effects the management of engineering activities on national basis could have on global economic growth, it is necessary to pay attention to the share civil engineering has in total economic activity, in natural and value terms.

In this region and its specific circumstances, no one thinks of civil engineering in the way mentioned above, and there is no awareness of the effects that managing engineering activities has on the dynamics of the whole economy, and also on the dynamics of generating gross domestic product.

The infrastructure needed to change the approach to this branch of economy exists within the global economic policies – it has been built for years and the saddest part is that it has been financed through national research and development funds. The results were published and elaborated, but the problem is that no one finds it necessary to study them, and they are not used in the process of decision making regarding current and future economic policies.

A long-term research project called "Long-term development of Croatian civil engineering – concept and strategy with projections for the year 2010; Implementation of the strategy, conditions in the region, education modalities" has been actively worked on in these parts since 1981, with numerous papers published within the project. Unfortunately, none of its conclusions were used in macro-management of this branch of economy, even though the most responsible and influential people within the industry have stated that they do not understand even the most basic elements of its structure, territorial arrangement, and other characteristics.

All of the above serves as a motive to remind everyone of the importance of civil engineering as a branch of economy, as well as the possibility of using it as a mean of fulfilling current and developmental goals of national economic policy.

2. The importance of engineering activities – Croatian civil engineering as a branch of economy in the past and today

Specific weight of civil engineering was negligible neither in former Yugoslavia, nor in now independent Republic of Croatia.

Civil engineering has always been a generator of high-value construction projects (the share of construction projects within each unit of realized investments was 0.54), it has always employed a large number of people (around 11% of the total number), engaged an appropriate share of basic national funds at cost (around 4% of the total value of national economy basic funds,and it also generated a large portion of the national gross domestic product (around 7% of Croatia's GDP).

If you add to these facts the contribution of national building materials industry was making to Croatia's gross domestic product (another 2,2%), one finds that the broad form of civil engineering sector, during the transition years when Croatia gained its independence, generated more than 9% of country's GDP.

Croatian civil engineering was generating around 25% of this industry's GDP in former Yugoslavia, and its presence in numerous foreign markets generated a large influx of highly needed foreign currencies.

During that period in Croatia, civil engineering employed around 140 thousand people, with 23.5 thousand more employed in production of building materials.

In the wake of Croatian independence, civil engineering in Croatia (construction and finishing works) consisted of 696 operating units and construction companies, distributed over 10 economic regions (formed via association of municipalities) in Croatia in that period, where the region of Osijek (which is geographically consistent with today's Eastern Croatia macro-region and which consisted of 14 municipalities in that period) was home to 88 companies, which represented 12% out of total number of construction companies.

Construction companies in this region employed around 20.5 thousand people, while the region's building materials industry employed around 10% of people employed in this industry on national level that is around 2400 people. This means that, in the wake of Croatia's independence and during the first years of independence, and before the process of privatization, the industries tied to civil engineering employed around 23 thousand people in this region alone.

Twenty years later, in 2010, in a differently structured Croatia and its economy, the characteristics and significance of civil engineering as a lever of dinamyzing economic growth have changed over the course of time.

The contingent of around 700 construction companies which employed around 140 thousand people has been erased from the picture that represents the structure of Croatian civil engineering today.

The reasons for this transformation lie in the transformation of so-called social property into government property, and the transformation of the latter into private property. The consequences of this transformation are decay and/or structural reorganization of a large number of companies, together with an emergence of new companies, mostly small businesses qualified and equipped to work as a subcontractor on a wide range of construction projects.

These companies in total employ a much smaller number of people than 20 years ago when Croatia gained its independence, even though the number of registered companies is several times larger. The companies are not as equipped as before, and the equipment used is not domestic but imported, and the building materials used in construction projects are also mainly imported, which is a big hit for Croatian industry of building materials, an industry on decline for the past 20 years for various reasons – ownership changes during the process of privatization, elimination from market and market expansions (such as in brick-production, ceramics, cement, industrial construction elements and other).

Together with characteristics mentioned above, this vast number of mostly small businesses does not have significant capital at its disposal, and every larger construction project demands taking out loans (legal and illegal) to finance objects which are in construction, and therefore these subjects in Croatian economy are also responsible for generation of a significant part of national non-solvency.

The effectiveness and efficiency of this randomized concept of national civil engineering is at such a level that, instead of increasing the gross domestic product, it represents a factor of decline of gross domestic product.

Without optimized industrial production based on market principles, and without its optimized share in global economic structure, it is illusive to expect a growth of gross domestic product based exclusively on industries such as commerce, catering and tourism, primarily relying on foreign instead of domestic input.

It is, therefore, primarily a problem of poor alignment of national economic policy, and an inadequate use of instruments used successfully by developed countries, which include civil engineering, demand for which is being systematically induced and dinamyzed, because the use of those instruments is highly likely to ensure the necessary growth of gross domestic product.

The most responsible subject is the state that is the government which is the creator and the enforcer of national economic policy. It is therefore important that the level of awareness of the governing people is high within the domain of decisions they make and the effects of the measures taken in the field of civil engineering.
The level of awareness among our recent governments, including the current government, is not hard to measure and appraise!

3. Recent characteristics of Croatian civil engineering

A multitude of construction companies and their employees are very unevenly distributed within the Croatian economic environment that today consists of 21 counties (20 + City of Zagreb).
Perennial movement dynamics of these economic subjects and their employees represents a framework for necessary further quality analyses, while the causes for the condition in which

this branch of economy is today should be used to draw lessons for further global planning and management.

This simple image itself provides a clear view of the state Croatian civil engineering is in today that is construction companies that operate within this branch of economy.

Table 1 Overview of main activities of Croatian construction companies[48] - As ofMarch 31st2010

Main activity	Number of subjects
• **Preparatory construction works** (demolition of objects and preparatory works on site);	586
• **Construction of complete buildings** (construction of high-rise and low-rise buildings, building of roof constructions and roofing, construction of roadways, airfields and sports objects, hydro engineering, and other special construction works);	3,378
• **Installations works** (electric installations, insulation, gas and plumbing, heating and cooling, and other installation works);	306
• **Finishing construction works** (façade and plaster works, doors and windows, flooring and tiling, wall-painting and glazing, and other finishing works);	180
• **Rental of construction machines and equipment with handlers.**	1,741
Total	**8,336**

Table 2 Overview of people employed within the main activities of construction companies - As ofMarch 31st2010

Main activity	Number of employees
• **Preparatory construction works** (demolition of objects and preparatory works on site);	38815
• **Construction of complete buildings** (construction of high-rise and low-rise buildings, building of roof constructions and roofing, construction of roadways, airfields and sports objects, hydro engineering, and other special construction works);	29055
• **Finishing construction works** (façade and plaster works, doors and windows, flooring and tiling, wall-painting and glazing, and other finishing works);	25874
• **Rental of construction machines and equipment with handlers.**	-
Total	**93744**

[48]Besides the summary of Croatian civil engineering subjects according to the prevailing activity, information exist on their territorial layout per counties and tendencies almost ten years back, which is also a valuable indicator of development possibilities of each part of Croatia and realization of its Gross Domestic Product..

Table 3 Overview of number of construction companies by county in Croatia[49] - As ofMarch 31st2002, 2007 and 2010

Ordinal number	County	2002	2007	2010
1.	**Zagreb County**	317	537	639
2.	***Krapina-Zagorje County***	105	182	195
3.	**Sisak-Moslavina County**	86	126	154
4.	**Karlovac County**	96	134	142
5.	**Varaždin County**	130	216	226
6.	**Koprivnica-Križevci County**	68	114	119
7.	**Bjelovar-Bilogora County**	78	106	121
8.	**Primorje-GorskiKotar County**	418	692	792
9.	**Lika-Senj County**	40	67	68
10.	**Virovitica-Podravina County**	48	47	56
11.	**Požega-Slavonia County**	45	53	50
12.	**Brod-Posavina County**	126	191	193
13.	**Zadar County**	122	220	259
14.	**Osijek-Baranja County**	277	346	343
15.	**Šibenik-Knin County**	78	98	124
16.	**Vukovar-Srijem County**	119	162	156
17.	***Split-Dalmatia County***	585	845	977
18.	**Istra County**	358	695	768
19.	***Dubrovnik-Neretva County***	113	191	248
20.	**Međimurje County**	173	262	290
21.	**The City of Zagreb**	1371	2122	2416
1-21.	**Croatia-total**	4753	7406	8336

Source: Republic of Croatia - Central Bureau of Statistics in Zagreb, a special research within the scientific project of continuity since 1981, "Long-term Development of Civil Engineering". It was realized in May 2011.

[49]The project was financed by the Ministry of Science, Education and Sports of the Republic of Croatia, but it stopped it near the end of works, when a synthesis of complex research cognitions and preparations for definite publishing were undergoing. The reason was "failure to comply with the planned cost structure" in scientifically valid planning.
The project leader for years was the Faculty of Civil Engineering of the JosipJurajStrossmayer University in Osijek, and the initiator and main research expert was prof. emeritus Barbara Medanić, Ph.D.

Overview of people employedin construction companies in Croatia[50] - Total and by county - As ofMarch 31st2002, 2007 and 2010-

Ordinal number	County	2002	2007	2010
1.	**Zagreb County**	**3681**	**7165**	**6673**
2.	***Krapina-Zagorje County***	**1229**	**2274**	**2287**
3.	**Sisak-Moslavina County**	**1821**	**2310**	**2064**
4.	**Karlovac County**	**2652**	**1922**	**1942**
5.	**Varaždin County**	**2362**	**4108**	**4146**
6.	**Koprivnica-Križevci County**	**1482**	**1969**	**1598**
7.	**Bjelovar-Bilogora County**	**1517**	**1978**	**1602**
8.	**Primorje-GorskiKotar County**	**4425**	**7122**	**6375**
9.	**Lika-Senj County**	**506**	**616**	**650**
10.	**Virovitica-Podravina County**	**604**	**600**	**685**
11.	**Požega-Slavonia County**	**1138**	**906**	**607**
12.	**Brod-Posavina County**	**2044**	**3825**	**3415**
13.	**Zadar County**	**1583**	**2541**	**2325**
14.	**Osijek-Baranja County**	**5089**	**6976**	**6500**
15.	**Šibenik-Knin County**	**799**	**1199**	**1113**
16.	**Vukovar-Srijem County**	**2005**	**2996**	**2692**
17.	***Split-Dalmatia County***	**6708**	**9880**	**10391**
18.	**Istra County**	**3435**	**4899**	**4902**
19.	***Dubrovnik-Neretva County***	**1735**	**3112**	**3046**
20.	**Međimurje County**	**2710**	**3829**	**3390**
21.	**The City of Zagreb**	**21961**	**28324**	**27341**
1-21.	**Croatia-total**	**69482**	**98551**	**93744**

Source: Republic of Croatia - Central Bureau of Statistics in Zagreb, a special research within the scientific project of continuity since 1981, "Long-term Development of Civil Engineering". It was realized in May 2011.

Today, not many qualitative characteristics of such a vast number of small subjects are known, but they should, in the near future, become a subject to analysis by the appropriate ministries and regional department of Chamber of Commerce, because it is possible that some companies operate as company - employees, company - mechanization, company - modality offinancialinflows andoutflowsof capitaland similar,which has become a very popular mean of managing businesses, together with massive evasion of paying social-security contributions, for many boards of directors, who will stop at nothing to compensate and ameliorate the effects of the recent crisis on their businesses, dominated by the principle of

[50]IBID, table 2

"maximum profit at any cost", instead of "permanent increase of company's value and stock value of its owners".

4. Potential developmental effects of civil engineering as a branch of economy

Assuming that we, within our economic structure, own the civil engineering industry, that this industry employs mainly domestic workforce, that mainly domestically produced machines and equipment are used in construction projects, that materials, elements and hardware used in these projects is mainly produced in domestic building materials industry, and assuming that there is a planned structure of demand for domestic civil engineering and that the government has carried out the necessary economic and financial measures needed to induce demand, the effects of the mentioned still require patience.

This is a learning we need to become familiar with!

The effects of inducing demand for civil engineering through construction of new objects, maintenance of existing objects and tearing down of deteriorated objects cannot and will not be immediate and won't momentarily affect the growth of gross domestic product.

The effects will be seen after a certain period of time, certainly not within the current fiscal year, but they will become clear in the future.

After all, the contraction of investments works in a similar way, gradually slowing down economic activities and the growth of gross domestic product.

Civil engineering, under certain circumstances, affects the growth or decline of gross domestic product.

Given circumstances are closely tied, among other, to optimization of national economic structure.

It is very important to maintain the balance of shares each branch of economy has within the gross domestic product, because not all shares are equally valuable, from the social point of view.

It is absolutely unforgivable to let the economy run itself, and wait for results, and a certain development of gross domestic product must be maintained. However, it is not irrelevant which source feeds the gross domestic product.

Developed countries usually define the economic structure by meansof optimal outcome represented by gross domestic product, and by the measures carried out to enforce development of certain economic elements. In these parts, however, the awareness on such economic structures and the importance of their elements is virtually non-present.

Directional economic structure is both useful and necessary for, if nothing else, simulating possible outcomes of most important economic and political decisions, because it is more useful not to allow a possible negative outcome, than to allow it and then carry the burden of the risk and only be able to state that the outcome should have been avoided.

One should also be able to manage the risk of macro-decision making, and one should use the already known and developed wide range of methods and instruments.

One of the more effective instruments for testing major economical-political decisions and their possible outcomes is a sector input-output matrix of Croatian economy – its total, domestic and imported contents.

A long time ago, before its independence, Croatia had developed and used such a matrix! The last matrix was developed in 1988 to check a) the effect of federal measures on Croatia and b) the effect of individual partial measures within the economic policy on each of the relevant parameters (gross domestic product, prices, costs of living, salaries etc.)
Taking into account that during that period information technologies were not as nearly as developed as today, it is extremely difficult to explain a wide disregard for the opportunities available for global decision making and also global and partial economic management.

Namely, the omnipresent method of trial and error is on the most expensive ones, therefore it would be highly feasible to make a sharp turn in macro-planning, using the familiar instruments for simulating outcomes of certain decisions and situations, and minimizing the risk that comes with them.

5. Final messages

Civil engineering is extremely important for global economic growth, but it must primarily be:

(a) Appropriately dimensioned within the economic structure;

(b) Encouraged by current and developmental measures of economic policy;

(c) Exposed to challenges of global investment policy (because of the share construction projects have in current investments) which induce demand for civil engineering;

(d) Adequately financed;

(e) Considered a significant source of employment through opening of new workplaces; and

(f) Appreciated as the most significant consumer of domestic construction materials, and also a consumer of construction machines (excavators, dredgers, transporters, cranes, and other construction machines and equipment).

6. Reference

5.1 Scientific basis for long-term socio-economic development of Croatia – Long-term development of civil engineering and supporting industry in Croatia by the year 2010. Autonomous Scientific Interest Community of Croatia and the Republic Institute for Social Planning – Institute of Civil Engineering; Zagreb; 1990

5.2 Unpublished learnings of long-term research project “Long-term development of civil engineering and supporting industry in Croatia”, 1981-2011, Zagreb Institute of Civil Engineering and Faculty of Civil Engineering in Osijek (the research included systematically researched developmental opportunities, shaped concept and long-term development strategy, making of long-term development projection, suggesting several ways of shaping developmental policy and their implementation in current macro-economic decision making).

5.3 The results of themed research on structure, contents of business and employment, and territorial distribution of Croatian construction companies, done over a course of several years by the Central Bureau of Statistics in Zagreb.

4

Sakralni objekti

Sacral objects

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SACRAL GOTHIC OBJECTS IN ARCHDIOCESE OF ĐAKOVO-OSIJEK AND DIOCESE OF SRIJEM

SAKRALNI GOTIČKI OBJEKTI U ĐAKOVAČKO-OSJEČKOJ NADBISKUPIJI I SRIJEMSKOJ BISKUPIJI

ABSTRACT

This short review of sacral Gothic buildings in the territories of Archdiocese of Đakovo-Osijek and Diocese of Srijem clearly exhibits the richness of Gothic style in construction of sacral objects, in contrast to other styles which are abundant in these two dioceses. When naming 22 locations with Gothic buildings, it was my wish to write about each of them. They are all similar by their building style, but there are also differences which make them unique monuments of the times when they were built. The oldest church was mentioned as early as the end of the 13th century, and they date from then towards the end of the 15th century.
It is important to note that all these buildings, or at least most of them, have not been preserved in their original forms. This is understandable, since the afore-mentioned territory has undergone through various conflicts and wars in the past few centuries. It is also important to state the fact that all these churches were built of full brick with beautiful Gothic details, which clearly shows the population had a rich religious life, in addition to their economic activities.

Key words: *Gothics, sacral objects, Archdiocese of Đakovo-Osijek, Diocese of Srijem*

SAŽETAK

U ovome kratkom prikazu sakralnih gotičkih građevina na području Đakovačko-Osječke nadbiskupije i Srijemske biskupije jasno se vidi bogatstvo gotičkoga stila gradnje sakralnih objekata, za razliku od drugih stilova kojima su bogate ove dvije biskupije. Navodeći 22 lokacije sa gotičkim građevinama, želja mi je bila o svakoj ponešto napisati. Sve su one slične po svojoj gradnji, no postoje i različitosti po kojima su jedinstveni spomenik vremena od kada datiraju. Najstarija se crkva spominje još koncem XIII. pa sve do kraja XV. stoljeća.
Važno je napomenuti da sve te građevine, ili većina njih, nisu sačuvane u svom izvornom obliku. To je razumljivo, budući da su se na navedenom teritoriju u zadnjih nekoliko stoljeća dogodili različitih sukobi i ratovi. Važno je navesti činjenicu da su sve crkve sagrađene od pune opeke sa prekrasnim detaljima gotike, što nam jasno pokazuje kako je stanovništvo, uz svoje gospodarske aktivnosti, živjelo i bogatim vjerskim životom.

Ključne riječ: *Gotika, Sakralni objekti, Đakovačko-Osječka nadbiskupija, Srijemska biskupija*

1. Introduction

Slavonian area could be designated as a peripheral reaching area of Central European gothics towards the south-east, adjoining Bosnia in the south – along the Sava River, Serbia in the south-east, and Transylvania (part of Romania nowadays) in the north-east. We wish to briefly represent those sacral objects within the territories of Archdiocese of Đakovo-Osijek and Diocese of Srijem that contain Gothic elements, since almost none of them have been preserved in their original form. Each of the 21 sacral objects will be described individually: **1)** the Nativity of the Blessed Virgin Mary Church in Bapska, built in 1332; **2)** a church in Cerna, consecrated to St. Michael the Archangel, originating from the 15th century; **3)** a church in Dragotin, consecrated to the Blessed Virgin Mary, from the 14th century; **4)** a church in Gorjani, consecrated to St. Margaret, which doesn't exist anymore; **5)** a church in Glogovica, consecrated to St. Stephen the Martyr, built in the end of the 14th and at the beginning of the 15th century; **6)** churches in Ilok – **a)** the St. Stephen the Martyr Church, discovered in 1951, **b)** a church discovered in 1972, and **c)** the Church of St. Mary, today called the Church of St. John of Capistrano, reconstructed in baroque style in the 18th century, and restored in neo-Gothic style in 1906; **7)** the parochial church of St. John the Baptist in Ivankovo; **8)** a church in Ledinci, constructed in the early 14th century; **9)** a church in Lipovac, so called "Lučica", from the end of the 14th century, consecrated to the Blessed Virgin Mary, while the church's patron is St. Luke the Evangelist; **10)** a church in Marijanci, consecrated to Sts. Peter and Paul, with several preserved Gothic details; **11)** a church in Morović, consecrated to the Blessed Virgin Mary, from the end of the 14th century; **12)** a church in Nijemci, consecrated to St. Catherine, constructed in the 15th century; **13)** a church in Novi Mikanovci, consecrated to St. Bartholomew, constructed during the times of Knight Hospitaller Order; **14)** a Gothic Church of St. Cross in Osijek; **15)** a church in Rokovci, so called "Rokovačka zidina", built in the 15th century; **16)** a Gothic church in Sveti Đurađ, consecrated to St. George; **17)** a church in Šarengrad, consecrated to Sts. Peter and Paul, from the 15th century; **18)** a Gothic parochial church in Šljivoševci, consecrated to Pope St. Gregory the Great, **19)** a church in Valpovo, court chapel of the Holy Trinity from the first half of the 15th century; **20)** the parochial church of St Andrew, the Apostle, from the 15th century; **21)** a church in Vinkovci, consecrated to St. Elias the Prophet, from the 15th century; **22)** a church in Zdenci, near Slavonski Brod, consecrated to St. Peter, originating from the mid-15th century.

2. Sacral Gothic Objects in Archdiocese of Đakovo-Osijek and Diocese of Srijem

2.1. Bapska

Nativity of the Blessed Virgin Mary (Birth of Mary) Church in Bapska is a single-nave longitudinal Romanesque-Gothic building, made of bricks. It is located at the cemetery outside present-day settlement. It is approximately 15 meters long, and 4.5 meters wide – this Romanesque church consists of Romanesque nave and lower and narrower apse and it has been extended toward west twice during the Gothic period. During the gothic period, the nave was first extended from the first pillar from the west, which has been removed during the last restoration works. The second extension followed in the 15th century, starting from the aforementioned pillar, first from the west, towards today's church façade. Angular anchor pillars positioned along the church façade also originate from that period. In the 15th century, the western side of the church also gets a pointed stone portal, with cut-off base angles.

Transition from the base to the triangular profile of the door-jamb has been carried out by slant filling of the corner.[51]

In the Register of Cultural Property of the Republic of Croatia, the Nativity of the Blessed Virgin Mary Chapel in Bapska has been described as follows:

St. Mary's Chapel was built in 1332. This properly oriented church, located at the local cemetery in Bapska, is basically Romanesque, with Gothic, Baroque and newer additions. Romanesque phase of construction consists of the church nave and lower and narrower semi-circular apse. The church nave has been extended towards west in Gothic style on two occasions – first time to the first counterfort, while the second extension up to today's church façade happened in the 15th century. At the same time, the pointed stone portal in Gothic style was fitted in the main façade and angular counterforts were added along the church façade. The bell tower and the portico were constructed in the 18th century in Baroque style, when the church interior was also restored in Baroque style and painted in illusionistic style. In the second half of the 20th century, a sacristy was added along the northern wall of the church nave.[52]

Gjuro Szabo, writing in 1916 about the medieval church in Ledinci (near Srijemska Kamenica), continues:
The settlement of Bapska with its church is mentioned much more frequently. Near this church there is a Neolithic colony named Gradac, wherefrom many objects have been taken to Zagreb Archaeological Museum. Bapska is mentioned as an appertinentiae of the town of Athija (nowadays Šarengrad) since the 14th century onwards, and the parish remained even during the Turkish rule. When the priests from Srijem gathered in 1581 in the place called Baiachia (which Euzebije Fermendžin wrongly identifies as Pajzoš near Bapska), there was a friar Jeronim who signed himself in the style of St. Cyril: "I, friar Jeronim, the chaplain of Bapska". There was also a votive painting which has been destroyed by the Turks in 1664, after they devastated the churches in Bapska, Ljuba and Ilok, as Matej Benlić, the bishop of Belgrade, describes.

This little church still exists today at the cemetery in Bapska. In a short period of time I gathered around it a Neolithic knife, a Roman buckle loop, silver medieval money and one piece of two fillers! For centuries people have been gathering there, fairs are still being held there nowadays, maybe in the same way they held them in that old time when Gradac colony was flourishing. I have visited a multitude of churches and chapels, but I have never felt what I have in that God's dark, in that semi-dark, rather long little church, when I saw two older women at the altar singing songs for the Virgin Mary, not caring for a newcomer who curiously peeped at every corner of the church, for a newcomer who knew that maybe people have been gathering on that spot for the same reason since the dawn of time.

The little church in Bapska is exactly of the type I described earlier. A semi-circular apse with a short nave is its first component, built even before the 14th century, and it has been upgraded in the Gothic period from the third left buttress. Sacristy was added afterwards, and then the portico in front of the church where altar mensa is located. The door that leads from portico to church have Gothic stone frame. The church is entirely made of bricks. The front part of the

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[51] Vukičević-Samaržija, Diana. (1986) *Sakralna gotička arhitektura u Slavoniji*. Zagreb. pp. 92-93;
[52] Šarlah, Ljiljana. (2006) „Kulturna dobra u Vukovarsko-srijemskoj i Brodsko-posavskoj županiji. Sakralni spomenici u posjedu katoličke Crkve, upisani u Registar kulturnih dobara Republike Hrvatske". *Vjesnik Đakovačke i Srijemske biskupije*. 11-12/2006; p. 1060;

church is built stronger, obviously it was planned to erect a church tower there. Out of three old Gothic windows, only one was left in the sanctuary, while the other two have been closed during later reconstructions (during the church restoration in the second half of the 20th century these windows have been uncovered). The exterior of the church is unappealing, walls are supported with buttresses, and repairs were done distastefully with white coating, so the church, especially its oldest part, looks smeared all over. Around all older parts and around most of newer parts there is a Gothic undershot cornice; the sanctuary has got an upper ornamental cornice made of baked brick.[53]

2.2. Cerna

The parochial church of St. Michael the Archangel in Cerna is located at the building site which borders with the Biđ River in the northern side. It is a one-nave Gothic and Baroque church with narrower and lower polygonal sanctuary supported by buttresses. The church nave is 15.76 meters long and 11.34 meters wide, while the sanctuary is 7.95 meters long and 6.2 meters wide. Interior of the church is completely decorated in Baroque style, and only things left from the Gothic period are walls and sanctuary buttresses. The church is built of bricks. The upper part of the sanctuary was added starting from the height of today's sanctuary window. There is also a visible small walled window in the south-east façade wall. According to these findings, the church could be dated into the 15th century.[54]

The church was built in the Middle Ages as a Gothic properly oriented church, at the plateau surrounded by a river. Narrower and lower polygonal apse is supported by counterforts (the only remnants of the Gothic phase). In the late 18th century the church was reconstructed in Baroque style. Along the sanctuary sacristies were added (symmetrically). The main façade is simply done, and a bell tower arises over it, covered by a pyramid-shaped roof. The church nave is vaulted by a ceiling – a Czech cap with flanges.[55]

2.3. Dragotin

The Church of the Blessed Virgin Mary is located outside the village at the hill-fort from where there is a view on the cathedral in Đakovo. It was built with bricks. It is a single-nave Gothic building with narrower and lower sanctuary, and polygonal termination with buttresses. The nave is 21.58 meters long and 8.75 meters wide, whereas the sanctuary is 5.2 meters long and 6.17 meters wide. The nave is separated from the sanctuary by pointed, straight-cut triumphal arch. The wooden vault in the nave that existed until it collapsed (few years ago) was made in "pointed barrel" style. Over the Gothic sanctuary there is a six-part ribbed vault. A pear-shaped rib resists on the consoles shaped like five-sided reversed pyramids, horizontally divided by three coulisses. The church's sanctuary is from the last decades of the 14th century. The church has often been repaired, and in 1899 it has been restored in neo-Gothic style by an architect named Vancaš.[56]

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[53] Szabo, Gjuro. (1967) „Spomenici prošlosti u Srijemu". *Godišnjak Ogranka Matice hrvatske Vinkovci*. 5/1966/67; pp. 344-345;
[54] Vukičević-Samaržija, Diana. p. 96;
[55] Šarlah, Ljiljana. p. 1060;
[56] Vukičević-Samaržija, Diana. p. 100;

2.4. Gorjani

The Church of St. Margaret existed earlier in Gorjani. It was a single-nave Gothic building with narrower sanctuary, and polygonal termination with buttresses. The church doesn't exist today.[57]

2.5. Glogovica

The Church of St. Stephen in Glogovica is a single-nave building with narrower and lower, flat constructed sanctuary (square sanctuary). It was built with stone. There is a preserved Gothic Custody inside, as well as several frescoes which are barely discernible in restless walls, almost completely ruined, so they cannot be iconographically and temporally determined. The church's nave is approximately 8.3 meters long and 6 meters wide, whereas the sanctuary is 6.2 meters long and 4 meters wide.[58] This church is situated at the local cemetery. It was built at the end of the 14th or at the beginning of the 15th century. Openings at the southern side of the nave, the lobby, as well as the wooden tower (belfry) above the front are of newer origin. Over the church's nave and sanctuary is a coffered ceiling, also of newer origin.[59]

2.6. Ilok

The following churches existed in Ilok:
The Church of St. Stephen - its remains were discovered in 1951. According to the excavation diagram from 1951 it can be concluded that the church was a single-nave building with polygonal sanctuary termination with buttresses and a tower above the front. This church was approximately 50 meters long.

At the beginning of 1972, in the southern side of the Ilok citadel, foundations of a part of a Gothic church sanctuary were discovered. The sanctuary is polygonal-shaped, with buttresses. Its dimensions are approximately 6 meters in length and 6.5 meters in width.

The Church of St. Mary, today called the Church of St. John of Capistrano, is a single-nave longitudinal chamber building, with polygonal termination with buttresses. It is 21 meters long and 7.4 meters wide. It was built in Gothic period on two occasions, reconstructed in Baroque style in the 18th century and finally reconstructed in neo-Gothic style in 1906.[60]

The first church from the 14th century was a single-nave building with polygonal termination, arched with cross-ribbed vault. In the 15th century the church was extended towards east, in the 18th century it was reconstructed in Baroque style, and it was then vaulted with a Baroque-style vault.[61]

2.7. Ivankovo

The parochial church of St. John the Baptist is located at the hill-fort and it is a single-nave Gothic church – now a Baroque one – with narrower and lower sanctuary, and polygonal

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[57] Vukičević-Samaržija, Diana. p. 102;
[58] Vukičević-Samaržija, Diana. p. 102;
[59] Šarlah, Ljiljana. p. 1063;
[60] Vukičević-Samaržija, Diana. pp. 107-108;
[61] Šarlah, Ljiljana. pp. 1060-1061;

termination with buttresses. It was built with bricks. The interior is completely in Baroque style. Only perimeter walls and buttresses at the finish are preserved from the Gothic period. It is 21.58 meters long and 8.75 meters wide. The sanctuary is 5.2 meters long and 6.17 meters wide. Three construction phases can be seen in the southern wall: Gothic, Baroque and neo-Gothic.[62] Both sacristies, along the northern and southern walls of the apse, are of newer build. The church nave is vaulted with barrel vault with flanges.[63]

2.8. Ledinci

Ledinci is a very nice village in Srijem, somewhat moved from the Danube to the valley. There was a settlement here already in the prehistoric period. The remains of the former residents were found mostly when the land was being dug for the nearby brickyard. Sites from the Roman period have been mentioned, but the traces of such have been lost. Only two swords have been preserved from the medieval period.

Here, above the village, the ruins of an ancient church arise alone, around which there were vineyards in 1916. The ruins are relatively well preserved, and the church was built with crushed stone, which was abundant in the local area. The semi-circular apse is gone, but its foundations have been preserved. At the arch between the apse and the nave there are remains of old paintings. In the northern side there is a narrow Gothic window, and the traces of the other two. At the church entrance there was a tower, built at the same time as the church, which is still preserved in relatively significant height. With its size, this church is similar to the ones in Rokovci and Novi Mikanovci, and we won't be much wrong if we set its origins in the early 14th century.[64]

2.9. Lipovac – Lučica

The church at Lučica near Lipovac from the end of the 14th century is a single-nave chamber building, with polygonal termination with buttresses. It is situated in the wetland area. It was built with bricks, and up to a half-meter height the builders used the Roman bricks. The southern, northern and eastern church walls were opened by large Gothic windows 1.7 meters wide and 5 meters long. Nowadays, these windows are completely walled up. The western portal is also walled up, and it can be perceived on the front wall. From the Gothic period, only two consoles can be seen in the church, in the western wall, above the choir stalls. The consoles are shaped like a three-sided pyramid. The body of the console is rounded and decorated with a flower in a form characteristic for the end of the 14th century, with raised middle. The church is unplastered and dilapidated. The church is located outside the settlement, surrounded by a trench. All Gothic moldings are done with bricks.[65]

This old Gothic church has been severely damaged in Croatian War of Independence (1991-1995), and its fittings have been completely destroyed.[66]

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62 Vukičević-Samaržija, Diana. p. 109;
63 Šarlah, Ljiljana. p. 1061;
64 Szabo, Gjuro. p. 344;
65 Šarlah, Ljiljana. p. 1061;
66 Jarm, Antun. (1998) „Razoreni i oštećeni crkveni objekti na području Đakovačke i Srijemske biskupije 1991. – 1997". *Vjesnik Đakovačke i Srijemske biskupije*. 10/1998; p. 648;

2.10. Marijanci

The parochial church of Sts. Peter and Paul is situated at the central village square and it was built with bricks. It is a single-nave Gothic building, restored in Baroque style, with lower and narrower sanctuary, which has been partially preserved. The sanctuary's finish is done in Baroque style in the form of apse. The church is 16.6 meters long and 8.45 meters wide, while the Gothic sanctuary is 3.42 meters long and 5.43 meters wide. From the Gothic period, the perimeter walls of the nave and parts of sanctuary have been preserved, and in the middle of the southern side of the church a luxuriously profiled portal.

2.11. Morović

The Mother of God Church is located along the road to Morović, near the settlement, at the cemetery. It is a single-nave Romanesque-Gothic church. The Romanesque church was expanded toward west in the 14th century with a higher Gothic nave with a tower at the front. During the remodelling a Gothic chapel was built which leans against the Romanesque object in the northern side. The church was built with bricks. It is 25.28 meters long and 8.46 meters wide.

This, for our conditions significant monument is basically simple. It consists of elongated rectangular nave, a sanctuary divided on almost squared choir and semi-circular apse with elongated sides. In front of the western side of the object there is a bell-tower with approximately squared layout, which at the second storey level transgresses into octagonal shape. A short rectangular sacristy leans against the northern wall of the sanctuary, enclosed in the eastern side with an apse, approximately semi-circular outside, and trilateral inside. There are three niches in the southern side of the sanctuary, two of them vaulted in a semi-circular style, and the third is of irregular shape. The triumphal arch cuts into like a rectangular step. The bell-tower is enforced in the west by two double-column counterforts and the nave by two from the western side and two each from the north and the south. The nave is covered with flat wooden ceiling, just as the sacristy, while the choir square is vaulted with barrel vault and the apse with a semi-calotte.

Above the vault there is a special room, which is accessed through a narrow corridor, built in the northern wall of the sanctuary. This is why this wall is thicker and the northern half of the church is slightly bigger than the southern one. The aforementioned corridor is today accessed through almost half walled opening. The room probably had a function of a refuge. It is illuminated from the east by two small rectangular openings, like loopholes. The fort-like character of the church is emphasized by other small openings – two in the southern wall of the choir and two in the apse – located so high that their niches cut into the vault mantle. The tops of the openings are barely pointed (like the openings in Bapska). The nave is illuminated from the south by four somewhat larger and pointier openings, grouped rather properly, two and two.

There are also three properly distributed windows in the north. Above these openings there are on each side three four-leaved openings, with low-profiled frames, indented into circular niches. In the southern side there is also a rectangular door opening, which has been installed later, judging from the shape and location.

The main entrance in the western side is accessed through the bell-tower ground-floor, shaped like a small portico vaulted with a barrel ceiling, with an arched opening only towards the west.

The floor in the nave and the sanctuary is made of large format bricks. The sacristy is connected to the sanctuary by a partially vaulted passage. The entrance to the sacristy from the west is walled up. The sacristy is illuminated by two windows on the apse.

The square-shaped bell-tower is accessed through the wooden choir along the western wall of the nave. The entrance is rectangular at the nave side, and rounded at the bell-tower side. The first floor is illuminated by a four-leaved opening in the western wall. It is vaulted with a longitudinal barrel vault. On the second floor there are three long, narrow openings with a semi-circular end on the outer walls, which cut into the bell-tower walls in two steps. At this floor level the squared layout transgresses into octagonal. On the third floor, there are elongated cross-shaped openings on each of the seven outer sides, with a rectangular niche on the inner wall. This shape corresponds to the usage of bow and arrows. The roof of the church is accessed from this floor through an opening of uncertain shape (highly damaged edges). In the bell-tower wall on the roof side there is a mildly pointed opening shaped like a screw head. The fourth floor of the bell-tower combines both basic types of openings. Rounded openings, cut into in three steps and oriented by the cardinal directions, are significantly less elongated than the openings on the second floor, and on the other four sides there are smaller cross-shaped openings. The tower is covered by a conical cap with shingles and tin end. The roof above the church nave and the choir square is covered with tiles, and the apse with tin. The object is built with bricks. Only at the upper register of the southern façade of the choir there are some reconstructions with crushed stone, and similar interventions are also noticed inside the refuge.

The Mother of God Church in Morović is undoubtedly one of the most beautiful monuments of older medieval architecture in our Pannonian region. Closed and rigid silhouette impresses, where individually designed bell-tower is especially emphasized, and a harmonic conjunction of architectural elements is especially significant. “Gothic” elongation is in fact not a stylistic expression, but a result of climatic conditions and fortification role of the church. As in many other examples in our art history, by combining the usual forms (layout, shape of the bell-tower, openings), the architect has managed to create a specific, individual and high quality monument.

It is indeed a shame that this invaluable exemplar of our historical heritage remains here in a very rusty condition. It would be desirable that the conservators deal with it before it turns into a ruin, like many other medieval monuments in the interior of the country.[67]

2.12. Nijemci

The parochial church of St. Catherine is located on a site within the settlement. It was built with bricks. It is 15.83 meters long and 9.65 meters wide. The sanctuary is 7.2 meters long and 6.5 meters wide. It is a single-nave Gothic-Baroque church with narrower and lower sanctuary, and polygonal termination with buttresses. Nave walls, sanctuary walls and

[67] Gvozdanović, Vladimir. (1970) „Crkva Majke Božje u Moroviću“. *Peristil, Zbornik radova za povijest umjetnosti*, 12-13/1969; pp. 15-22;

buttresses have remained from the Gothic period. The interior is completely reconstructed in Baroque style.[68]

The church was built in the 15th century. It was reconstructed in Baroque style in the 18th century. In 1729 the vault was vaulted by a semi-dome on pendetives, and the ceiling in the nave is flat – a coffered ceiling. During the Baroque period a sacristy in the southern side of the sanctuary and a bell-tower have been added, and the sacristy in the northern side has been added in recent times.[69]

During the Croatian War of Independence (1991-1995) the church has been repeatedly bombed and finally completely destroyed. The entire church inventory has been destroyed and bells have been stolen. After the destruction only parts of the church walls were protruding.[70]

2.13. Novi Mikanovci

The Church of St. Bartholomew in Novi Mikanovci is a single-nave Romanesque building from the times of Knight Hospitaller Order. It is a firm single-nave church with a wooden ceiling, 20 meters long and 5.4 meters wide, standing in the east-west direction. The apse is in the east. The original entrance was in the northern wall of the nave. In the southern wall of the nave there are three narrow Romanesque windows. In front of the church, where a portal should be, a rounded bell-tower was added, tilted 112 centimetres. The bell-tower is shaped like a loophole tower, and it finishes in an octagonal way with conical roof. The Romanesque apse was destroyed and another one in a Gothic style was built in its place during the Middle Ages, with three windows and four buttresses. Petar Bakić, the Bishop of Bosnia and Đakovo, ordered the church to be reconstructed in 1731. Presumably it was then that a new roof was built, lower than the original, lateral chapel was added, as well as a southern entrance to the nave, above which is a memorial plaque with information about the reconstruction of the church.

Regional Bureau for the Protection of Cultural Monuments in Osijek carried out protective works on the church from 1978 to 1985. After the plaster was removed it was determined that parts of foundations contained processed stones, and the walls occasionally contained Roman bricks. Devastations and additions were also determined. In the Gothic apse sedilia and the remains of frescoes were discovered. Archaeological Department of the Municipal Museum of Vinkovci later carried out a protective research within the church nave. Under the current floor two more floor levels were discovered. Besides that, 15 skeletal tombs were discovered, dug in the virgin soil in the depth of 2.25 to 2.45 meters. Under the foundations of the current church, older foundations were found. This could be an early Romanesque church.[71]

2.14. Osijek

The monastery church of St. Cross in Osijek is a Gothic baroque church located at the edge of Tvrđa near the Drava gate. It was considered that the Franciscan monastery together with the church has been constructed from the ground up between 1709 and 1732 on the site of former Suleiman-khan mosque. The layout disposition of the church pointed out that it is a Gothic,

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[68] Vukičević-Samaržija, Diana. p. 121;
[69] Šarlah, Ljiljana. p. 1061;
[70] Jarm, Antun. p. 648;
[71] Šalić, Tomo. (2011) „Hrvati i Veliko Selo. Srednjovjekovni posjedi istočno od Đakova“. *Zbornik Muzeja Đakovštine*. 10/2011; pp. 54-55;

single-nave chamber church (Saalkirche), terminated polygonally with two buttresses in termination. Besides the walls from Gothic period, a Gothic base on the northern side of the termination wall has been partially preserved.[72]

2.15. Rokovci

"Rokovačka zidina" is a well-oriented church, located in the lowland, in a desolate place near Rokovci. It originates from the 15th century. It was built with bricks. Considering the floor plan, it is a single-nave church with semi-circular sanctuary – apse. Dimensions of the nave are approximately 8.5 meters in length and 6.7 meters in width. Nowadays we can see a part of sanctuary (shape of the apse can be tracked on the ground), a triumphal arch and the western façade, while the northern and the southern walls are almost completely collapsed. The official list of hill-forts from 1905 states that it had a roof and frescoes remains on the walls. The frescoes were seen by Ana Deanović, and she was able to conclude from the modest remains that they were Gothic frescoes. From the floor plan, text and aquarelles that were left by Gjuro Szabo it can be discerned that "Rokovačka zidina" was a church with a small semi-circular sanctuary, where the side of the nave was wider than the walls of the apse. Walls can also be discerned that continue toward another addition in the west-southwest side. On photographs taken by Szabo there are windows on the south side of the nave, placed very high. Szabo encountered the whole western portal (nowadays only the base of the portal can be seen), as well as another one on the north side, also in Gothic style, and a base of the whole building, which is today present only as remnants in the northern wall of the nave. Based on the sources and an analysis of the floor plan and space, it can be concluded that "Rokovačka zidina" was not a church of the Franciscan monastery, as some authors wrote, but a court or memorial chapel on the property of Motočinski family.[73]

2.16. Sveti Đurađ

The church of St. George in Sveti Đurađ was built on a fort and is well oriented. It is a single-nave Gothic-baroque building, with narrower and lower sanctuary, polygonally terminated with buttresses. It was built with bricks. The church nave is 16.2 meters long and 9 meters wide. The sanctuary is 7.6 meters long and 5.8 meters wide. The interior is covered with newer coffered ceiling and nothing was preserved from the Gothic period. The church is oriented toward the settlement with its south side, and it has a southern entrance with a Baroque portico. Moulded Gothic portal is covered with a thick layer of mortar and its mouldings are difficult to read.[74]

2.17. Šarengrad

The Franciscan church of Sts. Peter and Paul in Šarengrad is located on a hill opposing the dominant citadel, and the settlement is formed in the valley that stretches perpendicular to the Danube, between two hills. It is a well-oriented single-nave Gothic-Baroque church with narrower and lower sanctuary, terminated polygonally. A gothic tower was added as well as the monastery. Buttresses in the nave were added in the second Gothic phase, two on each side, and they make three lateral chapels. The church was built with bricks. Its nave is 20.76 meters long and 10.92 meters wide, while sanctuary is 4.55 meters long and 7.55 meters wide.

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[72] Vukičević-Samaržija, Diana. p. 124;
[73] Crnčan, Mirko and Dević, Antun. (2004) *Župa Rokovci – Andrijaševci*. Rokovci-Andrijaševci. pp.18-24;
[74] Vukičević-Samaržija, Diana. p. 100;

The sanctuary is separated from the nave by a triumphal arch, with two skews between which is a concave bulge, and a half-column is leaned against the flat part. Only a lower part of the triumphal arch has been preserved, up to the heel, and the arch itself is from the Baroque period.

Half-columns in the sanctuary are three quarters rounded without a base, on which, separated by a ring, capitals shaped like a concaved glasses rest. Windows, made in a basic Gothic pointed shape, reside in slanted niches, and their mouldings have been removed during the restoration in Baroque style. Two tripartite sedilias in the southern and northern side of the sanctuary were recognized in its basic form as the Gothic ones. Sedilia's tracery, only the chiselled parts, is also gothic, while the fills in plastering and ornaments are from the Baroque period.

Inside set buttresses in the nave are decorated on upper corner skews with one Gothic leave each.

On the southern nave wall above the walled up portal, which is visible on the outer side from the cloister, there is a richly moulded oculus.

The western portal is semi-circular in shape, richly moulded with a stick and a pear, between which there are skews and coulisses.

Within the sanctuary truss, above the Baroque vault, there are remains of vaults and a window that was walled up during the construction of the tower. Nave walls were plastered and painted light-yellow above the inside set buttresses. Coffered ceiling bearing can also be seen.

A part of the monastery, an east wing, can be determined by the half-column located under the staircase in the first room next to the sacristy. The half-column is set in the western corner and it has got a capital very similar to the capital from the sanctuary. A beginning of a pear-shaped rib can also be distinguished. This room was noticed by some earlier explorers, like Friar Mladen Barbarić, but they were confused by its function. Mladen Barbarić, who has found it in more original shape with two more half-columns, interpreted it as a tomb of Archbishop Ladislav Gereb. The location of the room clearly states it used to serve as a chapter house. The remains of a portal to this hall can also be noticed on the wall, from the side towards the cloister. Besides the chapter house, a whole cloister and perimeter walls of the monastery have been preserved.

The tower is completely made with bricks and non-plastered. It is preserved all the way to the top and its cover which is also made with bricks. The eastern window on the first floor looks like a lancet window from the outside and it is only visible from the inside that it is a part of a larger window, as well as that it is set *in situ*. It was Gjuro Szabo who has already noticed that the window was brought there. The southern window on the first floor is without tracery and moulded light opening. The windows of the upper floor were unglazed, and mouldings of the light opening were done with bricks.

A portal at ground level of the tower, which leads to the sacristy, is turned towards the tower with its face – profile. It is moulded just by skewing of the edge, and it bears a stonecutter's sign.

Around 1420 the nave got its buttresses, and in the original room (sacristy?) a chapter house was constructed as a part of monastery's east wing, in such manner that it partially, in 4 meters length, leans its outer wall on the inner wall of the original room. A part of the chapter house which has no base today was inserted into the original room.

After 1420 a tower was constructed. It leans on the southern side of the sanctuary, and since the sacristy has already existed, the lowest room of the tower does not serve as a sacristy. The tower could be entered from the outside through a portal which can be recognized where the base in south-west corner ends. Therefore the inner portal which was used to enter the sacristy, that is the church, had its mouldings turned towards the tower.

During the repairs in late 17th century and restoration in Baroque style in the 18th century the church got a lower Baroque-style vault, chapter house window was moved to the tower and a part of the original room wall was destroyed (during the construction of a new sacristy). Originally it went all the way to the base of the east monastery wing and at the same time served as an outer wall of a part of the chapter house. At that time the sedilias got their baroque ornaments.[75]

2.18. Šljivoševci

Parochial church of Pope St. Gregory the Great is a well-oriented church, located by the road on a small uplift within the settlement and its longer side is parallel to the road. It is a single-nave Gothic-Baroque church with narrower and lower sanctuary, finished by polygonal termination with two buttresses. It is 15.6 meters long and 8.55 meters wide, and the sanctuary is 4.9 meters long and 6.55 meters wide. A tower in front of the façade and a sacristy are the structures from more recent times. In the interior nothing was preserved from the Gothic period. The sanctuary is vaulted. Square-cut ribs come out of the walls and intersect on the top in the key stone. The sanctuary was very awkwardly vaulted in Gothic style, but in the 19th century, in 1822. Only nave walls and sanctuary remained from the Gothic period. In art history literature this church hasn't been mentioned, but Doctor Anđela Horvat, an art historian from Zagreb pointed it out.[76]

2.19. Valpovo

A court chapel of the Holy Trinity is a part of a medieval-Baroque castle complex Prandau-Norman and the oldest sacral object in Valpovo. From the late 1980s archaeological and afterwards conservatory works have been done in it, and recently it has finally been restored and furnished. Within the wall probes from the outer and inner side of its walls newly-discovered parts of earlier walls, window openings, murals and other details have been conserved.

The chapel was added in the first half of the 15th century within the existing Morović's fort Walpo as a late-Gothic object consecrated to St. Ladislaus the King. It is assumed that the chapel was transformed into a mosque during the Turkish occupation, and after the liberation from the Turks it was in a dilapidated state and with unknown function until the restoration in Baroque style. In 1720s it was thoroughly restored in Baroque style, preserving the Gothic layout with counterforts, foundations and a good part of medieval walls. It got its name, the

[75] Vukičević-Samaržija, Diana. pp. 143-147;
[76] Vukičević-Samaržija, Diana. p. 148;

chapel of the Holy Trinity, after a great altarpiece (360×168 centimetres) of the famous Austrian Baroque master Johann Michael Rottmayer de Rosenbrunn, made in 1730.[77]

Diana Vukičević Samaržija describes this chapel as follows: “The chapel is located within Valpovo castle and is well-oriented. It was built with bricks. It is a single-nave court church terminated polygonally with buttresses. The eastern part of the church extends out of the castle’s body and encroaches into the yard. The façade of the church extends from the western outer wall of the castle for the thickness of the wall. The church is completely restored in Baroque style, and only the walls have remained from the Gothic period. It is 18.11 meters long and 5.75 meters wide. The chapel was probably built in mid-15th century, when Morović family completely moves to Valpovo and performs major construction works.[78]

2.20. Viljevo

The parochial church of St Andrew, the Apostle in Viljevo is 23 meters long and 9 meters wide, while the tower is 43 meters high.

Current appearance of the Gothic church of St Andrew, the Apostle is a result of a series of construction changes in the 18th and 19th centuries. Remodeling from the 19th century is especially visible, since it is the period when the choir and the southern sacristy were built, northern sacristy was reshaped, and sanctuary overarch was changed.

Wall sheathing of the original structure which determines its area and layout is almost completely preserved. Its typology of a single-nave building with narrower polygonal sanctuary with counterforts determines it as a Gothic church.

During the reconstruction of the building in 2002 mortar was removed and it was possible to determine the original openings and wall structure. This well-oriented medieval church was built with bricks. In the interior, premises of current building, the nave and the sanctuary are equally high. Since its original elevation hasn’t been preserved up to the crown, it is not possible to determine the exact height of the Gothic church as well as the differences in height between the nave and the sanctuary.

According to existing windows and traces of those nowadays walled up it can be concluded that the church has changed the illumination several times. During the Gothic period it had narrow, high-placed windows that are walled up. Their traces can be seen on the exterior of the church. Locations of three original windows on the southern side of the nave have been preserved, as well as location of a portal that was placed in the middle of the wall surface. Locations of eastern and south-eastern windows of the sanctuary have also been preserved, and the southern one can be assumed according to the way the interior was vaulted.

Along the sanctuary, on the northern side there was a Gothic sacristy. Its shape was changed. It was extended towards east, and the north-eastern counterfort was removed on that occasion. Along the western wall a room was added to the sacristy where a Gothic retaining wall was preserved. On the outer northern wall of the nave a relieving arch is looming which resulted from a series of construction changes and modifications to the church. Current openings in

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[77] Stanić, Damir. (2006) „Obnovljena dvorska kapela Sv. Trojstva – najstarija crkva u Valpovu“. *Vjesnik Đakovačke i Srijemske biskupije*. 6/2006; p. 602;
[78] Vukičević-Samaržija, Diana. p. 150;

that wall are recent ones, because the medieval church did not have windows on the northern side.

The building has retained in its interior its basic proportions – length and width, while its elevation and illumination are considerably changed. An inner portal that serves as an entrance to the sacristy is in basic, square shape with Gothic mouldings and distinctive median rod. Mouldings are painted and not quite clearly legible.

Judging by the layout sketch from the late 19th century where the sanctuary was presented as a regular polygonal shape designed according to the octagon, and judging by the portal mouldings, it can be concluded that the church was constructed in the 15th century. Its shape fits into a standard type of sacral Gothic buildings in Slavonian area.[79]

2. 21. Vinkovci

The Church of St. Elias the Prophet in Vinkovci is approximately from the 15th century. It is a single-nave Gothic-Baroque building with somewhat narrower and lower sanctuary, with polygonal termination. It was built along an older sacral object. Its nave is approximately 15.85 meters long and 8.3 meters wide.
The church was completely remodelled during the reconstruction in Baroque style, getting the buttresses, windows and a triumphal arch. It was turned into a warehouse in the 18th century (in the most recent times it was very inexpertly turned into an "exhibition gallery").

Only the walls have remained from the Gothic period, and on an old photograph taken with an oblique illumination a long narrow Gothic window is seen in the southern side as well as a shape of the portal in the middle of the southern wall. It is visible on the same photograph that the church was built with bricks.[80]

2.22. Zdenci

In the river Penja basin area, at the end of the village of Zdenci, approximately 10 kilometres north-west of Slavonski Brod, there is a church of St. Peter with the corresponding cemetery.

The village of Zdenci was first time mentioned in the historic sources in the mid-15th century. During the Middle Ages the village was located near the church and the cemetery, which is witnessed by numerous pottery fragments widespread all over the fields around the church and the cemetery. Nowadays the village is located approximately 4 kilometres to the north, along the road from Podcrkavlje to Brčino. The reason for its relocation is the order of the Empress Maria Theresa from the middle of the 18th century to align all houses in rows (so called "ušoravanje"), and to merge smaller adjacent hamlets into one village under one name. In the old location of the village only the church has remained, together with the cemetery where people are still buried today.

The Church of St. Peter belongs to late-Gothic churches. It was built with stones, and with several minor interventions it preserved its original appearance and dimensions. It is a modest, rustic Gothic architecture. The church is a single-nave one, with rectangular apse, 15.5 meters long (the nave is 10.2 by 9 meters, and the apse is 5.3 by 4.3 meters). It has got a pointed

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[79] Crnčan, Mirko and Dević, Antun. (2003) *Župa Viljevo*. Viljevo. pp. 31-32;
[80] Vukičević-Samaržija, Diana. p. 153;

triumphal arch, narrow Gothic windows and a Gothic stone doorjamb. Above the main entrance there is a wooden tower.

Because of the great endangerment of the church, during the Croatian War of Independence (1991 – 1995) restoration of walls and repairs of the roof were started. Within the works, a protective archaeological research has been conducted in the church nave in 1992 and 1994 and in the apse in 1997.

97 burials of the deceased were discovered, that were almost entirely buried according to the Christian tradition: they were laid on their back, with arms crossed on the chest or pelvis, generally oriented from east to west (the head pointing to the west). Several younger persons (children) were buried in oak coffins, out of which pieces of wood and forged nails have been preserved. These burials are shallower (a relative depth of approximately 1 meter) and they are probably from the period after 18th century. The shallowest are the burials of newborns and small children, and they are placed next to the church floor surface, at a relative depth of 0.1 meters. The deepest burials were discovered at a relative depth of 1.5 meters. These are the oldest graves that deviate most from the church orientation, because of which it is supposed that they are from the period before the construction of the church. Various findings were discovered in these graves: earrings, rings, and buttons. According to the typology of the findings it is determined that the burials are from the 13th or early 14th century. Especially significant are the findings of three pairs of Old Croatian earrings – silver-plated copper earrings with one bead and two shanks and silver ones with three beads, with rich, granulated ornaments. A finding of a well-preserved silver signet ring is also important. Approximately fifteen Hungarian silver coins from the 15th to the 17th century have been found, which witness that the trading was developed in this area regardless of the Ottoman conquests. Some medieval pottery and forged nails have also been found, which probably served for nailing coffins.

Researches have shown that there was no earlier church at the location of the present church. No traces of flooring have been spotted either.

The village of Zdenci, like most of the villages settled in the central part of southern slopes of Dilj, used to belong to the powerful family Berislavić, who have reached their peak in the 15th and 16th century. After the Ottoman conquest of Slavonia in 1537, their every trace was lost. The church of St. Peter was probably a reflection of power of these nobles, who have constructed churches in the 15th century in Oriovčić, Glogovica and Brod, besides the one in Zdenci.[81]

3. Conclusion

All the aforementioned sacral objects give us a good insight into a rich life of people in mentioned areas, consisting of work and prayers. Despite different troubles, wars and historic circumstances, such as the decline of old buildings, we have clear proofs of Gothic style applied on sacral objects in Archdiocese of Đakovo-Osijek, as well as Diocese of Srijem. Proud of the fact that we are recognized as the *antemuralia christianitatis* (the bulwark of Christianity) even by the Gothic sacral objects, we are obliged to commit ourselves further in economic, cultural and religious areas.

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[81] Lozuk, Josip. (2006) „Zdenci – crkva Sv. Petra“. *Stotinu hrvatskih arheoloških nalazišta*. Editor Aleksandar Durman. pp. 312-313;

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Turizam i hotelijerstvo

Tourism and Hospitality industry

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MARKETING MANAGEMENT OF THE TOURIST REGION OF SLAVONIA AND BARANJA

MARKETINŠKO UPRAVLJANJE TURISTIČKOM REGIJOM SLAVONIJOM I BARANJOM

ABSTRACT

In order to make tourism development planning in certain tourist destinations effective, it is necessary to ensure appropriate legal and institutional frameworks at the state level, and to base development of tourism destinations on partnership and cooperation between public and private sectors, not neglecting attitudes of local people. Application of the new Law on Tourism Communities and Promotion of Croatian Tourism (NN 152/2008.), in its part relating to the obligation of tourism master planning for the local level, should ensure the key development inputs and precede development of spatial plans at the level of tourist destinations. It is questionable whether in Croatia have been created the adequate legal and institutional frameworks for the effective activities of the tourist region of Slavonia and Baranja, since current legislation does not recognize the concept of regions and regionalization. The existing legal framework of joint activities and mutual partnership of the tourism sector of the region of Slavonia and Baranja is based on a voluntary basis, which is insufficient for more significant role and positioning of the region on the tourist market. As part of the strategic marketing plan for Croatian tourism for the period 2010th to 2014th operational plans of individual regions, not sufficiently developed, are set. The lack of a strategic marketing plan for tourism development for the region of Slavonia and Baranja inhibits stronger development of tourism in the region, which only as a whole can constitute a tourist destination that should be uniquely managed. In order to determine the attitudes of the individual tourist boards, amongst directors of tourist boards of the region was conducted the primary research with purpose to investigate opinion of respondents on the need for adoption of a unified master plan at the regional level, as well as supporting the idea of creating a unique tourist destination management organization, and a unique marketing program at the same level. The results showed that the region of Slavonia and Baranja could achieve significantly better tourist results, if moving away from the concept of developing own tourism products by certain counties without sufficient differentiation and recognition. In this respect, efforts should primarily focus on creating a recognizable tourist region with specific tourist subregions within, in which the role of the regional tourism organization (RTO) would *be taken by destination management organization (DMO), in charge of promoting the tourism product of the region as a whole.*

Key words*: marketing, region, Slavonia and Baranja, tourism product, regional tourism organization, tourism master plan*

SAŽETAK

Kako bi planiranje razvoja turizma u pojedinim turističkim odredištima bilo efikasno, potrebno je na razini države osigurati odgovarajuće pravne i institucionalne okvire, a sam turistički razvoj odredišta temeljiti na partnerstvima i suradnji između javnog i privatnog sektora, ne zanemarujući niti stavove lokalnog stanovništva. Primjena novog Zakona o turističkim zajednicama i promicanju hrvatskog turizma (N.N. 152/2008.) u dijelu koji se odnosi na obvezu turističkog master planiranja za lokalne razine trebala bi osigurati ključne razvojne inpute i prethoditi izradi prostornih planova na razini turističkih odredišta. Upitno je jesu li u Hrvatskoj stvoreni adekvatni pravni i institucijski okviri za efikasno djelovanje turističke regije Slavonije i Baranje, obzirom da postojeća zakonska regulativa ne poznaje pojam regije, odnosno regionalizacije. U postojećim zakonskim okvirima zajedničke aktivnosti i međusobna partnerstva turističkog sektora regije Slavonije i Baranje zasnivaju se na dragovoljnoj osnovi, što je nedovoljno za jači proboj i pozicioniranje regije na turističkim tržištima. U sklopu strateškog marketinškog plana hrvatskog turizma za razdoblje 2010.-2014. utvrđeni su operativni planovi po pojedinim regijama, uključujući i Slavoniju i Baranju, koji nisu dovoljno razrađeni. Nepostojanje strateškog marketing plana razvoja turizma za regiju Slavoniju i Baranju koči jači razvoj turizma ove regije koja jedino kao cjelina može predstavljati turističko odredište kojim treba jedinstveno upravljati. U cilju utvrđivanja stavova predstavnika pojedinih Turističkih zajednica, među direktorima Turističkih zajednica regije je provedeno primarno istraživanje pri čemu je istraženo mišljenje ispitanika glede potrebe donošenja jedinstvenog master plana na razini regije, kao i podržavanja ideje stvaranja jedinstvene menadžment organizacije turističkog odredišta i jedinstvenog marketing programa na razini regije. Rezultati istraživanja su pokazali da bi regija Slavonija i Baranja mogla polučiti znatno bolje turističke rezultate, ako bi se odustalo od koncepta razvijanja vlastitih turističkih proizvoda po pojedinim županijama, bez dovoljno diferenciranosti i prepoznatljivosti. U tom smislu bi i napore prvenstveno trebalo usmjeriti na stvaranje prepoznatljive turističke regije unutar koje bi se formirale specifične turističke subregije, te gdje bi ulogu regionalne turističke organizacije (RTO) preuzela menadžment organizacija turističkog odredišta (DMO) koja bi promovirala turistički proizvod regije u cjelini.

Ključne riječi: *marketing, regija, Slavonija i Baranja, turistički proizvod, regionalna turistička organizacija, turističko master planiranje*

1. Introduction

The region of Slavonia and Baranja could produce significantly better results in tourism, if it would be moved away from the concept of developing tourism products by certain counties. For it, it is primarily necessary to create appropriate institutional and legal frameworks, and management of the region as a tourist destination let to the Tourist Organization of Slavonia and Baranja, as a united management organization. It was confirmed by the results of primary research conducted among the directors of Tourist Boards in region, which are explained below in detail.

2. Institutional and legal frameworks in the tourism business

2.1. Potential impacts of the state on tourism development

According to Hall[82], the state government can affect tourism development in many ways one of which the most common is coordination relating to formal institutionalized relationships between existing networks of organizations, interest groups and / or individuals, and may be horizontal (taking place between different government agencies that have responsibility for various tourism-related activities at the same level of cooperation such as national parks, promotions and transfers), or vertical, which takes place at different levels (local, regional and national) within the political and administrative system.

The state impact on tourism has been achieved through legislation and the legislation implementing the laws which are strictly related to tourist activities, as well as laws that affect the tourism indirectly (eg in the field of conservation activities, labor legislation, employment, health, safety regulations, licensing).

Reasons for government intervention in tourism may be different, but the key driver for them are primarily economic benefits that tourism brings in terms of prosperity of the whole community.

2.2. Institutional and legal framework for tourism business operators in Croatia

To encourage the development of tourism, the Croatian Ministry of Tourism for several years, through the Incentive Program for Tourism Development, grant state aid and grant funds for various purposes, although regardless of the support from the state level[83], the problems in the Croatian tourist activities mainly arise from the lack of understanding the real importance of tourism and its effects and the importance for the national economy at the macro level.

In order to plan tourism development in certain tourist destinations effectively, it is necessary to ensure at the state level appropriate legal and institutional frameworks, but still a destination tourist development should be based on partnership and cooperation between public and private sector, not neglecting any views of local people.

3. Strategic marketing plans for tourism development

3.1. The importance of strategic planning

The goal of strategic planning is to help the economic operator to select and organize work in a way that it has been maintained health despite the unpredictable circumstances in any of the specific business or product lines.[84]

Only a good marketing plan will make it possible for individuals to understand the management process; teach them to act for the team during the process; set realistic goals and identify strategies and tactics for achieving them; create in those who are in the process of

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[82] *Hall, C.M.(2000): Tourism Planning: Policies, Processes and Relationships, Prentice Hall, Harlow, pp. 31*
[83] *Incentive Program for Tourism Development (2011), Ministry of Tourism of The Republic of Croatia, Zagreb*
[84] *Kotler, Ph.., Bowen, J., Makens, J. (1998).: Marketing for Hospitality and Tourism, Second Edition, Prentice Hall, Upper Saddle River, NJ, pp. 69*

planning and realization of the plan experience that there is opportunity for improvement their professional careers.

3.2. Strategic marketing plans for tourism development in Croatia

On the Croatian level there have been so far made two strategic tourism marketing plans. The Strategic Marketing Plan for Croatian tourism for the period 2001- 2005 and The Strategic Marketing Plan of Croatian Tourism for the period 2010 - 2014 worked, by order of the Croatian Tourist Board, THR Barcelona and the company "Horwath Consulting" from Zagreb.

The following basic objections to the operational marketing plan for Slavonia and Baranja in the period 2010 - 2014 included in the document from 2010[85] can be emphasised: the region resource base is not adequate, complete and fully established; the further, the structure of accommodation and tourist traffic has not been worked out neither territorially (about counties), nor by type of accommodation; strategies for the region are under-treated; the strategy of competitiveness and the marketing strategy were omitted; operational marketing activities are not sufficiently detailed, while the interest on the necessity of linking economic and out of economic subjects and the need for a unified marketing programs at the regional level that would implement a regional tourism organization has not been discussed sufficiently.

Since by the adoption of the new Law on Tourism Communities and Promotion of Croatian tourism (NN 152/2008), making marketing plans become a tourist community commitment at all levels (Article 32, paragraph 6 and Article 46, paragraph 4 of the Act), it is the question in which way tourism master plans of counties, cities and municipalities, in terms of lack of key tourism master plan for the entire region, will be created. It is difficult to assume that the partial marketing plans for tourism development of certain destinations in the region of Slavonia and Baranja will be together consistent, complementary, or synchronized, and that they will serve the entire tourism development of the region.

4. Tourist Board of Slavonia and Baranja in the role of marketing management in the tourist region of Slavonia and Baranja

4.1. Organization of tourist communities within certain regions of the Croatian level

According to the existing Law on Tourism Associations (N.N. 152/2008), at this moment in the region of Slavonia and Baranja operates five county (Osijek-Baranja, Brod-Posavina, Vukovar-Srijem, Pozega-Slavonia and Virovitica-Podravina), 19 town and 16 municipal tourist boards. The Tourist Board of the Baranja region was established in 2008. Many as 12 city and municipal tourist boards in the region, its tasks carry out without the tourist offices.

4.2. The results of primary research conducted among the directors of tourist boards in the region

To determine the attitudes of the individual tourist boards in the region regarding the possible unified management of the region as a complete tourist destination, and promoting and selling

[85] *Strategic marketing plan for Croatian tourism for the period 2010 - 2014*, pp. 639-657

the region as a tourist site, in November 2009, independently survey among directors of tourist boards in the region have been performed. Questionnaires were completed by four representatives of county tourist boards; the representative of the Tourist Board of Baranja; 8 representatives of tourist boards of towns, and 3 representatives of tourist boards of municipalities, meaning, representatives of 40% of the total number of tourist boards that operate in the region. Research results are presented in tables (Table 1, Table 2, Table 3 and Table 4).

Table 1. The existence of Master plans for tourism in the region of Slavonia and Baranja, questions and answers of the respondents

Has the area of your county (city, municipality) adopted a strategic plan for tourism development for the period of 3 years or more?		
	Answers, in %	Answers, in absolute terms
It has not.	87,50	14
It is being worked out.	-	-
It has.	12,50	2
In total.	100,00	16

Source: Research carried out independently, Slavonski Brod, November, 2009

Table 2. Masters plans of tourism in the function of greater affirmation of the region of Slavonia and Baranja in the tourism market, questions and answers of the respondents

Do you think that a strategic plan for tourism development at the regional level would contribute to its greater recognition on the tourist market?		
	Answers, in %	Answers, in apsolute terms
Not at all.	6,25	1
Yes, partially.	25,00	4
Yes, definitely.	68,75	11
In total.	100,00	16

Source: Research carried out independently, Slavonski Brod, November, 2009

Table 3. Supporting the idea of creating a unified dmo at the level of the region of Slavonia and Baranja, questions and answers of the respondents

Do you support the idea of creating a unified DMO at the level of the region?		
	Answers, in %	Answers, in apsolute terms
Yes, definitely.	43,75	7
Yes, partially.	50,00	8
Not at all.	6,25	1
In total.	100,00	16

Source: Research carried out independently, Slavonski Brod, November, 2009

Table 4. Supporting the idea of financing a unified dmo and a unique marketing program at the regional level of Slavonia and Baranja by local tourist boards, questions and answers of the respondents

Do you think that the body of your tourist board would financially support creating a unified DMO and a unique marketing program at the regional level?		
	Answers, in %	Answers, in apsolute terms
Yes, definitely.	12,50	2
Depending on the impact of local politics.	6,25	1
Depending on financial resources.	68,75	11
No.	-	-
It is difficult to predict.	12,50	2
In total.	100,00	16

Source: Research carried out independently, Slavonski Brod, November, 2009

Through the subject research was found that by 87.50% of those surveyed, tourist development of areas takes place without a tourist development plan; that adoption of the master plan for tourism at the regional level of Slavonia and Baranja in the function of its larger market affirmation support nearly 94,00% of respondents, while to the idea of creating a unique tourist destination management organizations at the regional level, in principle, also agree almost 94,00% of respondents, and unreservedly support 43.75% of respondents. However, research results have also shown that only 12.50% of respondents believe that their tourism boards were prepared to support the project financing of regional DMO and unique marketing programs at the regional level, while 75,00% think that it would depend on financial resources (68.75%), and the impact of local policies (6.25%).

5. Conclusion

Slavonia and Baranja region could yield much better results in tourism if it would be dropped from the concept of developing their own tourism products by certain counties without sufficient differentiation and recognition. Efforts should primarily be focused on creating a recognizable tourist region with subclusters within and where the role of the regional tourism organization (RTO) would be taken over by the destination management organization (DMO), which would represent the tourist product of the region as a whole.[86]

The future role of the DMO at the level of the region of Slavonia and Baranja should primarily arise from the need to conduct marketing activities related to certain forms of selective tourism whose development is possible in the region, but also from the need to elaborate ideas and define strategies to determine the competitiveness, the development and product design, as well as representing the interests of local communities in terms of ensuring sustainable development and creating an environment in which the local population could live comfortably.[87]

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Law on Tourism Communities and Promotion of Croatian tourism (NN 152/2008)

[86] For now, only the study of tourism sector from 2002, ***Park prirode Kopački rit Plan upravljanja***, by Ružic, D., Meler, M. and Turkalj, Ž., emphasizes in several places the need to connect so. micro destinations of Eastern Croatia in a broader macro-tourist destination, with the aim of strengthening the region's competitive advantage in relation to domestic and international environment (Ruzic, D., Meler, Turkalj, Ž. (2002): ***Park prirode Kopački rit, plan upravljanja, sektorska studija Turizam***, Faculty of economics in Osijek, Osijek, University J.J. Strossmayer in Osijek, pp. 56).

[87] Modified according to Magaš, D. (2008): ***Destinacijski menadžment Modeli i tehnike***, Faculty of tourism and hospitality management in Opatija, University in Rijeka, pp. 79

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PUBLIC-PRIVATE PARTNERSHIP: A MODEL FOR SUSTAINABLE TOURISM DEVELOPMENT IN REGIONAL PARK MURA-DRAVA – THE POSSIBILTY OF TOURIST VALORISATION OF ABANDONED ARMY BARRACKS

JAVNO-PRIVATNO PARTNERSTVO KAO MODEL RAZVITKA ODRŽIVOG TURIZMA U REGIONALNOM PARKU MURA-DRAVA – MOGUĆNOSTI TURISTIČKE VALORIZACIJE NAPUŠTENIH KARAULA

ABSTRACT

In many Strategic documents (Strategy of Croatian Tourism Development from 2003. to 2010.; Main plan and Strategy of Croatian Tourism until 2020.) The role of selective forms of tourism in Croatian continental area was emphasized as one of Croatian priorities, although its development has not yet reached those proportions as it expected to have. Slow development of Croatian rural tourism lays in many reasons, among other things there are inefficiency of destination management, low size of investments in touristic infrastructure, a lack of accommodation and insufficient education in tourist and accommodation business. In this paper the authors try to point out the positive role of new declared Regional Park Mura-Drava and its role in sustainable tourist development as it might have. The survey which was conducted with directors of County Tourist Boards in whose territory The Park was declare is used for the current status analysis of touristic offer and development of destination management. The authors emphasize the possibilities of many different kinds of local co-operation and public-private partnerships with the aim of tourist development in the observed area. Among other things, this paper describes a case-study of local co-operation in Municipality of Pitomača. The goal of this partnership is to develop a reference center for organic agriculture and sustainable tourism in the abandoned barracks nearby Hungarian border, now in Regional Park area of protection. This example tries to point to the possibility of using various forms of co-operation and the local public-private partnership to encourage faster development of tourism in natural protected area of The Regional Park Mura - Drava.

Key words: *public-private partnership, local co-operation, Regional Park Mura-Drava, rural tourism, sustainable tourism development*

SAŽETAK

Iako je nizom strateških dokumenata (Strategija razvoja hrvatskog turizma do 2010., Glavni plan i strategija hrvatskog turizma do 2020.) razvoj selektivnih oblika turizma u kontinentalnom dijelu Republike Hrvatske naglašavan kao jedan od prioriteta , kontinentalni turizam još uvijek nije dosegao one razmjere koje bi trebao imati u ukupnosti turističke ponude. Razlozi nedovoljno brzog razvoja turizma na kontinentu leže između ostaloga u neučinkovitosti destinacijskog menadžmenta, nedovoljnih ulaganja privatnog sektora u turističku suprastrukturu , kroničnom nedostatku smještajnih kapaciteta te nedovoljnoj educiranosti za kvalitetno pružanje usluga u turizmu i ugostiteljstvu. Ovim radom autori nastoje ukazati na pozitivnu ulogu koju bi proglašenje Regionalnog parka Mura-Drava moglo imati u razvoju održivog turizma na području njegova obuhvata. Rezultatima ankete provedene s voditeljima županijskih turističkih zajednica na području obuhvata Regionalnog parka Mura-Drava, autori nastoje analizirati trenutno stanje destinacijskog menadžmenta i turističke ponude promatranog područja. Autori izvode zaključak da razne mogućnosti koje pruža lokalno udruživanje i javno-privatno partnerstvo mogu predstavljati značajan poticaj razvoju turizma na promatranome području. Pored ostaloga u radu je opisan slučaj lokalnog udruživanja na području općine Pitomača. Cilj ovog partnerstva je razvoj referentnog centra ekološke poljoprivrede i održivog turizma stavljanjem u funkciju napuštene karaule u blizini mađarske granice koja se nalazi na području Regionalnog Parka. Ovim primjerom želi se ukazati na mogućnost da se putem različitih oblika kooperativnih odnosa i lokalnih javno-privatnih partnerstva osnaži brži razvoj turizma u zaštićenim dijelovima prirode Regionalnog parka Mura-Drava.

Ključne riječi: *javno-privatno partnerstvo, lokalno udruživanje, regionalni park Mura-Drava, ruralni turizam, razvoj održivog turizma*

1. Introduction

Regional Park Mura-Drava (hereinafter referred as Park) was proclaimed by the Croatian Government in February 2011. (NN.RH 22/11) The purpose of Park, among other things is: the protection of landscape diversity, sustainable development and tourism. (Zakon o zaštiti prirode, NN.RH 70/05, 139/08) With the exception of the Osijek-Baranja County, in other Counties in the area of the park, there is almost no tourist traffic recorded. Reasons for lack of preparation of nature protected areas, including mentioned one lies in:

- Lack of coordination among the attractions of the Regional Park
- Insufficient valorization of tourist potentials
- Lack of distinctive and attractive destination image
- A very small number of accommodation capacities
- Lack of accommodation on family farms
- Insufficient knowledge and skills to provide services in tourism
  (Kranjčević at al., 2010,48-49)

In this paper the authors try to point out that it will be no recent development of tourism in mentioned area without initiatives of local communities through various forms of cooperative relations and the local associations also by using EU funds. So, local communities can become a driving force for sustainable development of tourism in the area of the Park. This fact is also demonstrated by the example of Pitomača Municipality in Virovitica-Podravina County, which Case Study was examined in this paper.

2. Regional Park Mura-Drava as driving force of sustainable tourism development

The demand for nature based tourism makes 7% of total global tourism demand, and annual growth rates range between 10% and 30%. Also the demand of eco-tourism ranges between 7% and 10% of world tourism demand with annual growth rates between 2% and 4%. (Institut za turizam Hrvatske, TOMAS 2007.)
Protected areas are increasingly important in tourism development, and global trends in tourism demand are inclined to destinations which can develop and offer these selective forms of tourism. The Park overlaps with the area of so-called European Green Belt. No Man's Land won by nature, prior to the disappearance of the "iron curtain" has shown remarkable biological diversity. The German BUND Organization (Bund für Umwelt und Naturshutz Deutchland), in 1989. recognized the need to preserve this unique belt. Linkage of the Regional Park Mura-Drava in the European system of natural protected areas gives it an extra dimension and the possibility of developing sustainable tourism, which can take on international significance. Managing the tourism resources in a manner to save them for the future without jeopardizing their ecological and socio-cultural balance is a way not only to develop the local economy but also to enhance environmental quality. (UNEP, 2003, 7)

3. The current state of tourism within the Regional Park Mura-Drava

The authors have conducted a survey among managers of the County Tourist Board in five Croatian counties in whose scope the Park is situated with intensions to summon the facts of potentials for the development of eco-tourism in the Regional Park Mura-Drava, and the results obtained after, taking the following conclusions:

- The fact of the proclamation of the Park did not provide an initiative for development of new or revised Master plans for tourism development in context of developing tourist forms which are appropriate for areas under protection
- There is no hotel accommodation in the Park
- The lack of hospitality facilities is to be seen, especially the accommodation ones
- There is no receptive tourist agencies to offer itinerary trough the Park
- The lack of private initiatives by the Family Farm owners is noticeable, especially in the way of diversification of their activities to the tourism offer
- There is no systematic educational and training programs for tourism

Even though the survey results show that there is some tourist traffic, mostly one-day excursionists, it does not include statistical. All this points to the fact that the proclamation of the Park offers outstanding opportunities for the development of selective forms of tourism, for now on there are very little activities in order to create the image of a desirable destination for potential tourists for whom there are assumptions with the regard to tourism attraction base.

4. The role of local communities in sustainable tourism development

Tourism is recognized as an activity that greatly contributes to the development of rural areas, poverty reduction and is a major "export" sector and primary source of foreign exchange inflows in many middle developed and developing countries. (Netherland Develop Organization, 2009., 4) Also it represents a great potential for the growth of national and local economies through job creation. (Ministry of tourism RH, 2003., 18) S. Beeton estimates that every thousand of new visitors of a particular area generates approximately fifty five new business activities in the local community. (Beeton 1998., 7) Therefore, local communities have a great interest for developing tourism on their areas, and this is most easily to accomplish throughout various forms of local association and thus enhance the experiences and knowledge such as:

- About marketing in rural tourism (which can be transferred from the share of business sector)
- About the legislation (which can be transmitted by experts from local and regional government)
- About managing the carrying capacity (by the contribution of environmental management experts)
- About outdoor planning (which can be enhanced by engagement of architects)
  (Choibamroong, 2011, 182-183)

The tourism sector must be encouraged, among other things, throughout the promotion of culture of collaboration and cooperative relationship among all stakeholders in tourism. (OECD, 2010, 80)

5. Local associations and Private-public partnerships in tourism

Partnerships can be concluded under different names and be structured differently: as a partnership between the private sector (eg. private-private), a partnership of the public sector (eg. public-public) or between public and private sectors (eg. public-private). (KPMG;WTOBC 2004., 2). Forms and structure of partnerships will depend on the ultimate goal of this joint business initiatives, and "partnership should be understood as a method of linking the interest of the public sector (public goods), the private sector (profit) and the civil sector (special interests) in increasing the quality and/or availability of services and products." (Perić and Dragičević, 2009, 253) The tourist management requires building a rounded destination product. Only the establishment of various private-public, public-public, and/or public-private partnerships can create a quality tourism value chain. (Kunst, 2011, 186) Typical objectives of the partnership, among other things may be in the fields of development:

- Product (strengthening and preservation of tourism resources, the creation of new attractions, theme parks and residential buildings, the contribution to the local economy and promotion of sustainable development in the touristic sector).
- Human Resources (providing of education and training)
- Marketing and sales (enhancing destination image and improving marketing efficiency)
- Infrastructure
- Financing (initial project financing, lobbying for public founding)
  (Adapted from KPMG, WTOBC, 2004, 1)

The case of the project in the Municipality of Pitomača which will be described below in this text, provides a good example of local initiative to establishing a reference center for the development of ecological agriculture and sustainable tourism in the former army barracks. Because of a significant number of such facilities along river Drava by the border with Republic of Hungary, this example can serve as an impetus for similar ventures in the other parts of the Park.

Development of a reference center for organic agriculture and sustainable tourism in an abandoned army barrack Banov brod – an example of a local association for the development tourism in the Municipality of Pitomača

By thinking about the ways to stimulate tourism development in the Park on area of the Municipality of Pitomača and guide it towards sustainable development, there are four areas of intervention that crystallized in the process:

1. Environmental management in a sustainable manner
2. Education
3. Encouragement of ecological agriculture
4. Development of tourism by creating the image of preserved and environmentally-conscious destination with distinctive selective forms of tourism such as ecotourism, sustainable hunting and fishing tourism, adventure tourism and gastro-tourism which are managed in sustainable manner

To achieve that vision, a partnership agreement between the Municipality of Pitomača, Pitomača VET School and Jan Spider Company was signed in the spring of 2011. The goal of this partnership is to create a reference center for the development of ecological agriculture and sustainable tourism in an abandoned army barrack Banov Brod. Considering the fact that the complex with the 5 acres of land is located within the Park, it makes an ideal location for a development of the Center that will have a multiple roles such as:

- **Centre of Education:** will serve as a practicum for VET students from Pitomača Secondary School who are studying for the profession agrotouristic technician and as center for training and education of stakeholders from other sectors concerned for tourism.
- **Pilot reference center for environmental management** by the principles of permaculture (Mollison and Slay, 1999, 9)
- **Information point** for the visitors at the entrance to the Regional Park and in the final phase of the Project, Ethno Village with facilities for the accommodation created by the principles of sustainable construction

At the time of writing this paper, the project has positively passed the first stage of the evaluation under IPA project and there is a reasonable assumption that it will be approved for funding by the European Union.

6. Conclusion

Due to the heterogeneity of tourism, its sustainable development can be planned and based only on the continued cooperation of all stakeholders from public and private sectors. It is particularly expressed in areas where its development is at the very beginning, because in such areas the private sector often does not recognize the opportunities which tourism offers. As an example of partnership in order to encourage the development of tourism in the Park there is an opportunity and possibility of tourist valorization of abandoned Army barracks along the river Drava which are located in almost all parts of the Park by the border with the Republic of Hungary. Given that these facilities are in the ownership of the State or are committed to the management of local government, precisely an initiative of local communities to invest in their restoration and touristic valorization through various forms of public-private partnerships can be stimulus to the development of sustainable tourism.

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CRISIS MANAGEMENT – KEY TO SUSTAINABLE DEVELOPMENT OF TOURIST DESTINATION

KRIZNI MENADŽMENT- KLJUČ ODRŽIVOG RAZVOJA TURISTIČKE DESTINACIJE

ABSTRACT

Economic development in Republic of Croatia requires frenetic changes within the economic system. Therefore, crisis management is aimed at indentifying problems and finding effective solutions to promote economic development during the recession. The current global economic crisis, as well as the perennial „Croatia's economic crisis“, Sets a number of challenges for the creation of adequate tourism policy. Incentive „impulse“ of economic policy leaders is slow to reflect on the tourism „aggregate“, so a valid question is: is it not to late for the „blue ocean strategy“. The concept of socially responsible business forms latest trends in tourism development that should be considered in the context of the development of tourism and the latest economic and socio-cultural trends. Changes in the global tourism market had a lesser effect on the intensity of travel and more on the structure of tourism consumption.
Croatian tourism has good foundation in its selective forms for development in times of crisis, by that thinking of the attractive tourist potential, unique natural and culturo-historical heritage. Focus of tourism is moving from sun and sea to the cities as centers of cultural development of regions. It is necessary to more intensively evaluate this potential in order to create a recognizable identity of Croatian tourist offer which would increase the competitiveness and facilitate market positioning.
Key hypothesis of this paper is that Croatian tourism should focus on developing centers (cities) and their cultural tourism, which is becoming the main motivator of arrivals to destinations and the initiator of tourism development within the whole region. The study was conducted on 25 town's tourist associations in Croatia. Aim is to point out that the

responsible management and crisis management in the recessionary economic environment is requirement for the competitiveness of tourist destinations and potential opening of „blue ocean" to Croatian tourism.

Key words: *Crisis management, cultural tourism, sustainable development, destination branding, region development*

SAŽETAK

Gospodarski razvoj RH zahtjeva frenetične promjene unutar gospodarskog sustava. Stoga krizni menadžment ima za cilj identifikaciju problema i iznalaženje učinkovitih rješenja za poticanje gospodarskog razvoja u uvjetima recesije. Aktualan svjetska ekonomska krize, kao i višegodišnja „hrvatska gospodarska kriza", postavljaju brojne izazove za kreiranje adekvatne turističke politike. Poticajni „impuls" voditelja ekonomske politike sporo se reflektira na turistički „agregat", pa je opravdano pitanje nije li prekasno za „strategiju plavog oceana".
Koncept društveno odgovornog poslovanja formira najnovije trendove u razvoju turizma koje valja sagledati u kontekstu dosadašnjeg razvoja turizma i najnovijih ekonomskih i socio-kulturnih trendova. Promjene na svjetskom turističkom tržištu manje su djelovale na intenzitet putovanja, a više na strukturu turističke potrošnje. Turizam je postao humaniji i usmjeren pojedincu, što uzrokuje pad turističkih dolazaka u periodu krize.
Hrvatski turizam ima dobre temelje u svojim selektivnim oblicima za razvoj u vrijeme krize, pritom misleći na atraktivan turistički potencijal, jedinstvenu prirodnu i kulturno-povijesnu baštinu. Fokus turizma seli se sa sunca i mora na gradove kao razvojne i kulturološke centre regija. Nužno je taj potencijal intenzivnije valorizirati u cilju stvaranja prepoznatljivog identiteta turističke ponude Hrvatske, čime bi se povećala konkurentnost i olakšalo pozicioniranje na tržištu.
Ključna hipoteza ovoga rada je kako bi se hrvatski turizam trebao fokusirati na razvojne centre (gradove) i njihov kulturni turizam, što postaje osnovni motivator dolaska na destinaciju i pokretač razvoja turizma unutar cjelokupne regije. Istraživanje je provedeno na 25 turističkih zajednica gradova u RH. Cilj rada je istaknuti kako je odgovorno upravljanje i krizni menadžment u okviru recesijskog gospodarskog okružja conditio sine qua non za konkurentnost turističke destinacije i potencijalno otvaranje "plavog oceana" hrvatskom turizmu.

Ključne riječi: *Krizni menadžment, kulturni turizam, održivi razvoj, brendiranje destinacije, razvoj regije*

1. Development of crisis in the world and its impact on tourism

World economic crisis has achieved considerable progress. The spillover of the financial crisis on the real economy is causing many social problems. Slowdown in economic activity of countries are accompanied by deterioration in general economic climate. A significant increase in unemployment accompanied by a decrease in the level of wages causes a feeling of insecurity. In addition to falling of purchasing power of population, disruption of business performance and credit worthiness of most businesses, highlighted several month long decline in economic activity in the country implies the growth of budget deficits, which will significantly slow down the public investment in large infrastructure projects (Kunst, 2010, 37). Overall situation affects the increase in propensity to save, which implies reduced consumption. Therefore, the authors often interpret the crisis as a turning point of development and the sudden change of one or more basic variables, which jeopardizes the achievement of the current basic standards and goals, which brings into question the survival of the system, namely it is a process of decision making under the pressure of time (Birker, Pepels, 2000, 7). The degree of governance over crisis depends on the phase in which it was identified and in which phase crisis management begins. Also following is true: The later crisis is perceived and the more obvious are the signs of crisis mean that it is that much deeper and the process of leaving it will be more demanding (Osmanagić-Bedenik, 2007, 19). Given the uncertainty of surroundings and deep structural changes in the markets where they operate, managers are forced to make radical changes to their own strategies.

Economic development in such conditions is a complex process that requires frenetic changes in economic and social systems, regardless of which level is focused, macro, mezzo or even a level of a single city. Key challenges in the market are hidden in the high sophistication of customers, its strong price sensitivity and high expectations about the quality of services with less and less loyalty to suppliers. Tourism is a phenomenon that from micro and macro perspectives analyzes the motives, assuming that they are based on private and social character. A careful analysis of the motives of tourist movements clearly indicates how narrow in its understanding was the definition of tourism as a socio-economic phenomenon that is based on the needs of people for temporary change of residence for recreation and rest and in order to get to know the cultural, historical heritage and natural beauty (Vukonić, 1990, 74). It can thus be concluded that tourism has a good foundations in its selective forms for development in times of crisis. During the period of intense economic, social and cultural change in order to manage tourist destination it is necessary to identify appropriate and workable model for further development.

2. Development of town as a destination for cultural tourism and its impact on regional development

Development in the tourist economy focuses tourism offer on two elements, natural and cultural. Both elements require long and intensive preparation, and creation of infrastructure conditions that are related to the construction of appropriate transport and accommodation infrastructure and promotion that highlights specific tourist destinations. Due to increasing competition and changes in the market, local destination management organizations must adapt their tasks and activities (Bieger, Beritelli, Laesser, 2009, 345). This novelty is based on the new paradigm of tourists as a key factor of the model, thus tourism exits from the period when the customer is offered a clean sea and sun, transfers from a period when the city was dependent on its surroundings to the period where the region lives of the cultural and historical heritage of the city. Although the tourism and culture have always been linked, in the interests of economic development of mass tourism, during several decades the role and place of culture in tourism was neglected. Cultural and urban (city) (Geić, 2011) tourisms are becoming increasingly important in economic terms and highly profiled in a political sense, and many European countries are implementing them within the strategic plan for overall development of tourism and economic recovery. Cultural heritage is shaped as a product and has become a primary and a secondary motive for traveling of the broader segment of the growing market of cultural tourism. The creation and development of tourist products in cultural tourism is based on the development of management of cultural resource and application of marketing concept, which is based on customer satisfaction.

European cities are becoming competitive product in the segment of cultural tourism, and thus influence the development of the city region and the wider area including the state itself, particularly in terms of tourism. The city as a spatial unit can be described through different views, ranging from the concept of economic organizationsand social spectrum, across the political, socioeconomic, legal, institutional, environmental and cultural dogmatics, to the simple definition that the city is seen as a product characteristic of society and development stages in which it is formed (Bogunović, 2001). It is therefore particularly important to focus the area management of city regions with respect as each city has its focal role towards environment as a key gravity factor and serve as a cultural, political and religious centers (Jacobs, 2007). Boundaries of influence of city on the surrounding area are not uniquely determined and depend on various influential elements which individually have a different impact in the area.

According to the document of cultural tourism and the Declaration on the protection and promotion of natural, cultural and historical heritage for use for tourism purposes (Gredičak, 2009, 198) cultural heritage of a people includes works of its artists that have become an integral part of national wealth and the totality of values that give sense of life. New components in the definition of intangible historical heritage are folklore, customs, folk festivals, religious rites are various classical sport events etc. It is believed that former concept of cultural heritage is complemented because it now includes historic towns, villages and cultural landscape in which it maintains centuries-old human activity, creating a folk tradition. Thus, as long as the cultural heritage can offer the tourism a cultural content, tourism is needed by cultural heritage and vice versa. Some authors call it cultural tourism, some heritage tourism and some cultural heritage tourism (Jelinčić, 2009, 41), but whatever it is called, cultural tourism is a sine qua non of long-term development of tourism and at the same time a key element in ensuring the funds for maintenance and preservation of culture and heritage.

The existence of cultural heritage in Croatian tourist offer is a result of raising awareness that the entire Adriatic area are almost inexhaustible source of historical events that have created contents which can now be used for intensive usage for tourism purposes. Thus, the cultural heritage ia a par execellance source of cultural tourism, which supplemented by natural conditions must create a prestigious, competitive tourist destinations. This potential can be more intensively valorized in order to create a recognizable identity of Croatian tourist offer, which would facilitate positioning on the market. Therefore it is necessary to achieve legal, marketing and other frameworks that will contribute to the upgrading of the strategic plan of development of cultural tourism, with a focus on cultural heritage. This can ultimately accelerate and enhance economic development, the standard of living as a perpetual primary objective of this development. A systematic approach to the development of Croatian cultural tourism begins by creating the development Strategy of cultural tourism within the strategy of cultural policy (Jelinčić, 2009.) that are made for the project purposes of the Croatian Government, "Croatia in 21 Century ", in order to raise awareness about the strengthening of cultural tourism as an economic potential for economic development. Basic strategy that emphasizes the possible use of sources of cultural heritage includes promotion, tourist and scientific exploitation of cultural heritage. Thus, for example, the Croatian Government has recognized the activities related to culture as one of the most important activities in the creation of additional tourist attractions, especially in times of crisis. Could it be a blue ocean strategy for Croatian tourism?

This paper starts from the assumption that the growth and development of tourist regions will polarize and concentrate in certain areas, geographical points, within which are constantly being formed new economic forces, such as cities with cultural and historical heritage and with them the associated city regions. The aim was to determine the role of urban regions in the economic development on the Croatian case, whether there are urban regions that are the focus of development and suggest further guidelines for development that will allow the recognition of Croatia as a tourist destination which is a long-term strategy of the Ministry of Tourism. It is this strategy that had a significant role in preventing a significant decrease in the number of arrivals in the recession year.

3. Influence analysis of the city with cultural tourism on the region

The general trend in tourism is the shortening of the average duration of visits. The reasons are numerous and the key are more frequent and shorter vacations that workers take with the aim of learning about as many destinations as possible while traveling and focusing on activities, which allows weekend visits to attractive destinations. Croatian tourism in such environment in 2011. has achieved excellent results. Central Bureau for Statistics reported a 8% increase in tourist arrivals and 7% more overnight stays, or more precisely records show 11,455,677 arrivals and 60,354,275 overnight stays. A surprising fact is that most tourist arrivals were recorded in the Croatian capital Zagreb with 730 945 achieved arrivals followed by Dubrovnik, Zadar, Split, Šibenik, Rijeka, Plitvice… By analyzing the above parameters and assumptions it is interesting to analyze indicators of overnight stay per arrival, indicating that only few places manage to achieve seven or more nights per arrival of tourists, even those which are traditionally focused on summer guests.

Table 1. Number of overnight stays per arrival

Tourism of Croatia in 2011.					
	City	stay per arrival		City	stay per arrival
1.	Vrsar	7,98	11.	Poreč	6,38
2.	Funtana	7,94	12.	Labin	6,36
3.	Tar-Vabriga	7,71	13.	Vodice	5,90
4.	Rab	7,13	14.	Baška	5,67
5.	Mali Lošinj	6,96	15.	Crikvenica	5,58
6.	Rovinj	6,96	16.	Krk	5,47
7.	Podgora	6,90	17.	Pula	5,25
8.	Medulin	6,90	18.	Šibenik	5,21
9.	Novalja	6,76	19.	Umag	5,02
10.	Makarska	6,53	20.	Zadar	3,72

Source: Central Bureau for Statistics

An interesting detail which can be seen from the preceding table is the fact that larger cities are failing to keep guests for a longer period of time or for a larger number of overnight stays. But according to the following table we can conclude that larger cities and cultural centers in 2011. have had a significant increase in visitor arrivals but in parallel with that not-so-significant increase in the number of overnight stays.

Table 2. Ratio of increase in the number of arrivals and overnight stays

Tourism of Croatia in 2011.					
	City	Arrivals	Increase (%)	Overnight stays	Increase (%)
1.	Zagreb	730 945	9,7	1 183 125	9,0
2.	Dubrovnik	606 085	6,9	2 155 165	5,8
3.	Rovinj	419 716	15,6	2 917 562	12,7
4.	Poreč	401 820	11,6	2 564 865	10,9
5.	Umag	348 942	5,5	1 752310	4,4
6.	Opatija	340 385	2,7	1 055 539	3,0
7.	Medulin	284 682	11,2	1 963165	7,5
8.	Zadar	280 677	5,0	1 044 350	3,2

Source: Central Bureau for Statistics

Among these destinations it is important to emphasize two cities that have not been emphasized by their tourist incursions. One of them is Split that has increased the number of arrivals in just two years by almost 45%, indicating that the increased attention that is given by the city to tourism produces results. A similar situation is with the city of Rijeka, which increased the number of arrivals by 22%.

Table 3. The greatest increase in the number of arrivals

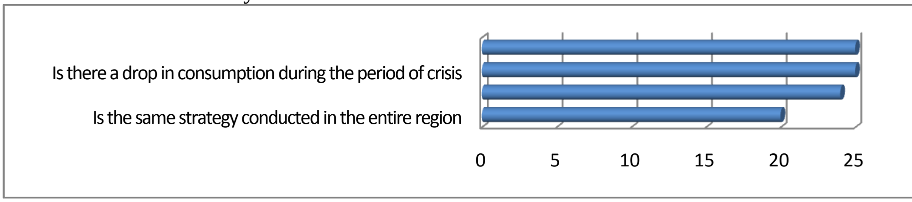
The greatest increase in the number of arrivals in 2011.							
	City	Arrivals	Increase (%)		City	Arrivals	Increase (%)
1.	Split	252 287	24,0		Rijeka	260 489	21,7

Source: Central Bureau for Statistics

From the previously mentioned it can be assumed that the development cultural tourism in Croatian cities is becoming a key strategy of development for the entire regions. Therefore, the key hypothesis of this paper that Croatian tourism should focus on the developing centers (cities) and their cultural tourism, which becomes the main motivator of arrivals at the destination and the driver of tourism development within the whole region. The study was conducted at 25 tourist associations of towns in Croatia, with a focus on cities by the sea which are 50% of the total sample. The aim is to point out that the responsible management of destinations within the recessionary economic environment conditio sine qua non for the competitiveness of tourist destinations and potentially open the "blue ocean" to Croatian tourism that would also solve the key problem of Croatian tourism - too pronounced seasonality.

Survey results indicate a strong and fairly uniform strategy of tourist associations of towns along the coast, indicating the quality of the strategy set by the Croatian Ministry of Tourism, which is in the period of crisis a resounding success. In the first part of the telephone survey was analyzed whether the crisis has had a significant impact on the development of tourism in the analyzed destinations. The results are shown in the following chart.

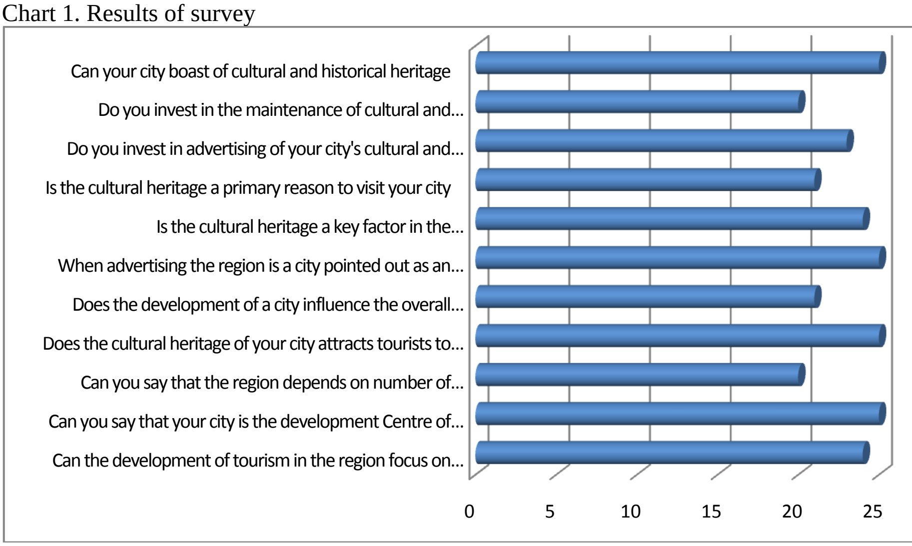
Chart 1. Results of survey



Source: authors work

Based on previous indicators is a continuation of the analysis conducted on the impact of the development strategy of a city as a destination for the development of the whole region. The following results were obtained.

Chart 1. Results of survey



Source: authors work

On the basis of this research can be concluded that during the period of crisis a more aggressive approach to customers is mostly used as a strategy through focused and more frequent marketing, in which the benefits of its products or services are more clearly shown. Implementation of this strategy is extended to multiple levels, from the Ministry, tourist offices to the tourist workers. The city, its sights and its cultural heritage is are becoming a key competitive factor of the entire region. Attracting a large number of visitors, the city as a regional center opens their surrounding area an opportunity to realize a large number of overnight stays. Smaller places continue to focus their development placed on the service sector, which emphasize the natural beauty (the sun and the sea) and with that they offer peace and relaxation, while cities place the focus on cultural heritage. Thus each of the segments of the region carry out their different development strategies, which are interwoven and make a successful regional strategy.

The key to good performance lies primarily in the successful strategy and a joint collaboration of public and private sectors, urban areas and its surroundings, in due time passed and implemented measures and targeted application of agreed measures. The national strategy of tourism the development of tourism is basing on conservation of highly diverse natural and cultural wealth, the principles of sustainable development in the planning of tourist services, the appropriate market positioning and promotion, joint action of all individuals and expert institutions that are directly and indirectly involved in tourism. The next step which Ministry of Tourism is undertaking is creation of a strategy of Croatian tourism. The purpose of the Strategy is to define guidelines for the further development of Croatian tourism and match them with the temporal, spatial and content potentials of the country, while respecting the concept of sustainable development and conservation of natural resources that make Croatian tourism competitive.

4. Conclusion

The development of modern tourism in the last decade has proved an extremely wide range of activities through the expansion of demand and supply following the needs to satisfy tourists and making the appropriate economic impacts (Geić, 2011:303). In this way it has expanded its activities in many other sectors, and the resulting number of selective forms of tourism, including worldwide highly actual cultural tourism. Cultural tourism is applied to trips that include visits to cultural resources regardless of the initial motives. In a situation where a tourist is becoming financially vulnerable, and therefore expected return for his money. Tourism emerges from a period when the customer was offered a clean sea and sun, passing from a period when the city was dependent on their surrounding area in to a period where regions live of the cultural and historical heritage of cities. Cities affect the development of city region and the wider area including the state itself, particularly in terms of tourism.

The year ahead is uncertain, it will be a year in which the customer will look for value for money in which camps / marinas / private accommodation will continue to remain the backbone of tourism. Could under these terms strategies of Croatian cultural tourism show as a blue ocean strategy...

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RIVER TOURISM IN EASTERN CROATIA: PERSPECTIVES FOR DEVELOPMENT

RIJEČNI TURIZAM U ISTOČNOJ HRVATSKOJ: PERSPEKTIVE RAZVOJA

ABSTRACT

Tourism, and thus the tourist product is a multidimensional phenomenon with continuous and highly dynamic development, which stems from the way individuals use their free time, change of its increasingly varied needs and interests of tourists. The increasing demands of tourism consumers initiated the development of specific forms of tourism which are trying to, through organizing special forms of rest, recreation experiences, experiences, and other special facilities, adjust the travel and tourism product offer to immediate tourists, or a specific group of tourists. Consequently, it can be said that modern tourism development which is characterized by, among other things, segmentation and directing of tourist demand toward specific forms of tourism represents an opportunity for the development of river tourism as one of the specific forms of tourism. Despite the fact that the rivers are still highly neglected aspect of the global tourism industry, in recent times interests of tourists for river tourism is growing. Rivers as complex ecosystems affect many human businesses, including tourism. With the main activities that take place on rivers such as cruises, sailing and rafting, the attractiveness of its banks as diverse landscapes, and rich cultural - historical heritage of the nearby towns should be pointed out. When it comes to river tourism of eastern Croatia, and in general river Danube should be noted since it has a central role in river cruise market. Also, for the development of this form of tourism there are also potentials on the rivers Sava and Drava. Therefore, the fundamental purpose of this paper is to analyze the opportunities and constraints for tourism development on eastern Croatian rivers and provide guidance for further development of this form of tourism. The work will by interviews with operators of the tourism industry gather information needed to identify the key elements of offer of river tourism. Since the current potential for the development of river tourism is not evaluated properly and no proper infrastructures were built, offers of additional services as well as a recognizable tourist product of river tourism, based on the results of research recommendations will be defined for the sustainable development of river tourism, with emphasis on eastern Croatia.

Key words: *river tourism, east Croatia, aspects of development of river tourism*

SAŽETAK

Turizam, a samim time i turistički proizvod je multidimenzionalna pojava s kontinuiranim i izrazito dinamičnim razvojem koji proizlazi iz načina korištenja slobodnog vremena pojedinca, promjene njegovih potreba i sve raznovrsnijih interesa turista. Sve veći zahtjevi *turističkih potrošača, inicirali su razvoj specifičnih oblika turizma kojima se putem organiziranja posebnih oblika odmora, rekreativnih iskustava, doživljaja i drugih posebnih sadržaja, želi prilagoditi turistička ponuda i turistički proizvod neposrednom turistu, odnosno specifičnoj skupini turista. Slijedom navedenog, može se reći da suvremeni turistički razvoj koji karakterizira, između ostalog, segmentiranje i usmjeravanje turističke potražnje prema specifičnim oblicima turizma predstavlja priliku i za razvoj riječnog turizma kao jednog od specifičnih oblika turizma. Unatoč tome što su rijeke još uvijek iznimno zanemaren aspekt globalne turističke industrije, u posljednje vrijeme interes turista za riječnim turizmom raste. Rijeke kao složeni ekosustavi utječu na mnoge ljudske djelatnosti, uključujuči i turizam. Uz glavne aktivnosti koje se odvijaju na rijekama poput krstarenja, jedrenja i raftinga, treba istaknuti atraktivnosti na njezinim obalama kao što su raznovrsni prirodni krajolici, ali i bogata kulturno – povijesna baština obližnjih gradova. Kada se govori o riječnom turizmu istočne Hrvatske, ali i općenito, treba istaknuti rijeku Dunav koja ima središnju ulogu na tržištu riječnih krstarenja. Također, za razvoj ovog oblika turizma postoje potencijali i na rijekama Savi te Dravi. Stoga je temeljna svrha ovoga rada je analizirati mogućnosti i ograničenja razvoja turizma na rijekama istočne Hrvatske te dati smjernice za daljnji razvoj ovog oblika turizma. U radu će se metodom intervjua sa subjektima turističke industrije prikupiti informacije potrebne za identifikaciju ključnih elemenata ponude riječnog turizma i trendova u kretanju turističke potražnje. Budući da se trenutno potencijali za razvoj riječnog turizma ne valoriziraju na odgovarajući način te nema ni izgrađene odgovarajuće infrastrukture, ponude dodatnih usluga kao ni prepoznatljivog turističkog proizvoda riječnog turizma, na temelju rezultata istraživanja definirati će se smjernice za održivi razvoj riječnog turizma, s naglaskom na istočnu Hrvatsku.*

Ključne riječi: *riječni turizam, istočna Hrvatska, aspekti razvoja riječnog turizma*

1. Introductory remarks

Modern tourism is characterized by different socio - economic trends that directly affect changes in behavior of tourism consumers, especially their attitudes towards the quality and content of the tourism product. Tourists today are becoming more demanding, travel more frequently but stay shorter and are more increasingly turning to the specific forms of tourism in search of new experiences and adventures (Čavlek et.al., 2011), they are well informed, seeking access to individually organised travel, they are unpredictable, spontaneous, have preserved sense of nature conservation and ecology, are sensitive to the quality of services and are looking for more comprehensive tourist experiences and thus for a more complex tourism product. It is these changes in affinity of tourists, increased market competition between destinations, changes in the environment and adaptation to the new system of market values are bringing about the destruction of traditional offers (Stipanović, Gračan, 2005) and initiate the appearance of selective forms of tourism which are striving to enrich the tourism offer and provide tourists with meaningful travel product tailored to their needs. In this context river tourism should be pointed out as one of selective forms of tourism which is becoming increasingly popular among tourists. Rivers are a major tourism resource providing spectacular settings, recreational opportunities, waterfront landscapes in many centres of tourism interest, a maens of transport and an essential source of water for human consumption (Prideaux et al.,2009, 14). In addition to main activities that take place on rivers such as cruises, sailing, rafting and fishing, an important role in the formation of tourism offer of river tourism have their coasts with their attractive natural landscapes and rich cultural and historical heritage of cities through which the rivers flow. Therefore, in this paper the term river tourism will imply tourism activities on rivers and on their coastal areas, activities on owned or another boat for recreation, leisure and sports, while the vessel is anchored or sailing on the river. River tourism defined in this way can offer a meaningful and attractive tourism product, tailored to the needs of tourism demand and aspirations of tourists to travel and learn about new destinations, cultures and customs. Consequently, aim of this paper is to show the features for development of river tourism in the eastern part of Croatia or in the region of Slavonija and Baranja, with emphasis on Sava, Drava and Danube rivers, and to make recommendations to improve tourism offer of this area. During the writing of this paper, various secondary research data will be used as well as data collected by an interview with the subjects of tourism offer (travel agencies) and the directors of the tourist boards of Vukovarsko-Srijemska county, Osiječko-Baranjska county and Brodsko-Posavska county.

2. Characteristics of river waterways of eastern Croatia and development possibilities for river tourism

Special importance among the rivers of eastern Croatia have rivers Sava, Drava and Danube, which are favorable for the development of various segments of river tourism, from drifting, canoeing and fishing to cruising.

The Danube River is the most important river for the internal transport in the Republic of Croatia because of its length and natural features that enable the sailing of largest ships throughout the year and due to its significant position with regard to international transport corridors. The Danube is one of Europe's longest rivers (2888 km) and connects Central with Southeast Europe. Throughout Croatia Danube is navigable along the entire length from Batine to Ilok (from 1433rkm to 1295.5rkm) and is capable and marked for day and night navigation (http://www.mppi.hr/default.aspx?id=890). Today the Danube river sailing is regulated by the principle of free navigation. According to the European Economic Commission the Danube waterway through Croatia belongs to the class IV[88] waterway (Kovačić et.al.,2010, 253). Croatia has one of the smallest, but very attractive share of the Danube waterway, which can be used for tourism purposes. There is a rich archaeological site Vučedol situated on banks of the Danube towards Ilok which is among other things, a popular spot for fishing with a sandy beach on Eagle Island. Furthermore, in this part of Danube is the Nature Park Kopački rit, which is located in an area where Drava river flows into Danube. Nature Park Kopački rit is one of the largest and most authentic of wetlands in Europe and is visited throughout the year by many tourists and scientists from all over Europe. The largest and most important city and port in the Croatian part of Danube is a Baroque city of Vukovar with many cultural and historical monuments. Largest and most important city and port in the Croatian part of the Danube is a Baroque city of Vukovar with many cultural and historical sites (Eltz Castle from the 18 century, Baroque edifices in the city center, Francisian monastrery the church of Sts. Philip and Jacob, monuments dedicated to victims of the Homeland War, etc.) that can be included in the tourism cruise offer of Danube. Dock in Vukovar was adapted for passenger transport and has the hospitality - tourist facilities (souvenir shops, restaurant, sports bar, etc) which is necessary if it is to position itself on the tourism market as a port for nautical tourism. Also, during the period from 2002-2004. on the Danube River a dock was built in the city of Ilok which with promenade and a hotel makes the recreational-tourist complex. Ilok City could be interesting for tourists due to its medieval core, which is a protected cultural and historical complex of the highest category, Odescalchi Castle in which city museum is situated, shrines, churches and monasteries of St. John of

[88] Class IV of waterways – bottom width is 24m, water depth is 3,5 m and width of water level is 45m,for 1,500-ton vessels

Capistrano and Ilok wine roads. Specificity of Ilok's coast is a steady backwater Dunavac, between the Danube and the old city on the hill, which adds to the charm of the landscape and the variety of suitable forms of recreation on the water for water sports and nature enjoyment (http://www.turizamilok.hr/index.php?lang=hr&article_id=25). Furthermore, for the utilization of economic potential of Osijek-Baranja County, especially for revival of tourism in Park Kopački Rit and Wine Route Zmajevac-Suza of great importance is the possibility to recieve river boats on which tourists travel on Danube Furthermore, for the utilization of economic potential of Osijek-Baranja County, especially for revival of tourism in Park Kopački Rit and Wine Route Zmajevac-Suza of great importance is the possibility to recieve river boats on which tourists travel on Danube. also as the most suitable locations for construction of new passenger ports are Batina and Aljmaš (Medium-Term development plan for waterways and ports of Croatian internal waters for the period from 2009.-2016.year). Aljmaš is located at the confluence of Drava and Danube rivers and it is the most significant Marian shrine in eastern Croatia. Also, the city Erdut is near with the remains of the medieval town of Erdut from the end of the 15th century, the castle Adamović - Csech from the 19th century and there is also the site of signing of the world famous Erdut treaty (Tourism development strategy of municipalities Erdut). Also, Erdut is the center of wine production,the headquarters of Erdut winery manage over 500 hectares of vineyards and have the largest wine barrel in the world(http://tz.opcina-erdut.hr/o-turizmu/). Enological offer is complemented by a dozen of independent wine producers which tourists can visit durring the touring of wine road of vineyards of Erdut. Therefore, the construction of the said ports would further enhance river tourism, and tourism in general in the area along the river Danube and better valorize the existing tourism resources.

Rivers Sava and Drava are less favorable for navigation due to low water levels. Sava River is the longest Croatian river. The most important port in Croatia on the Sava River is the city of Slavonski Brod that can offer to tourists many additional contents such as visiting historical sites (Fort Brod, Franciscan Monastery, house of Brlić family), walks through the rafters Street (the street with anchored ships, where their owners live in the summer months), participating in various events and visiting the nature reserve Gajna. Of the total length in the Republic of Croatia, Sava river is navigable at 380.2 km, ie, from Račinovci (Republic of Serbia) to Sisak (Medium-Term development plan for waterways and ports of Croatian internal waters for the period from 2009.-2016.year). It is possible in small precentage to sail to Zagreb. The main disadvantage of the waterway of the river Sava is that it is not suited for navigation all year round because of the numerous bends in the waterway that slow down sailing, shallow places during a minimum water levels and a variety of obstacles such as sunken vessels. Renovation and modernization of the waterway of Sava could encourage the development of river tourism, especially cruise segment, and thus further construction of river ports in order to develop tourism. Drava River flows through the countryin for the length of 330 km but much of this waterway is not adapted to navigation. Most intense part of the Drava river navigation takes place from the mouth of Danube to Osijek and that part of Drava River Waterway meets the requirements of class IV navigability (http://www.mppi.hr/default.aspx?id=890). The most important port on river Drava is Osijek, which can accommodate larger vessels. The city of Osijek can offer to tourists except the rich cultural - historical heritage (Fort, the parish church of Sts. Peter and Paul, the castle of Count Pejačević, Capuchin Church and Monastery, etc.) many cultural events. Also, close by is Baranja with a diverse range of tourism related family farms.

Except for the cruise, rivers Sava and Drava, and other smaller rivers in the area of Slavonia and Baranja are suitable for fishing, sport fishing, bicycling (bike path Danube and Drva bike tour), swimming, boat rides and canoeing.

3. River tourism analysis of eastern Croatia

The term river tourism includes various activities that take place on rivers such as cruises, sailing, rafting, fishing, and activities that occur on river banks. In this paper, special emphasis will be placed on the segment of river cruises. River Danube, which passes through eastern Croatia has a central role in European river cruising market. The most popular of itineraries in Europe are on the Danube and its tributaries, the Rhine and its tributaries, the channel Rhine - Main - Danube Canal and Dutch waterways and they are constituting 48% of the market of river cruising (Vojvodić, 2008, 30). European river cruises are marked by seasonality with concentration of cruises generally to the period of eight months a year, from March to November (Vojvodić, 2006, 50). Boats for cruising on rivers are generally smaller than those for sea cruises since the river paths water depth is limited and can not accommodate large vessels, which of course affects the number of attractions and other services that are offered to passengers on board for the purpose of rest, leisure and entertainment during their travel. Typical passenger on a river cruise has more than 55 years, he is experienced traveler who usually travels with a partner, is highly educated and interested in culture and history (Vojvodić, 2008).Cruising on Croatian rivers are mostly concentrated on the river Danube, which is proved by the fact that the largest number of cruise ship entries are recorded in ports of Vukovar and Ilok. In port of Vukovar in 2011. a total of 182 cruise ships visited with 21 914 passengers, while in the same year Ilok visited 1 589 passengers who arrived on 14 cruise ships (Port Authority Vukovar). By contrast in 2011. in Osijek there have been only two anchored cruise ships with a total of 145 passengers (Port Authority Osijek). These data are the result of objective circumstances that can not be predicted and which can not be influenced, since the problems with water levels particularly affect the navigability of the rivers (Kovačić et.al.,2010). Also a tendency of growth in passenger numbers is recorded, particularly in the port of Vukovar, where the number of passengers increased from 400 passengers in 2002. to 21 914 passengers in 2011. Leading operators who organize cruises on the Danube are Luftner Reisen, Croiseurope and Grand Circle Travel (GCT). Tourist arrangements of cruises on the Danube have a complex content. They can include air transport, rail routes between cities in the itinerary, welcoming by the representatives of tour operators, hotel accommodation on ships and in hotels of individual cities, exclusive tours (sightseeing, wine tours, ...) and certain additional services (Dragin, 2005, 106). Reciptivne agencies also have an impact on the formation of the tourism product in the form of making proposals the components for its final form and provide services of tourist guides. In Vukovar, travelers that arrived with cruisers typically stay for 2-3 hours and are usually looking for a tour of the Baroque town center with a costumed tour guides, tour of the Museum of Vukovar War hospital and Ovčara. Also, there is a growing interest of tourists to stay on indigenous family farms in order to learning about local customs, culture and local cuisine. Furthermore, tourists arriving with cruisers, depending on their wishes, have organized tours of Osijek and Baroque Fortress, visits to Nature Park Kopački rit, tours of Baranja wine road, wine cellars and wine tasting, and they also have the possibility to rent bikes and kayaks for a ride on Danube. In addition, except for cruising travel agencies organize and offer a variety of trips that include activities on and along rivers. They can be included in some segments of river tourism. These trips usually last for 1-3 days and main activities that are offered within them are ridies on a bicycle or boat, kayak and canoe, enjoying the lush vegetation and areas of untouched nature, exploring the fauna of rivers and tasting of specialties of local cuisine. Also, on all rivers of eastern Croatia the city and bays sightseeing by tourist boats is possible and fishing with the possession of appropriate licenses.

4. Closing remarks and recommendations

On the tourism market there is constant escalation of market competition and the tourist destinations are forced to continuously develop and innovate their tourism facilities through which they highlight their competitive advantage and place on market their tourism product that will meet consumer preferences. Since rivers of eastern Croatia possesses natural preconditions and numerous interesting and attractive locations along its waterways, river tourism has good perspectives to become one of the most recognizable forms of tourism offers in Slavonija and Baranja. All could have economic benefits from the development of river tourism from the Port Authority in which tax is paid to receptive travel agencies, rural households engaged in tourism, nature parks, etc., therefore it is necessary to take certain measures to improve this type of tourism. First of all, it is necessary to improve and modernize the infrastructure that will enable the reception of ships, particularly those for cruising, then update and renew waterways for smoother day and night sailing as well as develop and offer additional tourism services (restaurants, entertainment facilities, gift shops) and other services such as boat renting, supplying services to river boaters with various goods and equipment, services which are content increasing and complementing the stay of tourists, such as sports and recreational services, etc.. Also, it is necessary to encourage a permanent dialogue and cooperation between the tourism industry, local communities, public and private sectors and other interest groups particularly in the area of promotional activities and further investments in the development of river tourism.

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INTRODUCING SWEET POTATO IN TOURIST OFFER: CASE STUDY OF PUSTARA VIŠNJICA

UVOĐENJE BATATE U TURISTIČKU PONUDU:PRIMJER PUSTARE VIŠNJICA

ABSTRACT

Modern tourists are becoming more and more demanding; they are traveling more often and are turning towards specific types of tourism. Their motives are more complex and they include, among other things, different activities in nature, visiting ecologically clean areas, having meaningful tourist experiences and so on. Furthermore, the healthy lifestyle is becoming more present as well as our need to eat healthily and live in harmony with nature. Therefore, rural tourism, and especially agricultural tourism, may be defined as a tourist activity, organized by farmers who own their own family farms, which includes ecological agriculture, and it is becoming more and more important part of the tourist offer of Croatia. Sweet potato is mentioned as one of the unique agricultural products which, thanks to its nutritious and medicinal properties as well as undemanding farming requirements and full utilization, makes it ideal for growth on family farms. The growth of the sweet potato can contribute to the improvement of farming, increase the farmers' income and through putting it in the tourist offer, it can create a recognizable image of a particular family farm. according to everything mentioned so far, the main aim of this paper is to demonstrate the cultivation of the sweet potato, its nutritious and medicinal properties, the representation of the sweet potato on the Croatian market and the ways to use it in the farms' tourist offer by analyzing the case study of Pustara Višnjica, which was awarded the Certificate of the European destination of Excellence, EDEN, in September 2011. For the requirements of this paper, we interviewed the co-owner and director of Pustara Višnjica, aiming to determine the ways Pustara Višnjica included the sweet potato in its tourist offer, from cultivating seedlings to offering sweet potato delicacies in its restaurants. Moreover, offering agricultural products into family farms' offers opens the possibility to improve their business success and is key for their survival in a competitive environment.

Key words: *sweet potato, family farms, agricultural production, tourist offer*

SAŽETAK

Suvremeni turistički potrošači postaju sve zahtjevniji, češće putuju i sve se više okreću specifičnim oblicima turizma. Motivi njihovih putovanja su sve kompleksniji, a uključuju, između ostalog različite aktivnosti u prirodi, posjet ekološki čistim područjima, sadržajna turistička iskustva i sl. Također, sve je prisutniji i trend zdravog života te u skladu s njim potreba za zdravim načinom prehrane i življenja u skladu s prirodom. Stoga ruralni oblici turizma, a naročito agroturizam, koji se može definirati kao turistička aktivnost organizirana od strane poljoprivrednih proizvođača na vlastitiom gospodarstvu i s njim povezana ekološka poljoprivreda, postaju sve značajniji u turističkoj ponudi Hrvatske. Kao jedan od jedinstvenih poljoprivrednih proizvoda ističe se batata koja je zahvaljujući svojim hranidbeno-ljekovitim vrijednostima te jednostavnom načinu uzgoja i potpunoj iskoristivosti idealna za uzgoj na poljoprivrednim gospodarstvima. Uzgoj batate na poljoprivrednim gospodarstvima može doprinjeti oplemenjivanju poljoprivredne djelatnosti, povećati dohodak poljoprivrednicima, a njegovim uvrštavanjem u turističku ponudu može se kreirati prepoznatljiv imidž gospodarstva. Slijedom navedenog, temeljna svrha ovoga rada je prikazati uzgoj batate, njegova hranidbeno-ljekovita svojstva, zastupljenost batate na Hrvatskom tržištu te na koji način se može iskoristiti batata u turističkoj ponudi poljoprivrednog gospodarstva na primjeru Pustare Višnjica, dobitnice priznanja Europske destinacije izvrsnosti EDEN u rujnu 2011. Za potrebe ovoga rada napravljen je intervju sa suvlasnicom i direktoricom Pustare Višnjica, s ciljem da se da se utvrdi na koji je način Pustara Višnjica u svoj turistički program uključila batatu, i to od uzgoja presadnica do ponude delicija od batate u svojim restoranima. Naime, uključivanjem poljoprivrednih proizvoda u turističku ponudu na obiteljskim poljioprivrednim gospodarstvima, otvara mogućnost za poboljšanje njihove ekonomske uspješnosti te je od ključnog značenja za njihov opstanak u konkurentnom okruženju.

Ključne riječi: *batat, obiteljska poljoprivredna gospodarstva, poljoprivredna proizvodnja, turistička ponuda*

1. Introduction

Today’s modern conditions present on the tourist market, competitive advantages of a certain tourist destination must be based on its authenticity, high quality and well-educated human resources, creative and innovative management solutions as well as environmental purity. The tourist demand is becoming more demanding, tourists travel more often, but for shorter time and concentrate more towards specific types of tourism searching for new experiences (Čavlek, 2011, 75), they are well informed, seek a more individual approach to tourist organization, are unpredictable, spontaneous, sensitive to quality of services offered, look for more meaningful tourist experiences but also require more than a relaxing holiday (Vrtiprah, 2006). Therefore, the research “TOMAS Ljeto 2010 – Stavovi i potrošnja turista u Hrvatskoj” showed that the main motives of tourists arriving to Croatia in 2010 were passive holiday and relaxing (75%), fun (44%), new experiences (25%) and cuisine (22%) as well as getting to know natural beauties (21%) (Marušić et al., 2010). Consequently, the tourist offer should adjust to the new conditions and alongside its business component should offer the tourist a cultural, healthy and useful experiences and improve them by contributing to their physical and psychological development and social well-being (Jadrešić, 2001). In this context, agricultural tourism, as one type of rural tourism, is becoming an increasingly important sector in tourism. It is contemporary and traditional at the same time, imbedded in local tradition and based on its geographical features, tradition, culture and customs (Franjić and Cunj, 2007). Rural forms of tourism regard all those values which are appreciated in rural areas and which allow an individual to return to nature, to release one's stress caused by urban areas which greatly limit one's freedom (Ružić, 2009, 17). When we speak of agricultural tourism, we speak about having a holiday at a farm (a registered family farm, farming company which is either a limited company or an incorporation) which uses the services of accommodation, catering, offers beverages, recreational fun and other services in farms houses and accommodation premises (camp, bed & breakfast, hotel) within the family farm (Demonja and Ružić, 2010). Developing agricultural tourism is stimulated by a truly adventurous need of a modern consumer (tourist) to spend time in the countryside and taste regional cuisine. Furthermore, agricultural tourism sets business and non-business activities in motion within a rural area such as the cultivation of natural and healthy food; it contributes to the revival of farming on small parcels and enables tourists staying in rural areas to have an active relationship with nature and farming included in the rural forms of tourism. Every family farm or farming household which desires to do agricultural tourism must aim to ensure its own agricultural production and attractive tourist offer. Sweet potato, because of its simple and undemanding production, high utilization and high nutritious properties, is an ideal vegetable for family farms aiming to get involved in tourism as additional activity to its own farming business. Therefore, many farms could enhance their agricultural activities and their tourist offers through the cultivation of the sweet potato and by offering attractive and recognizable products, but also include tourists in the process of cultivation and harvesting of the sweet potato, learning how to use the sweet potato in making delicious meals and tasting them at the farm.

2. Characteristics of the sweet potato: cultivation, production, nutritious and health properties

Sweet potato (lat. Ipomoea batates) is a perennial tropical plant that belongs to the family Convolvulaceae, originally from the north and central part of South America and it has a high nutritious value and medicinal properties (Dobričević et al., 2008). There are many types of sweet potato on the market, but the most used are with orange skin and meat, red-purple skin and white meat, and white skin and meat. The sweet potato is most often cultivated vegetatively, "seedlings" (rooted offshoots from the root). This vegetable cannot tolerate frost and low temperatures and it is therefore recommended that it is planted in the open continental part of Croatia after the 15^{th} of May, and in the Mediterranean area around the 15^{th} of April, provided the soil temperature is not lower than 10 degrees Celsius. The seedlings are cultivated for two months in closed, heated and humid rooms. In order to have a satisfactory yield it is important to prepare the soil for planting. In the first 3-4 days the seedlings need to be watered in order to ensure they take root, and later as needed, depending on weather conditions. It is recommended that the sweet potato is planted on clay-sandy soils, and the acidity should be around pH 6. When planting sweet potatoes it is important to respect the rotation so that the plant is not planted in the same area for three years. The cost of cultivation of sweet potato, soil tillage, fertilization, mulching, seedlings, irrigation, harvesting, sorting and storage of 1 ha of land is about HRK 120,000.00.

Harvesting the sweet potato is a demanding job because it requires precision of pickers in order to the damage sweet potato roots as little as possible. Picking is done mostly by hand with spades or mechanization on larger areas, from August to October depending on the type, planting time and climate. The sign of technological maturity of the sweet potato is a thick white juice that appears after the sweet potato is cut (80 days after planting). It is possible to expect an average yield of about 25t/ha. The damaged parts of the roots are removed, which is followed by classification and storage, and preparation for sale. Desirable roots for sale are considered to be those that reach a size of over 150 g, without major damage to the skin. They are put in a dry and warm storage, with a relative humidity around 75%, for a short term, until they are dispatched to the market (http://www.magicus.info/hr/magicus/tekst.php?id=10750).

The sweet potato plant has a very interesting flavor, and is also rich in minerals, vitamins and antioxidants. For the preparation of dishes the thickening roots and young leaves are used (which are commonly used as a stew and salad), but previously it is necessary to thermally process them. The medicinal properties are primarily attributed to the sweet potato for the high presence of vitamins A, B, C and E, minerals K, Ca, Mg and Fe, antioxidants that increase good functioning of the brain as well as dietary fibers, which affect the proper functioning of digestion. Additionally, the sweet potato is also low in fat and cholesterol. Due to the high energy value and low calories, the sweet potato is useful for children and athletes. The recommended daily dosage is 200g of sweet potato 2-3 times a week. There are many proven recipes in which the sweet potato is the main ingredient. It is mostly prepared in the same way as potatoes: boiled, broiled, fried, mashed, etc., and the healthiest preparation is by steaming (30-40 min) to keep the taste, flavor and nutrients. In addition to heat treatment, the sweet potato can be processed into flour, chips, mashed potatoes, etc.

The world's largest producers of sweet potato are Asia (China), America, Africa, India and Japan with the production area of about 10 million ha and an average yield of 15 t / ha. In Europe the only major producers are Portugal, Spain and Italy, with an average yield of 20 t / ha on approximately 5000 ha. In Croatia, this vegetable crop, the sweet potato, is still a novelty in terms of technological production and processing but also from the nutritional standpoint. That is why the sweet potato production was recorded on only 50 hectares in 2011 (http://www.agroklub.com/povrtlarstvo/batat-uzgoj-i-korist/2893).

The planting of the sweet potato is acceptable on abandoned farming land which there are a lot on the Croatian territory. The sweet potato is an ideal crop for the production on small family farms because of its simple cultivation and full utilization (the root and the leaf are both used) for both human and animal nutrition. According to the five-year research of the Faculty of Agriculture, certain locations of the mainland are suitable for the cultivation: Međimurje, Drava region, eastern and western Slavonia, Prigorje, Moslavina and some micro-locations with a suitable climate. In the Mediterranean area suitable areas include Istria, coastal area and islands in the Adriatic, Dalmatia and the islands of the Dalmatian hinterland (http://www.magicus.info/hr/magicus/tekst.php?id=10750).

3. Methodology

For the purposes of this paper, we conducted research using the interview method. A co-owner and director of Pustara Višnjica, Ksenija Plantak, was interviewed on the 20th of March 2012. The interview was conducted with the purpose of determining the manner in which the Pustara Višnjica includes the sweet potato in its tourist offer, from the cultivation of seedlings to offering sweet potato dishes in its restaurants and whether the sweet potato, an integral part of their tourist offer, contributed to the recognition of Pustara Višnjica as a tourist destination.

4. Sweet potato in the tourist offer of Pustara Višnjica

Pustara Višnjica is located in the municipality of Sopje in the Virovitica-Podravina County, on the 200 year old farm. Due to the efficient management of the estate, the two companies were established in 2005: Agricultural Cooperative Ergela Višnjica, which raises horses and wildlife (deer) and the cultivation of functional foods (sweet potatoes) and herbs and Pustara Višnjica Ltd., which is involved in restaurants and tourism. Since 2005 more than five million Euro has been invested in the development of the Agricultural Cooperative Ergela Višnjica and Pustara Višnjica Ltd. through five programs that make up the core business of Pustara Višnjica: horse breeding (stud farm has about seventy horses), wildlife (deer farm on 40 acres), sweet potato cultivation, the cultivation of medicinal plants and rural tourism, which is being developed within Pustara Višnjica Ltd. Furthermore, the collected interview data showed that Pustara Višnjica provides accommodation in its tourist offer (accommodation capacity of one hundred beds), conference halls with the capacity of 20 to 60 people equipped with audio-visual equipment for holding business meetings, congresses, conferences, seminars and presentations and a restaurant with authentic cuisine. Also, its tourist offer includes a stable with seventy horses, deer farming and the production of oyster mushrooms, asparagus, herbs and sweet potato seedlings. As a result, at Pustara Višnjica tourists can enjoy various sports and recreational services such as riding schools, riding four wheelers, school excursions, paintball, cycling and gastronomic delicacies made from agricultural products produced and grown at the sight, one of which is the sweet potatoes, which is especially popular.

It is at the Ergela Višnjica where the commercial production of sweet potatoes started for the first time in Croatia in 2006. In 2011 about 400 000 seedlings of sweet potatoes were planted on the area of 15ha. About 15% of the produced crop is sold to small producers or retailers, and the rest to retail chains such as Mercator and Kaufland (on the basis of signed contracts). Also, Pustara Višnjica, as one of the largest producers of sweet potatoes in Croatia, exports about 15% of the produced sweet potato to several neighboring countries: Serbia, Macedonia and Greece, and plans to expand to the Austrian and Russian markets soon, which show an interest in this vegetable. Only the 1st class sweet potatoes are exported while products of 2nd and 3rd class are currently used for the feeding of deer. The short-term development plan includes the construction of a processing plant for the 2nd and 3rd class sweet potato, for they hope to gain financial means from the pre-accession EU funds. These are the final products, flour and concentrate, which could be used in pasta, cream soups, desserts. Furthermore, it s planned to switch from conventional to organic production due to the fact that organic farming is becoming an increasingly important factor in the survival of farms.

Pustara Višnjica sells its sweet potato under the name "Višnjica sweet potato" and so it became the farms' "brand", by which the farm is well known within the wider area. Tourists and other visitors of Pustara Višnjica have the option to purchase seedlings of sweet potatoes on the farm, but also to taste a variety of sweet dishes. Specifically, it is the gastronomic restaurant located on the farm that promotes and offers the sweet potato to tourists. Tourists and other visitors have the option of tasting the sweet potato produced from their own cultivation in a variety of different ways: from appetizers, side dishes, main dishes to desserts. The Pustara Višnjica's restaurant offers, among other delicacies: Cream of sweet potato, the sweet potato Mediterranean style, spaghetti with sweet potato sauce, pasta carbonara with sweet potato, salted cookies with sweet potato, sweet corn bread with sweet potato, sweet potato pies, sweet potato tiramisu and sweet custard with sweet potato.

In this way, Pustara Višnjica has successfully blended its agricultural activities with tourism through which it presents and sells its produce. The success and quality of such a connection of agricultural production with rural tourism has been rewarded in September 2011 by the high recognition of the European destinations of excellence, EDEN, which was awarded during a ceremony in Brussels, thus allowing Pustara Višnjica to enter into a European network of the finest and most attractive tourist destinations.

5. Conclusion

Based on the above mentioned data, we can conclude that the introduction of the sweet potato to family farms, and thus the Croatian market, can improve the quality of life and sustainable economic development of rural areas. Due to distinct nutritional and medicinal properties of the sweet potato this vegetable crop should come to dominate many family farms and become one of the more represented ingredients on our menus. Furthermore, the sweet potato is a crop that requires no special breeding conditions, and possesses a high level of utilization and is therefore very suitable for the production on small family farms. The example of Pustara Višnjica indicates how cost-effective this culture is and therefore its contribution to the development of tourism on family farms and thereby the development of agricultural tourism as a form of rural tourism. Offering innovative tourist products such as the sweet potato can provide the recognition of a farm on the tourism market, and contribute to better sales of its agricultural products through the tourism industry, or direct sale of products to tourists on their own premises. It is therefore necessary to turn agricultural products into the tourist offer in a manner that will ensure its direct sales to tourists, such as through cuisine. Also, it is necessary to invest in marketing in terms of strengthening the development of brand products, which will provide the product to be more recognizable on the market, but also of the farm on which the product is offered, as well as organizing its own sales network for products, product marketing, promotion and the sale of tourist services.

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THEMATIC CLUSTERS IN TOURISM

TEMATSKI KLASTERI U TURIZMU

ABSTRACT

Growth and development of entrepreneurship (especially the small one) in general requires a constant search for an organisational model that will provide survival of entrepreneurs on the market, satisfying at the same time the strategic goal through increase in added value per product unit, i.e. profitability, increase in export-oriented production and, accordingly, stability and increase in employment.

Entrepreneurial clusters comprising economic operators within the same field of activity or several comparative activities have the need to adjust to a global market. Therefore they design and set up an organisational structure that provides them with possibilities for development, market and marketing activities in one region (district) or in several closely related regions.

This concept provides fast development of economic operators by applying modern working methods, and under modern management they draw the maximum from the market environment, whereas economy of a region or a district gains competitive advantages in relation to others. Causes of competitiveness such as cost reduction, added value and new market opportunities can encourage innovation in order to raise the quality and expertise of economic operators. Cluster-based economic development is a model of development of economic operators, particularly the small and medium sized ones, as they initiate development at both the local and regional level through networking. Clusters are drivers of growth and innovation and they ensure competitiveness on a global market. Results show that this development model has provided opportunities for significant success of regions and countries, and it has resulted from synergy of knowledge and technical and technological capacities of associated economic operators. These prerequisites make it possible for operators in the tourism sector to increase their participation in common markets by working together. Therefore this paper will focus on analysis of thematic clusters referring to market segmentation. In the field of tourism this may include cultural heritage, some special interests, health tourism, wine tourism, etc. Such a model initiates development of a tourist destination in a flexible way, thus stimulating economic development at both the local and regional level.

Key words: *thematic clusters, tourism, region, competitiveness, tourist destination*

SAŽETAK

Općenito, rast i razvoj poduzetništva (posebno malog) zahtijeva stalno traganje za organizacijskim modelom koji osigurava opstanak poduzetnika na tržištu, a ujedno zadovoljava strateški cilj kroz povećanje dodane vrijednosti po jedinici proizvoda, odnosno profitabilnosti,povećanje proizvodnje usmjerene na izvoz i u skladu s tim, održanje i povećanje broja zaposlenih.
Poduzetnički klasteri gospodarskih subjekata svrstanih u istu djelatnost ili u više komparativnih djelatnosti imaju potrebu za prilagođivanjem globalnom tržištu te stoga projektiraju i postavljaju takvu organizacijsku strukturu koja im omogućuje razvoj, tržišno-marketinške aktivnosti u jednoj regiji (distriktu) ili u više usko povezanih regija.
Tim se konceptom gospodarski subjekti brzo razvijaju, primjenjuju suvremene metode rada i pod suvremenim menadžmentom crpe maksimum iz tržišnog okružja, a ekonomija regije ili distrikta dobiva konkurentske prednosti u odnosu na druge. Uzroci konkurentnosti, kao što su smanjenje troškova, dodana vrijednost i nove tržišne mogućnosti, mogu poticati inovaciju, radi dizanja kvalitete i osposobljavanja gospodarskih subjekata. Ekonomski razvoj zasnovan na klasteru je model razvoja gospodarskih subjekata, osobito malih i srednjih, budući da umrežavanjem oni pokreću razvoj na lokalnoj i regionalnoj razini. Klasteri se definiraju kao motori rasta i inovativnosti koji osiguravaju konkurentnost na globalnom tržištu. Rezultati pokazuju da je takav razvojni model omogućio važan gospodarski uspjeh regija i država, a on je rezultat sinergijske upotrebe znanja , i tehničko- tehnoloških kapaciteta povezanih gospodarskih subjekata. Upravo na tim temeljima operateri u turizmu mogu povećati učešće na zajedničkim tržištima ako rade zajedno. Stoga ćemo u ovom radu analizirati tematske klastere koji se odnose na segmentaciju tržišta a to u području turizma mogu biti kulturno nasljeđe,neki posebni interesi,zdravstveni turizam,vinski turizam itd. Takav model na fleksibilan način pokreće razvoj turističke destinacije i na tim osnovama potiče ekonomski razvoj na lokalnoj i regionalnoj razini.

Ključne riječi: *tematski klasteri, turizam, regija, konkurentnost, turistička destinacija*

1. Introductory Considerations

Growth and development of economic operators in general requires a constant search for an organisational model that will provide survival on the market, satisfying at the same time the strategic goal through increase in added value per product unit, i.e. profitability, increase in export-oriented production and, accordingly, stability and increase in employment. Causes of competitiveness such as cost reduction, added value and new market opportunities can encourage innovation in order to raise the quality and expertise of economic operators. Innovation proces itself establishes additional connection with the market and broader environment and it combines different activities such as designing, scientific research, market research, development of technological process, organisational restructuring and professional training of employees. Economic operators mutually cooperate and associate in order to reduce the inevitable and to maintain stability, very often within a single spatial environment. Cluster imposes itself as a model of development of economic operators, particularly small and medium sized ones, as they initiate development at the local and regional level through networking. Geographical concentration of rivals, buyers and suppliers in the region shall improve innovation and competition in the cluster, which implies complexity of the process. This results in the necessity of harmonised cooperation of all potential participants in the development of a cluster, including the government, potential economic operators as

candidates for a cluster, various consulting teams and financial institutions, and other economic operators.
Globalisation has increased the pressure on particular locations or regions to become more competitive at the global level and more attractive as locations where business can be done successfully. Certain economic operators strive towards developing a cluster on a particular location. This means that, if reasons can be found for economic operators to pool into clusters, and if adequate policy can be established that is based on reasons that make a particular location attractive for development of a particular cluster, the way has been found for a particular region to benefit from globalisation. Cluster development is therefore a regional response to competition pressure that is generated by globalisation. Economic operators that are able to step out of the national framework have the chance to prove their competitiveness by competing on the global market. These become key strategic goals of business operations of economic operators. Competitive advantage therefore is the way of establishing linkages among related fields of activity, both at the level of economic operators and the regional level. Innovation process is, therefore, not complete without connections being made at the level of skills, functions, technologies, commercial production, markets and other organisations (Mitra, 1999, pp. 228-237). This means that clusters in economy refer to networked organisations with comparative activities. For this reason implementation of the model deserves special attention as the above reminds that the model and development of a cluster require synergy, that is, cooperation of all participants in the region.
New development concept should be therefore placed in the network field of new forms determining specific qualities in both narrow and broad area, i.e. region. Such forms of business are oriented toward building and implementation of decentralized, adaptable and innovative organization. Cluster-based economic development is a model of development of economic operators, particularly the small and medium sized ones, as they initiate development at both the local and regional level through networking. Clusters are drivers of growth and innovation and they ensure competitiveness on a global market. Results show that this development model has provided opportunities for significant success of regions and countries, and it has resulted from synergy of knowledge and technical and technological capacities of associated economic operators. These prerequisites make it possible for operators in the tourism sector to increase their participation in common markets by working together. Therefore this paper will focus on analysis of thematic clusters referring to market segmentation, and in the field of tourism this field may include cultural heritage, some special interests, health tourism, wine tourism, etc. This model initiates development of a tourist destination in a flexible way, thus stimulating economic development at both the local and regional level.

2. Cluster development tendency

As the Republic of Croatia is part of the global market, significance and the role of clusters as new global models of development of economic operators are surely important for Croatian economy.
Cluster development model is important because of: organic growth of economic operators which is insufficient to achieve demanding growth rates; in cooperation with other operators it greatly increases the speed of entering a market; complexity of business that is growing on daily basis and none of the small and medium sized operators possesses all of the required experience and expertise; possibilities of reducing costs of research and development; facilitating access to a global market; increased innovation rate.
In the new millennium (we are now at the beginning of it) competitive fight on the market will take place among clusters of economic operators, consumers, suppliers and other private

and public participants rather than among individual economic operators (Carrie, 1999, pp. 45-50).
Improved competitiveness of intellectual capital with particular focus on networking of managers and entrepreneurs and encouraging partnerships of economic operators, universities, institutes and local government is surely a winning combination in today's market conditions (Horvat, 2003, p. 228).
One of the goals of doing business through the cluster model is to establish linkages between technologies, processing industries and economies of two regions or several regions from several countries within the scope of their core activities, thus enabling economic operators and regions to develop by using communications, technologies and investments from other regions. This imposes the necessity of considering opportunities and limitations of cluster development in the Republic of Croatia in order to establish a new concept of development of the economy sector. Results will be used to fortify cluster development, which has to provide a chain of created added value with assistance of all actors pooling into a cluster organization. Namely, the chain of added value is the process comprising several critical positions that are important for innovation, thus creating added value.
Technical and technological advancement and strong process of internationalization of entire business worldwide have lead marketing practice to affirm various types and forms of establishing linkages between partners. Economic operators now understand that they are not able to participate in the global market on their own. Their approach so far has been based on independent development, affiliation and entering into joint ventures, whereas today's approach puts mutual cooperation and linkages in focus in order to maintain business stability. In the last ten years clusters have increasingly turned to innovation and development programmes.
Contemporary economic analyses have come to a conclusion that national economies need to have a competitive industrial base to be able to make progress in future, which turns clusters into catalysts of required industrial development of regions and countries.
Other factors supporting the importance of cluster development are associated with the dominant character of expanding globalization of the world economy that leads toward uniqueness of products, services, labour, capital, and even prices. Specialization of a region resulting from globalization implies specific qualities in economic organization. These specific qualities arise from own capabilities to produce something and to support industries that are globally competitive, resulting in the importance of cluster development, which puts regions in the centre of development, innovation and changes.
This means that cluster model and cluster development as a form of business association can enhance competitiveness among them as well as in the region. Successful functioning of a cluster requires development of entrepreneurship, that is, innovation, information and other structures.
Experience with the model of cluster development in some EU countries has shown that competitive advantages and internationalization can be achieved by means of clusters. Competitive advantage can be achieved from various sources, including technology, differences in supply or product differentiation. Economic operators need to concentrate on these activities and their ability to gain competitive advantage, thus creating a value that exceeds the value created by their competitors (Meler, Ružić, Horvat, 2002, p. 56). It is important to know that sustainability can be viewed as the key prerequisite for countries attempting to develop their economy.
According to Porter (Porter, 1998), clusters affect competition in three ways: (1) by increasing the productivity of companies based in the area; (2) by driving the direction and pace of innovation; (3) by stimulating formation of new businesses within the cluster. Advantages arising from concentration of companies within a particular area explain why international

efforts are directed at industrial and regional development of competitive advantages. Importance of tourism in Croatia is undoubtedly justified, particularly in relation to the current global trends in this field. This can be explained by the fact that tourism is not organised, i.e. structured in the way it has been done in the countries that are far more developed in this regard. One of the ways of structuring tourism is surely the clustering process, that is, the process of encouraging and developing clusters. The paper is therefore focused on determining the possible structure of Croatian tourism based on the clustering process, which also presents a proactive approach to the problem of association among operators of any size in order to create a good supply of tourist products. The key research hypothesis in this paper is that Croatian tourism should be restructured by developing thematic clusters as a development model for destinations of selective tourism in order to accelerate development of Croatian tourism. The modality of structuring thematic clusters in tourism is determined here that will join all spatially concentrated and mutually related operators, starting from family farms, sole proprietors, to small economic operators, whose products participate in the formation of tourist products in a particular spatial environment. Based on the analysis of several tourism clusters, Porter often gives the example of the "Californian wine cluster", which includes elements of tourism and food production, claiming that numerous linkages among cluster members result in value that is greater than the sum of its parts. In a typical tourism cluster, for example, the quality of visitor's experience does not solely depend on the likeability of what primarily attracts the visitor, but also on the quality and efficiency of additional participants in the business such as hotels, restaurants, shops and means of transport. As cluster members are mutually dependant, a good result achieved by one member can increase success of all other members (Porter, M. 1998, 178-179). The model provides possibility for creating new value on the same market, which was confirmed by other wine clusters, because together they ensured competitiveness through a project in a very short time period, both on the domestic and new markets.

3. Thematic Clusters in Tourism

Contemporary trends in tourism demand, competition struggle, and technological innovation as well as other factors present in the environment dictate the need for innovation and finding of a more efficient way of management in tourism, i.e. tourist destinations. This means that there is a need to find solutions how to overcome strategic imperfections of the traditional management. Tourism cannot include only a single activity; it has to include "aggregation of activities, whose main objective should be to supply products/services of operators in a particular field of activity that will satisfy consumers' needs when consumers temporarily dwell outside of their environment, while at the same time also satisfying the needs of operators by making profit or achieving particular social objectives. (Meler, M.: Marketing, Faculty of Economics in Osijek, Osijek, 2002, p. 427). By observing the potential and foundations on which Croatian tourism has been developing and in addition to favourable geological and traffic position as regards main European emitting markets, it can be said that highest importance in attracting foreign tourist demand can be attributed to favourable natural factors, preserved nature and rich historical heritage, which is confirmed by relevant research on motivation and satisfaction of tourists with elements of the Croatian tourist offer (Čorak, Marušić, 1987–2008). Pronounced segmentation of the tourism market continuously encourages diversification and innovation of tourist products, thus opening new opportunities for tourism development. Many researches and forecasts predict that, in addition to "sun, sea and sand", which continues to be globally dominant tourist product, fast development will take place of a whole range of products, particularly in the field of vacation, business, health, sport, adventure, nautical and cultural tourism and special interest tourism. Authors of the new Strategy of Croatian tourism state that, in spite of occasional and sporadic oscillations, world tourism is marked by a high level of stability. Tourism is continuously growing, and highly developed countries of Western Europe and USA are the leading emitting markets; Europe and, particularly, the Mediterranean area are top world destinations; the “sea, sun and sand vacation” is still dominant as the leading tourist product. Considering the geographical position of Croatia as well as the development level of its “sun, sea and sand” product, the trends that are also predicted for the future period are in favour of further development and growth of Croatian tourism. On the other hand, global tourism market is going through significant changes. There is a change in tourism flow where large markets of China, Russia and India are becoming large globally relevant emitting markets; new “sun, sea and sand” destinations in developing countries are entering the market at fast pace, intensifying and changing the character of global competition; Europe and the Mediterranean area continue to lose their market share. Influenced by many different and mutually related trends in political, economic, social and legal environment as well as in spheres of environment and technology, further significant changes are taking place in terms of buyers, products and management, and they are changing the very core of the tourism industry. These changes open great new opportunities for further development and growth of Croatian tourism. Within further improvements of competitive abilities of Croatia on the tourism market, particularly relevant opportunities arising from global market trends include:

- **Opening of new markets,** including penetration of both new markets in geographical terms and attracting new market segments of buyers of different demographic and psychographic profiles. Growth of new emitting markets, pronounced market segmentation, i.e. growth of a range of specific segments of buyers based on lifestyles, interests and hobbies, and further development of information technologies providing constant, global, single and precisely targeted communication with potential buyers as well as development of transport technologies; they all contribute to considerable opportunities offered by expanding target markets.
- **Product development,** including improvement of the existing and creation of new products. This continuous process relies primarily on adjusting tourist products to the needs and expectations of a “new tourist” who is active, informed, choosy and criticising, who wants to be a participant and strives toward his own improvement, and who is, above all, buyer of life experience, adventures and stories; and further it relies on adjusting the offer to the needs of different target segments of guests. Ultimately, this results in significant opportunities for creation of a product portfolio that is rich in content, diversified and of improved quality.
- **Taking environmentally responsible position,** including proactive attitude to preservation of space, biodiversity, natural and social resources. Implementation of “green” concepts at all organizational and business levels opens up opportunities for a truly sustainable tourism development and corresponding market positioning.
- **Development of new communication and sales skills** that, based on constant growth of opportunities and the penetration level of new information technologies, provide better efficiency in reaching not only the existing buyers, but also new target segments of buyers.
- **Development of new and innovation of the existing business and management models,** which can contribute to more efficient management in both private and public sector, particularly in tourist destination management, while respecting given conditions of globalized economy, the necessity of networking and application of strategic planning process. Further growth and development of Croatian tourism and further improvement of competitive position of Croatia will greatly depend on the readiness to accept changes and the ability to use opportunities. (Master Plan and Strategy of Tourism Development, Report 2, p.45¸ www.mint.hr, 12.04.2012). The above stated facts require an organizational form that will be established to connect functional and spatial dimension and dimension dealing with

cluster development into a development strategy, "and has a shape of policy programme that improves clusters, and in this context another category can be mentioned, thematic clusters, that are referring to market segmentation". (Hrabovski-Tomić, 2008, p.54). In the field of tourism this includes a whole range of products, particularly in the field of vacation, business, health, sport, adventure, nautical and cultural tourism and special interest tourism, which have been previously listed in a more detailed manner. The characteristics of the thematic clusters are that they are primarily functional and that they depend on cooperation of all stakeholders in the value chain in the process of developing a package, and they work in synergy so as to ensure experience for given market segments, that is, market niches, in terms of specific forms of tourism. (according to, idem. p.55)

4. Strategy of destination development in selective tourism by means of the cluster model

To summarize, by performing joint activities for its members, clusters should contribute to reduced costs of purchasing, more active and cheaper participation on the market and significant raise of the quality of tourist product.

Possible criteria for accepting members in a cluster are (Anić et al., 2005): the primary field of activity, willingness to enter the cluster and accept mutual harmonisation of business operations within the cluster, economic strength, cooperation of members within the cluster (input-output connections among members), ownership (private, state, combined), the size of an entrepreneur (micro, small, medium and large), location (local or regional presence).

When entering a cluster, potential members should know that membership is based on voluntary principle and mutual trust among members, their dynamicity and openness, mutual cooperation inward and competition outward, and joint result (product/service) that also brings joint benefit.

All of the above refers to industrial clusters, but it can be also entirely applied to clusters in tourism. However, how to start development of thematic clusters, that is, when to start the clustering process? The clustering process should start by defining the objective and the purpose of clustering and determining the "specific weight" of potential members of a cluster in special forms of tourism. To this purpose SWOT analysis should be primarily used, followed by definition of objectives and finally sending of invitations to potential members to become part of a cluster. Becoming a member of a cluster, i.e. creation of the so-called cluster population should be based on openness of the cluster on one hand, but also on the potential of future members in relation to the set objective of the cluster on the other hand. In this regard first the so-called core group of a cluster should be established, comprising future members with the greatest potential, who will also establish the "rules of the game" in future thematic clusters in tourism. The starting point for functioning of thematic clusters in tourism relies on determining specific and measurable joint objectives that are formalized through cluster status, and they are used as a basis for determining the specific strategy for achieving particular objectives and action plan for its implementation.

Business plan should be the most important written document which should in the first place offer description of a business idea and a business concept of the thematic cluster, a detailed financial plan of cluster functioning (particularly in terms of covering the necessary needs for capital and ensuring liquidity), and a description of promotion of products/services of the cluster in tourism. In addition, informatization of interaction relationships among particular operators in tourism pooled into a cluster on the supply side would create a more powerful networked structure, which would then be able to justify its existence as part of realization of general and specific business objectives of cluster members, particularly in terms of their (joint) competitive advantages. In the process of organizational structuring of thematic clusters in tourism, legal status of cluster should be also taken into account as well as its structure and practical organization of business. The latter is of great importance as this determines the course of work processes and overall business operations of the cluster. Development of thematic clusters in tourism therefore provides identification of potential members and, ultimately, development of the cluster in broadest sense. It will combine all operators that are spatially concentrated and mutually related, including micro, small and large operators, from sole proprietors to small and medium sized enterprises, whose products equally participate in generation of tourist products in tourism. Naturally, focus will be on operators with high regional and gravitational concentrations. In other words, it will be possible to form as many thematic clusters in tourism in the Republic of Croatia as can be identified in form of the above mentioned high concentration zones.

It should be mentioned, for example, that development of clusters in Italy has been always preceded by private initiative, supported by the public sector in development of economy. Principally, the bottom-up approach should be applied here, that is, from the local level, to encourage local and regional economic development of entrepreneurial environment, which could also be the case in Croatia. Local development initiatives should be supported with special incentive measures both from national and local/regional level. Actually, this is a combination of the "bottom-up" principle and elements of the "top-down" principle.

Mapping should be applied to establish concentrations of operators in tourism by regions/sub-regions and an attempt should be made to make meaningful groups (according to the number of operators/employees and similar indicators). Relationships among operators in tourism and all other complementarily interested operators refer primarily to their transactional (exchange) relationships, possible networking and information linkages and all other types of business relationships, having in mind the existing and potential horizontal and vertical infrastructural linkages. Identification of the existing and potential thematic clusters should result in precise naming of individual clusters in terms of space by determining the zones of their centripetal activity. Development of thematic clusters should therefore take place through the following phases and steps:

Phase I:

1. Defining foundations to understand the necessity of cluster development. Determining potential model of cluster development considering material and spatial bordering, i.e. selection of the most adequate model.

Phase III:

2. Deep screening of tourism resources in terms of quantity and quality.
3. Mapping – determining the spatial concentration of operators in rural tourism at the national level, i.e. by regions/sub-regions.
4. Determining mutual real and potential linkages between horizontally and vertically complementary related and interested operators (transactional relationships, networking, information and all other types of infrastructural and business linkages).
5. Determining potential thematic clusters (determining the cluster portfolio), as well as locations of embryos (cores) for their further evolutionary development based on objectively determined criteria.
6. Development of possible scenarios of development and organization in management, business, information, infrastructural and any other sense in relation to determined thematic clusters.

Thematic clusters can be managed by a specialized management agency run by a cluster manager. It should be pointed out that as sources of financing, particularly at the beginning of the clustering process, one should most seriously consider including incentives from the Ministry of Economy, Labour and Entrepreneurship, then institutions of local and regional self-government, and, if possible, funds available within projects funded from pre-accession funds of the EU. Regardless of the sources of financing, funds should be directed at building and functioning of a cluster as well as cluster members, particularly family farms.

5. Conclusion and implications

Cluster model is a new global development model for the entire economy and it is increasingly important for dynamic development and growth of the entire national economy. In regional development Croatian economy gives the priority to openness of the region, and it ensures development of creativity and innovation potential of economic operators by becoming a part of the global market economy of the European Union. As a conclusion, it can be said that the model of developing thematic clusters in tourism should be given special attention because economy is the most vital segment of almost any national economy, and the necessity of its operationalization in tourism, and by this also in special forms of selective tourism, is unquestionable. This has been proved by comparing it to functioning of clusters in other industries, but also to functioning of thematic tourism clusters in other European countries, for example, thematic clusters in wine tourism, health tourism, etc.
Having in mind that it takes three to five years for a cluster to achieve full independence in operation, a whole set of measures are required – short-, medium- and long-term measures to initiate development of this model in Croatia, both at the national and regional level. The first step would be to establish a task force for development of thematic clusters in tourism, which should then initiate and implement an array of activities with cluster development as the ultimate goal, such as starting the process of cluster-related organizational learning, analyzing potential areas for cluster development, development of a cluster pilot project, and, finally, systematic development of clusters.

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RURAL TOURISM OF THE EASTERN CROATIA – THE ORGANIZATIONAL NEEDS AND OPPORTUNITES

RURALNI TURIZAM ISTOČNE HRVATSKE – ORGANIZACIJSKE POTREBE I MOGUĆNOSTI

ABSTRACT

Rural tourism is an important factor in the activation and sustainable develeopment of rural areas in Republic of Croatia. Although, rural tourism in Croatia is still in its initial phase, it represents a great potential which has not been given enough attention so far. This article shows that rural tourism development in Croatia needs to be primarly based on sustainable development and development of Croatian rural tourism should follow the traditional way of life in them. Sustainable development of Croatian rural areas must be dealt with far-reaching strategy assessment,which will primarly prevent all its negative impacts. It is therefore necessary to encourage stronger collaboration of all relevant institutions in order to develop rural tourism which will make croatian tourism much more competitive. The aim of this article was to deterimine organizational needs and opportunites for rural tourism development in eastern part of Croatia which will contribute to management efficency of the responsible institutions.

Key words*: rural tourism, rural areas, eastern Croatia, sustainable development*

SAŽETAK

Ruralni turizam je bitan čimbenik u aktivaciji i održivom razvoju ruralnih područja u Republici Hrvatskoj. Iako je ruralni turizam u Hrvatskoj još uvijek u početnoj fazi razvoja, on predstavlja veliki potencijal za koji do sada još nije posvećeno dovoljno pažnje. Ovaj članak pokazuje da se ruralni razvoj turizma u Hrvatskoj treba prvenstveno temeljiti na održivom razvoju te da on treba slijediti tradicionalni način života u tom području. Održivi razvoj hrvatskih ruralnih područja treba rješavati izradom dugoročne strategije, što će prvenstveno spriječiti sve njegove negativne utjecaje. Stoga je potrebno potaknuti jaču suradnju svih relevantnih institucija u cilju razvoja ruralnog turizma što će hrvatskom turizmu pomoći da bude više konkurentan. Cilj ovoga rada bio je prikazati organizacijske potrebe i mogućnosti za ruralni razvoj turizma u istočnom dijelu Hrvatske koje će pridonijeti boljoj učinkovitosti upravljanja nadležnih institucija.

Ključne riječi*: ruralni turizam, ruralna područja, Istočna Hrvatska, održivi razvoj*

1. Introduction

Many rural communities in developing areas around the world face the challenge of finding adequate income generating activities. Young people in particular leave rural areas for lack of opportunities. Traditional agricultural-based rural economies do not offer sufficient employment opportunities. Many in the development community turn to rural tourism as one solution to alleviate poverty, slow the exodus of youth, and invigorate small farms in declining rural areas. In many areas around the developing world people in rural communities are working with NGOs[89] with explicit socioeconomic objectives of poverty alleviation and rural development. (http://www.integratedtourism.com/?Book, accessed 20 march 2012) Croatia has a significant and numerous natural and socio-cultural resource base for tourism development in all its regions, not only in the maritime ones. However, is this resource base sufficiently and properly used, and is there an appropriate and feasible strategy for the development of rural tourism and other activities related to sustainable development of rural areas in Croatia? (Demonja & Ružić,2010,306) This article will present possible organizational structure of rural tourism management in the four counties of the Eastern Croatia: Požeško-slavonnska County, Brodsko-posavka County, Osiječko-baranjska County and Vukovarsko-srijemska County.

1.1. Rural tourism as a motor of the growth

Strategies to use tourism as a motor of growth in rural areas emerge in different contexts. They are, at heart, about enabling rural producers to reduce reliance on agriculture, and engage in new economic opportunities that are competitive in the more globalised markets, which now reach their doorstep (or farm gate). In Eastern Europe, the emphasis has been more on tourism as a tool for rural regeneration following agricultural collapse, while in Africa, the emphasis is more on diversification of under-developed areas. (Holland et al,2003,8)

Croatia has a great potential for developing rural tourism because 91,6% of state territory is classified as rural area. In the table 1. below, we can se the structure of state territory, settlements and population living in rural and urban area in the Republic of Croatia.

Table 1. Rural and urban areas, population and settlements, according to OECD[90] criteria

Classification	Km²	%	Number of settlements	%	Population	%
Rural area*	51.872	91,6	6.001	88,7	2.110.988	47,6
Urban area	4.731	8,4	763	11,3	2.326.472	52,4
In total	**56.603**	**100**	**6.751**	**100**	**4.437.460**	**100**

Source: Central bureau of statistics, 2001.

*Includes predominantly rural and significantly rural areas

The increasing environmental awareness of the population in general or the tourist market specifically, and the targets for a viable and ever profitable tourist development that various agencies (international, government, academic, business) are aiming at, are considered to be the primary promotional factors of Rural Tourism which almost all policy – makers are now aware of and anxious to develop. Rural tourism, as a category of the broader category of

[89] A non-governmental organization (*NGO*)

[90] The Organization for Economic Co-operation and Development (OECD)

“Alternative tourism”, is now a major pillar of the nascent tourism strategy for many countries. Rural tourism strategies in various countries have in common that they are a major growth areas that can be used to boost local communities, and aid the seasonal and geographic spread of tourism. (Richards, 1996)

2. Current status of the rural tourism in Croatia

2.1. Development of rural tourism in Croatia

Development of rural tourism in the Republic of Croatia has started sporadically in early 90-ies of last century. Systematically since year 1995. when the Croatian Ministry of Tourism began with its development initiatives and the first activities such as site visits, information gathering, education initiator and create conditions for their development. Shortly thereafter was established the "Alliance for Rural Tourism", which later evolved into the "Council for the Development of SMEs[91] in tourism", with an emphasis on rural tourism. Istria, a unit of government, first began to deal with rural tourism and achieve significant results. It was a time when the whole question of development of rural tourism was reducing to tourist development of peasant farms. Actions of Croatian farmers, then the Union of peasants, the Croatian Ministry of Tourism, Institute of tourism in Zagreb and later members of the club "The Village" and the Croatian Chamber of Commerce, were initially focused on the search for suitable farms (farms) and animate their owners to edit tourist services to provide catering services, and to create conditions for their development. Today, many assumptions are accomplished and many tourist destinations are formed. Some rural tourism destinations can be extracted, such as eco-ethno village (restored old villages and hamlets), some of which are those that are registered with the Ministry of Culture Museums of the Republic of Croatia or some other museums, private entrepreneurial initiative, and some from individual county initiatives. (Demonja & Ružić,2010,47-48)

Table 2. Number of registered peasant family farms of rural tourism in the Republic of Croatia

Year	**Number of registered peasant family farms in the Republic of Croatia**
1998.	32
1999.	65
2000.	151
2001.	175
2002.	269
2003.	269
2004.	254
2005.	310
2006.	330
2007.	379
2008.	350
2009.	360
2010.	360

Source: Ministry of Tourism of the Republic of Croatia, 2011.

[91] SME – Small mideum sized enterprise

Regarding table 2. we can see that the number of registered peasant farms of rural tourism in Croatia is constantly increasing from year to year. From number of 32 in 1998., we have reached 360 registered peasant family farms of rural tourism in the Republic of Croatia. It is important to say that number of registered peasant family farms in Croatia is constantly growing, so the situation is changing day to day. Some peasant family farms are opening and some are closing their doors to tourists. Croatia has a very rich natural and socio-cultural resource base for development of rural tourism in all its individual areas, not only in maritime part of the country. But the question still remains: is the Croatian resource base used enough in a real way and when we will complete a strategy for tourism development and other activities related to sustainable development of rural areas in our country?

Systematic development of rural tourism in Croatia can be divided into two major periods. First started 1995th and lasted to the end of 1999., when the Croatian government adopted the National program "Development of SMEs in tourism with an emphasis on sustainable tourism development in rural areas." Thereafter, followed a few years ago when a break occurred only individual initiatives, but lacked the support of the ministry. The second period, which captures visible progress in the development of this type of tourism, begins at the end of 2003. and at the beginning of year 2004., when the new Croatian Government, through the departments of agriculture and tourism began to lead a significant concern about the rural areas and economic sectors in rural areas. (Demonja &Ružić,2010,49)

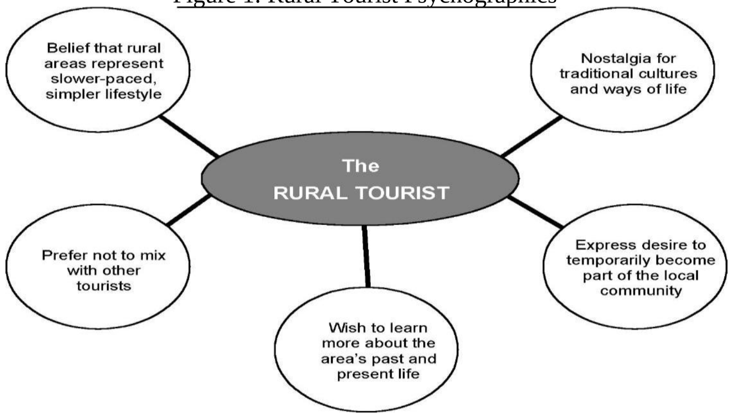
2.2. Rural tourism market in Croatia

Croatia is a tourist country mainly focused on marine tourism. The focus on this type of tourism can be traced back to its appearance from 80's and 90's of the 19th century till today. In the period from 50-ies of the last century, Croatian tourist offer was diversified, while the rural area was a destination of tourists. Hiking, cultural and pilgrim tourism and visits to their homeland in the country attracted many tourists. Rural tourism in the 50s of the last century, and later existed, but it was not focused at foreigners. In places near the attractive tourist centers on the coast, family farms offered accommodation services to tourists. Thus, some of them in Istria, such as the Krculi near Žminj, then the Konavle near Dubrovnik and particular in Slavonia where it is possible to speak of the existence of rural tourism, but all of them had in common that their development was not based on national programs, strategy development and rural villages space, but exclusively on the ingenuity and initiative of private individuals and groups. The number of according to the Croatian potential in rural tourism, was negligible and the seldom appeared in the Croatian tourist offer, and so that situation lasts until the 90-ies of last century, when rural tourism began modestly but gradually to develop. (Demonja & Ružić,2010,71-72)

Speaking of characteristics of rural tourist Swarbrooke identified the salient elements of rural tourist psychographics on Figure 1 below. He also recognized that there were basically two types of rural tourist:

- tourists who see the main attraction as culture and lifestyle
- tourists who see the main attraction as physical environment and opportunities for activities (Swarbrooke,1996,453)

Figure 1: Rural Tourist Psychographics



Source: Ian Knowd (2001): ***Rural Tourism: Panacea and Paradox****, School of Environment and Agriculture, University of Western Sydney, pp. 18.*

Analysis of market demand preferences allows, "detecting" several types of tourism that are interesting for rural areas in Croatia. There are primarily: agritourism, ecotourism, cultural tourism, adventure tourism, health tourism and others. These forms of tourism in rural areas are organized in the facilities and capacities, with numbers: 379 agricultural tourism farms with 933 beds, 10 spas with 4060 beds, 8 camps with approximately 1600 camping units and a number of hotels and resorts with over 21 188 beds. Demand for rural tourism Croatian market is small, but growing steadily. By type of visit of tourists to rural areas in Croatia is estimated that the demand is now at a level of 838 000 arrive from, visiting agritourism, spas, a mountain village and the natural and cultural attractions of the Croatian. By type of visits to domestic and foreign tourists to rural areas in Croatia can be assumed that the total demand of Croatian rural tourism product amounts 42% of domestic tourists and 58% on foreign tourists. At the annual level of rural counties in Croatia accounts for 7.4% of total visitors (arrivals) and 2.9% of total overnight stays. (Demonja & Ružić,2010,72-73) In the table 3 below we can see that Osijeko-baranjska county is the first in Eastern Croatia by the number of tourist peasant family farms and that Brodsko-posavska and Vukovarsko-srijemska do not have any tourist peasant famili farm. These are dates from year 2007., but the situation is not the same right now and some changes were made, but unfortunately fresh dates have not been published when this article was written.

Table 3. Number of total registered TPFF[92] in Eastern Croatia at year 2007

County	Number of total registered TPFF in Croatia	Number of beds in TPFF	Food services	Houses for taste Vines and Brandy
Brodsko-posavska	0	0	0	0
Osiječko-baranjska	56	192	47	3
Požeško-slavonska	0	0	0	0
Vukovarsko-srijemska	2	0	2	2
All together in Eastern Croatia	**58**	**192**	**49**	**5**

Source: Demonja & Ružić, (2010); Ruralni turizam u Hrvatskoj, Meridijani, Zagreb, pp.51.

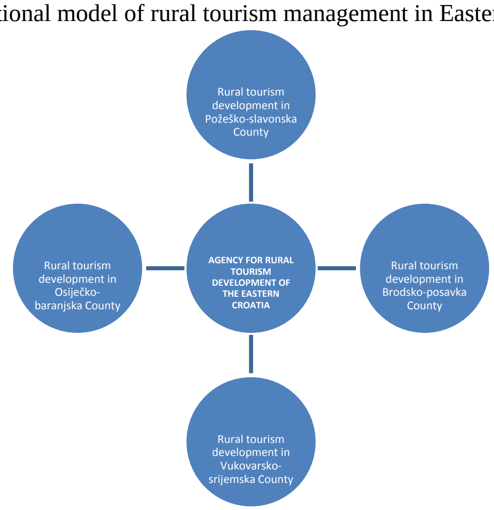
[92] Tourist peasant family farms in Republic of Croatia

It is important to note that demand, when visiting rural tourist destination in Croatia among other factors, motives are intense pleasure, outdoor activities, increased need for adventure, recreation and health. Special motivation is demand innovation and pageant, which in addition to the basic standards brings unusual experiences and surprise. Tourists receive a mood or emotional added value (atmosphere, experience, fun, adventure, contact with other guests and other). In response to the fast rhythm of modern life, tourists demand for ecologically Croatian parts of the country. Finally it should be noted that personal safety, which is becoming one of the main criteria, and increasing concern for their own health are also important. (Demonja & Ružić,2010,73)

3. Organizational and development assumptions of the rural tourism in the Eastern Croatia

In order to achieve the best possible tourism impacts for the tourists and the tourist economy, we should devise policies which include driver in tourism and a variety of economic factors, and non-economic activities. Tourism policy is incomplete if it does not establish adequate coordination among the factors that triggered it. This establishment assumes the formation of a unified organizational system which consists of organizations and services in order to achieve tourism development. (Demonja & Ružić,2010,94) If we want from tourism industry to maximize the impact we need to involve all relevant stakeholders as well as various economic and non-economic subjects. When they engage in the process of tourism development it is necessary to coordinate their tasks and relations, which can be achieved with a good organization of work in tourism. We already know that rural tourism is the main direction in which is possible to develop economic activity of the Eastern Croatia and due to the specificity of this type of tourism, its effectiveness in the development of the area it is important to establish a special Agency for Development of Rural Tourism in Eastern Croatian which model can be seen on Figure 2. The agency can be found by four earlier mentioned Counties with the location in the city of Osijek because it is the biggest economic, cultural and urban center in that region.

Figure 2. Organizational model of rural tourism management in Eastern Croatia



Source: Made by author

This agency will be organised as Destination Management Company and will strongly collaborate with all government and non-government institutions and also with all relevant institutions and subjects who are dealing with rural tourism development. This agency will coordinate all activities in rural tourism at the territory of four earlier mentioned counties. The aims of founding this specialised agency are:

- Professionalization and active role in developing rural tourism in Eastern Croatia,
- Concentration on developing special types of rural tourism in Eastern Croatia,
- Professional help for small unites in rural tourism,
- Raising to improve the quality of services and products to a higher level,
- Proposing legislation and regulations to improve quality of conditions for development of rural tourism,
- Cooperation with all relevant institutions to develop, adopt and promote a unified visual identity and branding strategy of Eastern Croatian rural area,
- Creation and application of a continuous process of education personnel for rural tourism,
- Creating and controlling of implementation of the Rural tourism strategy in the Eastern Croatia according to National strategic plan of rural tourism development.

Organizational model that was given in figure 2., can be efficient solution for sustainable development in Eastern Croatia, if strong collaboration exists between all relevant institutions in order to develop positive conditions for economic entities in rural area of the Eastern Croatia.

4. Conclusion

Rural tourism in Croatia is not given the necessary importance so far. The creation of new values in rural areas increased the interest of public administration, local governments, institutions and individual entrepreneurs in rural areas for the development and promotion of that activity in Eastern Croatia. It is important to stimulate further development, education, financing, promotion and cooperation on different levels of all relevant institutions in the Eastern Croatia in order to make good bussines conditions for rural tourism.

Rural tourism is a good opportunity for agricultural based communities but the setting of objectives and the final tourism development plan needs caution. For better results the whole range of the stakeholders have to participate in the planning stage. Slow and stable steps needs for this kind of planning in order conflicts and mistakes to be avoided. (Sillignaki,unknown year,11)

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Trgovina | Trade

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DEVELOPMENT, IMPORTANCE AND RESULTS OF RETAIL TRADE IN THE REGION OF EASTERN CROATIA

RAZVIJENOST, VAŽNOST I REZULTATI MALOPRODAJE U REGIJI ISTOČNE HRVATSKE

SUMMARY

The retail trade development level in the observed region is lower than in the whole of the Republic of Croatia, but it is also in disparity with the level of total socio-economic development. Therefore its results (effects) are also below the level of the Republic of Croatia as a whole. This leads to the conclusion that is necessary to change the approach in the analysis of the importance of distributive trade in the economy of the region of Eastern Croatia and that in new regional development projects the retail trade should be an integral part of regional value chains.

Key words*: *retail trade, the region of Eastern Croatia, selling surface, gross domestic product (GDP), value chain

SAŽETAK

U ovome radu najprije se definiraju pojmovi „maloprodaja“ i „regija Istočne Hrvatske“, a potom se daje kratki osvrt na ranija istraživanja maloprodaje u regiji Istočne Hrvatske i izabrane pokazatelje za analizu. Maloprodaja se predstavlja putem njezinih oblika: maloprodajnoga poduzeća, maloprodajnog "pogona", maloprodajne poslovne jedinice, maloprodajne usluge i grupe proizvoda, odnosno pojedinih artikala u maloprodaji. Posebno se definira prodavaonica kao maloprodajna poslovna jedinica i njezini pojedini "tipovi", a potom se razvrstava i maloprodajna struktura. Obradom metodike istraživanja razvoja maloprodajnih oblika autor je pokazao mogućnosti analize: (a) njihova povijesnoga razvoja, (b) njihova značenja u gospodarskom sustavu, (c) njihove razine razvijenosti (u kvantitativnom i u kvalitativnom smislu) i (d) njihovih učinaka u gospodarskom sustavu. Osim toga je autor pokazao mogućnosti analize maloprodajne strukture (statička analiza) i analize rasta i razvoja maloprodaje (dinamička analiza).

Nakon toga se, temeljem dostupnih podataka i novih spoznaja, vrši kratka analiza maloprodaje u regiji Istočne Hrvatske temeljem pokazatelja važnosti, razvijenosti i učinaka (rezultata) maloprodaje. Veće značenje maloprodaja u regiji Istočne Hrvatske, ima zbog višeg udjela maoprodajnoga prometa u bruto domaćem proizvodu (BDP), a i stoga što na njezinu prostoru završavaju vrijednosni lanci velikih međunarodnih maloprodavača. Razvijenost maloprodaje u regiji Istočne Hrvatske danas ne zadovoljava, osobito u kvalitativnom smislu. Razina razvijenosti maloprodaje u promatranoj regiji je niža nego li u cijeloj Republici Hrvatskoj, ali je u nesrazmjeru s razinom ukupne društveno-gospodarske razvijenosti. Stoga *su i njezini rezultati (učinci) ispod razine cijele Republike Hrvatske. Zaključuje se da je potreban drukčiji pristup u analizi važnosti distributivne trgovine u gospodarstvu regije Istočne Hrvatske i da bi se maloprodaja u novim regionalnim razvojnim projektima trebala naći kao sastavnica regionalnih vrijednosnih lanaca. Kvalitetniji razvoj maloprodaje u regiji Istočne Hrvatske mogao bi se postići tek u uvjetima boljega funkcioniranja gospodarskog sustava i bržega razvoja regionalne proizvodnje i potrošnje, na temelju pozitivnih utjecaja međunarodnoga okružja.*

Ključne riječi*: maloprodaja, regija Istočne Hrvatske, prodajna površina, bruto domaći proizvod (BDP), vrijednosni lanac.*

1. Introduction

This paper, following the topic of this scientific symposium, analyzes the selected indicators of advancement and of the development level of distributive trade, the current development level of distributive trade, and the importance of distributive trade for the total socio-economic development in the region of Eastern Croatia.

The purpose oft his paper is to provide basic information about the state of development of the distributive trade in the region of Eastern Croatia as the basis for further research into the possibilities and needs of the development of distributive trade in the function of the total socio-economic development of the observed region.

2. Short Review of Past Research Works and Selected Indicators

In this paper, retail trade will cover the sales performed by trade and non-trade business entities, craftsmen and individuals (i.e., it will also cover the cases where the manufacturer sells his products in his own, so- called the industrial shop, or when a peasant or a craftsman sell their products to individual consumers at a fair).

The today's region of Eastern Croatia, as analyzed in this paper, includes the following counties: the County of Virovitica – Podravina, the County of Požega – Slavonia, the County of Brod – Posavina, the County of Osijek – Baranya and the County of Vukovar – Srijem (Syrmia). Until 1993, the analysis included the Osijek Community of Municipalities (Zajednica općina Osijek - in further text: ZO Osijek) which encompassed the then municipalities of: Beli Manastir, Donji Miholjac, Đakovo, Našice, Nova Gradiška, Orahovica, Osijek, Podravska Slatina, Slavonska Požega, Slavonski Brod, Valpovo, Vinkovci, Vukovar, Županja (14). The observed five counties in the region of Eastern Croatia include a slightly larger area than the former Osijek Community of municipalites, mainly due to the fact that it also includes a part of the County of Virovitica -Podravina; however, this difference is not of decisive importance for our analysis.

In the section about the inland trade (Segetlija, 1989a) in the publication "The Scientific Foundation for the Long-Term Socio-economic Development of the Community of Municipalities of Osijek up to the year 2010" (ed. Karpati, 1990.), there is an analysis of the period from 1970 to 1987 with an evaluation of the reached level of development of inland trade in ZO Osijek in comparison to the whole of the then Socialist Republic of Croatia (SR Croatia). The analysis has been performed with respect to: (a)organizational forms, (b) realized turnover, (c) the number of employed persons, (d) social product, (e) capacities, (f) technical-technological level of development.

From a multitude of indicators for the analysis of retail trade (Segetlija, 2009, p. 46 52) the following indicators have been chosen for the analysis of retail trade in the region of Eastern Croatia:

(1) for importance: share of the retail turnover in the gross domestic product (GDP);
(2) for development: (a) selling surface of shops in m^2 per 1 inhabitant, and (b) selling surface of shops in m^2 per 10,000 € of GDP;
(3) for results (effects): (a) turnover in the retail trade per l m^2 of selling surface, (b) turnover in the retail trade per 1 employe, (c) regional index of buying strength (ratio between the share in the turnover and the share in the population).

Data for the region of Eastern Croatia will be compared with the data for the whole of the Republic of Croatia and for other countries.

3. Importance of Retail Trade

More recent analyses have already shown that the retail trade in economically developed countries has reached the phase of maturity and that for a long period of time it has still been realizing rather low annual growth rates. The Republic of Croatia has not reached this phase yet (Segetlija, 2010, p. 37). Therefore the share of retail turnover in the GDP in less-developed countries is higher than that share in economically more developed countries. There are also similar relations in the number of employed people.

For particular regions within states there are similar relations. In table 1 we have presented the share of the retail turnover in the GDP in Eastern Croatia and in the Whole Republic of Croatia in 2008.

Generally, it turns out that in less developed states/regions retail is of higher importance, because in these regions the share of retail turnover in the GDP or the share of the number of employees in the retail trade in the total number of employed. However, in some counties, as well as in the whole region of Eastern Croatia, the ratios are different. This is the result of numerous factors, the most important of which are: lesser power of attraction of its towns, higher shares of rural population, relatively smaller means for consumption from the state budget (pensions, salaries for employees in civil services).

Another reason why retail trade has a greater meaning in less developed states/regions, including the region of Eastern Croatia, is that these territories are the ends value chains managed by large international retail chains (Segetlija, 2011 a, p. 26).

Table 1. Shares of retail trade in the GDP in Eastern Croatia and in the Whole Republic of Croatia in 2008.

No.	County	Turnover in Mill. of €.	GDP in Mill. of €	Portion of Turnover int he GDP in %
1.	EASTERN CROATIA	1.114	6.454	17,3
2.	THE REPUBLIC OF CROATIA	14.610	47.370	30,8

Source:(a)Gross Domestic Product of Croatia, Statistical Regions at Level 2 and Counties,2008, First Release, Number 2.1.2. from 11th February 2011.
(b) SLJH 2009, p. 628 – 633.

Remark: Turnover has been recalculated from HRK into € at the exchange rate of 7,30 HRK = 1 €.

4. The Level of Development of the Retail Trade

Different analyses have always shown that the retail trade is more developed in economically more developed countries. However, in less-developed countries the development of retail trade, as measured by the selling surface of shops per 1 inhabitant, is not at the adequate level of their general economic development; in these countries it has been developed above proportion (Segetlija, 2010, p. 41-44). This is the result of internacionalization and globalization trends (Segetlija, 2011 a, p. 25 and 26), but also of urban planning in particular states.

Table 2 Development of Retail Capacities in Eastern Croatia and in the Whole Republic of Croatia in 2009

No.	County	Selling surface in m^2 in 2009	Population in the middle of 2009 (estimation)	Selling surface in m^2 in 2009	
				per 1 inhabitant	per 10,000 € of GDP in 2008
1.	EASTERN CROATIA	758.683	858.879	0,88	11,76
2.	THE REPUBLIC OF CROATIA	4.401.620	4.429.078	0,99	9,29

Source:(a)Gross Domestic Product of Croatia, Statistical Regions at Level 2 and Counties, 2008, First Release, Number 2.1.2. from 11th February 2011
(b)Xxx (2011) Sales Capacities in Retail Trade in 2009, First Release, Number 4.1.3. from 28 April 2011, Croatian Bureau of Statistics, Zagreb
(c)Xxx (2011): Statistical Information 2011, Croatian Bureau of Statistics,Zagreb.

Similar conclusions could also apply for particular regions within states. For the Republic of Croatia, this is visible in Table 2 which presents data about the retail surface per 1 inhabitant and about the retail surface on 10.000 € of GDP.

From Table 2 it is visible that in the region of Eastern Croatia retail capacities, as measured by the selling surface of shops, are less developed than in the whole of the Republic of Croatia.

5. Effects (Results) of Retail Trade

Regarding the fact that retail capacities in the region of Eastern Croatia are developed above average, the effects (results) of retail trade are lesser than expected. This is also the case in other lesser developed regions or countries, e.g. in countries in transition. The problem of efficiency of retail trade in countries in transition is therefore connected with concentration tendencies, i.e., with the internationalization and globalization of retail trade and of a lot of unrationalness in the use of space and energy (Segetlija, 2011a, p. 26 and 27).

Table 3 shows the productivity of the selling surface and labour productivity in the retail trade in Eastern Croatia and in the Whole Republic of Croatia in 2009.

Table 3. Selling Surface and Labour Productivity in the Retail Trade in Eastern Croatia and in the Whole Republic of Croatia in 2009

No.	County	Turnover with VAT in 000 Kn	Selling surface of shops in m^2	Number of employees	Turnover per 1 m^2 of selling surface	Turnover per 1 employee in 000 Kn
1.	EASTERN CROATIA	15.866.554	758.683	20.599	20,9	770,3
2.	THE REPUBLIC OF CROATIA	114.337.004	4.401.620	130.424	26,0	876,7

Source: Xxx (2011) Sales Capacities in Retail Trade in 2009, First Release, Number 4.1.3. from 28 April 2011, Croatian Bureau of Statistics, Zagreb.

Table 4 presents regional indexes of purchasing power in the City of Zagreb, in the counties of the region of Eastern Croatia and in the whole Republic of Croatia. These data show that in economically underdeveloped counties there are possibilities for realization of greater turnover, but this should be in proportion with the level of general economic development.

Table 4. Regional Indexes of Purchasing Power in the City of Zagereb, in the ounties of Eastern Croatia and in the Whole Republic of Croatia in 2009

No.	County	Selling surface in shops in m^2 per 1 inhabitant	Regional indexes of purchasing power
1.	The City of Zagreb	1,09	1,30
2.	The County of Virovitica - Podravina	0,95	0,70
3	The County of Požega – Slavonia	0,85	0,83
4.	The County of Brod - Posavina	0,89	0,69
5.	The County of Osijek - Baranya	0,99	0,79
6.	The County of Vukovar - Srijem	0,69	0,59
	EASTERN CROATIA (2 - 6)	0,88	0,72
	THE REPUBLIC OF CROATIA	0,99	1,00

Source: (a)Xxx (2011) Sales Capacities in Retail Trade in 2009, First Release, Number 4.1.3. from 28 April 2011, Croatian Bureau of Statistics, Zagreb, http://www.dzs.hr/Hrv_Eng/publication/2011/04-01-03_01_2011.htm, (accessed 31 January 2012).
(b)Xxx (2011): Statistical Information 2011, Croatian Bureau of Statistics, Zagreb, http://www.dzs.hr/, (accessed 02 February 2012).

6. Instead of the Conclusion

Just as it was the case in the former socio-economic system, the retail trade in the region of Eastern Croatia today is developed above proportion regarding the size of its capacities. Data about the insufficient efficiency of retail trade in the region of Eastern Croatia suggest organizational weaknesses, which have also been characteristic for the former socio-economic system. What is needed, therefore, is a different approach in the analysis of the development of retail trade (it should be observed as an integral part of value chains).

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Sociološki aspekti

Social aspects

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SOCIOLOGICAL ASPECTS OF THE CAUSES OF UNEMPLOYMENT

SOCIOLOŠKI ASPEKTI UZROKA NEZAPOSLENOSTI

ABSTRACT

Causes of economic, legal and political problems and high rates of unemployment in the RH (Republic of Croatia) are a result of arguably the wrong processes of investment by the state, primarily in physical capital (red curve), instead of people (blue curve), which means that at the national level the investments must first be made in their people which will then, with their more developed knowledge and motivation, contribute to universal progress. Starters of such growth and new employment should be the fairest and most capable individuals of the company. If the critical mass does not support this approach, the RH will continue to stagnate and fall behind, and the unemployment rate shall reach a new maximum limit.
Newest study found that the degree of development of some countries and the employment rate over 90% explains the human capital, where the greatest impact is made by moral capital, followed by intellectual capital, and then, finally, social capital. Responsible people in the government and parliament must recognize what is the basis for larger investment in the people, and investing in human resource development should be a priority strategy.

Keywords: *unemployment, human capital, physical capital, trends, investment*

SAŽETAK

Uzroci ekonomskih i pravnopolitičkih problema te visoke stope nezaposlenosti u RH kao jedne od posljedica nedvojbeno su pogrešni procesi investiranja od strane države i to primarno u fizički kapital (crvena krivulja), umjesto u ljude (plava krivulja), iz čega proizlazi

da se na razini RH mora prvenstveno ulagati u ljude koji će svojom razvijenijom motivacijom i znanjem doprinijeti sveopćem napretku.
Pokretači razvoja i novog zapošljavanja trebaju biti najsposobniji i najpošteniji pojedinci i tvrtke. Ako kritična masa ne podrži ovakav pristup, RH će i dalje zaostajati i stagnirati, a stopa nezaposlenosti dosegnuti nove maksimalne granice.
Najnovije istraživanje pokazalo je da stupanj razvijenosti neke zemlje svijeta i stopu zaposlenosti preko 90% objašnjava ljudski kapital, pri čemu najveći utjecaj ima upravo moralni kapital, zatim intelektualni kapital te, naposljetku, socijalni kapital. Odgovorni ljudi u vladi i parlamentu moraju prepoznati ono što je temelj za daleko veće ulaganje u stanovnike, a ulaganje u razvitak ljudskih resursa mora biti prioritet strategije razvoja.

***Ključne riječi**: nezaposlenost, ljudski kapital, fizički kapital, trendovi, ulaganje*

1. Introduction

This study is divided into two parts. The first part gives a detailed statistical analysis of the unemployment situation in the Republic of Croatia (Croatia) with the latest data and analysis by sex, industry, previous months and previous year, as well as to newly employed. In the second part of the study the sociological aspects of unemployment are dealt with and models and equations that show the development and explain the potential causes of the unemployment rate as well as offering possible solutions to reduce them are given.

2. Statistical analysis of state unemployment

According to provisional data of Central Bureau of Statistics (CBS) in February of 2012. RH had 1,706,106 active population, which is 0.04% more than the previous month. In that number there were 1,363,155 employed persons, of which 629 843 women (46.2%). Total number of employees decreased by 0.6% and the number of employed women by 0.4% compared with the previous month. The registered unemployment rate in February of 2012. amounted to 20.1% (versus a rate of 19.6% in the previous month and the average rate of 17.9% in 2011.), where the unemployment rate for women was 22.4% and males 18.0% . At the end of March 2012. in the Croatian Employment Service (CES) there were 339 882 registered unemployed persons, which is 3069 people less than the previous month and 9752 persons more than in March 2011. So, in March 2012. unemployment decreased 0.9% compared with the previous month and increased 3.0% compared with February 2011. . Of the total number of unemployed in March 2012. there were 180 429 unemployed women, which is 1,9% more than in March 2011. The share of women registered as unemployed in the observed period decreased from 53.7 to 53.1 percent.

In the group of unemployed persons in March 2012. there were 15 693 (4.6%) people aged 15 to 19, 48 597 (14.3%) of 20-24 years, 48 215 (14.2%) of 25-29 years, 39 217 (11.5%) of 30-34 years, 33 848 (10.0%) of 35-39 years, 33 122 (9.7%) of 40-44 years, 35 107 (10.3%) of 45 to 49, 38 692 (11.4%) of 50 to 54, 35 722 (10.5%) of 55-59 years and 11 669 (3.4%) persons aged 60 and over.

In the reporting month the unemployment, compared to the same month of the previous year, was reduced into two age groups while other groups recorded an increase. The reduction was reported in the age groups 50-54 years (3.6%) and 15-19 years (2.0%), while the largest increase recorded in groups of 60 or more years (8.4%) and 55-59 years (5.8%).

The educational structure of unemployed, the most numerous were those with finished high school for skilled workers (duration 3 years) and with finished school for qualified and highly qualified workers (118 302, or 34.8%), followed by persons with a high school background (duration of 4 years) (94 538 or 27.8%), followed by those with primary school education (73 541 or 21.6%), then persons with further university education (19 684 or 5.8%), followed by persons with no schooling and incomplete primary education (18 984 or 5.6%) and, finally, those with first university degree (14 833 or 4.4%).

Compared with the same month last year, unemployment was reduced in the group of people with primary education (0.7%), while in other educational groups recorded an increase. The largest increase was in the group of people with first university degree (11.9%) in group persons with university education (11.4%).

The largest absolute number of unemployed persons in March 2012. had the Split - Dalmatia County (46 360 or 13.6% of the total number in Croatia), City of Zagreb (41 869 or 12.3%) and Osijek – Baranja County (35.7 thousand or 10.5%) and lowest number of unemployed registered in the Lika – Senj County (3462 or 1.0%). Compared with the same month last year, the registered unemployment rate decreased in four and increased in seventeen counties.

The largest reduction in the number of registered unemployed was in Lika – Senj County (7.2%) and Istria (5.7%), while the largest increase recorded in Koprivnica - Križevci County (8.6%) and Krapinsko – Zagorska County (8.2 %). Compared with the previous month, unemployment increased in five counties, while in sixteen counties it decreased. The largest increase was in Sisak – Moslavina County (1.0%) and in the City of Zagreb (0.7%), while the largest decrease was recorded in Istria (8.3%) and Lika - Senj County (3.0%) . Of the total number of unemployed in March 2012. 56 496 persons (or 16.6%) were without work experience, which is 2,4% more than at the same time the previous year. The remaining 283 386 persons (83.4%) had previous work experience. Of that number, 150 420 were women (44.3%). Observed by activities, prior to registering with the CES, the largest number worked in manufacturing (58 942 or 20.8%), wholesale and retail trade (52 856 or 18.7%), the activity of providing accommodation and preparation and food services (36 207 or 12.8%), construction (33 574 or 11.8%), and other service activities (13 850 or 4.9%). In the manufacturing industry, the largest number of unemployed was in the production of food, clothing manufacture, manufacture of fabricated metal products, manufacture of wood, manufacture of other nonmetallic mineral products, manufacture of furniture, leather, etc. During March 2012. the registered number of unemployment was 21 726 persons, which is 5,1% more than the same month last year. Of these 10 931 were women, i.e. 50.3%, of the total number of newly registered persons. The total number of newly registered 17 590 persons (81.0%) had previous work experience, and the largest number registered with the CES for the following activities: manufacturing (3782 or 21.5%), wholesale and retail (3447 or 19.6%), construction (2142 or 12.2%), the activity of providing accommodation and food service (1900 or 10.8%) and education (1145 or 6.5%) .

In total, during March 2012. 24 795 unemployed persons were removed from the records of Register of unemployed which is 8.0% less than the same month last year. Of these, 16 902 people employed as follows: 16 542 persons on the basis of employment (10.4% more than in March last year) and 360 persons on the basis of other business activities (company registration, trade, agricultural applications in insurance, employment according to special regulations, achieving monthly revenue or income from private activities higher than the minimal basis for the calculation of contributions for compulsory insurance, etc.).

Based on the majority of employment of persons employed on fixed-term (15 283 or 92.4%). Observed by sectors, the largest number employed in manufacturing (2994 or 18.1%), wholesale and retail trade (2585 or 15.6%), the activity of providing accommodation and food service (2519 or 15.2%), construction (2050 or 12.4%) and education (1237 or 7.5%). At the same time 7 893 people were removed from the Register of unemployment for other reasons, such as irregular occurrence, failure to comply with legal requirements, checked out of the records, retirement (29.7% less than the same month last year), etc.

In March 2012. year 79 278 unemployed persons, or 23.3% of the total number of unemployed persons used unemployment benefit. Number of unemployment benefit in the same period the previous year had reduced for 8470 people or 9.7%. During March 2012. the CES has reported a total of 23 461 vacancies, which is 23.9% more than in March 2011. The largest number of vacancies by activity: the activity of providing accommodation and food service (4550 or 19.4%), public administration and defense (4283 or 18.3%), education (2317 or 9.9 %), wholesale and retail trade (2299 or 9.8%) and manufacturing (1551 or 6.6%).

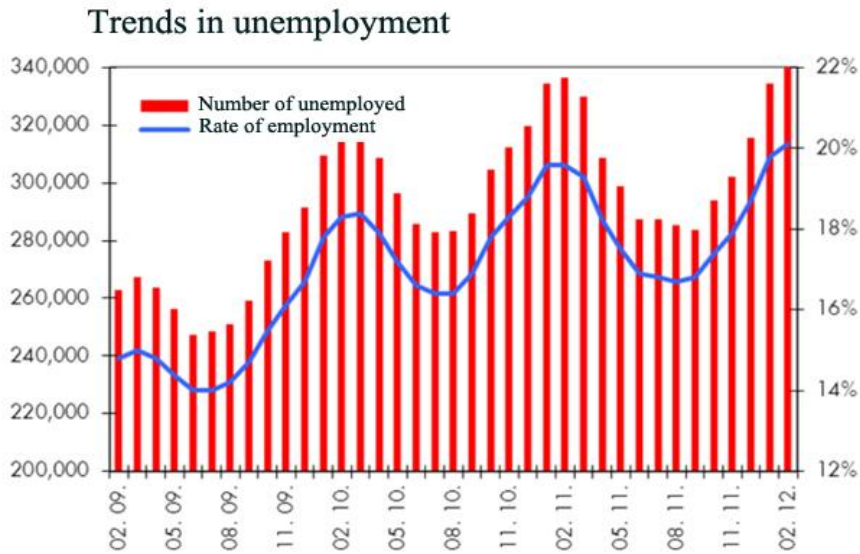
In the active labor market programs under the jurisdiction of the CES at the end of March 2012., there were 7473 active users. Of the total number of beneficiaries there were 4426 women with a share of 59.2%.

Table 1. Registered unemployment and employment since year 1996 to 2012

Registered unemployment and employment since 1996. to 2012. year									
	Newly registered unemployed			Deleted from the HZZ and the employment			Deleted from the CES because other reasons		
Year	Total	M	F	Total	M	F	Total	M	F
1996	203405	108421	94984	94529	47206	47323	88683	50193	38490
1997	219180	116227	102953	105443	53320	52123	95880	55848	40032
1998	221436	112074	109362	110562	54432	56130	95263	55175	40088
1999	249029	129027	120002	106627	52642	53985	103403	58595	44808
2000	261906	133734	128172	119105	57342	61763	105987	60101	45886
2001	280998	143656	137342	148698	75280	73418	115703	65843	49860
2002	259073	131108	127965	168767	84103	84664	119285	67373	51912
2003	231860	110079	121781	159677	74672	85005	119661	63049	56612
2004	245409	118142	127267	148102	66706	81396	98414	51322	47092
2005	232064	110092	121972	150104	68075	82029	91686	48949	42737
2006	233163	106287	126876	158540	69722	88818	89321	46482	42839
2007	206460	91495	114965	154158	64539	89619	90971	44678	46293
2008	200093	86704	113389	134557	55422	79135	79565	38577	40988
2009	270557	131329	139228	122795	50818	71977	96672	44670	52002
2010	289234	144590	144644	146627	67470	79157	114307	56509	57798
2011	313988	152090	161898	185236	86075	99161	133159	66454	66705

Source: http://www.dzs.hr/ (downloads: 25. 04. 2012.)

Picture 1. Trends in unemployment in year 2011

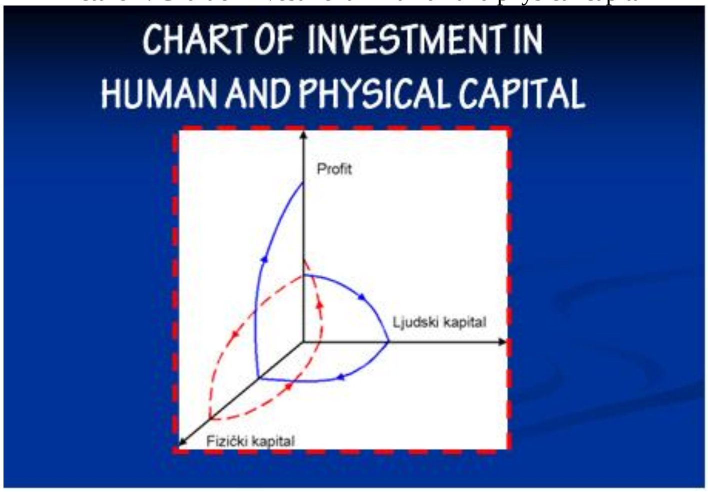


Source: http://www.hzz.hr/ (downloads: 26. 04. 2012.)

3. Sociological aspects of the causes of unemployment

Causes of economic, legal and political problems and high rates of unemployment in the RH (Republic of Croatia) are a result of arguably the wrong processes of investment by the state, primarily in physical capital (red curve), instead of people (blue curve), which means that at the national level the investments must first be made in their people which will then, with their more developed knowledge and motivation, contribute to universal progress as shown in the following model.

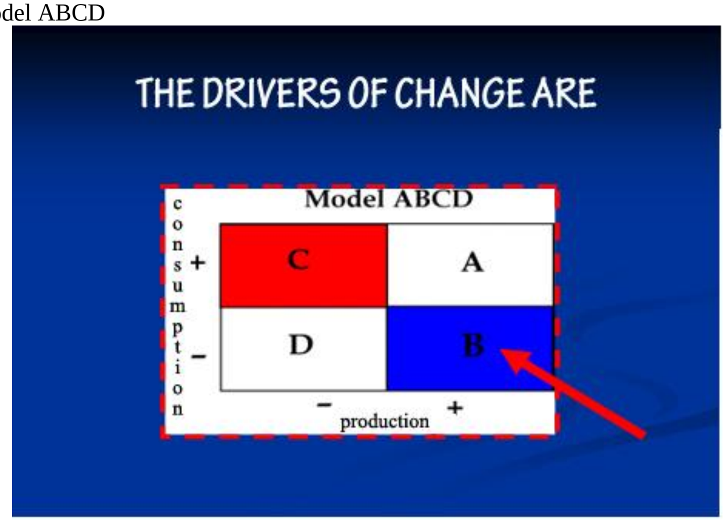
Picture 2. Chart of investment in human and physical capital



Source: [9, str. 252.].

Drivers of growth and new employment should be the fairest and most capable individuals and businesses (they are located in the B quadrant). If a critical mass of people B do not support this approach, rather than C players are still better self-organized, Croatia will continue to stagnate and fall behind, and the unemployment rate reached a new maximum limit.

Picture 3. Model ABCD



Source: [9, str. 262.].

The latest survey, we conducted on a sample of 52 countries,[93] with the actual data for 2008. year, showed that the degree of development of some countries and the employment rate over 90% (squared coefficient is 0.92) explains human capital, with the greatest impact has just moral capital (in the matrix of linear correlation coefficient is 0.91, and the equation of multiple linear correlation coefficient is 1895), then the intellectual capital (in the matrix of linear correlation coefficient is 0.88, and the equation of multiple linear correlation coefficient is 219), and, ultimately, social capital (in the matrix of linear correlation coefficient is 0.55, while the equation of multiple linear correlation coefficient is 89).

Thus we obtain the equation of development [9, page 19th] y = 1 895x1 + 219x2 + 89x3, which should become part of macroeconomic policy and the allocation of available financial resources for investment. For each of us personally, and in particular the management of the economy and politics, as soon as possible to master the theory of motivation, knowledge and team organization in a given system, the obtained equations. Responsible people in the government and parliament must recognize what is the basis for much greater investment in the people, and investing in human resource development should be a priority strategy.

4. Synthesis of research results

Causes of economic, legal and political problems and high rates of unemployment in the RH (Republic of Croatia) are a result of arguably the wrong processes of investment by the state, primarily in physical capital (red curve), instead of people (blue curve), which means that at the national level the investments must first be made in their people which will then, with their more developed knowledge and motivation, contribute to universal progress, as shown in the following model.

Drivers of such growth and new employment should be the fairest and most capable individuals of the company. If the critical mass does not support this approach, the RH will continue to stagnate and fall behind, and the unemployment rate shall reach a new maximum limit.

Newest study found that the degree of development of some countries and the employment rate over 90% explains the human capital, where the greatest impact is made by moral capital, followed by intellectual capital, and then, finally, social capital. Responsible people in the government and parliament must recognize what is the basis for larger investment in the people, and investing in human resource development should be a priority strategy.

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ESTABLISHING DEVELOPMENT TEAMS – ENGINES OF ECONOMIC DEVELOPMENT AND REGIONAL COOPERATION

USPOSTAVLJANJE RAZVOJNIH TIMOVA, KAO POKRETAČA GOSPODARSKOG RAZVOJA I REGIONALNE SURADNJE

SUMMARY

European Union is known for having programmes accompanying every strategy which support achievement of defined objectives. The programmes further contain sets of measures for implementation and financial frameworks sustaining activities of the foreseen measures.
In order to realize any of the strategies it is necessary to create prerequisites for development of human resources, for support of entrepreneurship, incentives for SME-s and innovation.
Instead of limited means available through Instrument of pre-accession assistance (IPA[94]), once Croatia reaches full membership a whole new perspective will be open through funding available within Structural and Cohesion Fund. In this light the period of pre-accession and related funds have to be used for the purpose of learning and adjustment but due to lack of infrastructure and necessary knowledge Croatia seems to have questionable success in utilisation of the available funds.
Human potentials represent a basis on which strategy of economic development is built upon. All other resources: economic resources, geo-strategic position, level of technological development, in comparison to human resources seem to be less important.
One of the reasons for insufficient usage of available EU funds is lack of human resources with specific knowledge and skills for preparation of projects according to EU standards.
Implementation of a model for establishment of Development teams within local self-government units, institutions and civil sector will enhance absorption of available funds and influence economic development of the region. Furthermore it will contribute to quality preparations for application procedures related to utilisation of funds that will open upon Croatian EU-accession.

Key words: *Research, analysis, regional and local development, development team, development strategy*

SAŽETAK

Europska Unija je poznata po tome što iza svake strategije postoji prateći program koji podržava ostvarenje ciljeva iz donesenih strategija. Unutar pojedinih programa definirane su mjere provedbe i financijski okvir koji podržava pojedine aktivnosti unutar predviđenih mjera.

[94] Preparations for full EU membership and utilization of significant funds as the Member State

Da bi se ostvarila bilo koja strategija potrebno je stvoriti pretpostavke za razvoj ljudskih potencijala; poticanje poduzetništva; poticanje malih i srednjih poduzeća i poticanje inovativnosti.
Umjesto prilično ograničenih sredstava koja su dostupna kroz Instrument za pretpristupnu pomoć (program IPA[95]), Hrvatskoj će nakon članstva biti na raspolaganju puno veća sredstava iz Strukturnih fondova i Kohezijskog fonda. U tom razdoblju prilagođavanja otvoreni su predpristupni fondovi EU-a kako bi se ostvarile potrebne prilagodbe. Iako su sredstva značajna, Hrvatska zbog nedostatka infrastrukture i potrebnih znanja ne uspijeva povući većinu predviđenih sredstava.
Ljudski potencijali su osnovica na kojoj se gradi strategija gospodarskog razvoja, strategija suradnje, a svi resursi u smislu gospodarskih potencijala, geo strateškog položaja, razine tehnološke opremljenosti su u odnosu na ljudske potencijale manje važni.
Jedan od razloga za nedovoljno povlačenje sredstava iz dosad dostupnih EU fondova u odnosu na očekivanja je nedovoljno ljudskih resursa koji posjeduju specifična znanja i vještine za pripremu projekata po EU standardima.
Primjena modela Razvojnih timova unutar jedinica lokalne samouprave, institucija i civilnog sektora poboljšat će apsorpciju raspoloživih fondova, utjecati na gospodarski razboj regije i kvalitetno iste pripremiti na kriterije i procedure prijeve na buduće fondove ulaskom Republike Hrvatske u članstvo EU.

Ključne riječi: *Istraživanje, Analiza, Regionalni i lokalni razvoj, Razvojni tim, Strategija razvoja*

1. Introduction

In the pre-accession period Republic of Croatia needs to adjust its legal, economic and administration system to the standards of European Union in order to be able to apply for funding through the Structural Funds once it reaches full membership. In this period of adjustment Croatia receives assistance through the pre-accession funds for quality preparation and adaptation to the requirements of EU membership. Even though the funds are significant, due to lack of infrastructure and relevant knowledge Croatia is not able to use the means put to its disposal. Implementing mechanisms on national level undergo permanent changes and adjustments resulting in restructuring and establishing new national, regional and local agencies. New stakeholders appear in form of international consortiums awarded with tasks to implement EU programmes which introduces more confusion in implementation of approved projects.

In Croatia there is relatively small number of people having understanding or expertise in the field of project development and implementation according to EU requirements which results in questionable quality of project implementation. Development of human potentials gains in momentum. Creation of conditions for economic development and regional cooperation requires skills in the field of analyses of needs in the community, preparation and development of projects according to PCM and in line with the local and national strategies.

[95]Priprema se za funkcioniranje u EU i korištenje znatno većih sredstava u trenutku kad RH postane zemlje članica

2. The main results of the research conducted within the paper: Capacities and activities of stakeholders in the County related to implementation of policy of economic development and regional cooperation

For better understanding of regional development and cross-border cooperation in the context of readiness of local self-governments and other key stakeholders in regional development, a field research has been conducted with following objectives:

- to analyse existing situation in Osijek-Baranja County in regard to usage of available funds
- to analyse the most common reasons for non-participation on available EU calls for proposals
- to conduct at least 20 interviews with key decision makers within institutions in the city of Osijek and Osijek-Baranja County on possible solutions for better absorption of available funds
- to conduct at least 20 interviews with municipality mayors

The target group of the research was:

a) Representatives of 42 local self-government units in Osijek-Baranja County

b) Mayors of 20 „smaller“[96] municipalities in OBC

c) 10 organisations whose projects have been approved within one of the IPA components and which have signed a Grant contract for EU funding (NGO, educational institutions, regional development agencies, municipalities, companies)

d) Decision makers, 20 of them, (10 heads of departments in the city of Osijek and Osijek-Baranja County, 6 school masters, and 4 mayors)

The research plan included local self-government units in Osijek-Baranja County, NGOs, educational institutions, publicly owned companies. All planned stakeholders have answered the research invitation. The representatives of smaller municipalities and decision makers have also gladly participated in the research.

2.1. Results of the research

Target group: Representatives of 42 local authorities in the County

Question No. 1 of the Questionnaire filled by the representative of 42 local self-government units was: What are your experiences in preparation of project proposals in the period from 2007 to 2010?
Objective of this question was to gain a clear picture of the issue: in what extent have the local governments in Osijek-Baranja County participated in application of project proposals, what are their capacities and their knowledge of application procedures for EU funding.

[96] Municipalities with population up to 3.500: (Census 2001) Donja Motičina, Draž, Drenje, Gorjani, Jagodnjak, Levanjska Varoš, Magadenovac, Marjanci, Petlovac, Čeminac, Petrijevci, Podgorač; Podravska Moslavina, Popovac, Punitovci, Satnica Đakovačka; Strizivojna, Šodolovci, Trnava, Vuka

Table 1. Previous experience in independent application of project proposals in the period 2007 - 2010

	No experience	Up to 5 prepared project proposals	Up to 10 prepared project proposals	More than 10 prepared project proposals
a) local funding resources (County)	12,5%	51,78%	21,43%	14,29%
b) national funding resources (Ministries)	7,41%	53,7%	20,37%	18,52%
c) EU sources of funding (CARDS; PHARE; IPA; Transnational programmes; Community programmes)	43,53%	18,82%	37,65%	-
d) Other international sources of funding (Embassies, Foundations, USAid, OSCE, UN)	81,48%	16,67%	-	1,85%

Source: Author

It is visible that there is least experience in preparation of project proposals which require knowledge of PCM methodology. The most project proposals have applied for funding from domestic sources.

In the question: which are the most common reasons for insufficient usage of available funds, the participants had the opportunity to define reasons and grade them from 1 to 6: 1 being the most important and 6 being the least important reason.

Table 2. Reasons for insufficient usage of available funds

	1	**2**	**3**	**4**	**5**	**6**
a) Lack of information on available funding opportunities	9,43%	24,53%	16,98%	20,76%	9,43%	18,87%
b) Lack of adequate human resources (skills)	47,17%	28,3%	7,55%	1,89%	5,66%	9,43%
c) Project documentation not ready (due to formal and legal reasons)	14,82%	20,37%	38,89%	18,52%	3,7%	3,7%
d) Co-financing not available	21,82%	20%	16,36%	23,64%	14,54%	3,64%
e) Undefined strategic priorities on local level	7,55%	-	7,55%	20,76%	47,17%	16,98%
f) Lack of motivation for cross-border cooperation	1,89%	7,55%	11,32%	13,2%	18,87%	47,17%

Source: Author

The results show that the most important reason for insufficient usage of available funds is lack of human resources (47, 17 %), and the least important reason is lack of motivation for cross-border cooperation (47, 17%).

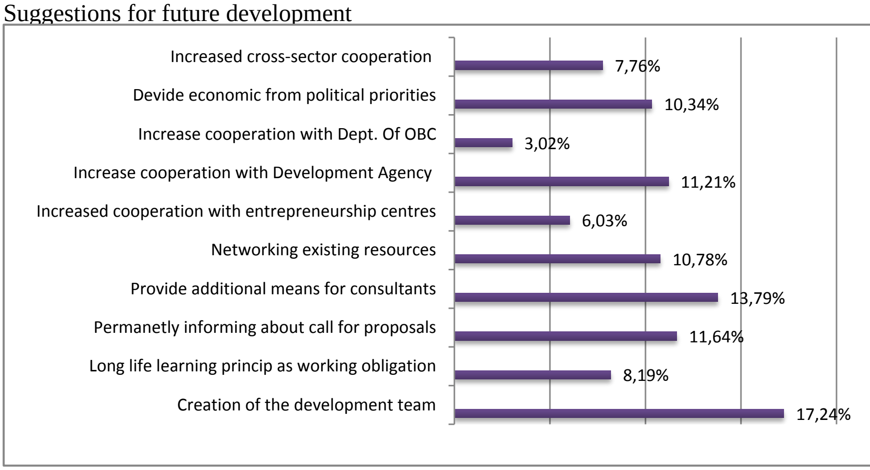
Every of the above mentioned reasons have been further analysed. Since the lack of human resources was defined as the most important reason for insufficient usage of available funds, the participants in the research had 8 possible replies for the question: Which are the three most common reasons for lack of human resources, the examinees chose three answers.
It is interesting that 3 reasons have been chosen to be equally important for the lack of human resources:

- Non-existing team for project preparation (17, 86%)
- Insufficient number of available co-workers (17, 86%)
- Limited or non-existing means for consulting services (17, 26%)

In the territory of Osijek-Baranja County the results show that the least important problem is inadequate computer literacy.

The last question that implies the importance of developing skills of human resources was: „Your suggestions for future development“. For this question 10 possible answers were offered and the participants had to choose at least 3 and maximum 5 answers.

Graph 1. Suggestions for future development



Source: Author

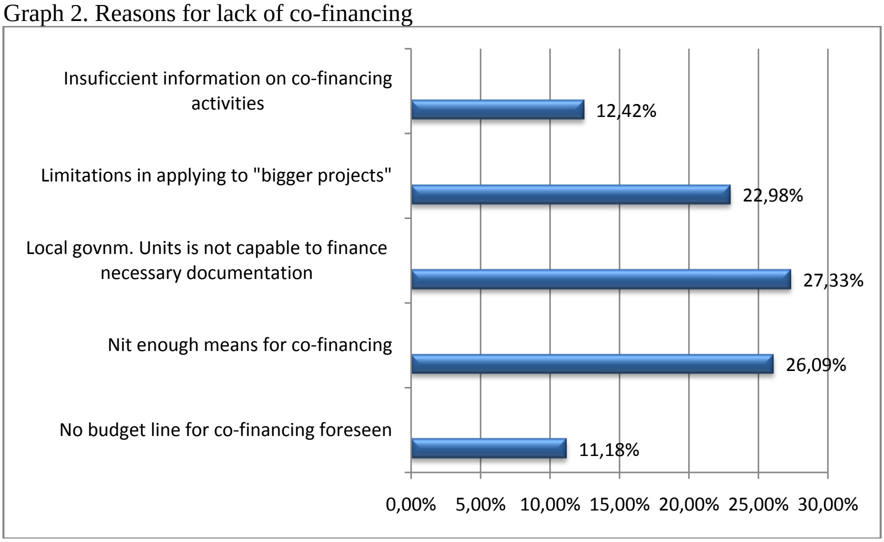
Creation of the a development team (17, 24%) has been recognized by all 42 local self-government units as very important factor of the future development, but a real concern arises from the fact that 13, 79% of participants chose the answer: provide additional means for consultants thus we still have a pattern which says that it is easier to pay the consultants than to invest in own human resources.

Financial and absorption capacities imply capability to financially support activities of the projects. Cross-border programmes offer different model of financial support to projects on the part of the Contracting authority. Every call for proposals/grant scheme defines rules and criteria in its Guidelines for Applicants. The amount of own contribution for the applicants is not always the same. This also applies to the dynamics of financial follow up for the planned activities.

Experiences of calls for proposals in cross-border programmes with Slovenia, Italy and Hungary have so far shown that slow administration, especially related to cash flow, represents a significant obstacle in implementation of project activities. This resulted with many difficulties in finding cross-border partners in the last call for proposals - IPA CBC Hungary – Croatia accompanied with insufficient financial and absorption capacities. Motivation for cooperation and partnership with non-EU-member states in joint cross-border programmes is higher thanks to different financing model: funds are being transferred to the applicant after signing of grant contract. This reduces the risk of difficulties in the process of project implementation caused by insufficient financial capacities.

One of the questions for the local self-government units related to insufficient utilization of available funds was about their capacity to co-finance project implementation. The question was: which are the three most common reasons for lack of capacity to co-finance EU projects? They were offered 5 answers, three of which they were supposed to chose.

Graph 2. Reasons for lack of co-financing



Source: Author

Target group: Mayors of 20 „smaller“[97] municipalities in the territory of Osijek-Baranja county

This target group was chosen because municipalities with less than 3500 inhabitants tend to be less developed in regard to communal and social infrastructure. It was established during

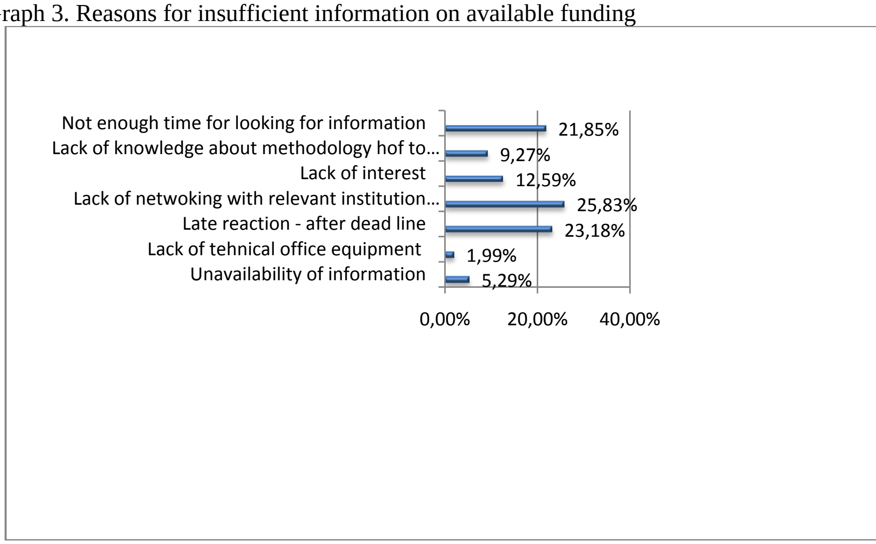
[97] Municipalities with population up to 3.500: (Census 2001) Donja Motičina, Draž, Drenje, Gorjani, Jagodnjak, Levanjska Varoš, Magadenovac, Marjanci, Petlovac, Čeminac, Petrijevci, Podgorač; Podravska Moslavina, Popovac, Punitovci, Satnica Đakovačka; Strizivojna, Šodolovci, Trnava, Vuka

regular visits to municipalities in Osijek-Baranja County. General remark made by the mayors of these municipalities was that the population was decreasing.

In the time of research a very recent issue was the possibility of reform in the sphere of local government. It caused mayors of „smaller“municipalities to show more interest in possibilities offered by EU funds than it was the case before.[98]

One of the questions asked was related to the reason for not using the opportunity to participate on available and open calls for proposals for EU grants. Most of the mayors said that there was no sufficient relevant information on available funding. Following are the results from answers, the question being: which are the most common reasons for lack of information on available funds and open calls for proposals:

Graph 3. Reasons for insufficient information on available funding



Source: Author

The highest percentage of answers relates to lack of networking with other stakeholders which could provide relevant information (25.83%) and to late reaction to information. These two answers are somewhat contradictory. The experience shows that all local self-governments in Osijek-Baranja County regularly received information on open calls for proposals and available funding from Regional Development Agency of Slavonia and Baranja.[99].

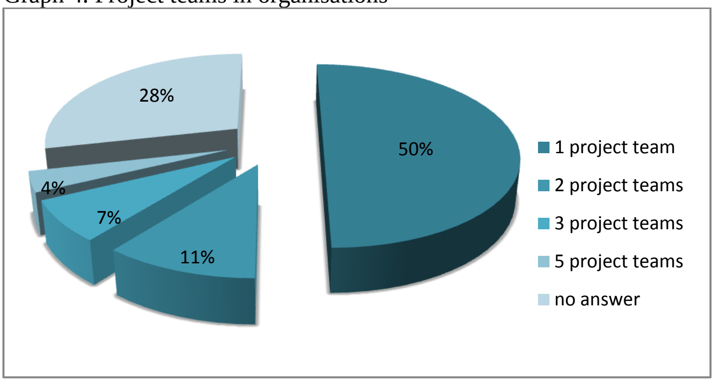
Target group: 10 organisations that have implemented approved projects within some of the IPA components and have signed Grant contracts for awarded EU funds

Since the whole research started with the hypothesis: Development teams in local self-governments are essential in order to improve absorption of EU funds from various IPA components, especially in regard to cross-border cooperation and regional

[98] Author of this paper is employed in the Regional Development Agency of Slavonia and Baranja. Communication with representatives of local governments is a regular activity.
[99] Record on sent e-mails 2008 - 2011

development/regional competitiveness, it was important to gain information on good practices from successful applicants.
Following answers were obtained on question: What is your position in your organisation? 32% - project managers, 36% members of project teams, 25% undefined position and 7% gave no answer. Furthermore, personnel working as project manager were also involved in development of the project proposals according to set standards which implies knowledge of PCM methodology. Not one of the interviewed people declared he/she was the only person involved in project development. Projects were for the most part developed by teams.
The question: How many project teams are there in your organisation, the participants were supposed to give the number of teams.

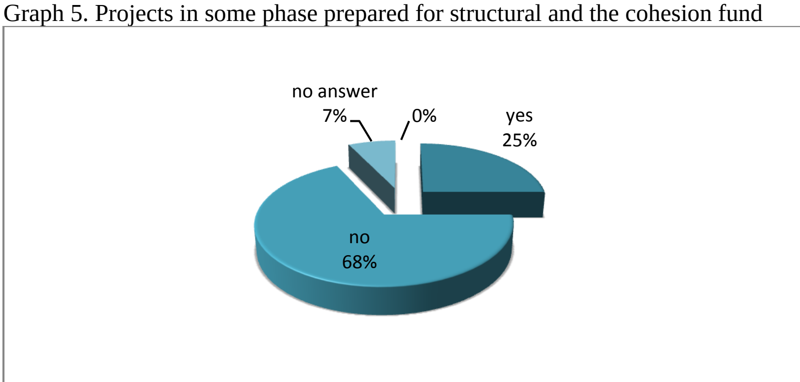
Graph 4. Project teams in organisations



Source: Author

Most of the answers showed that there is 1 project team in the organisation (50 %), 2 project teams in 11% of cases; 3 project teams in 7 %; 5 project teams in 4% of organisation and 28 % of interviewed organisation gave no answer.
The next question relates to Croatian membership in EU and availability of Structural funds and the Cohesion fund. Has your organisation prepared a project proposal for some of the before mentioned funds?

Graph 5. Projects in some phase prepared for structural and the cohesion fund



Source: Author

Although the interviewed representatives of the organisations have experience in implementation of EU projects, the fact that even they gave the answer NO to this answer in a very high percentage (68%) shows that organisations are not ready for the oncoming period of full membership, let alone those organisations which had no experience so far. The issue of how is Croatia going to utilize 600 mil. Euro of due „membership fee" still stays open.

Target group: Decision makers - 20 (10 heads of departments in cities and in the county, 6 school masters and 4 mayors)

Following are the results of interviews conducted in April and May 2011 with heads of departments within city and county administrations, school masters of primary and secondary schools and mayors of Valpovo, Belišće, Našice and Beli Manastir. The objective of the interviews was to suggest the best solutions which would contribute to better absorption of available funds and to better preparation for application and implementation of projects within programmes and funds that will be available upon accession.

<u>Heads of departments in administrations of municipalities and cities and of the County.</u>

All of them identified lack of human resources to be the most important problem and the second most important is definitely lack of financial capacities for co-financing and pre-financing of projects. Even though there were all kinds of education about how to prepare project proposals according to EU standards in the past few years, among the employed in public sector there were only few co-workers motivated for attending those educations and even if there were representatives of certain departments present, heads of departments were rarely among them due to their many obligations, especially if the education was organised in two or more days. There were even more problems if education was organised during weekend. Heads of departments in local and regional governments have often pointed out that they were overwhelmed with administrative work which left no space for education and training.[100]. Possible solution lies in better coordination of departments, identification and definition of priority projects that would be jointly applied by the city and the County, in accordance with Development Strategy of the County.

Problem of pre-financing and co-financing of projects is definitely present but solutions are being searched for. If a project proposal is approved for financing by the EU, there still hasn't been a case where the applicant resigns from implementation due to lack of co- or pre-financing. Possible solution would also be so called purpose oriented financing through special budget lines. At present heads of departments have to come up with solutions and transfer funds from one budget line to another in order to finance project activities. Departments within city and County administration express their readiness to find the best solutions for successful implementation of approved projects.[101]. When it comes to application for funding within IPA Programme, most of the departments usually refers to IPA II component for cross-border programmes Hungary – Croatia and Croatia – Serbia, and component IIIC – regional competitiveness (regional development).

<u>School masters</u> have been predominantly focused on IPA II component, cross-border programme Hungary – Croatia and Croatia – Serbia as well as on the IPA IV programme dealing with development of human resources. The biggest problem was to motivate teachers to participate in project development and project implementation in their free time for which

[100] Ministries often ask for different data from the county level. There is no common data base or common methodology for follow up or update of various data, whether on local or national level. There is also lack of coordination and exchange of information between the ministries. Providing required data is often time consuming.

[101] OBC is presently in the process of defining models of co-financing and pre-financing of EU projects on county level

they could not receive additional remuneration or to integrate those activities into their always busy schedules.[102]. According to school masters, reason for lack of motivation was different treatment of teachers in the same programme when it comes to Hungarian and Croatian side. I.e. teachers in Hungary and their salaries can be financed through projects. One part of their salary is financed through regular sources, and the part for the time they spend on project implementation can be financed the project. In the Cross-border Programme Croatia – Serbia, the rules are the same on both sides of the border – budgetary clients cannot receive reimbursement for their salary through the project unless they are newly employed.
Possible solution could be a change in the next Operational Programme for Development of Human Resources in Croatia – to create conditions for employment on projects and use the Hungarian model which enables a certain percentage of salary to be financed through the project for implementation of activities as defined in the Grant contract. Since the component IPA IV Development of Human Resources actually represents good possibility to practice for ESF, it is necessary to provide both financial and operational capacities for utilization of this Fund which is foreseen to finance projects in the field of employment, education, training, labour market competitiveness of long-term unemployed persons etc.

Mayors of Beli Manastir, Valpovo, Belišće and Našice had very similar opinion as heads of the departments in cities' and county administrations. Every mayor has his own team that supports him/her in everyday operational activities, but none of the cities (except city of Osijek which is co-founder of the Regional Development Agency) have a team for technical support in preparation and implementation of project financed through EU funds. City of Beli Manastir relies on its Centre for Entrepreneurship but also hopes for support from RDA in aspects such as education, preparation and support to project teams. The mayor alongside with his deputies has initiated education for 20 young people who volunteer in city's companies in order to acquire at least basic knowledge on PCM methodology. At present the city of Beli Manastir is partner in one of the cross-border projects with Hungary related to development of local action groups.
City of Belišće has experience in PHARE programme[103] – project for construction of bicycle roads. It is interesting that their future strategy of application for EU funding also relates to construction of bicycle infrastructure. The city mayor is very much aware of the need for development of human potentials for development and implementation of EU projects so he is trying to establish his own project team, solely for the purposes of the city. He also expects assistance from the County especially in financing but he has some restraints in regard to political decisions.[104]
Mayor of Valpovo expects the Centre for Entrepreneurship to provide technical support in preparation of projects for application in Cross-border programmes and regional development. The city invested in education of its employees in the field of PCM – two of them attended programme of specialized training organised by the Faculty of Economy in Osijek. It is now their obligation to apply acquired knowledge in preparation of project proposals. There is still a big problem of co-financing and fear that he will not get support from the County due to different political orientation.[105].
City of Našice has the least experience in preparation and implementation of projects according to EU standards. Up to now all of their projects were in the field of infrastructure

[102] Guidelines for applicants are very clear about involvement of budgetary clients in projects and their salaries, unless a new person is being employed and payed from the project budget.
[103] Project approved within Phare Interreg SLO-HU-HR programme – building of bicycle roads
[104] Different political option in charge in the County than it is in the city of Belišće
[105] Different political option in charge in the County than it is in the city of Valpovo

financed by their own budget and supported by assistance from the national budget. There is no project team or centre for entrepreneurship that would provide systematic analysis of trends, calls for proposals or prepare project proposals for EU grants. They expect excessive assistance from RDA but they still haven't established some model in the city administration that would create conditions for a project team to work. Following that fact there are no planned funds in the city budget that would provide employment for persons with necessary education and skills.

2.2. Conclusions about research results

During the research and analysis of results following problem was identified: insufficient knowledge about development and implementation of projects funded by EU funds. Numerous, everyday inquiries show that great number of organisations in Osijek-Baranja County have incomplete and insufficient information about functioning of pre-accession funds, their significance, role and possibilities they offer. On the other hand, Osijek-Baranja County is often claimed to be one of the positive examples. On the territory of the County there are a lot of applied, approved and implemented projects funded by EU, which is certainly a very good quality indicator for the organisations involved in implementation but also of the supporting institutions in charge of technical support, consult and expertise. The existing knowledge and acquired experience needs to be transferred to other organisations which have the opportunity to develop and implement projects but at present have no capacity to do it on their own. This refers foremost to many associations (NGO), institutions, local self-government entities, public bodies and public companies, since the most of the funds is still aimed for the non-profit sector. After the accession and Croatian full membership in EU available funds will be more than doubled with opportunities that will open also for the private, business sector. This will have even greater direct impact on economic and social development of the region. It is essential to prepare human and financial resources and focus on following funds:

European Regional Development Fund (ERDF) offers financial support to infrastructural investments, creation of new jobs, support to local development and assistance to SME aiming at strengthening economic and social cohesion and reduction of development disparities of EU regions

European Social Fund (ESF) aims at supporting employment, acquiring new skills, training and education, reduction of differences in life standard and welfare of the citizens in EU regions.

Cohesion Fund provides support to projects in the field of environment protection and transportation, communication that connect more member states and projects of renewable energy sources

All of the mentioned funds will only be available and utilized if we give our contribution in strengthening organisation and education of individuals that will be engaged in development and implementation of projects.

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SPORT IN OSIJEK – YESTERDAY, TODAY, TOMORROW

OSJEČKI SPORT - JUČER, DANAS, SUTRA

ABSTRACT

The city of Osijek is the cradle of Croatian sport, where in the year 1784 Civil shooting association was founded, making it the first sports association in Croatia. It was founded almost a whole century before the time period which marked the establishment of modern sports as we know them today. The industrialization, as a European and world process, coincides with the establishment of modern sport in this region, therefore it is easy to note and follow the establishment and development of economical activities and corresponding sport activities in Osijek, Belišće, Županja, Vukovar…

Today Osijek is a city with 246 sports clubs, over 5000 active athletes and a vast number of amateur athletes, children and students; therefore we can state that 30 % of the population is engaged in some form of sport. To make those possible necessary premises were created, sports infrastructure was built, co-financing of program content in nine areas regulated by law has been ensured, for which 38.457.200,00 kn (around 5 million euro) or 7.77 % of the total city budget has been provided.

Sport funding, regarding to the city budget in the last 19 years, adds up to 7,03 %.

Sport in Osijek, as a recognizable brand, does not want to be a burden to the economy, on the contrary, it wants to and it can offer a partnership with a "win-win" system, for which we have positive examples of company Saponia and VK Iktus (rowing), or company Žito and clubs for so called "basic" sports: AK Slavonija (athletics), GD Osijek (gymnastics), PK Osijek (swimming).

Law regulations present a specific problem of sport financing, which to a large extend discourage investing in sport, as a result of repudiation of tax relieves and small amount of direct state budget for sport.
The aim of this paper is to draw attention to the historical role of sport in Osijek and eastern Croatia, analyze the current situation, perceive some of the problems and offer possible solutions.

Key words: *sport, economy, financing*

SAŽETAK

Grad Osijek je kolijevka Hrvatskog sporta, u njemu je 1784. godine osnovano Građansko streljačko društvo Osijek, kao prvo sportsko društvo u Hrvatskoj. Bilo je to gotovo cijelo stoljeće prije vremena koje je obilježilo nastanak modernih sportova kakve danas poznajemo. Budući da se industrijalizacija kao europski i svjetski proces vremenski podudara s nastankom modernog sporta i na našim prostorima, lako je uočiti i pratiti nastanak i razvoj gospodarske djelatnosti i pratećih sportskih aktivnosti u Osijeku, Belišću, Županji, Vukovaru...
Danas je Osijek grad sa 246 sportska kluba, preko 5000 aktivnih sportaša i velikim brojem rekreativaca, djece i studenata, tako da možemo reći da se nekim oblikom sporta bavi oko 30 % populacije. Da bi to bilo moguće stvorene su nužne pretpostavke, izgrađena je sportska infrastruktura, osigurano je sufinanciranje programskih sadržaja u devet zakonom propisanih područja, za što je ove godine izdvojeno 38.457.200,00 kn ili 7.77 % od ukupnog gradskog proračuna.
Izdvajanja za sport u odnosu na gradski proračun u proteklih 19 godina iznose 7,03 %.
Osječki sport kao prepoznatljiv brand ne želi biti teret gospodarstvu, već mu želi i može ponuditi partnerski odnos po "win-win"sistemu, za što danas imamo pozitivne primjere tvrtke Saponia i VK Iktus, ili tvrtke Žito i klubova tzv. bazičnih sportova: Atletski klub Slavonija, Gimnastičko društvo Osijek, Plivački klub Osijek.
Poseban problem financiranja sporta predstavlja zakonska regulativa , koja u znatnoj mjeri destimulira ulaganje u sport radi nepriznavanja poreznih olakšica i premalog izravnog državnog proračunskog izdvajanja .
Cilj ovoga rada je ukazati na povijesnu ulogu sporta u Osijeku i istočnoj Hrvatskoj, analizirati trenutno stanje, uočiti neke od problema i ponuditi moguća rješenja .

Ključne riječi: *sport, gospodarstvo, financiranje*

1. Sport in the City of Osijek

Although the beginnings of sport activities in the area of eastern Slavonia date back to the period of Roman Mursa, the most significant year of sport history in Osijek and Slavonia is the year 1784 when the Civil shooting association Osijek was founded, making it the first sports association in Croatia. After the emancipation of Osijek from the Turkish reign in 1962, constant border tension and insecurity did not disappear, therefore the practical shooting training was of crucial importance. In those circumstances choosing shooting as the first organized sport activity was a logical choice. In Osijek and eastern Croatia we can also follow the beginnings of other sports, for example in Županja the first football game was played in the year 1880.

Industrialization as a European and world process occurred at the same time as the emergence of modern sport in this area, therefore it is easy to note and follow the origination and the development of economic activities and accompanying sport activities in Osijek, Belišće, Županja, Vukovar...

A look into the recent past brings us to extraordinary sport accomplishments and famous names like Matija Ljubek, Katica Ileš or Davor Šuker, who reached pinnacles in their sports and made Osijek and eastern Croatia recognized in the whole world.

Today Osijek is a city with 246 sports clubs, over 5000 active athletes and a vast number of amateur athletes, children and students; therefore we can state that 30 % of the population is engaged in some form of sport. To make those possible necessary premises were created, sports infrastructure was built, co-financing of program content in nine areas regulated by law has been ensured, for which 38.457.200,00 kn (around 5 million euro) or 7.77 % of the total city budget has been provided. This amount is higher than in most of the cities and boroughs in the Republic of Croatia and especially by comparison with the percentage, which is extracted for sport from the state budget.

Large potential for sport in Osijek presents the Josip Juraj Strossmayer University of Osijek, which can, together with all of its components, teachers and students, give immeasurable contribution to the development of sport. By completing the university campus construction, which will be equipped with necessary sports objects and possible reactivation of the Faculty of Physical Education (or department), requirements to carry out that potential will be acquired.

Last and this year establishment and continuing activity anniversaries of some of the most significant sports associations in Osijek are celebrated. The Association of sports organizations in the City of Osijek marked 50 years of organized care of sports in our city by organizing a ceremonial session in the Croatian national theatre. The best federation for sports recreation in Croatia "Sport for all" will celebrate 60 years, whereas the School sports association of the City of Osijek will mark 50 years of extremely successful functioning.

2. Social role, economic dimension and sport financing

2.1. Social role of sport

Sport, as a special social value, is emphasized and protected by the Constitution of the Republic of Croatia. In such a manner the duty of the state to encourage and assist the physical culture care is regulated by article 68, whereas article 134 of the Constitution regulates business affairs of local authorities, among which physical education and sport belong.

System of sport and sports activity, expert jobs in sport, sports competitions, sport financing, supervision and other issues significant for sport are regulated by the Sports Act (Zakon o športu, NN 71/06, 150/08, 124/10, 124/11-nastavno Zakon), which has, after its entry into force in July 2006, additionally positioned sports activities as the activities of interest for the Republic of Croatia, determined access to sports for everyone by principle of non-discrimination and willingness, enabled new forms of performing sports activities (sports join-stock companies...) or regulated expert criteria for work in sports. Unfortunately to date, and almost six years have passed since it has entried into force, a whole variety of subordinate regulations, for which clear deadlines have been assigned, have not been adopted. The National program of sport, which is the basic systematic document in the area of sports on the national level and should have been delivered to the Parliament by the Government of the Republic of Croatia nine months after the Law has been adopted, still has not been created.

The meaning of sport as the social and economic phenomena is also emphasized in the White Paper on Sports, which stresses sport as ever growing social and economic phenomena, which encourages strategic goals of solidarity and prosperity of the European union, attracts European citizens to participate regularly in sports activities, creates important values like team spirit, solidarity, tolerance and fair play, and contributes to personal growth and fulfillment. According to the opinion poll of the Eurobarometer[106] in November 2004 approximately 60% of

European citizens participate regularly in sports activities inside or outside approximately 700 000 clubs, which are members of a vast number of associations and federations.

2.2. Economic dimension of sport

The study, which was presented during the Austrian chairmanship in 2006, talked about the fact that sport has in 2004 created in a wider sense the value of 407 billion euro, which made 3,7% of GDP of the European union, and has formed work places for 15 million people or 5,4% of labor force. Sport is an ideal area for creating positive brand recognition, which is growingly present with us, and that has made partnership of top athletes and powerful firms in Croatia a standard. Top scores of Croatian athletes have become of interest to economy, especially when the money directed in that way is seen as an investment for which a faster and bigger return on investment is expected. Some examples in our practice show that this relationship gets around 1:6, expressed in the value of media manifestation. (Bašić, 2012)

When we are talking about the area of eastern Slavonia these possibilities are insufficiently used. The reason behind it is an entire variety of objective circumstances, such as insufficiently strong regional economy, but also marketing insufficiently attractive athletes and results they accomplish. Specific problem is the fact that a vast number of companies, which are doing business in this area, have their head offices in other cities in Croatia or abroad, and possibly invest in sports programs there. This is specifically emphasized in companies under state ownership, which usually sponsor programs of national sections and top athletes from clubs from big cities.

Sport in Osijek, as a recognizable brand, does not want to be a burden to the economy, on the contrary, it wants to and it can offer a partnership with a "win-win" system, for which we have positive examples of company Saponia and VK Iktus (rowing), or company Žito and clubs for so called "basic" sports: AK Slavonija (athletics), GD Osijek (gymnastics), PK Osijek (swimming), which in their titles accent also the name of the company Žito.

Of course that this way successful economic and sports collectives reach their joint and also their specific goals. Through the partner relationship of the company Žito and GD Osijek-Žito, with the support of the City of Osijek and Osijek-Baranja County, the organization of the Gymnastics World Cup, is financed. The Cup is held in Osijek for the last four years in a row and it represents one of the biggest sporting events in Croatia.

[106] Special Eurobarometer (2004): The Citizens of the European Union and Sport.

Sport is, without a doubt, an initiator of economy. Examples for this claim can also be found in organization of large sporting events, which were hosted in Croatia and which have provoked the construction of whole infrastructure, sports buildings, hotels, student villages and have changed the overall picture and urban identity of specific cities (Split – The Mediterranean Games, Zagreb – Universiade, Zagreb, Osijek, Split, Zadar, Varaždin, Poreč – Handball World Cup, Osijek – European Shooting Championship...).

2.3. Sport financing

Sport, in the context of financing, can be classified as the so-called “impure public need”, and it is definitely public because of its educational, social, health and cultural role in the society.

The analysis of the way sport in Europe is financed shows an absence of one unique and best way of financing.

There are few ways – models of financing, such as: market financing (private resources over 60% - Switzerland, England, Italy, Sweden, Germany, Belgium...), mostly market financing (private resources 50-60% - France, Denmark, Hungary...), public financing (lately the deviation toward mostly market financing and public financing has been noted – Croatia, Spain...).

In the Republic of Croatia the problem of sport financing is regulated by the Sports Act in Chapter X – Sport financing, by the provisions of Articles 74 – 76. According to the mentioned provision sport is financed from four main incomes:

1. from performing sports business,
2. from membership fees,
3. from games of chance and
4. from budget funds (state and local)

Besides financing sources, which are stated in the Law, significant source are incomes from donations and sponsorships.

Making a more significant analysis of sport financing at state level is almost impossible. There are more reasons for it and here are some of the most significant:

- There is no (neither at local nor at state level) central place which would have a legal obligation to follow financial business of sports federations or associations. For that reason it is impossible to even estimate how much funds are annually spent on sport.
- Associations are not of interest for the state budget, namely for the tax policy of income collection. That leads to weak tax supervision, absence of financial records, which could be a good outset for assessment of the current situation is sport and for identification of key issues.
- Non-stimulating tax policy leads to the situation that the economic subjects invest only into those clubs or associations from which they can benefit in the form of media presentation of their company. That leads to the fact that the associations are often financed in a non-transparent way, which again leads to a situation in which it is impossible to determine how much the economy at a specific level invests into sport.

From the four above mentioned sport financing resources according to the Law only the incomes from the games of chance can be followed in their total amount. All other resources (if we want the information at state level) can only be estimated. Adoption of quality resolutions based on defective information and assessments is not a way to recovery of sport in the Republic of Croatia.

As a necessity in solving problems of sport financing at all levels in Croatia the issue of forming a unique register of sports clubs – associations, which would include all of the information connected with financial business of sports clubs, is imposed.
This, of course, includes at the state level Ministry of Sports, Ministry of Finances, Ministry of Public Administration, Croatian Olympic Committee and other national authorities. At the local level this process is transmitted to counties, cities and boroughs, and to sports associations of cities and counties.

In Article 77 of the Sports Act the establishment of informational system in sports is defined. This system should collect and update information on activities of people who perform sports activities, expenditures of funds, planning and constructing sports building and other activities in the area of sports.

2.3.1. Sport financing – the City of Osijek

Sport financing at the local level is defined in the Article 76 of the Sports Act. It states that the public necessities in sport are financed from the local and regional authority budget, that the funds are disposed by the sports associations and that the supervision on the fulfillment of the program is performed by the bodies of local authorities, which are authorized for the business of sports.

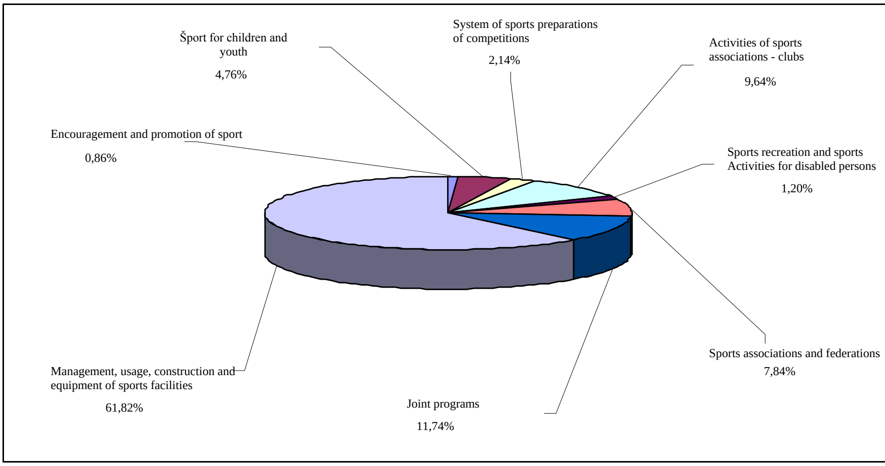
Sports sub-department within the Administrative department for sports activities in the City of Osijek performs duties related to sport. Program of public needs in sport in the area of the City of Osijek is the key document which defines program areas and the financial plan of sport in the area of the City. In accordance with the law it is divided into 2 program areas: Program area "A", which is managed by the Association of sports organizations in the City of Osijek, and program area "B", which is managed by the Sports sub-department.

Table 1. Share of specific program areas in total funds for sport in the year 2011

PROGRAM AREA	AMOUNT	%
Program area „A“	**9.881.000,00 kn**	**26,45**
Encouragement and promotion of sport	320.000,00 kn	0,86
Sport for children and youth	1.780.000,00 kn	4,76
System of sports preparations of competitions	801.000,00 kn	2,14
Activities of sports associations - clubs	3.600.000,00 kn	9,64
Sports recreation and sports activities for disabled persons	450.000,00 kn	1,20
Sports associations and federations	2.930.000,00 kn	7,84
Program area „B“	**27.482.000,00 kn**	**73,55**
Joint programs	4.386.000,00 kn	11,74
Management, usage, construction and equipment of sports facilities	23.096.000,00 kn	61,82
Total	**37.363.000,00 kn**	**100,00**

Remark: guide exchange rate in April 2012 - 1€=7,5 HRK

Chart 1. Structure of the financial plan of the program for public needs by program areas for the year 2011

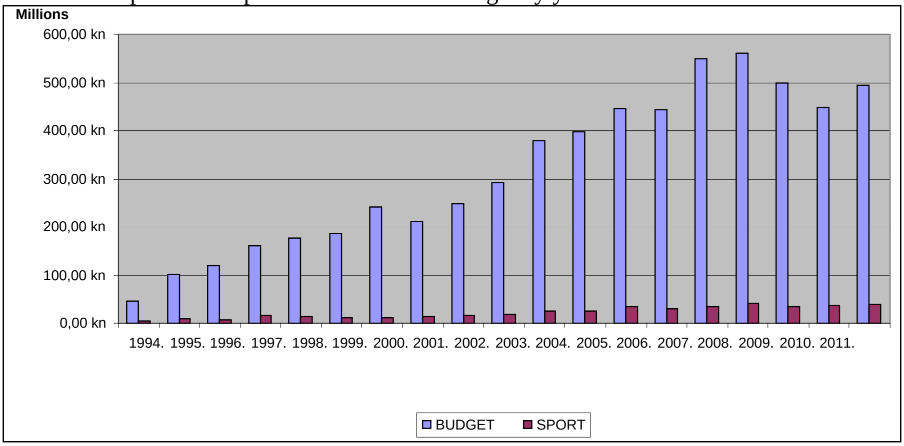


The City of Osijek allocates on average 7,03%. In comparison with the State budget for the year 2012, 0,17% or 191.223.260,00 kn is allocated. The stated amount of investments from the state budget includes 43 million kn, which is paid by the state on the name of rent for sports halls in Split, Zagren and Varaždin, but it does not include the investments in the sports infrastructure.

Table 2. The amount of sports funds in total budget funds

YEAR	BUDGET	SPORT	%
1994.	46.705.989,00 kn	4.762.315,00 kn	10,20
1995.	101.058.085,00 kn	9.423.451,00 kn	9,33
1996.	120.060.225,00 kn	7.797.730,00 kn	6,50
1997.	162.038.661,00 kn	15.741.863,00 kn	9,72
1998.	176.769.570,00 kn	13.348.519,00 kn	7,56
1999.	186.307.142,00 kn	12.491.710,00 kn	6,71
2000.	241.000.000,00 kn	12.336.205,00 kn	5,12
2001.	211.670.900,00 kn	12.875.100,00 kn	6,09
2002.	249.184.750,00 kn	14.984.957,00 kn	6,02
2003.	291.872.668,00 kn	17.843.080,00 kn	6,13
2004.	379.691.320,00 kn	24.224.000,00 kn	6,38
2005.	397.326.303,00 kn	24.947.200,00 kn	6,28
2006.	447.073.740,00 kn	35.035.700,00 kn	7,83
2007.	442.822.180,00 kn	29.727.800,00 kn	6,71
2008.	548.658.000,00 kn	34.580.000,00 kn	6,30
2009.	560.900.000,00 kn	40.704.100,00 kn	7,26
2010.	498.098.300,00 kn	35.517.000,00 kn	7,13
2011.	447.334.690,00 kn	37.363.000,00 kn	8,35
2012.*	494.885.000,00 kn	38.457.200,00 kn	7,77

Chart 2: Comparison of sports funds and total budget by years



Apart from the above mentioned data it is also necessary to emphasize the funds which are planned and realized in the State budget in other budget items (construction programs which are realized through the Administrative department for construction, urbanization and environmental protection). This way in the last period ice rink, Sports hall “Jug”, swimming pools “Gradski bazeni” and sports hall “Gradski vrt” have been built.

The growth of the local authority budget is in direct correlation with the economic growth of a specific region, as well as of the City of Osijek. Negative rates of economic activities in the region imply that there will be no significant growth of the total budget in the following period.

If we follow the development pattern of the total budget and if we take into consideration the fact that more than 60% of the sports budget is allocated for management, usage, construction and equipment of sports facilities, we can conclude that the local budgets are “drained out” to the maximum and it is not realistic to expect a significant increase of funds allocation for sports activities, namely programs in sport.

High unemployment rates and the growth of life costs also decrease the incomes, which the clubs received through membership fees.

All of this leads to a conclusion that it is necessary to create sports strategy (national and local), which would define the principles of inner redistribution, namely defining key basic points that will, in the time of crisis, maintain quality and quantity at the national level. Economists say that the crisis is an opportunity to solve accumulated structural issues. Sport is going through a financing crisis and that should be used to set new foundations and new rules for sport financing, before we reach a more serious crisis of sports results.

3. Conclusion

It is indisputable that the sport is an activity of exceptional significance for the society and it is equally clear that the investment into sport in Croatia is not proportional to that significance and top scores, which are achieved by the Croatian athletes. Sport can be in a partner

relationship with the economy and the promoter of social changes and habits, but in order to become and remain that, general public has to be truthfully interested into sports.
We are the witnesses of globalization as a world process by admission of Croatia in the European Union and total opening of capital and labor force market. It is a challenge and an opportunity to adjust the legislation, our habits and relationships in order to create predispositions for progress of sport in Croatia, Slavonia and Baranja and Osijek and it should not be missed out.

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SCHOOL SPORT IN EASTERN CROATIAN COUNTIES

ŠKOLSKI SPORT U ŽUPANIJAMA ISTOČNE HRVATSKE

ABSTRACT

The aim of this paper is to assess and explain the situation in school sport in eastern Croatian counties. Due to the fact that more than 120,000 children participate in school sport we can conclude that this is the largest sport system in the Republic of Croatia. In 2009 a survey was conducted in primary and secondary schools to collect data for this analysis. Using the collected data a document entitled "The Strategy for the Development of School Sport in Croatia 2009-2014" was published. This paper presents several aspects of school sport in five eastern Croatian counties (Vukovar-Srijem, Osijek-Baranja, Požega-Slavonija, Brod-Posavina and Virovitica-Podravina counties): school sport facilities, the level of participation of pupils in school sport, and a comparison with these aspects of school sport in the Republic of Croatia in general. The analysis findings show that the situation regarding school sport facilities in eastern Croatia is similar to the Croatian average, with several exceptions. The level of participation of pupils in school sport also varies in some of the analysed counties. On the basis of the obtained results guidelines for improvement of school sport in eastern Croatia are provided.

Key words: *School sport, eastern Croatia, school sport facilities, school sport associations, competitions and training, financing*

SAŽETAK

Cilj ovoga rada je ocijeniti i objasniti stanje školskoga sporta u Istočnoj Hrvatskoj. Sukladno činjenici kako je preko 120.000 djece uključeno u školski sport možemo zaključiti kako se radi o najmasovnijem sustavu sporta u Republici Hrvatskoj. Osnovne i srednje škole anketirane su 2009. godine kako bi se prikupili podaci za ovu analizu. Korištenjem podataka koji su *prikupljeni u navedenoj anketi objavljen je dokument pod nazivom „Strategija razvoja školskog sporta u Republici Hrvatskoj 2009-2014“. U ovom radu prikazano je stanje školskog sporta u pet županija Istočne Hrvatske (Vukovarsko-srijemska, Osječko-baranjska, Požeško-slavonska, Brodsko-posavska i Virovitičko-podravska) I to kroz nekoliko aspekata. Stanje izgrađenosti objekata za školski sport, uključenost učenika u školski sport kao i usporedba sa stanjem školskog sporta u navedenim segmentima u Republici Hrvatskoj. Rezultati analize pokazuju kako je situacija po pitanju izgrađenosti sportskih objekata slična prosjeku na državnoj razini uz određena odstupanja. Uključenost učenika u školski sport također pokazuje odstupanja u nekim analiziranim županijama. Temeljem navedenih pokazatelja date su sugestije za unaprjeđenje sustava školskoga sporta u Istočnoj Hrvatskoj.*

Ključne riječi: *Školski sport, Istočna Hrvatska, objekti za školski sport, školska športska društva, natjecanje i trening, financiranje*

1. Introduction

Large volume of research indicates that participation in sport has positive impact on the overall psychosomatic development of children and youth. It is therefore very important to ensure their participation in systematic physical and sports activities from an early age. In the Republic of Croatia there are two systems involving participation of children and youth in sports activities. The first one is the school sport system, which frequently corresponds to the competitions held at the local, city, county or national level, and the second one is the sports system in sports clubs. Through these systems children participate in organised sports activities and benefit from sport.

In the Republic of Croatia school sport is present in primary and secondary schools within extracurricular school sport activities organised within the system of School Sport Associations (SSAs). Also, competitions held at the municipal, city, county and national levels represent an integral part of the school sport system. High quality sports preparation system for children and youth at the local, regional and national levels comprises a well-defined procedure for the selection of pupil-athletes and a sufficient volume of training. The core comprises several mandatory sports activities in primary and secondary schools (3-4 hours per week) with high-quality programmes of school sport training and an elaborated competition system.

Sports activities of primary and secondary school pupils as well as the organisation and activities of sports clubs in the Republic of Croatia, including the eastern Croatian counties need to be significantly improved. School sport should include the highest possible number of children that show high interest in the participation in the training process and well organised competitions. School sport clubs should become the points of high concentration of children and youth motivated for sport. Within the extracurricular school sport activities they would be able to develop their abilities, characteristics and motor skills and to accomplish sports results with the support of highly-qualified coaches in adequate organisational, material, financial and technical conditions.

Considering the fact that school sport in the Republic of Croatia (with approximately 120,000 pupils participating in primary and secondary schools) is the largest sports system in the country (Milanović et al., 2009:13), it should be stressed that this very interesting field of research is still fairly unexplored. An important contribution in establishing the present situation and analysing the school sport system has been provided by the document titled

“The Strategy for the Development of School Sport in Croatia 2009-2014” published in 2009 (Publishers: MSES and CSSF, 2009). In this document, the situation in school sport in the Republic of Croatia has been analysed in several segments important for the operation of the school sport system as a whole. The segments of school sport in the Republic of Croatia analysed in this document include:

- facilities and equipment used for the purpose of school sport
- staff involved in the school sport system
- level of participation of children in school sport
- competition and training system in school sport
- school sport financing
- school sport associations
- healthcare in the school sport associations system
- universal sports school
- school sport and pupils with disabilities
- Croatian School Sport Federation

This paper will present the current situation in school sport in eastern Croatian counties, which comprises the following five counties: Vukovar-Srijem, Osijek-Baranja, Požega-Slavonija, Brod-Posavina and Virovitica-Podravina counties. Since participation in sport is one of the fundamental rights of children and youth, it is of the utmost importance to give this area more prominence.

The aim is to present the data for each segment of schools sport in the listed counties. The focus of the analysis will be the collected data on facilities and equipment used for the purpose of school sport and the level of participation of children in school sport.

2. Facilities and equipment used for the purpose of school sport in eastern Croatian counties

Pursuant to the Sports Act (Official Gazette No. 71/6, 150/08), primary and secondary schools establish school sport associations (SSAs). School sports halls and outdoor facilities are used for the implementation of SSA programmes. Table 1 shows that, out of the total of 188 primary schools in eastern Croatia, 142 (75.54%) have a sports hall and 46 (26.46%) do not. 164 schools (87,23%) have outdoor school sports facilities, while 24 (12.77%) do not. Table 2 shows the data on sports halls in the eastern Croatian counties in secondary schools. Of the total of 70 secondary schools, 31 (44.28%) have a school sports hall and 39 (55.72%) do not. In the eastern Croatian counties 30 schools (42.85%) have an outdoor sports facility, while 40 (57.15%) do not. In the past few years 179 sports halls have been built in primary and secondary schools. This led to a significant improvement in the status of the school sports facilities and equipment in the Republic of Croatia, but it has still not reached an acceptable level.

Table 1. School sports facilities in primary schools of the eastern Croatian counties

County	Number of schools	School sports hall		Outdoor school sports facility	
		YES (%)	NO (%)	YES (%)	NO (%)
Vukovar-Srijem	54	38 (70%)	16 (30%)	45 (83%)	9 (17%)
Osijek-Baranja	70	59 (84%)	11 (16%)	60 (86%)	10 (14%)
Požega-Slavonija	14	6 (43%)	8 (57%)	13 (93%)	1 (7%)
Brod-Posavina	33	27 (82%)	6 (18%)	31 (94%)	2 (6%)
Virovitica-Podravina	17	12 (71%)	5 (29%)	15 (88%)	2 (12%)
TOTAL	**188**	**142 (75.54%)**	**46 (24.46%)**	**164 (87.23%)**	**24 (12.77%)**

Source: Milanović et all. (2009). Strategija razvoja školskog sporta u Republici Hrvatskoj 2009.-2014. [The Strategy for the Development of School Sport in Croatia 2009-2014. In Croatian.], Zagreb: Croatian School Sport Federation and Ministry of Science, Education and Sport.

Table 2. School sports facilities in secondary schools of the eastern Croatian counties

County	Number of schools	School sports hall		Outdoor school sports facility	
		YES (%)	NO (%)	YES (%)	NO (%)
Vukovar-Srijem	15	7 (47%)	8 (53%)	9 (60%)	6 (40%)
Osijek-Baranja	29	12 (41%)	17 (59%)	11 (38%)	18 (62%)
Požega-Slavonija	7	2 (29%)	5 (71%)	2 (29%)	5 (71%)
Brod-Posavina	11	6 (55%)	5 (45%)	4 (36%)	7 (64%)
Virovitica-Podravina	8	4 (50%)	4 (50%)	4 (50%)	4 (50%)
TOTAL	**70**	**31 (44.28%)**	**39 (55.72%)**	**30 (42.85%)**	**40 (57.15%)**

Source: Milanović et all. (2009). Strategija razvoja školskog sporta u Republici Hrvatskoj 2009.-2014. [The Strategy for the Development of School Sport in Croatia 2009-2014. In Croatian.], Zagreb: Croatian School Sport Federation and Ministry of Science, Education and Sport.

The presented data clearly show that the number of sports halls and facilities in primary schools is much higher than in secondary schools. It should also be underlined that there are many secondary schools which share a sports hall with another school. This presents only a partial solution to the problem of the sports hall or outdoor sports facility shortage. Furthermore, the question of adequate infrastructure and the equipment of the existing school sports halls and outdoor sports facilities needs to be addressed. In this respect, it is necessary to conduct a detailed analysis and obtain a better insight in the actual condition of the existing facilities and to define clear guidelines for the construction of new ones.

3. Level of participation of children in school sport

The document "The Strategy for the Development of School Sport in Croatia 2009-2014" identifies the level of children participation in school sport as one of the most significant indicators of the school sport status. According to the data presented in this document, in the Republic of Croatia 80,000 primary school pupils (22%) and 40,000 secondary school students (21%) participate in school sport (Milanović et al., 2009:43). It is interesting to note that an equal number of primary school pupils participate in the system of sports clubs and in the school sport system (80,000 or 22%). This indicates that it is very likely that the pupils participating in the school sport system are also active in the sports clubs. The situation with secondary school students is somewhat different. There are 30,000 secondary school students participating in the system of sport clubs, or 17% of the total number of secondary school students.

Table 3. The level of participation of primary school pupils in school sport associations in the eastern Croatian counties

County	Level of participation of pupils in SSAs
Vukovar-Srijem	30.72%
Osijek-Baranja	22.13%
Požega-Slavonija	14.47%
Brod-Posavina	22.65%
Virovitica-Podravina	15.75%

Source: Milanović et all. (2009). Strategija razvoja školskog sporta u Republici Hrvatskoj 2009.-2014. [The Strategy for the Development of School Sport in Croatia 2009-2014. In Croatian.], Zagreb: Croatian School Sport Federation and Ministry of Science, Education and Sport.

Table 3 presents the data on the level of participation of pupils in the school sport system in five eastern Croatian counties. If we compare the data with the level of participation of pupils in school sport at the national level we can see that Požega-Slavonija county with 14.47% level of participation and Virovitica-Podravina county with 15.75% level of participation significantly fall behind the national average. On the other hand, Vukovar-Srijem county with 30.72% level of participation of primary school pupils in the school sport is the second ranked county in the Republic of Croatia.

Table 4. The level of participation of secondary school students in school sport associations in eastern Croatian counties

County	Level of participation of pupils in SSAs
Vukovar-Srijem	22.04%
Osijek-Baranja	22.94%
Požega-Slavonija	22.19%
Brod-Posavina	10.51%
Virovitica-Podravina	18.63%

Source: Milanović et all. (2009). Strategija razvoja školskog sporta u Republici Hrvatskoj 2009.-2014. [The Strategy for the Development of School Sport in Croatia 2009-2014. In Croatian.], Zagreb: Croatian School Sport Federation and Ministry of Science, Education and Sport.

Vukovar-Srijem, Osijek-Baranja and Požega-Slavonija counties are somewhat above the national average with respect to the level of participation of secondary school students in school sport. The 18.63% level of secondary school student participation in school sport in Virovitica-Podravina county falls below the average by almost 4 percentage points, while Brod-Posavina county with 10.51% has the lowest level of secondary school student participation in school sport in Croatia. While Požega-Slavonija and Virovitica-Podravina counties have seen an increase in the number of secondary school student participation in sports activities of school sports associations and the number has been maintained at the approximately same level as in primary schools in Osijek-Baranja county, the figures for two eastern Croatian counties are concerning, one of which is Brod-Posavina county, where the number of secondary school students in school sport associations has decreased by almost 12%. Vukovar-Srijem county has also seen a decrease from 30.72%, which ranked the county second at the national level, to an average level of 22.04%.

4. Directions for the development of school sport in eastern Croatian counties

The research conducted in this field suggests that there is an urgent need for structuring of the school sport system. In research on the population of fourth and eighth graders Findak (1999) found that pupils alongside 4 - 6 sedentary hours in classes sit in front of the TV for additional 1 - 3 hours. He also found that fourth graders spend up to 65 and eight graders up to 135 additional minutes on other sedentary activities. The same research showed that pupils spend insufficient amount of time playing (fourth graders 58 and eight graders 34 minutes). Such lifestyle includes various health hazards, potentially leading to diseases and malfunction of body systems. (Findak and Neljak, 2008, after Findak and Prskalo, 2005). It is interesting to compare the data on the level of participation of children in the school sport system in Croatia (22% in primary schools and 21% in secondary schools) with the percentage of the children participating in sports activities in Finland where, according to the research conducted by Nieminen in 2003, 80% of pupils participate in sports activities.

These indicators call for the guidelines for the development and improvement of school sport in eastern Croatia. Primarily, considering the poor indicators regarding the number of school sports facilities it is necessary to start systematic development of school sports facilities. It is very important for the development of facilities to be carried out in accordance with the norms and standards which should be put into place in order to ensure adequate conditions for the implementation of sport in the education system. Also, it is necessary for the existing and new sports halls to have the equipment for the implementation of extracurricular sports activities at the highest level. Finally, it is necessary to develop a plan for the adaptation and reconstruction of the existing school sport facilities.

The number of the pupils participating in the school sport system should be increased to 35% (conclusions of the document “The Strategy for the Development of School Sport in Croatia 2009-2014”). Accordingly, additional effort should be put into achieving this goal in the eastern Croatian counties. One of important measures to be taken is to introduce a system for registration of members of school sport associations, since the majority of pupils that participate in school sport also participate in the activities of sports clubs.

In addition to the above mentioned guidelines, it is important to address the system of financing, which could be significantly improved. One of major problems related to financing is the fact that school sport associations are not legal entities, so the funds for their operation are transferred to the accounts of their respective schools. Frequently the funds allocated for the SSAs are used for other, "more important" purposes.

5. Conclusion

The data presented in this paper clearly suggest that there is a lot of room for improvement in the domain of school sport in eastern Croatian counties. First and foremost, these improvements concern the level of participation of children in school sport, where the key role of PE teachers should be emphasised. From the first grade of primary school to the fourth grade of secondary school pupils must be familiarised with the benefits of the participation in sport at Physical Education classes and extracurricular sports activities. It is also necessary to underline the educational component of all physical activity and sports programmes. This is conducive to the accomplishment of the goal of increasing the number of children participating in school sport activities. Also, a structured system for the reconstruction of the existing and the construction of new sports facilities can increase their utilisation for the purpose of the development and improvement of school sport in eastern Croatian counties.

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COMMUNITIES OF PRACTICE AS A TEACHING TOOL IN THE DEVELOPMENT OF ENTREPRENEURIAL BEHAVIOR

ZAJEDNICE PRAKSE KAO OBLIK UČENJA U FUNKCIJI RAZVIJANJA PODUZETNIČKOG PONAŠANJA

ABSTARCT

Communities of practice (Lave i Wenger, 1991) 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. In order to define the impact that communities of practice have on the development of entrepreneurial behavior, an empirical research by means of a questionnaire was carried out with a sample of 324 students of Josip Juraj Strossmayer University in Osijek. Apart from the descriptive, univariate statistics, a bivariate analysis was also used, as well as a multivariate data analysis. The results of the research show that students who take part in the activities of communities of practice, demonstrate higher propensity for entrepreneurial behavior and a higher probability of starting their own business than students who are not active in communities of practice. Therefore it seems that in entrepreneurial education, where the aim is to develop entrepreneurial competences and behavior, it is vital to encourage students to join communities of practice. It is also important to give all students of the university the experience of participating in some form of communities of practice. The research has also proven that university teaching does not contribute enough to the development of entrepreneurial competences. According to the results of this research communities of practice, and particularly firsthand experience, have a more significant role in that. The research suggests that in order to develop entrepreneurial behavior it is essential to include more practical activities into the traditional teaching at the university. It is also necessary to consider ways of using the potential of firsthand experience for the development of entrepreneurial behavior through supplementing university courses with some forms of communities of practice.
Key words: *communities of practice, entrepreneurial behavior, teaching, competences, university*

SAŽETAK

Zajednice prakse (Lave i Wenger, 1991) su društvene strukture koje čine pojedinci koji su uključeni u zajedničko učenje u nekom području, a koji dijele zainteresiranost i strast za ono što rade i uče kako to napraviti bolje/učinkovitije neprestano komunicirajući. U cilju utvrđivanja utjecaja koji zajednice prakse imaju na razvijanje poduzetničkog ponašanja provedeno je empirijsko istraživanje korištenjem strukturiranog upitnika na prigodnom uzorku 324 studenta Sveučilišta Josipa Jurja Strossmayera u Osijeku. Osim deskriptivne, univarijatne statističke obrade podataka korištena je bivarijantna analiza te multivarijantna statistička obrada podataka. Za testiranje značajnosti razlika između aritmetičkih sredina iz *više uzoraka korištena je jednosmjerna (one-way) analiza varijance (ANOVA) za nezavisne i zavisne uzorke, kao i složena analiza varijance (MANOVA) za ispitivanje utjecaja i interakcije većeg broja nezavisnih varijabli na veći broj zavisnih varijabli. Rezultati istraživanja potvrđuju da studenti koji su na neki način uključeni u oblik zajednica prakse pokazuju veću zainteresiranost za poduzetničko ponašanje i veću vjerojatnost započinjanja vlastitog posla od studenata koji nisu članovi zajednica prakse. Zbog toga je u poduzetničkom obrazovanju, kojemu je cilj razvijanje poduzetničkih kompetencija i poticanje poduzetničkog ponašanja, važno studente ohrabrivati na uključivanje u zajednice prakse i svim studentima omogućiti iskustvo sudjelovanja u zajednicama prakse. Također je utvrđeno da poslovne škole/fakulteti vrlo malo doprinose razvijanju poduzetničkih kompetencija. Prema rezultatima ovoga istraživanja na to puno veći utjecaj imaju zajednice prakse, a najveći utjecaj na razvijanje poduzetničkih kompetencija ima životno iskustvo. Na osnovi rezultata ovog istraživanja može se zaključiti da bi se u svrhu ostvarivanja većeg utjecaja na razvoj poduzetničkog ponašanja trebalo uvesti više praktične nastave u formalno obrazovanja na fakultetima. Također bi trebalo osmisliti načine za iskorištavanje potencijala koji iskustvo ima u razvijanju poduzetničkog ponašanja kroz nadopunjavanje fakultetskih programa oblicima zajednica prakse.*

Ključne riječi: *zajednice prakse, poduzetničko ponašanje, poučavanje, kompetencije, sveučilište*

1. Introduction

There is a growing interest in the field of entrepreneurship, especially since Drucker's prophetical insight that the Welfare state is past, and the Entrepreneurial Society seems like the most likely successor (Drucker, 1985). Entrepreneurial behavior has become a prerequisite of any economic development and educational institutions are increasingly called upon to provide better educated enterprising individuals who will either act as entrepreneurs, or will be able to manage their careers and lives in an entrepreneurial way.

Literature review indicates that education programs in entrepreneurship are quite homogeneous in terms of content (Katz, 2002; Hytti and O'Gorman, 2004), but dispersed in terms of teaching pedagogy. Furthermore, despite the consensus among researchers and practitioners that entrepreneurship is teachable, models of successful entrepreneurship education delivery are rather elusive.

This study complements the knowledge about entrepreneurship education aiming to support the supply of young enterprising individuals into the economy through the identification of a potential more efficient teaching method. It focuses on defining the impact that communities of practice have on the development of entrepreneurial behavior and proposes communities of practice as an innovative way of developing entrepreneurial behavior among university students.

3. Entrepreneurial behavior, entrepreneurship education and communities of practice

It can be accepted that, as any other kind of behavior, entrepreneurial behavior also consists of individual's actions and reactions, which present a response to the external and internal impulses. Based on the definition of entrepreneurship (Bygrave, 1991; Herron and Robinson, 1993; Gibb and Cotton, 1998), it can be concluded that in the case of entrepreneurial behavior, these particular actions and reactions are the ones needed for the creation and recognition of opportunities, introduction of changes and creation of organizations whose aim is to make use of these opportunities and manage the increasing levels of uncertainty and complexity in the environment. Entrepreneurial behavior is influenced by following elements: demographic factors and personal characteristics, attitudes and believes, intentions, environment, entrepreneurial competences and education (Sedlan-Kőnig, 2012). Previous research (Bird, 1988; Krueger, 2003) indicates that education can contribute significantly to the development of entrepreneurial behavior, in particular though the acquisition of competences. The role of competences in the development of entrepreneurial behavior has unjustly been neglected.

"Entrepreneurship education program is usually defined as the process of providing individuals with the ability to recognize commercial opportunities and the knowledge, skills and attitudes to act on them.¨ (Jones and English, 2004, 416). This definition emphasizes the professional skills and "how to" knowledge that is essential for starting, managing and growing a new business. However, changing dynamics of environment and the way economies function today have created the imperative for a broader understanding of the role of entrepreneurship education. Besides professional skills and knowledge, entrepreneurship education should foster entrepreneurial competences in every individual, as well as awareness about the benefits of entrepreneurship in the society. Therefore, universities have been encouraged to provide more substantial impact on developing and stimulating entrepreneurial knowledge, skills, attitudes and values through their programs.

Literature review on the entrepreneurship education pedagogy reveals that entrepreneurship education should take the action-learning or experience oriented learning approach in order to increase the likelihood of effective entrepreneurship outcomes. Furthermore, the main challenge for entrepreneurship educators is to create appropriate learning environment which reflects the life world of entrepreneurs. Therefore, entrepreneurship education has increasingly adopted experiential approaches (Gibb, 1993, 1996). Learning through experience, which combines experience, perceptions, cognitions and behaviors, is seen as an innovative alternative to traditional teaching. It emphasizes the central role that experience plays in the learning process (Rae and Carswell, 2000). One way of achieving this objective is by introducing communities of practice into the university education programs.

Communities of practice (Lave i Wenger, 1991) 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. 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.

There are numerous differences in the way communities of practice and universities operate and they are presented in Table 1.

Table 1. Comparison of communities of practice and universities

COP emphasize	Universities emphasize
novelty	tried out things
facts	ideas
freedom	control
creativity	structure
community	individuals
authority	power
norms	rules

Source: Sedlan-Kőnig, 2012

3. Sample, instrument and data

The main objective of the empirical research that was conducted on the convenient sample of 324 students of Josip Juraj Strossmayer University in Osijek was to explore the impact that communities of practice have on the development of entrepreneurial behavior. The instrument used in this quantitative research was a questionnaire consisting of two parts. The first part includes eight closed questions related to the demographics of the respondents, their propensity for entrepreneurial behavior and the estimated probability of starting their own business. Likert scale was used for some answers. In the second part of the questionnaire, the General Enterprising Tendency (GET) test (Caird, 1991) was employed. In this test, respondents express their agreement or disagreement with the 54 statements that cover the following attributes: need for achievement, need for autonomy, creative ability, risk taking propensity, motivation and determination. The sample was grouped into three subsamples: students who regularly do sports (and were therefore observed as an example of community of practice), secondly, students who are members of students' associations (and were observed as an example of community of practice of a different kind[107]), and finally, the control group, students who neither do sports nor are members of students' associations.

The analysis of the results included nonparametric and parametric descriptive statistics. Univariate statistics, bivariate analysis, as well as multivariate data analysis were used. A univariate analysis of variance (ANOVA) was used for the comparison of means of several groups for both dependent and independent variables. A multivariate analysis of variance (MANOVA), on the other hand, was employed for the testing of effects and interactions of several independent variables on more dependent variables.

For the purpose of this research the following hypotheses were tested:

H1: Students who are members of students' association or do sports demonstrate stronger propensity for entrepreneurial behavior than students who do not do sports.

H2: Students who are members of students' association or do sports demonstrate a higher probability of starting their own business than students who do not take part in such activities.

H3: University teaching does not contribute significantly to the development of entrepreneurial competences

H4: Doing sports and taking part in students' associations as well as firsthand experience contribute more to the development of entrepreneurial competences than university teaching.

4. Analysis and results

The results of the testing for the Hypotheses 1 and 2 are shown in Table 2.

[107] Sports clubs and students' associations were taken as suitable examples of communities of practice because they satisfy all three criteria: domain, community and practice.

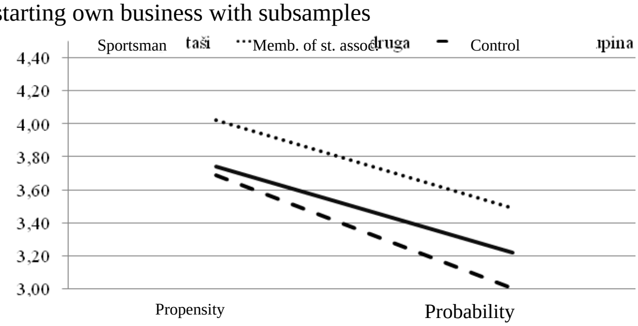
Table 2. Descriptive statistics for the variables: Propensity for entrepreneurial behavior and Probability of starting own business

Variable	Gender	Category	Mean	Std. dev.	N
Propensity for entrepreneurial behavior	Male	control	3,83	1,112	54
		sportsmen	3,81	1,090	90
		associations	4,30	,912	27
		Total	**3,89**	**1,080**	**171**
	Female	control	3,59	1,116	75
		sportsmen	3,57	1,152	40
		associations	3,82	1,227	38
		Total	**3,64**	**1,151**	**153**
	Total	control	3,69	1,117	129
		sportsmen	3,74	1,111	130
		associations	4,02	1,125	65
		Total	**3,77**	**1,119**	**324**
Probability of starting own business	Male	control	3,20	1,219	54
		sportsmen	3,32	,958	90
		associations	3,89	,847	27
		Total	**3,37**	**1,052**	**171**
	Female	control	2,85	1,049	75
		sportsmen	3,00	1,038	40
		associations	3,21	1,119	38
		Total	**2,98**	**1,067**	**153**
	Total	control	3,00	1,132	129
		sportsmen	3,22	,990	130
		associations	3,49	1,062	65
		Total	**3,19**	**1,075**	**324**

Source: Sedlan-Kőnig, 2012

Differences in means for propensity for entrepreneurial behavior and probability of starting own business can be observed although a statistically significant difference was observed only in propensity for entrepreneurial behavior. Thus, the Hypotheses 1 and 2 need to be further tested. The above results show that students who are not members of sports clubs or students' associations (the control group) demonstrate weaker propensity for entrepreneurial behavior (mean 3,69) and lower probability of starting own business (mean 3,00) than students active in communities of practice. On the other hand, no difference was observed between members of two types of communities of practice regarding this matter. Interestingly, members of students' associations on average, show the strongest propensity for entrepreneurial behavior. They also assess the probability of starting own business as the highest (Graph 1).

Graph 1. Means for variables: Propensity for entrepreneurial behavior and Probability of starting own business with subsamples



Source: Sedlan-Kőnig, 2012

These results suggest that a considerable pattern exists in the means for the observed variables. However, a difference between two examples of communities of practice regarding their influence on the development of entrepreneurial behavior can be observed.

Hypothesis 3: University teaching does not contribute significantly to the development of entrepreneurial competences was tested with the correlation analysis for particular segments, as well as general self-efficacy. As can be seen in Table 3, the lowest correlation exists for the impact of university teaching on efficacy in persuasion and negotiation, and the highest for efficacy in sales and marketing. In general, the estimation of the impact of university teaching on efficacy is a medium positive correlation. This means that Hypothesis 3 is confirmed.

Table 3. Pearson's coefficients of correlation between different aspects of self-efficacy and estimation of influence of university teaching

General perception of efficacy in	**,35**
a) detection of market opportunities	,31
b) collection of, analysis and understanding of data	,42
c) persuasion and negotiation	,21
d) usage of IT	,34
e)development of interpersonal relations	,25
f) management of financial resources	,44
g) sales and marketing	,54
h) work under stress	,38
i) dealing with uncertainty	,28
j) planning	,34
k) managing changes in the environment	,27

Source: Sedlan-Kőnig, 2012

The results of the testing for the Hypothesis 4: Doing sports and taking part in students' associations, as well as firsthand experience contribute more to the development of entrepreneurial competences than university teaching are shown in Table 4.

Table 4. Pearson's coefficients of correlation between general self-efficacy and estimation of influence of university teaching

	1	**2**	**3**	**4**
1. General self-efficacy	1,000	,398**	,603**	,347**
2. General estimation of sports clubs'/associations' influence	,398**	1,000	,381**	,421**
3. General estimation of influence of firsthand experience	,603**	,381**	1,000	,314**
4. General estimation of university's influence	,347**	,421**	,314**	1,000
** positive correlation , p<0,01				

Source: Sedlan-Kőnig, 2012

It is evident that the correlation between general impact of university with the general self-efficacy is lower (0.347) than general impact of firsthand experience (0.603) and membership in students' associations and sports clubs (0.398). Hence, they contribute stronger to self-efficacy. Therefore, the hypothesis 4 is also confirmed.

In order to discuss the H1: Students who are members of students' association or do sports demonstrate stronger propensity for entrepreneurial behavior than students who do not do sports and H2: Students who are members of students' association or do sports demonstrate a higher probability of starting their own business than students who do not take part in such activities in more detail, a further analysis of the results of GET test was performed (Table 5).

Table 5: Descriptive statistics of the results of GET test according to subsample

		N	Mean	Std. deviation	Maximum
GET total	control	129	28,8605	6,16789	43,00
	sportsmen	130	32,0000	5,49418	44,00
	associations	65	34,2000	6,27047	50,00
	Total	324	31,1914	6,25914	50,00

Source: Sedlan-Kőnig, 2012

A detailed analysis confirms that both, students members of sports clubs, as well as members of students' associations display a stronger propensity for entrepreneurial behavior than students non-members. Almost in all aspects, students who are members of students' associations display the highest results of all. Therefore, both Hypothesis 1 and 2 are confirmed.

5. Discussion and implications

The research results prove that students who do sports as well as those who are members of students' associations, in other words students who are active in communities of practice, demonstrate a stronger propensity for entrepreneurial behavior and a higher probability of starting their own business than students who lack the experience of participating in communities of practice. Hence, it can be concluded that communities of practice have a positive influence on propensity for entrepreneurial behavior and probability of starting own business. In entrepreneurial education where the expected outcome is the development of entrepreneurial competences and consequently behavior, it is essential to encourage students to participate in some sort of communities of practice.

Furthermore, university teaching contributes only slightly to the development of entrepreneurial competences. According to the results of this research, communities of practice have a more significant function in that. As it was elaborated earlier, firsthand experience has the most powerful influence on the development of entrepreneurial behavior. Therefore it is desirable to initiate more practical activities into the formal education at the university with the aim of exercising a stronger influence on the development of entrepreneurial behavior. It is also necessary to consider ways of using the potential of firsthand experience for the development of entrepreneurial behavior through supplementing university courses with some forms of communities of practice.

6. Conclusion

Universities are very traditional and change-resistant institutions that have to realize the opportunities of influencing and developing entrepreneurial competencies and behavior. The findings of the study provide evidence that the university environment gives weak encouragement and support to that goal. University programs in general are traditionally un-entrepreneurial, and oriented toward supplying knowledge about entrepreneurship, not for entrepreneurship. Therefore, it is important that universities apply a number of different strategies to stimulate the development of entrepreneurial potential. One of the ways is by employing communities of practice as a supplement to traditional teaching practices.

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IMPLEMENTATION OF SUSTAINABLE DEVELOPMENT FOR EDUCATION IN BRODSKO POSAVSKA COUNTY

PRIMJENA ODRŽIVOG RAZVOJA U OBRAZOVANJU U BRODSKO POSAVSKOJ ŽUPANIJI

ABSTRACT

Changes in awareness, educational values and social responsibility in educational institutions have an increasing influence on sustainable development. Learning about sustainable development for young people is an essential tool for achieving sustainability. Schools should be models of sustainable living and learning. Raising awareness of certain values and education for sustainable development should start as early as possible, in primary school or in kindergarten. Education for sustainable development is transferred to lifelong learning and includes professional teachers' training. There are many ways in which educational institutions take the responsibility for leading community towards a sustainable future and can be involved in sustainable development. Major fields of sustainable development in educational system can be developing public understanding, public awareness, restructuring of education programs, providing training and most important is access to quality basic education for everybody.

The purpose of this paper is to investigate four target groups: pre-school, basic, upper secondary teachers and higher education professors and their awareness, knowledge and understanding about sustainable development in Brodsko Posavska County. The research has been carried out in the beginning of 2012. Analysis of implementation of sustainable development in educational system of Brodsko Posavska County is based on survey conducted on four education institutions: 10 pre-schools, 20 basic schools, 8 upper secondary schools and 2 higher education institutions. Altogether 40 institutions and 62 teachers/professors did respond. Research shows current understanding of the sustainable development in educational institutions in Brodsko Posavska County. It has own limitations which should be *taken into consideration in further implementation of activities in education to achieve sustainable development. The main question of this paper refers that teaching stuff should be vital parts of society, have more awareness of transferring their knowledge about sustainable development. They should be centers of knowledge and promoters of sustainable development not only for people in their schools, but also for local community.*

Key words: *Implementation, Sustainable development, Education, Teacher performance, Educational Institutions, Knowledge*

SAŽETAK

Promjene u svijesti, obrazovne vrijednosti i društvena odgovornost u obrazovnim ustanovama imaju sve veći utjecaj na održivi razvoj. Učenje o održivom razvoju za mlade je osnovni alat za postizanje održivosti. Škole bi trebale biti modeli održivog življenja i učenja. Podizanje svijesti o određenim vrijednostima i obrazovanje za održivi razvoj treba početi što je prije moguće, u osnovnoj školi ili u vrtiću. Obrazovanje za održivi razvoj se prenosi na cjeloživotno učenje i uključuje profesionalnu obuku učitelja. Postoji mnogo načina na koje obrazovne institucije mogu preuzeti odgovornost za vođenje zajednice prema održivom budućnosti i mogu biti uključene u održivom razvoju. Glavna područja održivog razvoja u obrazovnom sustavu mogu razvijati javno razumijevanje, svijest javnosti, restrukturiranje obrazovnih programa, pružanje obuke, te najvažniji je pristup na kvalitetnom osnovnom obrazovanju za sve.
Svrha ovog rada je istražiti četiri ciljne skupine: predškolski odgoj, osnovnoškolske učitelje, srednjoškolske i visokoškolske profesore i njihovu svijest, znanje i razumijevanje o održivom razvoju u Brodsko posavskoj županiji. Istraživanje je provedeno početkom 2012. Analiza provedbe održivog razvoja u obrazovnom sustavu u Brodsko posavskoj županiji temelji se na anketi provedenoj u četiri vrste obrazovnih ustanova: 10 predškolskih ustanova, 20 osnovnih škola, 8 srednjih škola i 2 visokoobrazovne ustanove. Ukupno 40 institucija i 62 nastavnika / profesora je pristupilo anketi. Istraživanja pokazuju trenutno razumijevanje održivog razvoja u odgojno-obrazovnim ustanovama u Brodsko posavskoj županiji. Postoje ograničenja koje treba uzeti u obzir za daljnju provedbu aktivnosti u obrazovanju za postizanje održivog razvoja. Glavno područje istraživanja ovog rada odnosi se na nastavno osoblje koje bi trebao biti vitalni dio društva, te imati više svijesti o prenošenju znanja o održivom razvoju. Oni bi trebali biti centri znanja i promotori održivog razvoja ne samo za polaznike u svojim školama, već i za lokalnu zajednicu.

Ključne riječi: *provedba, održivi razvoj, obrazovanje, učinkovitost profesora, obrazovne ustanove, znanje*

1. Introduction

Education has always been considered as one of the most important components of human development and traditionally held the most respectable position in our society. In a world characterized by dynamic and complex changes there is an increasingly growing concern in the last two decades about lack of care for the environment. In light of this aspect, the need for a sustainable development in education has become acutely urgent. Knowledge today represents a base for the quality of human life, so education for sustainable development should be an integral part of every educational system in a society. Education for sustainable development will give to pupils and students the opportunity to assume obligations for creating sustainable future and possessing it. The main aim of this paper is to emphasize the meaning of education for sustainable development and point to the possibilities for the implementation of sustainable development into educational institutions in Brodsko Posavska County (BPC).

2. Sustainable development

Sustainable development refers to “development that meets the need of the present without compromising the ability of future generations to meet their own needs” (Patzelt, H., Shepherd, D.A, 2011, p. 631). It defined sustainable development as a complex and interdisciplinary area. Term sustainability is used as substitute to words such as systematic, durable or long-term. The understanding of sustainable development is not easy because of different sustainable dimensions: economic, environmental, and social which are interrelated and complementary. One of the first steps in the process of implementation sustainable development is education. Education is “the act or process of imparting or acquiring general knowledge, developing the powers of reasoning and judgment, and generally of preparing oneself or others intellectually for mature life“ or we can define as „the act or process of imparting or acquiring particular knowledge or skills, as for a profession“(http://dictionary.reference.com/). For the improvement and progress of society in Brodsko Posasva County generally education is very important and necessary.

2.1. Education for sustainable development

Education is prerequisite to sustainable development and one of priority aims of society. „Education for sustainable development is an umbrella for many forms of education that already exist, and new ones that remain to be created. Today’s education is crucial to the ability of present and future leaders and citizens to create solutions and find new paths to a better future” (http://www.unesco.org/). Education for sustainable development is a dynamic concept. It comprising all aspects of education, society’s awareness and training in order to provide or expand understanding for sustainable development. This paper research formal learning for sustainable development.

2.2. Education for sustainable development in the world

First discuss about education for sustainable development was held in Rio de Janeiro in 1992 at UN Conference on Environment and Development (the Earth Summit). The result of conference was Agenda 21, program focused on acting locally, regionally, nationally and globally in purpose to achieve sustainable development in the 21st century. The Declaration of the Earth Summit in Rio de Janeiro was adopted in at the World Summit on Sustainable Development in Johannesburg in 2002. Decade of Education for Sustainable Development 2005 – 2015 is a UN initiative that education is fundamental for creating a more quality and stable society and implement the ideas of sustainable development into all levels of educational system. „The overall goal of the UN Decade is to integrate the principles, values and practices of sustainable development into all aspects of education and learning. This educational effort will encourage changes in behavior that will create a more sustainable future in terms of environmental integrity, economic viability and a just society for present and future generations” (http://www.unesco.org/).

2.3. Education for sustainable development in Republic of Croatia

The improvement in the quality of the environment and improvement in the quality of the education as well as quality in research and development activities is emphasized in Croatian

Strategy for Sustainable Development (2009). One of eight key challenges of Strategy that needs to be fulfilled is to raise the educational stage of all people in Republic of Croatia and build a society based on knowledge. „Education for sustainable development in Republic of Croatia should be implemented on three levels: through formal learning in educational institutions; outside regular educational institutions, for instance, through activities of non-governmental organizations (informal learning); through media (newspapers, television, radio) in order to make education for sustainable development a part of everyday life"(http://www.mzopu.hr/). In this paper education for sustainable development will be implemented through formal learning in educational institutions. Formal learning is organized as acquisition of professional knowledge, skills and competencies.

3. Research

Education system of all countries is one of the main elements of the development and competitiveness of its human resources. Formal education system of the Republic of Croatia includes pre-school, basic, upper secondary and higher education. The share of public expenditure on education is about 4% of GDP and it is under the European average.

Table 1. Number of institutions and teaching staff (BPC and Croatia)

Educational institutions	Number of institutions in BP County	Number of institution Croatia	Number of teaching staff BP County	Number of teaching staff Croatia
Pre-school education	28	1495	132	10046
Basic education	115	2130	1230	32213
Upper secondary education	15	711	625	24223
Higher education	3	166	92	16319

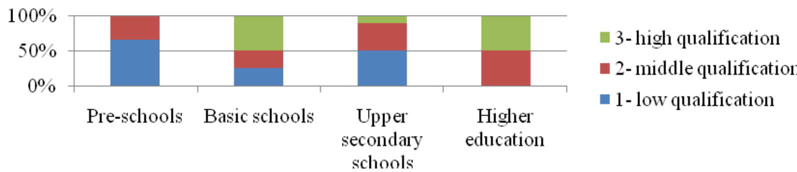
Source: Made by authors according to www.dzs.hr

Pre-school education includes nurseries, kindergartens and a form of preparation for elementary school. It is education for children from 1 year old and lasts until child is 6 or 7 years old. In Brodsko Posavska County (BPC) there are 28 pre-school institutions (1,87% of a total number in Croatia) and 132 teaching staff (1,31% of a total number in Croatia). Basic education is obligatory education lasting 8 years for all children between the age of 6 and 15. Basic education is carried out in schools and gives basic general education according to the established educational plan. In BPC there are 115 basic schools (5,40% of a total number in Croatia) and 1230 teaching staff (3,81% of a total number in Croatia). Upper secondary education is divided into: 3-year vocational schools which prepare young people for vocation, 4-year technical and other vocational schools, art school and 4-year general education – gymnasia. They all prepare young people for professional and higher education. In BPC there are 15 secondary schools (2,10% of a total number in Croatia) and 625 teaching staff (2,58% of a total number in Croatia). Higher education institutions include university, faculty, art academy as a component part, polytechnic and college. The mission of the University is to prepare the students for the labor market, personal development and growth and for active participation in the society. In BPC there are 3 higher institutions: Faculty of Mechanical Engineering Slavonski Brod, Faculty of Teacher Education-dislocated study in Slavonski Brod and University of Applied Sciences of Slavonski Brod. That is 1,80% of a total number in Croatia and teaching staff 0,56% of a total number in Croatia.

3.1.Research methods

The research methods in this paper consist of survey developed by the authors in respect of the awareness and knowledge of sustainable development and environmental education among teachers and professors in BPC. Analysis of implementation of sustainable development in educational system of BPC is based on survey conducted on four education institutions: 10 pre-schools, 20 basic schools, 8 upper secondary schools and 2 higher education institutions. A total number of teaching staff did respond on survey: 6 in pre-schools, 16 in basic schools, 30 in secondary schools and 10 in higher educations. Altogether 40 institutions and 62 teachers/professors in BPC did respond.

Chart 1. Teachers/professors qualification about sustainable development



Source: Made by authors

Education of teachers and professors about sustainable development represent not only obligation, but also their responsibility. Chart 1. shows teachers and professors qualification about sustainable development. In the past, pre-schools in our country did not follow the trends of the development of education for sustainable development, but today the process of that kind didn't change. In pre-schools almost 67% of teaching stuff has a low qualification about sustainable development and not familiar with the term, only 33% have some knowledge. The target group of teachers in basic schools responded that about 50% have a high, 25% middle and 25% low qualification about sustainable development. Only 10% of professors in upper secondary schools have high qualification about sustainable development, 40% middle and even 50% of them are low skilled. In higher institutions an equal number of respondents 50% of them have high and middle qualification. It can be concluded that highest qualification of teaching staff about sustainable development is in basic schools and higher education. Their activities about sustainable development are shown in text below.

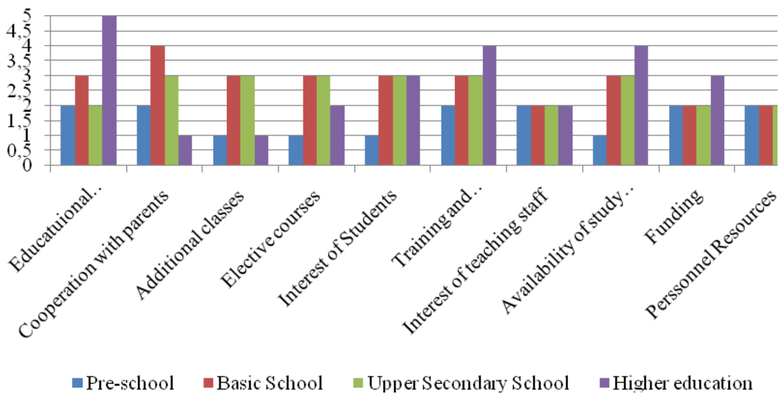
3.2. Ways of implementation of sustainable development

Aiming to find direct answers about ways of implementation of sustainable development respondents had to write activities in their institutions. In pre-schools it is necessary to consider how to bring education for sustainable development closer to a child. The basic school teachers listed activities like discussions with pupils (about environment, pollution, recycling, global warming and so on), walks or outdoors activities (like gardening, decorating of composting bin, riding a bike), marks the anniversary of Earth Day, world Water Day and Electricity Day. Teachers take pupils to excursions and sports days. Teachers also motivate pupils about not throwing garbage in nature, separation of waste, preserving the environment and all ideas about how to contribute to sustainable development. In Upper secondary schools and higher education pupils and students learn about sustainable development through lectures of formal system of education. Higher education takes the responsibility for leading society towards a sustainable future. In both surveyed institutions there are obligatory courses about sustainability (Agro ecology, Agricultural botanic, Social Ecology and Renewable Energy Sources).

3.3. Measure of implementation pre each item

According to the survey respondents had the opportunity to express the level of implementation of each item by scores of 1 to 5. Level values are: 1 - Never; 2 - Rarely; 3 - Sometimes extent; 4 - Implement, 5 - Conducted in a fully satisfactory way. Results of research are presented in chart 2.

Chart 2. Implementation of sustainable development in teaching process



Source: Made by authors

The overall evaluation of the results shows that higher education in BPC has a strong tendency to develop and implement education for sustainable development through the environmental science. It indicates the students' desire to study sustainable development, academic staff members are interested in teaching sustainable development and gives a high score for the knowledge and skills of their academicians. The lowest rated categories are cooperation with parents and additional classes. Approximately the same percent of statements in Chart 2. in basic and upper secondary schools have the equal attitudes and considerations about sustainable development. Such a result is largely due to the situation that the educational programs are almost identical. The presentation of research findings points out that the understanding of sustainable development in pre-schools is still too narrow. Pre-schools have the lowest rated categories and don't implement opportunities to incorporate elements of sustainable development in their curricula.

4. Conclusion

One of the key actors that should raise the awareness of sustainable development in BPC is certainly educational institutions. They educate pupils and students about awareness of environment and also of their responsibility for the future. Nowadays, sustainable development is the greatest challenge that humankind is faced with. When educational institutions in their work commit themselves to implement principles of sustainable development it will progressively be transferred to all sectors of society. After the survey analysis of implementation of sustainable development into educational institutions the research result is that higher education institutions of BPC have the key role in generating new knowledge and practices. It is most important for education institutions to identify the importance of education for sustainable development. They have to take over the sustainability role in society, develop strategies for its implementation in order to promote better quality of the world around us.

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WORKERS' SPORTS GAMES – A BRAND OF OSIJEK CITY OF OSIJEK – CITY OF WORKER'S SPORTS

RADNIČKE SPORTSKE IGRE – BREND OSIJEKA – GRADA RADNIČKIH SPORTOVA

ABSTRACT

Analysis of findings of numerous studies of socio-economic impacts of sport and sports recreation on economic development showed that sports and sports recreation generate numerous social (humanities) and economic effects of sport, tourism and other economic activities.

The aim of this paper is to show to local government and entrepreneurs that workers sports can become a brand of the city of Osijek, show possibilities of implementation of sports recreation in economy and possibilities of influence on the whole social and economic development.

***Key words**: sports, sports recreation, social and economic development*

SAŽETAK

Analizom rezultata brojnih istraživanja društveno-ekonomskih učinaka sporta i sportske rekreacije u gospodarskom razvoju došlo se do spoznaje da sport i sportska rekreacija generiraju brojne društvene (humanističke) i ekonomske učinke u sportu, u turizmu i u ostalim gospodarskim djelatnostima.

Cilj je ovoga rada je pokazati lokalnoj upravi i poduzetinicma da radnički sport može postati brendom grada Osijeka, ukazati na mogućnosti primjene sportske rekreacije u gospodarstvu, istovremeno putem sportske rekreacije utjecati na ukupan društveni i gospodarski razvoj.

***Ključne riječi**: sport, sportska rekreacija, radnički sport, društveni i gospodarski razvoj*

1. Introduction

Scientific and technical advances have facilitated people's lives, making it more comfortable and cultured but also disturbing the balance and beginning to seriously threaten their biological status. Due to the reduction of body movements during the production process and during working hours, people started to decrease and even lose their physical and working condition. On the other hand, noise, air pollution and the environment, and many other factors adversely affect the health of humans, disturbing functional abilities and health.

Sports Recreation, which can be defined as an activity that satisfies the human need for movement and physical activity with the ultimate goal of improving and preserving health, is increasingly gaining importance in developed countries precisely because of the possibility of application of programmed sports and recreational activities in the work process-oriented prevention, elimination or alleviation of fatigue and discomfort caused by the character of labor and increasing productivity and lengthening working lives.

2. Workers' sports games program

Workers' sports games (RSI) are one of the biggest forms of sports and recreational activities of City association for sports recreation “Sport for all” Osijek (GSSR "Sport for All") with a long tradition in Osijek.

It's been exactly 60 years since the Gymnastic Society of Upper town of Osijek was renamed the "Partisan" - Association for physical education. The same year 1952 first Workers' sports games with the participation of 28 organizations with 98 teams and 917 competitors were held. Calendar of RSI in the year 1956 covered 13 sports disciplines, introduced gymnastics all around and wrestling. According to the number of entries (38 collectives, 253 teams and 1974 participants), RSI were the highest 50-sports competition in that time in the city of Osijek. Number of participants increased so that in 1969 it reached a record number of 53 organizations working with 1281 teams and 11 849 participants. During these 80 years, sports and recreation became an independent field of physical education that included competitive, recreational and educational sport. For recreation, the quality of sport is reflected in the activity that is regularly implemented under the umbrella organization of two or three times a week, but with a load that corresponded to mature age, older, oldest, or people with reduced functional capabilities.
Within the RO maintain the professional game: Croatian builders Games, SDK, Games,

Electricity Games, Konditorijade, IPK Games, Bank Games, Insurance companies games, Pension and health insurance Games, Markets Games, etc.

Since 1990 GP RSI started to feel the crisis and drastic decline in attendance. There are numerous causes for this: the collapse of giant enterprises, political and social difficulties, the reorganization of trade unions and problems with financing workers' -athletes. That being said, 435 teams performed with 3658 players in GP RSI. During the war games died, but have been refurbished in 1993.

Over the past few years a trend of decrease in the number of participants at the Workers' sports games continued, caused by the economic crisis of global proportions. In the year 2011 82 companies with 165 teams and 1980 participants in total participated in the Games.

2.1.Financing

The program of workers' sports games is funded partly from the city budget, partly from membership dues and fees paid by participants of the Games companies or participants in person.

Because our country is threatened by a new round of economic recession, it is realistic to expect that the number of unemployed will increase. In these circumstances it is increasingly difficult to separate the funds through which sport and recreation training would be made available to a wider span of citizens.

3. Measures of economic progress through sports recreation

Sports and recreation in the working process are not widely accepted in our practice, although they are highly demanding and have proven values. Changing this requires a decisive synergic action of city government and businesses that would provide funds to enable participation in the Workers' sports games for free to all interested workers, free of registration and membership fees.

4. Workers' sports games as a brand

The survival of the workers' sports games, it is of great importance both for the employees of many companies in Osijek, as well as for the owners and entrepreneurs who are promoting sports and recreational exercise as a significant influence on increasing the productivity of their workers, and running through a direct and measurable benefits.

It is important for the city of Osijek that Labor sports games are recognized as its own original brand, uniqueness which we have continue through sixty years of tradition. Let us recognize, save and be proud of what we have. With 82 companies, 165 teams and a total of 1980 participants, we believe that the Workers' sports are, and will be in the distant future, the most numerous sports competition in Osijek today. We are already the CITY of Company Sport and as such we are unique in Croatia!

The right to participate in the Workers' sports games, as a reward for successful work, should be determined by the employer. The employees would participate in some form of active rest in the regular break, which would be offered in their company, and their goal is to motivate employees and create healthy atmosphere, which would result in increased productivity and prolonging working lives of employees. The benefits of such methods of work organization can be found in some respectable domestic and many foreign companies.

5. Programmable active rest in work process

It is known that fatigue reduces work performance and, if there is no rest phase, the critical time comes to reduce speed and decrease efficiency, increase errors, and decrease quality and increase possibility of injuries.

Numerous studies have shown that the speed of doing business increases with shorter working day. In fact, the only way to combat fatigue for workers is longer and more frequent breaks, and the slower pace of work. When a worker gets tired, his efficiency is low, and consumes much energy. Therefore, the benefits of working time reduction are greater as the operation gets more difficult and more tiring.
Basing on the modern scientific knowledge and practical experience on the application of active rest in the work process, the analysis of organizational, technological conditions and possibilities of application of programmed sports and recreational activities in the workflow, analysis and subjective evaluation of the nature of work, the work load and the occurrence of fatigue by workers, it is possible to model a number of mini-sports-recreational activities aimed at prevention, elimination or alleviation of fatigue and discomfort caused by the character of work.

The basic structure of sport and recreation in the process comprises: an introductory training programs, programs in a regular break, programs in a special break , programs in a number of short breaks, mini-training programs, programs in the end of working hours.

- Introductory training programs are applied immediately before the commencement of work and last 7 to 10 minutes. Key elements of these programs are mostly specially selected exercises which are aimed at improving the function of the organism and faster preparation for work.

- Programs in the regular break shall be closer to work (at the factory halls, open and landscaped areas near the workplace, etc.) and usually last 10-15 minutes. Features of these programs can be very different: walk, the elements of sports games, entertainment, recreational games, etc. Sports and recreation in a regular break are aimed at prevention, elimination or alleviation of chronic fatigue, discomfort and interference characteristic of the work process.

- Programs in special breaks are applied depending on the number of special breaks, which in turn depend on the nature, type, amount and intensity of work, and usually last 7-10 minutes (per pause). Features of these programs may be different depending on whether it is implemented within or outside the workplace; usually these are corrective, compensatory and relaxing exercises (at work) or other facilities, similar as the programs in a regular break (outside the workplace).

- Mini individual exercise programs, most often applied individually, and usually lasting 1.5 to 2 minutes with repetition of 6-7 times. Features of these programs usually comprise 2-3 specially selected exercises, which performance at the appropriate alternating contraction and relaxation of certain muscle groups are in proper sequence and rhythm. Mini individual training programs are focused on achieving specific goals - prevention, mitigation and / or elimination of obstacles and problems specific to certain jobs and certain categories of workers.

- Programs for rest and recovery at the end of working hours apply usually in specially equipped facilities, which have the necessary spaces, facilities and equipment for the implementation of certain program contents, and they usually last 30 to 60 minutes. Features of these programs are usually a variety of relaxation exercises and relaxation, massage programs, autogenic training, etc. Programs for rest at the end of working time significantly contribute to the elimination of accumulated fatigue, relaxation, and alleviate anxiety and muscle pain and faster rest and recovery after work.

6. Recreational home

City budget funds for this year already predict refurbishment of the „Srednjoškolsko igralište“ (High School sports grounds), where the headquarters of City Alliance for Sport Recreation "Sport for All" Osijek is situated.

Covering the pool, which is also located in the building, we can get a space that will serve during the summer, as usual, for swimming lessons, aqua aerobics, therapeutic swimming, etc. In winter, if we could not provide water heating, we are suggesting the possibility of covering the pool, which would provide a spacious room for many other programs, as well as for workers' sports games competition. These are programs with tiny props that do not require large financial investments, and may be economically viable.

By providing this space to the City Alliance for Sport Recreation "Sport for All" Osijek , the citizens and working people of the city, Osijek would get recreational and health center , unique in Croatia.

7. Conclusion

Based on the realistic predictions, regarding the expected exit from the recession and an increase of personal and social standards, we can expect working people to accept more and more sport and physical activity as everyday necessities, as well as creative engagement and confirmation of its value, and thus improve business success and quality of life.

"Assumptions modes of being are independence, freedom and the presence of a critical mind. Its main feature is the activity. Being active means to express their skills, talents, wealth of human talent which, though in varying degrees, is endowed with every human being. It means to renew, grow, express it, to love, to overcome the isolation of the prison's own ego, to be interested in, to give. `` (Erich Fromm “Have or to Be”)

Which is the essence of recreation: recreation - lat re creo, Re creare: create, restore, re-create ...

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CROATIAN REGIONAL DIFFERENCES IN HEALTH RELATED QUALITY OF LIFE IN RELATION TO SELF PERCEIVED ECONOMIC STATUS

HRVATSKE REGIONALNE RAZLIKE U KVALITETI ŽIVOTA I ZDRAVLJU U ODNOSU NA SAMOPROCJENJENI EKONOMSKI STATUS

ABSTRACT

While much health research focuses on objective outcome measures, such as morbidity or mortality defined through clinical assessment, there is an increasing emphasis on self-reported measures of health status and health-related quality of life. Their use reflects the importance of considering the people's point of view and the multidimensional nature of health. Following the recognition of the individual's own perception as a useful indicator of general health status, self-perceived health has become one of the most significant population health indicators studied today. From a public health perspective, such monitoring aids the identification of population inequalities in health status, potentially reveals unmet needs in the community, and indicates important health-promoting efforts.

Numerous studies have shown significant relationship between self-perceived health and objective measures of health (morbidity and mortality). Poorer health is related to higher morbidity and mortality and secondary to lower everyday functionality of those people (population). Since chronic diseases and conditions became part of the everyday life for the

large proportion of our population it is considerable to research the subjective quality of life (QoL) of those people. It is known that health is one of the significant factors that influence person's QoL, and someone's own perception of satisfaction with life needs to be recognized as valuable indicator of population health (especially mental health).
Furthermore, low socio-economic status was correlated with subjective health and has implications on everyday functioning and working productivity of the individuals.
In this study the regional differences in health and quality of life was examined in the sample of 9070 adult participants from all region of Croatia. East Croatia region was compared to other regions.
Health was measured by SF-36 health status questionnaire covering eight dimensions of health separated in two area of health: Physical functioning, Role limitation due to physical problems, Bodily pain and General health perception which appertains to concept of physical health and dimensions of Social functioning, Role limitation due to emotional problems, Mental health, Energy and Vitality which appertains to concept of mental health.
Results have revealed significant regional difference in health with the significantly poorer health in East Croatian region in comparison with other regions. Health status was significantly correlated with self-assessed socio-economic status where is also the worst situation in East region (low level of both health and economic status). Taking in account that self perceived health has influence on person's everyday functioning, work ability and efficacy this results stress the importance of promoting biological, psychological and economical factors of health. Multidisciplinarity is a key approach in achieving this goal.

Key words: *health, quality of life, economic status, regional difference*

SAŽETAK

Istraživanja zdravlja populacije uobičajeno koriste objektivne mjere zdravlja kao što su to morbiditet i mortalitet, a danas se naglasak sve više stavlja na mjere samoprocjene zdravstvenog statusa i kvalitete života vezane za zdravlje. Te mjere ukazuju na važnost uvažavanja subjektivnog doživljaja zdravlja svakog pojedinca i na multidimenzionalnu prirodu zdravlja. Pokazalo se da je samopercepcija zdravlja koristan indikator općeg zdravstvenog stanja i ovaj indikator postaje sastavni dio populacijskih studija zdravlja danas.
Iz javnozdravstvene perspektive, ovakva praćenja pomažu u identifikaciji zdravstvenog stanja populacije, eventualnih nejednakosti u zdravlju, potencijalno otkrivaju potrebe zajednice te ukazuju gdje su potrebni dodatne aktivnosti u unaprjeđenju zdravlja.
Brojna istraživanja pokazala su da postoji značajna povezanost samo-opaženog zdravlja i objektivnih pokazatelja zdravlja (pobola i smrtnosti). Lošije zdravlje je povezano s višom stopom pobola i smrtnosti te sa smanjenom funkcionalnošću u svakodnevnom životu.
Obzirom da su kronične bolesti i stanja postale dio svakodnevnog života za veliki dio populacije vrijedno je ispitati i njihovu subjektivnu kvalitetu života. Zdravlje je jedan od čimbenika koji utječu na osobnu kvalitetu života te individualni doživljaj zadovoljstva životom treba biti prepoznat kao vrijedan pokazatelj stanja zdravlja (posebice mentalnog zdravlja) populacije. Nadalje, niski socioekonomski status je također povezan sa subjektivnim doživljajem zdravlja što se odražava u svakodnevnom funkcioniranju i radnoj uspješnosti pojedinaca.
Ovim istraživanjem ispitane su regionalne razlike u zdravlju i kvaliteti života na uzorku od 9070 ispitanika iz svih regija Hrvatske. Istočna regija je uspoređena s ostalim regijama.
Zdravlje je mjereno Upitnikom zdravstvenog statusa SF-36 koji pokriva osam dimenzija zdravlja: Fizičko funkcioniranje, Ograničenja zbog fizičkih poteškoća, Tjelesni bolovi i Opće

zdravlje koje se odnose na aspekte fizičkog zdravlja i dimenzije Socijalno funkcioniranje, Ograničenja zbog psihičkih poteškoća, Mentalno zdravlje i Osjećaj vitalnosti koje se odnose na aspekte mentalnog zdravlja u širem smislu.
Rezultati su ukazali na značajne regionalne razlike u samoprocijenjenom zdravlju uz značajno lošije zdravlje u Istočnoj regiji u odnosu na ostale regije Hrvatske. Zdravstveni status je u značajnoj korelaciji sa samoprocijenjenim ekonomskim stanjem pri čemu također nalazimo najlošije stanje u Istočnoj regiji.
Uzimajući u obzir da zdravlje ima utjecaja na svakodnevno funkcioniranje osobe, radnu sposobnost i uspješnost ovi rezultati naglašavaju važnost unaprjeđenja psiholoških, bioloških i ekonomskih čimbenika koji utječu na zdravlje. U ostvarivanju ovog cilja ključan je multidisciplinarni pristup problemu zdravlja.

Ključne riječi: *zdravlje, kvaliteta života, ekonomski status, regionalne razlike*

1. Introduction

Contemporary technologies for population health related quality of life assessment are going beyond the classical approach to morbidity and mortality. The focus is on the burden of illness upon a population and the efficacy of population interventions in terms of daily functioning as valued by individuals (Juresa et al. 2000).
While much health research focuses on objective outcome measures, such as morbidity or mortality defined through clinical assessment, there is an increasing emphasis on self-reported measures of health status and health-related quality of life. Their use reflects the importance of considering the people's point of view and the multidimensional nature of health (Idler & Benyamini, 1997) From a public health perspective, such monitoring aids the identification of population inequalities in health status, potentially reveals unmet needs in the community, and indicates important health-promoting efforts. Following the recognition of the individual's own perception as a useful indicator of general health status, perceived health has become one of the most significant health indicators studied today (Congdon, 2001).

1.1 Regional differences

Croatia is characterised with regional diversity; geographicaly, climately but also socio-ecconomically. One of the disadvantage region is East region of Croatia. The war and it's consequences like high prevalence of depression, PTSD, and anxiety disorder, but also smaller income, high unemployement, and labor shortage (due to decrease of the proportion of healthy citizens in population) agravated this regional differences (Horton,1999).

2. Aim

The aim of this research was to explore health in East Croatia region (Vukovar-Syrmia County:, Osijek-Baranja County, Brod-Posavina County, Požega-Slavonia County, and Virovitica-Podravina County) in comparison to other Croatian regions: North Croatia region (Krapina-Zagorje County, Varaždin County, Koprivnica-Križevci County, and Međimurje County), South Croatia region (Dubrovnik-Neretva County, Split-Dalmatia County, Šibenik-Knin County, and Zadar County), West Croatia region (Istria County, Lika-Senj County, and Primorje-Gorski Kotar County), Central Croatia regiona (Sisak-Moslavina County, Karlovac County, Zagreb County, and Bjelovar-Bilogora County), and City of Zagreb, and to explore relations between health (physical and psychological aspects), quality of life and self perceived economic status.

3. Methods

This research was a part of a broader research – Croatian Adult Health Survey (CAHS) in 2003, which covered a wide range of health-related variables. The 2001 Croatian Census of Population has been used to select a representative sample of households to be included in this survey. A total of 10,766 households were selected to participate in the Survey and we collect data from 9070 participants. A questionnaire was administered face to face to respondents at their home by trained community nurses (Vuletić et Al. 2009)

Health status was assessed by the Short Form 36 Health Survey questionnaire (SF-36). (Ware at all., 1993).This instrument is widely used in health surveys worldwide. It represents a theoretically based and empirically authenticated operationalisation of two general health concepts – physical and psychological health – and their two general manifestations, functioning and wellbeing. Hence the four types of scales or conceptually diverse health measurements relative to the following health assessments or indicators: a) functioning on the level of behaviour, b) estimated wellbeing, c) limitations of the social life and realization of central life roles, and d) personal self-assessment of the overall health. All results were transformed, and a score was calculated for 8 dimensions of health on a scale from 0 to 100, with 0 representing the worst and 100 the best possible health state. In this research, a Croatian version of the SF-36 was used (Maslić Seršić & Vuletić, 2006).

Quality of life was assessed with one general question on satisfaction with life as a whole. Ranging from 0 (completely dissatisfied) to 100 (completely satisfied).

Economic status was defined as a self-perceived economic status measured on a 5-point scale (from 1, »much worse than average«, through 3, »average«, to 5 »much better than average«).

4. Results and discussion

Results have revealed regional difference in health with the significantly poorer health in East Croatian region in comparison with other regions. Lowest average score on each dimension was shown in bold numbers.

Table 1. Descriptive statistics for eight health dimensions by regions

Health dimensions		Regions					
		North	**East**	Central	West	South	Zagreb
Physical Functioning	N	1052	1706	1793	505	2562	1447
	M	66.08	**66.56**	68.58	68.47	74.71	72.23
	SD	32.25	30.43	30.11	33.78	27.86	28.25
Role limitation due to Physical problems	N	1053	1706	1793	505	2563	1449
	M	60.38	**57.83**	58.27	62.62	68.83	65.10
	SD	45.70	45.22	44.77	44.96	42.17	43.57
Role limitation due to Emotional problems	N	1053	1706	1793	505	2563	1449
	M	70.15	**65.06**	69.16	65.15	75.33	73.15
	SD	43.39	44.73	42.81	44.64	40.25	40.67
Social Functioning	N	1052	1704	1792	503	2560	1445
	M	73.70	**71.99**	74.22	71.67	77.29	74.84
	SD	27.84	27.83	27.22	28.74	26.04	26.33
Mental Health	N	1051	1704	1790	503	2559	1449
	M	61.50	**60.05**	63.33	59.26	65.94	64.78

	SD	20.41	20.83	20.22	22.66	20.08	19.72
	N	1053	1703	1792	505	2561	1448
Energy Vitality	M	51.41	**51.86**	53.24	51.65	57.03	54.69
	SD	22.71	23.99	22.16	23.50	21.76	21.34
	N	1053	1704	1790	505	2561	1447
Pain	M	**61.73**	63.24	62.07	68.55	70.06	66.16
	SD	31.83	30.28	30.11	30.97	29.01	29.42
General Health Perception	N	506	1706	2563	1053	1793	1449
	M	55.48	**52.29**	58.85	50.88	53.82	58.63
	SD	22.79	22.35	22.14	24.22	23.23	21.63

Source: Croatian adult health survey, 2003.

East region has lowest mean scores on all health dimensions except Pain where North region have the lowest score, and East region was still between regions with low score on Pain dimension which indicate existence of bodily pain.

Furthermore, numerous studies have shown significant relationship between self-perceived health and objective measures of health (morbidity and mortality). So it can be expected that poorer health is related to higher morbidity and mortality and secondary to lower everyday functionality of those people (population). Since chronic diseases and conditions became part of the everyday life for the large proportion of our population, it is considerable to research the subjective quality of life of those people. It is known that health is one of the significant factors that influence person's quality of life and someone's own perception of satisfaction with life needs to be recognized as valuable indicator of population health (especially mental health).

Results have shown that all aspects of health status was significantly correlated with self-assessed economic status where is also the worst situation in East region (low level of both health and economic status).

Quality of life was also significantly correlated with all health dimensions, the highest correlation was revealed for mental health and quality of life.

Table 2. Correlations of health dimensions with self perceived economic status and quality of life

		Physical Functioning	Role limitation due to Physical problems	Role limitation due to Emotional problems	Social Functioning	Mental Health	Energy Vitality	Pain	General Health Perception
Economic status	Correlation Coefficient	.229**	.200**	.185**	.212**	.272**	.263**	.186**	.270**
	N	9055	9059	9059	9046	9046	9052	9050	9055
QOL	Correlation Coefficient	.336**	.292**	.308**	.352**	.469**	.428**	.286**	.420**
	N	9065	9069	9069	9056	9056	9062	9060	9065

* $p<0.05$

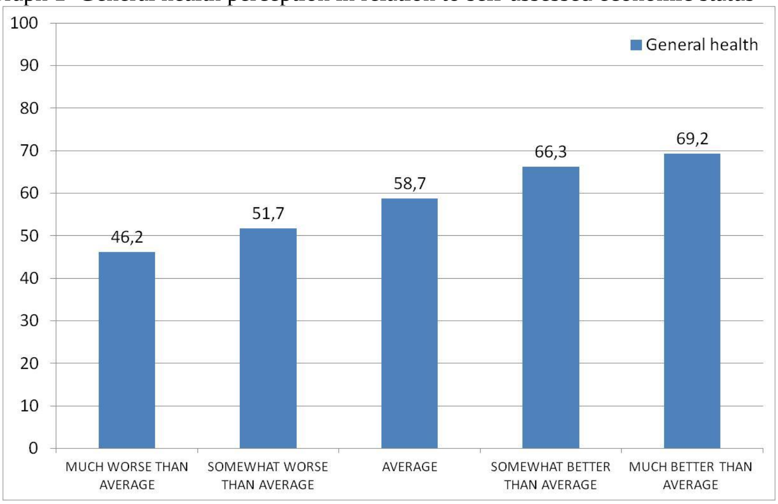
** $p<0.01$

Source: Croatian adult health survey, 2003.

4.1. Self-assessed economic status and general health

To further explore given correlation general health was analysed according to self perceived economic status categories. Result was shown in graph 1.

Graph 1 General health perception in relation to self-assessed economic status

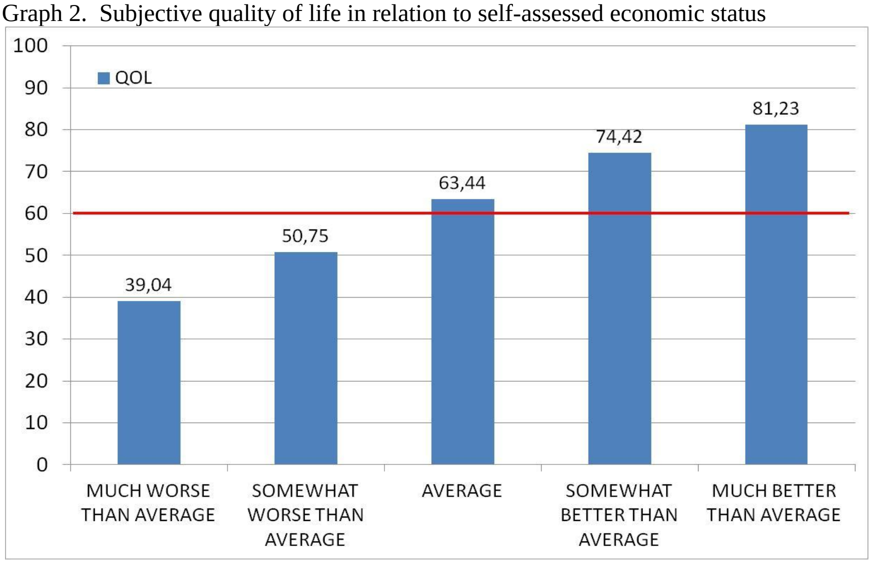


Source: Croatian adult health survey, 2003.

General health decreases with decreasing economic status. Considering that score 100 indicate best possible health and 0 the worst, it is obvious that those with low economic status is under considerable health risk.

Self-assessed economic status and subjective quality of life:

Graph 2. Subjective quality of life in relation to self-assessed economic status



Source: Croatian adult health survey, 2003.

Results have shown significant difference in subjective quality of life according to the level of economic status. Those with lower economic status reported low quality of life.
Red line on graph indicates the normative level of subjective quality. All values below the threshold line were considered endangering for mental health and normal functioning. It is obvious that those with low economic status have endangered quality of life.

These results indicate the importance of socio-economic status for promoting of psychological and physical aspects of health. This correlation is probably mediated trough some underlying processes (like self-confidence and self-esteem), but it probably has also some direct effects (e.g. decreased opportunities to gain private medical care or counselling or smaller effectiveness at work for depressed or less satisfied people. So, in promoting health status it would be helpful to use the multidisciplinary approach and to promote not solely psychological and physical aspects, but also to promote the economical aspects, both on individual and on societal level.

5. Conclusion

Results have shown significantly poorer health (both, physical and psychological aspects) in East region in comparison to other regions. As it was expected, health was significantly related to quality of life and both were significantly related to self perceived economic status.
Taking in account that self perceived health has influence on person's everyday functioning, work ability and efficacy this results stress the importance of promoting biological, psychological and economical factors of health. Multidisciplinary is a key approach in achieving this goal.

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10

Nobelovci, znanstvenici, književnici i istaknuti stručnjaci

Nobel prize awarded, scientists, literaries and eminent experts

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MILUTIN MILANKOVIĆ (1879 – 1958) ONE OF THE MOST SIGNIFICANT SCIENTISTS OF 20TH CENTURY

MILUTIN MILANKOVIĆ (1879. – 1958.) MEĐU NAJZNAČAJNIJIM ZNANSTVENICIMA XX. STOLJEĆA

SUMMARY

Milutin Milanković was born in 1879 in the village Dalj (near Osijek, Croatia). After finishing secondary school in Osijek he graduated construction sciences and obtained his doctoral degree in Vienna. Milanković gave three fundamental contributions to science: a) astronomical theories of climate change b) theory of the movement of Earth's poles and c) revised Julian calendar. His most significant publication is the book **'Canon** *of* **Insolation** *of* **Earth'** *(1941.)*. *Milanković's theory of climate and the origin of glacial epochs (in science known as Milanković's cycles) were not verified until 1976 when empirical studies of deep-sea sediments proved the accuracy of his astronomic model and the precision of his mathematical calculations of the state of Earth's climate. From then on his work gained wide reputation in the scientific world and consequently his capital work 'Canon...' ranked among the most significant scientific works of the 20th century. In this scientific paper a short presentation is given on the life and work of Milanković; pointing out his significant publications, his cycles and sparse attention of the Croatian cultural circle to the work of this great scientist.*

Key words: *climate, cosmos climatology, Milutin Milanković, Milanković's cycles*

SAŽETAK

Akademik Milutin Milanković rođen je 1879. g. u Dalju (kraj Osijeka), osječki gimnazijalac, diplomirao građevinske znanosti i doktorira u Beču. Tri su važna Milan-kovićeva doprinosa znanosti: a) astronomska teorija klimatskih promjena, b) teorija kretanja Zemljinih polova i c) reforma julijanskog kalendara. Najznačajnija Milankovi-ćevo djelo je knjiga „Kanon osunčavanja Zemlje" (1941.). Milankovićeva teorija klime i nastanka ledenih doba (u znanosti poznata kao Milankovićevi ciklusi) dobila je potpunu znanstvenu verifikaciju tek 1976. g. kada su empirijska istraživanja dna oceana doka-zala ispravnost njegovog astronomskog modela i preciznost matematičkih izračuna stanja klime na Zemlji. Od tada Milankovićev rad dobiva veliki ugled u svjetskoj znanosti tako da se njegovo kapitalno djelo „Kanon..." svrstava u najznačajnija znan-stvena djela XX. st. Ovaj rad daje kratki prikaz života i rada Milutina Milankovića, prikazuje Milankovićeve cikluse te ukazuje na važnost vraćanja intelektualnog duga hrvatskog kulturnog kruga djelu ovog velikog znanstvenika .

Ključne riječi*: klima, kozmička klimatologija, Milutin Milanković, Milankovićevi ciklusi*

1. Excellent mathematician, civil engineer, astronomer and climatologist

Milutin Milanković was born (1879) in the village Dalj (near Osijek, Cro-atia). He received his elementary education at home from private teachers and completed grammar school in Osijek (1889-1896). He graduated in Construction Science in 1902 and received his PhD in Vienna (1904). After several ye-ars of using his knowledge as a planning engineer to design dams, bridges, viaducts, aqueducts and other structures in reinforced concrete (1905-1909) he mo-ved from Vienna to Belgrade where he was offered a place of an associate professor of applied mathe-matics - working in the domain of cosmos, physics, geophysics and celestial mechanics. Apart from that, he established the department for celestial mecha-nics. During this period he published his first scien-tific papers in the field of applied mathematics and celestial mechanics (1904-1911) and wrote about as-tronomical aspects of climate. [5] *Mathematical theory of climate* (1912), *Über ein Problem der Wärmeleitung und dessen Anwendung auf die Theorie des solaren Klimas* (1913) and *On the Issue of Astronomical Theory of Ice Ages* (1915). During World War I he was arrested but thanks to good social relationships was released and given the permission to spend his captivity in Budapest with all civil rights granted including the right to work. At the Hungarian Academy of Sciences he studied scientific literature on climatology. After the war, the Yugoslav Academy of Sciences and Arts - JAZU (today HAZU) published (1920) Milanković's book *Théorie Mathématique des Phénomenes thermiques produits the pair la radiatin solaire.* [17]

Between the Two World Wars Milanković achieved a good cooperation with the climatologist Wladimir Köppen (1846 – 1940) and geophysicist Alfred Wegener (1880 - 1930) and published several scientific papers and books in the field of cosmos climatology and the development of glacial epochs on Earth. His most significant publication of this time (1930) was *Mathematische Klima-lehre und Astronomische Theorie der Klimaschwankungen*.[18] At that time he became a regular member of the Serbian Academy of Sciences and Arts (SANU) and Germany's Academy of Natural Sciences in Halle. Moreover, he was an associate of JAZU and several other academies. On the eve of World War II (1941) he finished his book *Kanon der Erdbestrahlung und seine Anwendung auf das Eiszeitenproblem* [19]. This being his capital work includes results of earlier published 28 scientific papers together with new analyses. Milanković presented a comprehensive astronomic theory of climate of Earth (usable on other planets), explained the occurrence of glacial epochs and developed his theory of the movement of Earth's poles. After World War II he published several university textbooks and was appointed director of the Belgrade Observatory. He died in 1957 in Belgrade and was buried in Dalj. [14] [15]

Milanković gave three fundamental contributions to science: (a) astro-nomical theories of climate change, (b) theories of the movement of Earth's poles and (c) a revised Julian calendar. [9] [14] [25]

- Milanković's revised Julian calendar (1923) is astronomically the most precise calendar so far (corresponding to the date of the Gregorian calendar) which would have needed correction only after the year 28800; unfortunately this has not become a reality.

- Milanković is one of the founders of continental tectonic plates in geology. On Köppen's and Wegener's initiative he developed the secular motion of Earth's poles which proved that the position of continents in the geologic past was significantly different from current, that is, that during time they had moved. Much later modern geophysical measurements confirmed this concept and exactness of his calculations.

- Working on the influence of astronomic factors on climate during the geo-logical history of Earth, Milanković used a precise method to explain the cold and warm periods as well as the development and withdrawal of glacial plates during 600,000 years before the year 1800. Using his own mathematical algorithm and previous research insight of the French mathematician Joseph Adhemar (1797–1862), Urbain Le Verie (1811–1877), the Scottish scientist James Croll (1821–1890) and the German mathematician Ludwig Pilgrim (1849-1927) – Milanković proved three astronomical factors of climate change in the geologic past. These are the three elements in self cycles: a) secular variations of the eccentricity of Earth's orbit, b) precession of Earth's axis of rotation, and c) variation of the obliquity of the rotation axis. He paid special attention to the insolation of area of 55^0, 60^0 and 65^0 North latitudes during summer periods – and discovered that it is the low insolation during summer that causes icy plates. Eventually Milanković's theories on climate were named Milanković's cycles. [14] In addition, he worked on scientific papers that dealt with the calculation of temperature of neighbouring planets (impressively correct calculations compared to the present ones which are acquired by the use of modern technology) [108]. Besides, Milanković is the founder of the cosmos climatology.

2. Milanković cycles

According to Milanković's theory of glacial epoch and interglacial peri-od on Earth, cyclic changes in Earth's movement around the Sun are caused by three variations: a) eccentricity of Earth's elliptical orbit, b) tilt of Earth's axes and c) precessions (rotation of the Earth's rotation axis).

2.1. Eccentricity of orbits

Eccentricity of the elliptical form of Earth's path around the Sun is first of Milanković's three cycles. It deals with the constant fluctuation of the form of Earth's orbit - from 0 to 5 % elliptic; the orbital form of the ellipse varies from 0.005 to 0.06 in cycles of about 100,000 years (Fig 1)[109]. Such an elliptic of orbit determines how much Sun-rays insolate our planet; in the smaller elliptical orbit differences in the insolation during different periods of the year are not great while in the high ellipticity the differences between seasons are significant. The most remote node of Earth's movement around the Sun is called aphelion, and the nearest perihelion. When Earth is near perihelion winters are milder on the Northern Hemisphere, and when eccentricity is highest (the perihelion) then the seasonal difference of received heat is in a range between 20 to 30 % higher than on the aphelion. Current eccentricity of orbital ellipse is almost on the minimum of cycle (rates 0,017), and the seasonal difference of received heat amounts to about 7 %. [12]

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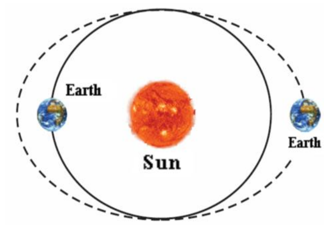
[108] Unlike present astronomers and climatologists – which dispose of strong electronic com-puters and digital equipment (the drawing of graph …) – Milanković used only pencil, paper and the slide rule. Besides being a mathematical genius and great at observing problems, setting up of algorithms and formulas of calculations, Milanković demonstrated excellent dedication to his research work - for the processing of movements of astronomic elements of one planet around 80,000 computer actions were needed.

[109] Eccentricity of orbit discovered and first calculation of parameters presented (1609) Johannes Kepler; [21] the cycle is actually the average of about 95,000 and 123,000 years.

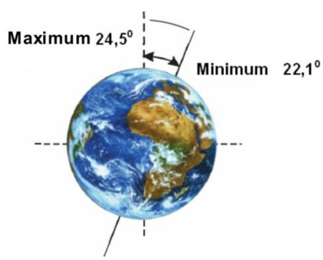
Figure 1. Eccentricity of Earth spheres around Sun



2.2. Change inclines Earth's axis

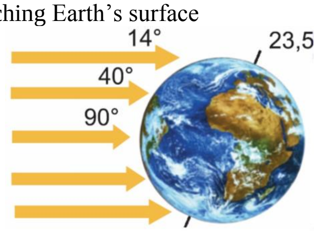
The Second cycle involves the change in the inclination of Earth's axis in relation to the plane of Earth's orbit around the Sun.[110] Oscillations in the tilt of Earth's axis are in a range of 22.1^0 to 24.5^0 (Fig. 2) and the cycle lasts 41,000 yrs. Today the inclination of Earth's axis is at level 23.5^0 but towards declining. Because of periodic variations of the inclination of Earth's axis the angle of sun-rays that reach Earth's surface changes (Fig. 3).

Figure 2. Change inclines Earth axes of rotation in relation to plane orbits



This has an effect on the characteristics of climate and seasons; when the tilt of Earth's axes is smaller insolation is more evenly distributed between winter and summer. A smaller tilt increases the difference in the radiation of equatorial zones and Polar Regions. When the tilt is bigger the difference in temperatures during seasons on higher geo-graphic latitudes is more significant, in other words, it has a small influence on the equator and a big one on the poles. [12] [14]

Figure 3. Angle of sun-rays reaching Earth's surface

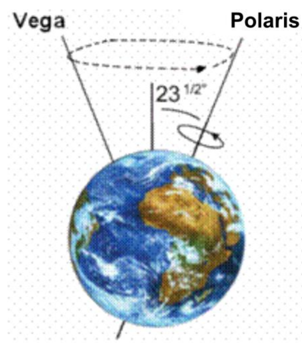


[110] The Chinese identified this manifestation about 1000 years BC. [21] They measured the difference between angle of Sun on horizon at noon during longest and shortest day of year.

Precession

Precession (revolution of Earth's rotational axis) is the result of spinning of Earth's rotational axes in a period of approximately 23,000 years. It affects the orientation of the axis but not her tilt (Fig 4). Throughout 12,000 years Earth's axis (imagined) is elongated in the direction of the Polaris which is already direc-ted towards the star Vega, in the constellation Lyre. As a consequence of these complex Earth's movements, days of equinoxes do not happen always on the same date (in the year), but (calendarically) move slowly.[111] How does the process of precession occur, in other words, what causes this pheno-menon? Earth does not have a form of a re-gular circle (it is flattened on the poles and the area of equator is a little bulged), and due to the axis being tilted in relation to ecliptic's plane and the plane of Moon's path, the Sun and the Moon unequally pull the part of the equatorial bulge towards them (in relation to the bulge on the other side). Because of that (virtually), Earth's axis does not stay motionless but moves on its own designing a circle on the celestial sphere. (Fig 4) [12] [14]

Figure 4. Revolution of Earth's rotational axes



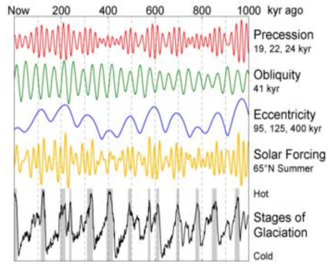
Nowadays Earth's axis on the Northern hemisphere - called Polaris (given the fact that is situated on the North Pole) - is oriented towards the star Alpha of the little Bear. In fact this axis passes the Polaris within a striking proximity (> 10). As the axis moves - in 12,000 years it will be aiming at the about 5° from the star Vega and will then become the Polaris.

2. 4. Simultaneous actions

The aforementioned three cycles affect the insolation on Earth simultaneously and are the primary cause of climate changes and responsible for the occurrence of glacial epochs. Calculating these parameters Milanković outlined seasonal modifications of variations for the three cycles covering a period of 600,000 years. The most important parameter of Milanković's theory is the amount of sun-rays that reach the ground in July on 65° north geographic latitude; because if the ground is not sufficiently warmed up in July the ice cover will spread and grow. If insolation is sufficient the ice cover will pull back. In this way, Milanković concluded that rather small orbital variations can cause significant fluc-tuations of the climate on our planet. Figure 5 illustrates simultaneous and integrated insolation on 65^0 north geographic latitude in a period of one million years. [12] [14]

[111] The first one to indicate this phenomenon was ancient Greek astronomer Hiparh - 130 years BC. [21]

Figure 5. Effect of Milanković's cycles on Earth's insolation



Source: [6]

3. Scientific verification of Milanković's climate theory

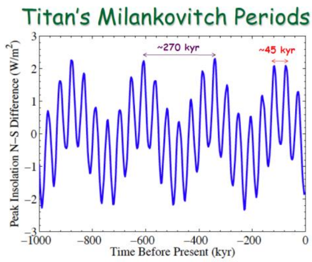
The scientific community needed many years before it accepted Milan-ković's theory on climate changes. It represented a turning point and exact evidence was required. At the beginning of 1970s one started with geologic research using deep sea probes into the seabed and with it support for the scientific verification of Milanković's theory. By the end of 1976 the journal *Science* [10] published results of a five-year probing of the seabed of ocean (project CLIMAP). Strata of sediments (up to 2,5 km depth) as a geological record of changes of the climate on Earth have proved the accuracy of Milanković's model and the precision of his mathematical calculations. What followed was a wide range of scientific meetings, scientific papers in journals and books which considered and confirmed Milanković's model of climate changes:

- In 1982 a symposium called *Milanković and Climate* was organized at the University of Colombia (New York, USA) including presentations and discussions by the 130 invited leading paleoclimatologists. During their presentations (90 scientific papers) one confirmed the existence of cycle insolation of Earth in periods of: 100,000, 41,000, 23,000 and 19,000 years (Milanković's cycles), and one larger cycle was identified from the year 413,000 [25]
- National Research Council of the U.S. National Academy of Sciences embraced (1982) Milanković's cycle model: '…orbital variations remain the most thoroughly examined mechanism of climatic change on time scales of tens of thousands of years and are by far the clearest case of a direct effect of changing insolation in the lower atmosphere of Earth.' [23]
- University Peruga (Italy) organized (1988) an international scientific conference *Ciklo-stratigraphy* during which new research methods were promoted. These involve Milanković's cycles of insolation and in rhythmic changes detect colder and warmer cycles of climate through which our planet has passed. [25]
- In 1992 in San Francisco (USA) an international symposium was dedicated to Milanković's theories under the name *Ten Years Later.* During the symposium results of a research report were analyzed as well as the effects of astronomic elements on Earth's climate. [10]
- In 1999 it was proven that versions of oxygen's isotope drafted in sediments at the bottom of the ocean really follow Milanković's prediction. [26]
- International Centre for Theoretical Physics (Trieste, Italy) organized the conference called *Milankovitch's Cycles over the Past 5 Million Years* (2007) during which results of a research on manifestations of global warming were analyzed and discussed
- Sponsored by UNESCO (on the occasion of 130-and the anniversary of Milanković's birth) in Belgrade a symposium was organized (2009) *Climate Change at the Eves of Second Decade of Century;*

Inferences from Paleoclimate and Regional Aspects on which in 50-tock the report world eminent researchers have presented latest recognition on actual climate changes and the global warming.

- Here one should add that Milanković cycles as a model influencing astronomic elements on the climate of planets is used in the cosmos research of planet of the Sun system. Fig. 6 shows the graph of Milanković's cycle for Saturn's moon Titan (from the Casini mission; 2004-2006). [24]

Figure 6. Milanković cycle of Titan insolation



Source: [24]

To conclude this shortened review of the verification of Milanković's cycles with quotations by eminent researchers: André Berger names Milanković '*the father of astronomic theory and climate modellings*' [24] Berger and Fedor Mecinger stress: "*Remain the fact that is a base every science is included into anybody climatic theory occurring in the Milanković's book."*(Canon) [2], groups of authors are led climatologist Laskerom remarks: '*Sons then, the under-standing of the climate response this orbital forcing has evolved, thigh all the necessary ingredients the for the insolation computations were present Milankovitch's work* '[16]

Finally, one needs to point out: Milanković's scientific papers according to the databases of the Science Citation Index have in the period 1945-2009 been quoted 1.066 times, [27] and in the last decade yearly number of quotation has increased. Towards the Google.scholar bases of quotations Milanković (to the middle of April 2012) appears in over 20.000 records. [7]

3.1. Praises and acknowledgments of world scientific publics

After scientific verifications of Milanković theory follows the signify-cant acknowledgment world scientific public honoring large scientist; [112]

- (1970) On the XIV Congress of International Astronomical Union in the Brighton one crater on the Moon (measures 34 kms; coordinates +170,+77) gets the name on Mi-lanković; [11]
- (1973) On the XV Congress of International Astronomical Union in the Sydney one crater on the Mars (has measured 118 kms; coordinates +147,+55) gets the name on Mi-lanković; [11]
- (1980) the Asteroid 1605 (marks 1936GA) which have discovered the Serbian astro-nomers Milorad Protić and Petar Ćurković has been called on Milanković name; [24]
- (1993) European Geophysical Society establishes the acknowledgment to the scien-tists for extraordinary research reports in the field long-term climate changes which has been called on Milanković; [4]

[112] In several scientific works and nonfictional articles stresses that the NASA has included Milanković among 5 (or 10) most significant scientists of 20th century in the area of sciences on the Earth. But on Web sites NASA have not been found the sheet with the rank of meritorious scientists; in fact it concerns to the web serial *On the Shoulders of Giants* - description of the most important reaching in the area of the astronomy. In this way NASA Earth Observatory in that serial has presented significant works of authors of the astronomy, among which is in three following text (2006) the model Milanković's cycles are presented.

- (2001) In the book *The Science* British Ph Ds Simon Singh and Susan Greenfield describes 250 scientist which has been formed our civilization – which has been in-cluded Milanković with their cycles of changes of climate; [27]
- (2004) American astrophysicist (and historian of science) John Gribin is in their book *Scientist: History of science is told through lives her largest of inventors* - on six pages writes on Milanković and his work of Earth climate; [8]
- (2009) UNESCO is this year would declare Milanković year; [14]
- (2010) The largest world Internet network Google has supplied on the 28, May (Milanković birthday) the main Web searcher page would dedicate Milanković. [7]

3.2. Milanković in the Croatian cultural circle

Although is born in Slavonia$_{(1)}$, although is the basically$_{(2)}$ and second-dary$_{(3)}$ education completely would realized in the Osijek, although has been the corresponding member of JAZU$_{(4)}$ (today HAZU), although the publisher his first scientific books have been the JAZU$_{(5)}$, although this book has been printed in the bishop's printing-office in the Zagreb$_{(6)}$ and although has been buried in the Slavonia$_{(7)}$ – Milanković is in the Croatian cultural circle every these years on margins of attention scientific, cultural and societal publics. That in the Croatia was able will have done counting the as activity in the return of the intellectual dept to scientist whose work counts in the top of scientific achievement of 20th century:

- (2002) International scientific conference *Serbs in the Eastern Croatia*, Osijek, 8.-9 June; on which are, among other, three reports (N. Pantić, M. Radovanac, S. Garonja-Radovanac) are dedicated to the Milanković work; SKD "Prosvjeta", Osijek; [1]
- (2002) the Appeal for the rebuilding of the Milanković birth house - which 9 June has signed participants of the sci. conference *Serbs in the Eastern Croatia* in the tour of devastated Milanković birth house in Dalj; [1]
- (2008) the Reprint of Milanković book *Astronomical theories of climate changes and her application in geophysics*; Prosvjeta', Zagreb. [21]
- (2008) International symposium *Creativity of Milutin Milanković*, Dalj, May 23-24; SANU, SKD Prosvjeta - Zagreb and Municipalities Erdut. [30]
- (2009) Rebuilding of Milanković birth house; are arranged museum and is placed Culturally-science center Milutin Milanković; Government of Republic Serbia, Mu-nicipality Erdut and Government of the Republic of Croatia. [15]
- (2009) Are founded CSC „Milutin Milanković" Dalj; Municipality Erdut. [15]
- (2009) Started Web sites about M. Milanković; CSC M. Milanković, Dalj [15]
- (2009) On the UNESKO symposium (Belgrade, 2009) fifth day has supplied this conferences in Dalj two lectures are kept (K. Pandžić and Z. Knežević) and debates presided over by climatologist André Berger; CSC M. Milanković. [15]
- (2010) Portal Essekeri (non-commercial project of company YPSILON Osijek - which from 2009 yr. announces the serial on important citizens of Osijek) has achieved the video and publish shorter story of Milanković life and his work realizing. [3]
- (2010) Academy regarding the marking 131 year of Milanković birth and three lectures (V. Paar, M. Ivanović, Z. Knežević); CSC M. Milanković, Dalj [15]
- (2010) On the building' wall of Department for physics of Universities J. J. Strossmayer student of Art Academies Igor Dešić has drawn (on the idea their friend, student of first-year physics Hrvoje Miloloža) graffit on „*Giants of the science*" on which is portraits five Croatian scientists: Ruđer of Bošković, Nikola Tesla, Milutin Milan-ković, Rudolf Štajner and Andrija Mohorovičić. [29]
- (2011) Conference *Milanković, calendar, time...*; six lectures (V. Paar, Z. Kne-žević, A. Petrović, R. Milošević, S. Marković, Đ. Đurić); CSC M. Milanković, Dalj. [15]

4. Conclusion

Milutin Milanković was born in Slavonia, a region in Eastern Croatia, was a grammar school pupil and member of JAZU (today HAZU) who despite life's hardships managed to achieve great things in scientific research. Milan-ković's contribution to science involves the field of astronomy and Earth science. He is the founder of the astronomical theory of climate and contributor of Canon of the Earth's Insolation, which characterizes the climates of all the planets of the Solar system through three cycles of Earth rotation and it's revolving around the Sun. His scientific papers on the calculation of tempe-rature of neighboring planets make him the founder of cosmos climatology. He is also coauthor of the theory of movement of tectonic plates and the moving of Earth poles. Milanković's theory on climate and the origin of glacial epochs on Earth received scientific verification following empirical studies of the seabed of oceans when accuracy of his astronomic model and precision of his mathematical calculations of climate states on Earth were proven. Astronomic factors that influence the climate of the planet are called Milanković's cycles and are used in cosmos research of the Sun system.

Milutin Milanković's scientific papers have gained worldwide repute-tion so that his work classifies among the most significant scientific contribu-tions of the 20th century - thanks to the international scientific and cultural public who with a series of events (giving names to objects in cosmos, naming of scientific prizes after Milanković, holding jubilee scientific conferences and other internationally renowned happenings) contributed to his being classified into the group of 250 greatest scientists in the world.

Eventhough some of his most important life situations as well as scientific events were related to Croatia, the then cultural circle did not pay enough attention to the work of this great scientist. One can conclude that the acknowledgement of intellectual debt owned to Milanković's work is modest and that this has mainly been left to the enthusiasm of a minority within the Serb community in Croatia and several European oriented individuals in Croatian science, culture and politics. Fifty years after Milanković's death his work is still in displeasure of a provincial spirit.

The overall reputation of the Republic of Croatia would gain more prominence and quality within the international scientific, cultural, political and economic circles, if in the same Croatian circles, and then in the general public, one would pay more attention to such individuals as was Milanković (one could use it as a historical brand). This is the specific lacmus of our openness and our criteria of values; i.e. to show the world how much we respect quality. Without these changes within our system of values there will not be much social nor economic development.-

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11

Istaknuti kardinali i biskupi

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JURAJ PATAČIĆ DE ZAJEZDA, BISHOP OF BOSNIA OR ĐAKOVO (1670-1716)

JURAJ PATAČIĆ DE ZAJEZDA, BOSANSKI ILI ĐAKOVAČKI BISKUP (1670-1716)

ABSTRACT

This paper will present the data on the life and ministry of Juraj Patačić, bishop of Bosnia or Đakovo. The primary aim is to assess his merit in the re-establishing the institutions of the Catolich Church in the Eastern Slavonia, and his role in the renewal of the Diocese of Bosnia or Đakovo, the diocesian estate and the organisation of the religious life in the first decades after the liberation from Ottoman power. The paper relies on the analysis of published and unpublished historical documents and previous historiographical results.

Juraj Patačić de Zajezda was the bishop of Bosnia or Đakovo from 1703 till 1716. He was the son of count Nikola Patačić and countess Marta Oršić and therefore a member of one of the most prominent Croatian noble families. According to literature, he was born in 1670 in Vidovec near Varaždin, while some historical documents recorded that he was born in the family estate Novi Marof. At the age of sexteen, he joined the Jesuit order in Zagreb where he studied humaniora and Greek philosophy and began to study theology. He left the Jesuit order because of poor health and continued the studies in the Hungarian Illirian course in Bologna where he received his doctoral degree. At a time when he took the office of bishop of Bosnia or Đakovo he was thirty-three years old. Besides the bishops, he held a number of other religious and secular services: he was an archdeacon in Varaždin, a canon in Zagreb and a provost in Požega; a rector of the Hungarian Illirian course in Bologna, the imperial advisor and the participant in the national parliament in Pressburg in 1708 and 1714.

Juraj Patačić was the first bishop of Bosnia or Đakovo who continuously resided in his diocese after Slavonia was freed from Ottoman power in the late 17th century. The conditions in the diocese were difficult: the incomes of churches and clergy were low, the diocesian estete was devasteted and, in general, the religious circumstances were not good. Bishop Patačić resolutely approached the material and spiritual renewal of his diocese, and was very active and busy with the various episcopal functions, not only in his own diocese but also in the surrounding dioceses in which their bishops have not resided. Among the other things, on the ruins of the old cathedral in Đakovo he build a new one in 1706. He also renovated and adapted former Ibrahim Pasha Mosque which he consecrated into the parish church of St. George. In 1706 he built a wooden bishop's residence whereas the construction and equipping of the Franciscan monastery in Đakovo lasted from 1711 to 1714. Patačić also granted the benefits and properties to the Franciscan monastery and the parish priests in Đakovo, defined the incomes from the stola, preached, consecrated churches, confirmed, inaugurated the priests in the holy orders not only in his own but also in the surrounding dioceses.

He died in March in 1716 at the age of forty-six. According to his own desire, he was buried in the Franciscan church in Đakovo.

***Key words**: Juraj Patačić de Zajezda, Diocese of Bosnia or Đakovo, Eastern Slavonia, 18th century, bishop, diocesian estate, religious life*

SAŽETAK

U ovome će se radu iznijeti podaci o životu i službi bosanskog ili đakovačkog biskupa Jurja Patačića s prvenstvenim ciljem procjene njegovih zasluga u ponovnoj uspostavi institucija Katoličke crkve u istočnoj Slavoniji, obnovi Bosanske ili Đakovačke biskupije, biskupijskoga posjeda i vjerskoga života nakon oslobođenja od osmanske vlasti. Rad se oslanja na analizu objavljene i neobljavljene izvorne povijesne građe te na dosadašnje historiografske spoznaje.
Juraj Patačić de Zajezda obnašao je dužnost bosanskog ili đakovačkog biskupa od 1703. do 1716. godine. Sin je grofa Nikole i grofice Marte Oršić te stoga pripadnik jedne od najuglednijih hrvatskih plemićkih obitelji. Prema podacima u literaturi rodio se 1670. godine u Vidovcu pored Varaždina, dok neki povijesti izvori navode da je bio rođen na obiteljskom imanju Novi Marof. Sa šesnaest godina pristupio je isusovačkome redu u Zagrebu, gdje je učio humanioru i apsolvirao grčku filozofiju te započeo studij teologije. Zbog slaboga zdravlja napustio je isusovački red, a studij je nastavio u Ugarskom ilirskom kolegiju u Bolonji, stekavši akademski stupanj doktora. U vrijeme kad je preuzeo službu bosanskog ili đakovačkog biskupa imao je trideset i tri godine, a osim biskupske, obnašao je i niz drugih crkvenih i svjetovnih službi: bio je varaždinski arhiđakon, zagrebački kanonik i požeški prepošt; rektor Ugarskog ilirskog kolegija u Bolonji, carski savjetnik, a kao bosanski i đakovački biskup, sudjelovao u radu državnih sabora u Požunu 1708. i 1714. godine.
Juraj Patačić bio je prvi bosanski ili đakovački biskup koji je nakon oslobođenja Slavonije od osmanske vlasti krajem 17. stoljeća stalno boravio u svojoj biskupiji. Prilike u samoj biskupij bile su teške: prihodi crkava, redovnika i svećenstva bili su mali, biskupijski posjed devastiran, a vjerske prilike loše. Biskup Patačić odlučno je pristupio materijalnoj i duhovnoj obnovi svoje biskupije te bio iznimno aktivan i zauzet najrazličitijim biskupskim funkcijama ne samo u svojoj, nego i u okolnim biskupijama u kojima njihovi biskupi nisu boravili. Među ostalim, na ruševinama stare katedrale u Đakovu dao je 1706. godine podići novu, a pristupio je i obnovi i preuređenju nekadašnje Ibrahim-pašine džamije koju je posvetio u župnu crkvu Sv. Jurja. Godine 1706. dao je sagraditi drvenu biskupsku rezidenciju, a od 1711. do 1714. godine trajala je gradnja i opremanje franjevačkog samostana u Đakovu. Patačić je također dodjeljivao beneficije i posjede, kako franjevačkom samostanu, tako i đakovačkim župnicima, te je odredio prihode od štole, propovijedao je, posvećivao crkve, krizmao i uvodio svećenike u svete redove kao u svojoj, tako i u susjednim biskupijama.
Umro je u četrdeset i šestoj godini života, u ožujku 1716. godine. Prema vlastitoj želji bio je sahranjen u franjevačkoj crkvi u Đakovu.

***Ključne riječi**: Juraj Patačić de Zajezda, Bosanska ili Đakovačka biskupija, Istočna Slavonije, 18. stoljeće, biskup, biskupijsko imanje, vjerski život*

1. Introduction

The aim of this paper is to present information about life and ministry of Juraj Patačić, bishop of Bosnia or Đakovo, who was filling that post from 1703 to 1716. In addition to basic biographical data, we tried to determine the characteristics of Patačić as a bishop, and to evaluate his contribution in the process of re-establishing the institutions of the Catholic Church and renewal of religious life in Eastern Slavonia in the period immediately after the liberation from Ottoman rule. So, it was necessary research the role of the bishop in organization of parishes, pastoral work and care for religious life in general, his relationship with lower clergy, role in reconstruction and construction of religious buildings, care for ecclesiastical revenues, and organization of diocesan property. The paper relies on analysis of published and unpublished original historical documents and on past historiographical perceptions.

In 1687, when most of the Slavonian territory was liberated from Ottoman rule, the Catholic Church in these areas found itself in very different circumstances to those prevailing during about a century and a half long Ottoman rule. Significant political and social changes which happened due to shifting of borders between the Ottoman Empire and the Habsburg Monarchy (the two states deep-rooted in their own religious traditions) had led to changes in actual and legal position of the Catholic Church, which influenced the church and religious life at all levels. After liberation, together with the political and military organization there was restoration and (re)organization of the church structures. It was influenced not only by political interests, but also specific religious circumstances and conditions of ecclesiastical institutions, which could be described (beyond any doubt) as difficult. During the Ottoman rule it was impossible to fully preserve the traditional church organization based on dioceses and the parishes. So the beneficial holder of pastoral ministry became and stayed franciscan province of Bosna Srebrena. Bishops did not generally reside in their dioceses, which is why, among other things, the old borders of dioceses were forgotten. That led to conflicts over jurisdiction between some bishops. Church buildings were few. Many of them were ruined (without chance to be renewed) or destroyed during the war. There were also permanent difficulties associated with securing funds for the life of the clergy.

Religious life was connected to and to significant extent dependent on the institutional, church frame of dioceses and parishes within which majority of the activities of the local church took place. All the congregation in the diocese and all the clergy were subjected to the bishop who was largely responsible for the good conduct of his church (Opći religijski leksikon, 2002, 103). Since the organization of church and religious life was to a great extent dependent on episcopal ministry, we had to take under consideration its general features, but also characteristics of individual bishops, so we could understand the actual church and religious circumstances. In addition, the bishops in the Habsburg Monarchy in the late 17th and early 18th century were not only ecclesiastical persons trying to ensure conditions under which church institutions could work and trying to meet the religious needs of congregation, but they were also the holders of different, often high, secular posts. They participated in the work of state estates and often were advocates of state interest among congregation, which gave yet another aspect of the meaning of their role. The importance of the functions of episcopal ministry is even more significant when you take into account the difficult situation in which was the Church in Eastern Croatia in the late 17th and early 18th century. Another aggravating factor for the Diocese of Bosnia or Đakovo was in the fact that its territory was divided between two hostile countries. Slavonian part of the diocese was within the Habsburg Monarchy and the Bosnian part remained in the Ottoman Empire.

Bishop Juraj Patačić was the third bishop of Bosnia or Đakovo after liberation from Ottoman rule. Bishop Nikola Olovčić (1669 to 1701), who began restoration, died only two years after the conclusion of Karlovac peace. Bishop Petar Crnković was appointed in 1703, but died shortly afterwards, before he took over the diocese. Therefore, it is clear that bishop Patačić was facing very difficult and challenging task.

2. Bishop Juraj Patačić de Zajezda

Juraj Patačić was the son of count Nikola and the countess Marta Oršić, which made him member of the most prominent Croatian aristocratic families (Dević - Martinović, 1999, 305, Gašić, 2000, 36, Pavić, 1896, 56, b). He was born in 1670. Place of birth is not certain as there were different data depending on sources. According to literature, he was born in Vidovec, near Varaždin. But according to the data from the investigation prior to his appointment to bishop led in front of wienna nuncio, he was born on a family estate Novi Marof, in the diocese of Zagreb and Varaždin county (Dević - Martinović, 1999, 305, 307, 309, Gašić, 2000, 36, Jarm, 2003, 10, Pavić, 1896, 56, b). At the age of sixteen he joined the Jesuits in Zagreb, where he studied humaniora and graduated Greek philosophy and began to study theology. However, because of poor health he left the Jesuits, and continued his education on Hungarian Illyrian course in Bologna, acquiring a doctoral degree and leaving "great memories of himself among the Italians". That was how bishop of Bosnia or Đakovo Antun Mandić wrote about his predecessor while visiting the parish of Aljmaš in 1813. (Dević - Martinović, 1999, 306, 309, Gašić, 2000, 37, Kanonske vizitacije Osijeka, 1997, 268-269, Pavić, 1896, 56, b). Juraj Patačić filled a number of religious and secular posts: he was archdeacon of Varaždin, canon of Zagreb and provost of Požega, rector of Hungarian Illyrian course in Bologna, imperial advisor, and as bishop of Bosnia and Đakovo, he participated in the national Parliament in Pressburg in 1708 and 1714 (Dević - Martinović, 1999, 304, 306, 308, 309, 311-312, 313, 314, Gašić, 2000, 37, Pavić, 1896, 56, b). At the time he took the office of bishop of Bosnia or Đakovo he was thirty-three.

Witnesses to the inquiry procedure for the appointment of Patačić described him as a distinguished man, reputable, prudent, virtuous, and capable. And all the other available documents speak in favour of this assessment. Mild bishop Patačić was from his youth devoted to learning and books, and his scholarship was proved by writing the history of Bologna course "Gloria collegii Ungarico-Illyrici" and booklet "Heroes Hungariae et Illyrici, tam bellica fortitudine, quam singulari aliquo faciore illustres" (Dević - Martinović, 1999, 312, Gašić, 2000, 37, Pavić, 1896, 56, b). It is true that Antun Vukmerović, Zagreb canon, testifying to the inquiry procedure did not fail to mention certain Patačić's "weakness", that is poor eyesight, due to too much learning, but he also stressed that this shortcoming did not present any obstacle to Patačić because it was enough to put the book closer to the eyes and he could read without difficulty and without glasses (Dević - Martinović, 1999, 306).

Since Patačić was on good terms with secular authorities and with the Franciscans who ran most of the parishes, it was not surprising that in the available sources there could be found very few complaints about his behaviour or performance of services. The only one more serious accusation was presented in 1709 by the Bosnian Franciscans, who were complaining to the Congregation for the Propagation of the Faith that the bishop never came to Bosnia and that "he abandoned his flock." Patačić's reaction to these allegations and to reprimand sent from Vienna internuncios Marcantonio Santini, who warned Patarčić to go to his residence, was very restrained, readily expressing his intention to obey the orders of the higher ecclesiastical authorities. However, in the letter of justification that he sent to internuncios, he considered important to warn that the situation in Bosnia was such that life and dignity of the bishop could be threatened. A certain measure of frustration could be traced only in the part of the letter which outlined the history of moving the bishop's residence from Bosnia to Đakovo. There he called his prosecutors Franciscans foolish because of their ignorance of the facts related to the history of their own diocese (Dević, 2003, 114-124).

There was found very mild complaint on Patačić account, or more precisely - a note, in a letter by Ivan Grličić, Đakovo parson, sent to the Congregation for the Propagation of the Faith. Grličić asked for permission to join the Jesuits, or for missionary, and if he should

remain in Đakovo, he asked them to speak to bishop on behalf of the needs of his parish church, so that he did not have to share with bishop the income he receives from his parishioners (Dević, 2003, 77-79). This letter was written in summer 1707, only a few months before Grličić's catechism *Puut nebeski* was printed in Venice. It was dedicated to "most holy and highly respected" Bosnian bishop Juraj Patačić (Grličić, 1707, title-page) and nothing indicates that the relationship between the bishop and his priest was compromised. Moreover, the bishop, perhaps inspired by the earlier remark, at the beginning of 1708 presented Ivan Grličić and his successors with arable land, vineyards, meadow and plum orchard in Đakovo district (NAĐ, Collection of bishops correspondence, Pavić, 1896, 73, b).[113]
However, it seemed that his successor, bishop Petar Bakić (1716 to 1749), did not like Patačić's generosity in donating the property and certain casualness regarding the bishop's possessions. Trying to prove his right over the village Koška, Bakić said that if the "benevolent Mr. Juraj late Patačić, my predecessor bishop, during his episcopate and life, either out of neglect, or ignorance, or something else" let Koška be alienated, this did not mean it could be carried on with such illegal activities (NAĐ, Collection of bishops correspondence).[114]
There were no other critics on Patačić's account in all the available resources.
During the thirteen years of service, Patačić was extremely active and engaged in various episcopal functions, not only in his own, but also in surrounding dioceses in which their bishops were not resident. The fact is that the bishop of Pécs never visited the Slavonian and Srijem part of his diocese, as well as Srijem bishops never visited their own diocese. Regarding the fact that the Belgrade bishop Brnjaković, who had the authority to take care after Hungarian dioceses without their bishops, left his diocese in 1683 never to return, the circumstances became even more complicated. The situation in which bishops did not stay in their dioceses led to practical organizational problems that had to be resolved so the congregation would not be deprived of fulfilling their religious needs. Help from neighbouring bishops emerged as one of the possible solutions. So in 1703, when Juraj Patačić was appointed bishop of Bosnia or Đakovo, he was also entrusted to care for the spiritual needs of the two neighbouring dioceses, Pécs and Srijem, where he preached, consecrated churches, confirmed and introduced priests in holy orders, "not without costs, difficulties and dangers" (Dević, 2003, 119-121, 122-124). The same year (1703), the cardinal Leopold Kolonić sent a pro memoria, which purpose was to stop the controversy about the borders between dioceses. It stated clearly that Osijek is exempt parish under the authority of Kolonić as archbishop of Esztergom, and the whole district of Valpovo was given to bishop of Bosnia or Đakovo, Juraj Patačić. That way neighbouring bishops, especially the bishop of Pécs, should not have been deprived in any way (NAĐ, Collection of bishops correspondence). Patačić was also the one who in the early 1709 in Đakovo appointed the Srijem priest and vicar Luka Natali to Belgrade bishop (Dević - Martinović, 1999, 499-500, 502-505).
Patačić had a new cathedral built on the ruins of the old cathedral in Đakovo in 1706,[115] and he also started the renovation of the former Ibrahim Pasha Mosque, which he dedicated to the parish church of St. Juraj. In 1706 he had the wooden episcopal residence built. From 1711 to 1714 lasted the construction and equipping of the Franciscan convent in Đakovo, and he also had churches in Gorjani, Vrbica and Vrpolje built (Damjanović, 2008, 160-162, Hoško, 1995, 382, 383, NAĐ, Collection of bishops correspondence, Pavić, 1896, 74, b, Valenčić - Papić,

[113] Bakić Documents 1716-1749. from Archdiocesan Archives in Đakovo, the letter of Emerik Sadecki, manager of Đakovo estate, 18th July 1717.
[114] Bakić Documents 1716-1749. from Archdiocesan Archives in Đakovo, the letter of Petar Pakić, 20th October 1718.
[115] Matija Pavić wrote that the cathedral was built from 1708 to 1709.

1995, 89).[116] These were all modest buildings with modest facilities. Witnesses to the inquiry procedure for Petar Crnković in 1703 stated that Đakovo Cathedral Church had silver chalices, monstrance and chasuble, and other necessary holy equipment and furniture, but there was no organ, choir or any saintly relics. Also, next to the church there was only a small bell tower with one bell, and throughout the diocese there was only one church with baptistery. Almost identical testimony was given by witnesses in the investigative process for Petar Bakić in 1716. The only difference was that it was stated that the Cathedral Church had both choir and bell tower with two bells, and that it was the late bishop Patačić who supplied it with enough sacred equipment, furniture and other necessities for the cult. In 1718 in the dispute between Petar Bakić, bishop of Bosnia or Đakovo, and royal governor of Slavonia Alexander Joannes Kallaneka, among others there was mentioned the religious equipment that was left after the death of bishop Patačić. Bakić accused Kallaneka of illegally appropriated altar ornaments, bishop clothing, church clothing, books, chalices, golden bowl, silverware, tablecloths and other decorations that were placed in the Cathedral Church, the bishop chapel and bishop house. Bishop was particularly indignant that some of the silver sacred items were melted down and sold, so he firmly demanded from the Royal Chamber to support him in his efforts to claim on his rightful inheritance (Ević - Martinović, 1999, 89-108, 186-303, NAĐ, Collection of bishops correspondence).

Patačić was also the one who awarded benefits and properties, both to the Franciscan convent, and to the Đakovo parsons, and he also set revenues from the stola (Pavić, 1896, 73, b). In his time there were Diocesan Library and Archive in Đakovo. They were run by Đakovo parson, under the supervision of bishop. Diocesan library and archive were reasons for the dispute of bishop Bakić with the Franciscans in 1716. Bakić accused the monks of misappropriating that harmed him, as lawful successor of the legacy of the late bishop Patačić, but it also caused extensive damage throughout the diocese (NAĐ, Collection of bishops correspondence, Pavić, 1896, 184, a).

Among the tasks that were before the bishop Patačić there was restoration and organization of Đakovo diocesan estate. Bihops of Bosnia or Đakovo had no major problems in exercising their rights to Đakovo estate, that was confirmed by Habsburg rulers on several occasions to Patačić's predecessors (1650, 1697). However, the estate was largely destroyed and its reconstruction was started by bishop Olovčić, and continued by Patačić. In Patačić's time there begun the restoration of bishop's stables. Together with this relatively modest estate, in 1703 Patačić has become provost of Kaptol, but given that revenues were untended and small, he gave it up. Then he has become provost of St. Adrijan de Zala in Hungary by Emperor Joseph I. However, it also did not provide more tangible benefits and Patačić renounced it in 1715 (M. Pavić, 1896, 81, b).

Bishop Patačić was mainly on good terms with the lower clergy and the Franciscans, who had fierce fight with his successor and predecessor, and there was only a minor conflict (mention earlier) with the Bosnian Franciscans. Some slight tensions were traced in the writings of Ivan Grličić, Đakovo priest and the only secular priest who was active in Patačić's time in his diocese. There were also no data that suggest possible Patačić's disputes with the Jesuits, with whom he probably came into contact during his frequent trips to Osijek, where he had a house.

Patačić showed his concern for the pastoral work, folk piety and religious climate in general when he convened the Synod held in Đakovo in 1706. At the very beginning, the priests were warned that no one is allowed to administer the sacraments, or perform any parochial functions unless he was given permission by the bishops. There were also presented obligations of parsons and congregation regarding liturgy, behaviour and morality. Parish

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[116] Bakić Documents 1716-1749. from Archdiocesan Archives in Đakovo, undated letter of Petar Bakić to Viennese Court Chamber.

priests were required to keep the holy oil in suitable, covered containers, keep books of the state of souls and parish registers, hold catechetical instruction, before and after the sermon, "always in sublime voice" pronounce the Lord's Prayer, Hail Mary, Creed, the Ten Commandments and church commandments, during the processions, baptisms and other occasions to take care that the religious rituals were performed according to the law and with the utmost devotion and work to eliminate the differences in the way the feasts were celebrated, which had previously often happened, "not without disgust among people", that is to ensure that only approved and prescribed holidays were celebrated. The priest's duties also included monitoring compliance with obligations of Easter confession, encouraging the faithful to confess as often as possible, to celebrate the holidays with dignity, with the greatest devotion, rather than being left to drunkenness.

Parish priests were warned that they should act reasonably when determining the prudence and public penance should be assigned only to severe sinners for acts of heresy, virgin rape, incest, abortion, desecration of church, voluntary homicide, arson, beating parents, sorcery and false prophecy. The sacrament of Holy Communion should be accepted with obedience and dignity, taking it into the hand. All the parsons were strictly instructed no longer to celebrate in private houses, except in the case of "near-death powerlessness," and they should also encourage parishioners to build the village chapel. On that occasion, it was ordered not to misuse holy service for the blessing of the newly built houses. When it comes to marriage, parsons were warned not to conduct a wedding ceremony unless it had been announced three times in succession, and if the bride and groom came from different parishes, the disclosure should be done in both parishes.

It was visible in the regulations that they were not in favour of marriages of two people coming from different parishes, except if they had issued special certificates from the parish priest. It was also not looked favourably on marriages of parishioners with "tramps", that is foreigners. Such an attitude is understandable if we have in mind the Church's efforts to provide a solid religious, but also wider social control over its flock, through religious practices in the most important events in the life of individuals and families, such as birth, marriage and death. As for widows or widowers, they could have been remarried only if they presented credible confirmation of the death of a spouse. Otherwise, new marriage was allowed only after thirty years of absence of a spouse. Strict regulations regarding the re-marrying of widows and widowers had special meaning during the war and in the years that followed, because the number of those killed, missing or taken into captivity or slavery was significant. It was not easy to issue a death certificate, and it appears that the cases of sudden return of the missing person (already mourned) were relatively frequent. At the synod it was determined that the priests are not allowed to marry those who had not settled the prescribed fee, which should not exceed 10 florins. They were also warned that they had to endeavour to eradicate the abuses associated with the customs of "buying the bride" and excessive gift giving (M. Pavić, 1896, 63-64, b).

Always of poor health, bishop Patačić died in March 1716 at the age of forty-six. According to his wish, he was buried in the Franciscan church (Pavić, 1896, 89, b).

3. Conclusion

After the liberation of Slavonia and Sirmium from the Ottoman rule and after they became a part of the Hapsburg Empire, it became necessary to (re)organize the institutions of the Catholic Church in accordance with the new circumstances. Establishment of a permanent church organization was marked by the fight for setting borders of dioceses, the jurisdiction of bishops and struggle for control over parishes fought between the Franciscans and secular clergy. At the parish level, pastoral activity retained most of its features from the previous

period, mainly because the parishes remained in the hands of the Franciscans. The biggest problems in the organization of religious life arose from the fact that most bishops did not reside in their dioceses and the difficult financial circumstances in which the Church found itself. The organization of the Church and religious life in war time occurred in extremely difficult conditions, and problems such as insufficient number of priests and the poor state of sacred objects still remained in the first decades after the conclusion of Karlovac peace. However, the religious life showed its vitality even under the most difficult circumstances. But after the situation all together became more stable, we can trace back its revival and forming in accordance with the rules of the Church, with special attention to the behaviour of believers with a commitment to remove the existing "superstitions" and "violations" and the faithful are urged to obey religious commitments and behave in accordance with Christian morale.
Bishop Juraj Patačić de Zejezda played a significant role in rebuilding the institutions of church and religious life and not only in his diocese but also in the neighbouring dioceses. He maintained good relations with the clergy and secular authorities, preached, consecrated churches, confirmed and introduced priests in holy orders, renovated and built religious buildings, intensified renewal of devastated Đakovo estate. Because all of that, it can be concluded that bishop Juraj Patačić with his formal education, his service, and religious and moral character came very close to the ideal bishop required by Church.

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STROSSMAYER'S COLONISATION OF JOSIPOVAC: THE ECONOMIC AND LEGAL ASPECTS

STOSSMAYEROVO NASELJAVANJE JOSIPOVCA, EKONOMSKI I PRAVNI ASPEKTI

ABSTRACT

The Đakovo area in the second half of the 19th century was rich in forests, fully grown and ready to be exploited, but the number of people to cultivate the cleared land and bring it to its new purpose was insufficient. For this reason, the Bishop Strossmayer, as the lord of the Episcopal Manor, stimulated the colonisation of the clearings and founding of new settlements in the nearby of Đakovo: Josipovac, Jurjevac and Krndija. A thorough research of the archival documents on the founding of these villages was conducted by Andrija Šuljak, but because of his sudden passing he never completed and published his paper. This paper, based on the documents he came by, deals with the economic and legal aspects of colonisation of the village of Josipovac and the contracts between the settlers and the Manor. The archival documents give the significance even to the oral tradition on the initial contacts between Strossmayer and the colonists, recorded by the parish priest of Punotovci, Josip Lukić. The plan of cultivation of the clearings was impossible to implement without leasing the aforesaid land. Thus the initial contact, according to Lukić, between the Slovaks and Strossmayer came in the ideal moment and results in colonisation of Josipovac in 1881. Strossmayer's plan was conducted in agreement and with permission of the ecclesiastical and civil authorities: Cathedral Chapter of Đakovo, Royal Provincial Government in Zagreb and Royal Subcounty in Đakovo. The first conditions of colonisation, kept in the Archiepiscopal Archives in Đakovo, were modified in part, in order to be adjusted to the needs and interests of both the settlers and the Manor, before the Sale Contracts were signed with each of the settlers in 1889. Strossmayer provided the newly founded villages with common land for the needs of their rural districts and the local Church communities (subsidiaries). The effect of the economic and legal measures and actions taken by the Episcopal Manor and the settlers were concluded in 1894, when the Royal District Court in Đakovo, as the land registry authority, confirmed the registration of the new villages, that is, the registration of the transfer of the land to new legal and natural entities based on the legal effects of the contracts and donations.

Key words: *Strossmayer, Episcopal manor in Đakovo, Slovaks, Josipovac, colonisation of Slavonia*

SAŽETAK

Đakovština je u drugoj polovici 19. stoljeća bila bogata šumama koje su bile zrele i spremne za sječu, ali siromašna stanovništvom koje bi moglo zemljišta iskrčenih šuma privesti novoj ulozi, pašnjacima i oranicama. Stoga je biskup Strossmayer kao vlastelin iz ekonomskih razloga potaknuo naseljavanje novih stanovnika na područje šumskih krčevina i osnivanje novih mjesta u Đakovštini: Josipovca, Jurjevca i Krndije. Temeljito arhivsko istraživanje o osnivanju Josipovca, Jurjevca i Krndije proveo je Andrija Šuljak, ali zbog iznenadne smrti nije napisao znanstveni rad o tome. Na temelju dokumenata prikupljenih njegovim marom, u ovom se radu obrađuju ekonomski i pravni aspekti naseljavanja sela Josipovca i ugovorne obveze između vlastelinstva i naseljenika. Arhivski dokumenti daju ozbiljnost i činjenicama usmene predaje, zapisane po punitovačkom župniku Josipu Lukiću, o prvim kontaktima kasnijih josipovačkih naseljenika s biskupom Strossmayerom. Plan budućeg načina obrade i uživanja iskrčenih zemljišta bilo je nemoguće provesti bez davanja označenih krčevina u zakup. Stoga kontakt između Slovaka o kojima piše Lukić i biskupa Strossmayera dolazi u pravom trenutku i rezultira počecima naseljavanja Josipovca 1881. godine. Strossmayerova je namjera provedena uz suglasnosti i odobrenja mjerodavnih crkvenih i državnih institucija: Stolnoga kaptola u Đakovu, Kraljevske zemaljske vlade u Zagrebu i Kraljevske podžupanije u Đakovu. Prvi pisani uvjeti naseljavanja, koji se i danas čuvaju u Nadbiskupijskom arhivu u Đakovu, vremenom su se djelomično mijenjali i prilagođavali mogućnostima naseljenika i vlastelinstva, sve do konačnog sklapanja „Kupovno-prodajne pogodbe“ sa svakim naseljenikom 1889. godine. Strossmayer je novoosnovana mjesta, temeljem svojih darovnica, opskrbio i zajedničkim seoskim zemljištima namijenjenim za opće potrebe seoske mjesne općine i crkvene zajednice (filijale). Učinak provedenih ekonomskih i pravnih postupaka i radnji Biskupskoga vlastelinstva i naseljenika zaokružen je 1894. godine, kada je Kraljevski kotarski sud u Đakovu, kao gruntovna oblast, gruntovno proveo osnivanje novih mjesta, odnosno uknjižbu dodijeljenih zemljišta na nove fizičke i pravne osobe temeljem pravnih učinaka kupovno-prodajnih pogodaba, darovnih pogodaba i posvetnica.

Ključne riječi: *Strossmayer, Biskupsko vlastelinstvo Đakovo, Slovaci, Josipovac, naseljavanje Slavonije*

1. Bishop Strossmayer as the Lord of the Manor

Episcopal Manor in Đakovo was restored after the liberation of Slavonia from the Ottomans in the late 17th century, and was further developed and improved by the bishops of Đakovo. Besides being undoubtedly the longest running lord, Strossmayer was also the most successful administrator of the Episcopal Manor. The results of his management were evident in the Episcopal See of Đakovo, its immediate surroundings, as well as in other parts of the diocese and throughout Croatia, either within the ecclesiastical or broader social context. He left an inerasable trail as the founder and the patron of the major Croatian cultural and scientific institutions in Zagreb. The state of the Manor Strossmayer inherited when he became the Bishop of Đakovo and the way he administered the manorial resources was best described by his closest associates Matija Pavić and Milko Cepelić in their jubilee book devoted to Strossmayer, in the chapter titled "Josip Juraj Strossmayer as the Lord of the Manor" (Cepelić/Pavić, 1900, 845-935). Due to the abolition of feudalism in 1848, Strossmayer took over the Manor in 1850 under the entirely different economic circumstances than his predecessors. Nevertheless, being a fairly young man, supported by his associates, well trained clerks and managers, Strossmayer overcame all the manorial problems, including the financial difficulties (Cepelić/Pavić, 1900, 872). It seems, though, that Strossmayer's success has to be attributed to his endeavour to carefully monitor the Manor, improve the contributing capacities, and remove the ones holding back the development.

The management of rich natural resources, such as forests, pastures and plough fields, was crucial in the planning of the economic development of Eastern Slavonia throughout the history, but in order to exploit the resources, the local population was of utmost importance, although its number varied in different periods of time. In the second half of the 19th century the Đakovo area was abundant in natural resources, particularly in forests, fully grown and ready for logging, but the number of people to clear the ground, bring it under the cultivation and turn it into pastures and plough fields was scarce. In such circumstances, for the economic reasons, the Bishop Strossmayer, as the lord of the manor, stimulated the colonisation of the new places around Đakovo namely: Josipovac, Jurjevac and Krndija.

This paper discusses the village of Josipovac and the economic and legal aspects of the colonisation, as well as the settler's land leasing obligations to the Episcopal Manor.

2. The Settlers and Their Descendants

Today, Josipovac is widely known for its live Slovak tradition and rich cultural heritage. The Slovak minority mostly consists of the descendants of the settlers who arrived in the second half of 19th century. There are several authors of comprehensive works about the Croatian Slovaks, but the most distinguished are Vita Ušaka and Kvetoslav Kučerov. They analysed the reasons for emigration of the Slovaks from their homeland and described the places and the waves of their migration to Croatia, covering a great deal of information about the places populated by the Slovaks. However, from its earliest history on, Josipovac was also populated with other ethnicities (Croats, Hungarians, Germans, and Czechs). Some authors already dealt with the issue of the Slovak colonisation of the villages around Đakovo: Josipovac, Jurjevac, Beketinci and Piškorevci (Kučerova, 2005, 87-102). Several authors, mainly naturalised or native born inhabitants of Josipovac, wrote on their home village and various historical aspects of life, work, live cultural, artistic and social activities, mostly in the second half of the 20th century, but the earliest history of Josipovac in their works was merely touched upon.

One of the authors who wrote on the immigration of the Slovaks and other ethnicities to Josipovac, the founding of the village, regulated relations between the Episcopal Manor and the settlers, was Monsignor Andrija Šuljak, a priest, cathedral canon, professor of ecclesiastical history at the Faculty of Theology in Đakovo, native born Slovak from Josipovac and Croatian patriot. A more comprehensive work on Andrija Šuljak was written by Luka Marijanović, a cathedral canon and university professor (Marijanović, 2011, 65-86). Šuljak wished to publish all the collected and studied materials about Josipovac and its earliest history in the work that was to be issued in the monograph on Josipovac. After his sudden passing in 2010, the manuscript was not found in his legacy, just the collected and copied documents from the Archdiocesan Archives in Đakovo (AAĐ), which were at his disposal and used for further study and writing. However, some of the found documents and studied data Šuljak published as one of the authors of the popularly written catalogue of the Slovak exhibition titled "Josipovac Punitovački Slovačko selo u Đakovštini" (Josipovac Punitovački a Slovak Village in the Đakovo Region), held in the Museum of the Đakovo Region in 2008 (Josipovac 2009). This published work of Šuljak (Šuljak 2009, 4-38), together with other archival documents, are the basis for this paper on the economic and legal aspects of Strossmayer's colonisation of the clearings in the districts of Punitovci and Gorjani and the founding of the new village of Josipovac.

A romanesque story on the first contacts between the later settlers of Josipovac the Bishop Strossmayer is based on a recorded oral tradition of the oldest residents of Josipovac collected in the form of the memorial by Stjepan Lukić, a parish priest of Punitovci (1946-1951), under the title ”Povijest slovačkog sela Josipovac“ (A History of a Slovak Village of Josipovac). According to this memorial and Šuljak’s article, the Slovaks who later came to Josipovac had settled first in the nearby of Orahovica around 1850 and founded the settlements of Zokov Gaj, Duga Međa, Petrovo Polje and Podrumina. Their first, accidental, encounter with the Bishop Strossmayer was related to the blessing of the bells for the newly erected chapels in Duga Međa and Podrumina. Although these parts were under the Diocese of Zagreb, due to a great distance from the episcopal see, most probably at somebody's urging, they turned to Strossmayer, a well-known friend of Slovaks (Judak/Sedlak 2006, 169-188), for the blessing of the church bells. After the ceremony, the Bishop offered the settlers a chance to replace hard labour in Gutmann's forests for the colonisation on his manor, to cultivate the land and to found new settlements in the districts of Punitovci and Gorjani. His suggestion, apparently, seemed acceptable to the Slovak delegation, headed by Vavrin Kanisek and Stjepan Zelnik, so they urged the first group of colonists to move on 17 January 1881 and to settle down on the marked house lots, which would be later known as the village of Josipovac (Archives of the Roman Catholic Parish of Punitovci, sign A-XI-2; Šuljak, 2009, 7-8).

3. Material and Legal Conditions for the Colonisation and Founding of Josipovac

3.1 Economic Basis for the Colonisation

The arrival of the settlers at Josipovac was closely connected with Strossmayer's management of the manorial forests. In the second half of 19^{th} century the forests were the most important source of income of the Episcopal manorial estate (Cepelić/Pavić, 1900, 855-870). According to the Forest Act of 1858, Strossmayer needed a permit from the Royal Provincial Government in order to clear large forested areas on his manorial estate. Accordingly, in 1879 he put in a request for the permit to clear the forests in Cerovac, Branjevina, Pašina and Krndija and to cultivate the cleared land by turning it into plough fields and pastures. The Royal Subcounty in Đakovo supervised the implementation of Strossmayer's request. The manorial management, with the approval of the Government, was ordered to complete the study for turning the clearings into plough fields and pastures, that is the study for tillage and exploiting the cleared land (AAĐ, Episcopal Manor, 564/1879). However, the regular income of the manorial estate and the existing financial resources could not guarantee the implementation of the study without granting the lease of the cleared plots (Šuljak, 2009, 5-6). At the time, when the Đakovo Region was sparsely populated, the arrival of the potential leaseholders, the Slovak settlers mentioned by Josip Lukić in the aforesaid memorial, was highly desirable.

3.2 Material Conditions for the Colonisation

The areas to be colonised by the new settlers of Josipovac were the clearings of Pašine, Suševina and Branjevina. It was the territory of systematically cleared forests, wilderness with shrubberies and swamps, without melioration channels and ditches, not even a solid road, nothing but a beaten path through the cleared forest. So, it came as no surprise when Strossmayer himself wrote a note on the back side of the conditions document, from 5

January 1881, which said: “It’s worth a try, but I doubt those people will succeed.“ (AAĐ, Episcopal Manor, 21/1881; Šuljak, 2009, 13).

The colonisation conditions offered by the Episcopal Manor to the settlers were worded in a document, which is preserved in the Archiepiscopal Archives in Đakovo (AAĐ, Episcopal manor, 21/1881.) Its facsimile was published in the previously mentioned catalogue, together with Šuljak's interpretation of the original text:

> *1. „From the crucifix in Branjevina, at the crossroads near Drljak, along the both sides of the road to Tomašanci, each family will be granted a plot of 20 fathoms wide and 80 fathoms long for the croft. Here they can build a house, convert the land into a garden, a plum orchard or something else. The Manor will not ask tribute in kind for the yields from this acre, however he will be able to purchase the croft later. 2. Each family will be obliged, for the duration of the contract, which is 15 years, to convert 15 acres of clearings into a plough field. 3. The Manor will sell 5 out of 15 acres of cultivated plough fields and 1 acre of croft to each family for 50 florins per acre, and the Manor will register the sale in the land registry at his expense. 4. Every lessee must clear the land on his own, acquire his own tools as well as the building materials for the house. 5. The lessee owes 1 fathom of wood per every acre of land he clears to the Manor. The rest he can keep for himself. 6. The Manor will lend the lessee seeds in the first year to sow the land. The seeds must be returned after the harvest. 7. The Manor leases the land for 15 years, first ten of which the lessee will give 50 kg of crops per acre to the Manor every year, and 100 kg during the remaining five. 8. The lessee is free to cultivate the land at will. 9. The settlers are allowed to freely glean the wood from the clearings that are to be brought under cultivation. 10 The lessee will be able to put his livestock out to pasture on the aforesaid clearings with payment of 50 coins fee per cow and 25 coins fee per calf, horse, sheep or pig. 11. The settlers can temporarily live in one of the rooms reserved for manorial servants, or can adapt one half of the manorial pigsty for their living quarters. 12. These conditions will become valid if at least 20 families settle down and when they are authorised by the Bishop“* (Šuljak, 2009, 8-13).

These conditions were, apparently, changed with time, in order to be adjusted to the needs and interests of both the settlers and the Manor, until each lessee signed the contract in 1889 (AAĐ, Episcopal Manor, 1889). Thus, Pavić and Cepelić, at the turn of the century, described somewhat different colonisation conditions and obligations of the settlers than the ones offered in 1881. According to them, each settler received one acre of croft and ten acres of plough fields and meadows. The allocated 11 cadastral acres of land were to be cleared within ten years according to the contract. The obligations consisted of two phases. In the first ten-year period the settlers were required to pay in crops and wood to the Manor according to the contract conditions, that is, 50 kg of crops per acre (the croft being excluded) every year and a fathom of wood per cleared acre paid on a one-time basis. Taking into the account that the settlers had the obligation to clear and cultivate the land, there was a rather interesting penalty clause in the contract by which a lessee had to pay 3 florins per uncleared acre every year as a rent. Once the ten-year period had expired, the settlers were not required to pay the Manor in kind anymore, but to pay 50 florins per acre twice a year, in total of 42 instalments. (Cepelić/Pavić, 1900, 902-903).

The living conditions of the settlers were, apparently, very difficult, because from the initial 44 families that arrived in 1881, only 7 remained in 1883. The rest of them moved away in the meantime, but they were replaced by newcomers, as seen in the Manorial census. The first census, containing 44 names and surnames of the household heads, was made by the estate overseer Hugo Sudarević on 19 January 1881, when the first settlers were granted house lots (AAĐ, Episcopal Manor, 64/1881). Šuljak presented a precise transcription of their names and surnames (Šuljak 2009, 14). However, only 7 family householders were mentioned in the census from 1883 ("Popis Žitelja Naselnika u Josipovcu…"), in which the households were listed by house numbers. The census consisted of 54 house numbers (number 15 was the church), including the following information for every householder leaving at that number: "name and surname; where is he from; what documents does he have; what religion is he affiliated with; what is his nationality; is he legally married or is he cohabiting; his present moral conduct; how many acres has he cleared; remark" (AAĐ, Episcopal Manor, 715/1883. Thus we can see that all of the villagers were Roman Catholics. By nationality, there were 29 Slovak, 11 Hungarian, 6 Croat, 5 Czech (Pemac), and 2 German families (AAĐ, Episcopal Manor, 715/1883). Šuljak published the facsimile along with the transcription of the census. (Šuljak , 2009, 15-24).

3.3 Legal Aspects of the Colonisation

According to Strossmayer's intention to found new settlements on the clearings, the Royal Provincial Government in Zagreb and its Department of Religion and Education, instructed the Diocesan Chancery in Đakovo from 20 September 1881 about the new settlements on the clearings, all the legal formalities and the approvals from the civil and ecclesiastical authorities to be obtained before the Government can issue the permit for the implementation of that intention (AAĐ, Diocesan Chancery in Đakovo, 895/1881). According to the instruction, Strossmayer issued the guidelines to the Directorate of the Episcopal Manor form 8 October 1881 on the series of procedures to be taken regarding the legal aspects of the founding of settlements. First, a land registry extract had to be obtained for the land plots to be leased together with their value estimate. On the basis of these documents, the Chapter had to give their consent for abalienation of the episcopal land and send their opinion to the Royal Provincial Government for further legal proceedings. Once when the Government approved the abalienation, in agreement with the Royal Subcounty in Đakovo, it was possible to legally determine the layout of the settlements and sign the lease contract with the settlers. Finally, the case had to be sent to the Department of Interior of the Royal Government for confirmation (AAĐ, Diocesan Chancery in Đakovo, 895-1881; Episcopal Manor, 1081/1881).

The settlers signed contract with the Manor in 1889. The contracts mostly defined the clauses described by Pavić and Cepelić in their book. The clauses were surely altered with time due to the poverty of the settlers who on several occasions pleaded Strossmayer to allow them defer their obligations. Among the manorial records from those years there are a number of requests by the settlers for deferred payment or borrowing the sowing seed in the years of poor crops (AAĐ, Episcopal Manor, Documents 1881-1889), even in the year when the contracts were signed or later. In their collective request from 11 August 1889 they pleaded to be released from paying the "kila" (50 kg from the crops) for the current year, because the harvest was very poor and they barely managed to gather the seeds for the upcoming seedtime. This request mentions 59 families, that is, the names and surnames of the householders (AAĐ, Diocesan Chancery in Đakovo, 318-1890). The settlers wrote to Strossmayer again in 1894, asking to be allowed to postpone the payment of the residual annual instalments for the period from 1891 to 1894. The debt was to be settled on 1 January 1895 at once, but they petitioned the Bishop to have it distributed into 8 semi-annual instalments. Strossmayer's handwritten note on the back of the document testifies in favour of his benevolence (AAĐ, Diocesan Chancery in Đakovo, 341/b-1898).

Besides founding of settlements and colonisation of settlers, Strossmayer, as the lord of the Manor, thought it was necessary to provide newly founded villages with common land for the needs of their rural district. Thus he, by virtue of the donation agreements form 12 December 1893, granted the District of Josipovac land, stating the individual land plots (AAĐ, Episcopal manor, 478/1893).

Land registration procedure for the newly founded settlements and donated land as well as the implementation of the contracts closed rather late, in 1894, although all cadastral documentation necessary for the registration had been completed much earlier, on 15 October 1885. The reason for this was that the Royal District Court in Đakovo, as the authority for land registry, allowed all the land contracts and the founding of the new settlements of Krndija, Jurjevac and Josipovac to be registered on 25 July 1894, under the number 1822/Z. Thus land registration of the allocated plots of District of Punitovci, entry no. 34, and District of Gorjani, entry no. 216, was allowed for the village of Josipovac, as well as the transfer of those plots to their new proprietors. The same decision of the Court allowed registration of the mortgage on all immovable property if favour of "Manor of the Diocese of Đakovo", according to obligations set in the contracts. The decision also stated that all the documentation on the land registration was to be kept in the Court within the Collection of Documents (AAĐ, Episcopal Chancery in Đakovo, 210-1894).

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Društveno odgovorno poduzetništvo

Social responsibe entrepreneurship

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ANALYSIS OF COMPETITIVE ADVANTAGES OF ORGANIZATION WITH THE IMPLEMENTED STANDARDS OF SOCIAL RESPONSIBILITY SA 8000 AND ISO 26000:2010

ANALIZA KONKURENTSKIH PREDNOSTI ORGANIZACIJE SA IMPLEMENTIRANIM STANDARDIMA ZA DRUŠTVENU ODGOVORNOST SA 8000 I ISO 26000:2010

ABSTRACT

The level socially responsible business activity of organizations is becoming an increasingly important factor that defines the organization's overall competitive advantage. Insufficient awareness of management and low level of awareness of the benefits brought by the standards of social responsibility implemented in organizations are the main reason for the small number of organizations certified to SA 8000 standards in Croatia. In comparison with developed economies the proportion of organizations with the SA 8000 standard implemented in Croatia is very low, namely the number of certified companies is less than 1% of all registered businesses in Croatia. In addition to internal competitive advantages which are achieved through compliance with the guidelines of international standards with SA 8000, socially responsible organizations often use the opportunity to take advantage of implemented standard for marketing. In the most developed world economies, organisations are rising the levels of socially responsible marketing in three directions, which are based on appropriate legal, ethical and socially responsible behaviour. International standard SA 8000 and International Standard ISO 26000:2010 give guidance to organizations and offices on how to improve their business and working relations. Mentioned standards provide concrete tools for improving until an internationally recognized certification bodies carry out certification audits to issue certificates to organizations that are arranged in accordance with the guidelines SA 8000. Application of standards for social responsibility in organizations has brought additional changes in the areas of health and safety at work, interpersonal relations *and internal and external communication, also there was an increase in the level of transparency and the general openness. It also changed the way of working through the control of working conditions. These improvements have a positive impact on the overall business of organizations, their position in the labour market and the overall position in the community. SA 8000 and ISO 26000:2010 are regulating human rights as well as reducing possibility of sexual, racial and other discrimination. The fundamental difference between the standard SA 8000 and ISO 26000:2010 is that ISO 26000:2010 is not intended for certification and it is used as a set of instructions for establishing socially responsible businesses SA 8000 is intended for certification and is compatible with other ISO standards, so it can be implemented as an integrated management system along with other ISO standards (ISO 9001:2008, ISO 14001:2004). The aim of this paper is to increase awareness and knowledge on standards for socially responsible business and the benefits organizations receive after the implementation of these standards.*

***Key words**: Social responsibility standard, SA 8000, ISO 26000, Social responsible entrepreneurship, Social responsible management*

SAŽETAK

Razina društveno odgovornog poslovanja organizacija postaje sve važniji čimbenik koji definira ukupne kompetitivne prednosti organizacije. Nedovoljna informiranost uprava te niska razina svijesti o prednostima koje donose standardi društvene odgovornosti implementirani u organizacijama, glavni su razlozi malog broja certificiranih organizacija prema standardu SA 8000 u RH. U usporedbi sa razvijenim gospodarstvima, udio organizacija sa implementiranim standardom SA 8000 u RH vrlo je nizak, točnije broj certificiranih organizacija je manji od 1% svih registriranih poslovnih subjekata u RH. Osim internih kompetitivnih prednosti koje se postižu pridržavanjem smjernica međunarodnog standarda SA 8000, društveno odgovorne organizacije često koriste priliku da marketinški iskoriste implementirani standard. U najrazvijenijim svjetskim gospodarstvima organizacije podižu razine društveno odgovornog marketinga kroz tri smjera koja se temelje na prikladnom legalnom, etičnom i društveno odgovornom ponašanju. Međunarodni standard SA 8000 te međunarodna norma ISO 26000:2010 daju smjernice organizacijama kako da urede i poboljšaju svoje poslovanje te radne odose. Navedene norme nude konkretne alate za unapređenja dok međunarodno priznata certifikacijska tijela provode certifikacijske audite kako bi izdale potvrde organizacijama koje su uređene sukladno smjernicama norme SA 8000. Primjena norme za društvenu odgovornost u organizacijama unijela je dodatne promjene na područjima zdravlja i sigurnosti na radu, međuljudskim odnosima i internoj i eksternoj komunikaciji, a došlo je i do povećanja nivoa transparentnosti poslovanja i opće otvorenosti. Isto tako promijenio se način rada kroz kontrolu radnih uvjeta. Navedena poboljšanja pozitivno su utjecala na ukupno poslovanje organizacija, njihovu poziciju na tržištu rada, te ukupni položaj u zajednici. Norma SA 8000 i ISO 26000 reguliraju ljudska prava te smanjuju mogućnosti spolnih, rasnih i ostalih diskriminacija. Temeljna razlika između standarda SA 8000 i ISO 26000:2010 je u tome što norma ISO 26000:2010 nije namjenjena za certifikaciju te se ona koristi kao skup uputa za ustrojavanje socijalno odgovornog poslovanja. Norma SA 8000 namjenjena je za certifikaciju te je kompatibilna sa ostalim ISO normama, na taj način moguće ju je implementirati kao integrirani sustav upravljanja zajedno sa ostalim ISO normama (ISO 9001:2008, ISO 14001:2004). Cilj ovog rada je povećati svijest i znanje o normama za društveno odgovorno poslovanje te o koristima koje organizacije dobivaju nakon implementacije navedenih normi.

Ključne riječi: *Socijalno odgovorno poslovanje, SA 8000, ISO 26000, Socijalno odgovorno poduzetništvo, Socijalno odgovorno upravljanje*

1. Preface

The strategy of social responsibility is becoming a trend amongst our companies and companies in the world. In this way companies create paths for broadcasting messages to all target groups, employees, shareholders, investors, consumers and even the public sector. In doing so, they find that their voluntary involvement and commitment can help to increase profits. The company's success can be measured in many different ways. In addition to financial indicators and reputation in the business community, there are the excellence of services offered to customers, success in providing opportunities for professional and personal development of employees and contribution to the prosperity of the community in which the company operates. Globalization offers more opportunities to companies than they had in the past, but also hides threats that companies which do business unethically can be exposed (Kotler, 2008, 707).

Approach to socially responsible business stems from the realization that the impact on society largely stems from the manner in which professional services are provided to customers. In line with this, the aim is to achieve service excellence and continuous improvement in the area of responsibility and professional conduct, with the development of employees and concern for the local community and global challenges, briefly the focus is put on the sociological component of PEST Analysis. Therefore the objectives of business is growth and prosperity while from the social aspect it is reduction of inequality and poverty. There is no economic growth and development without social and moral consequences and implications (Crowther, Aras, 2008, 83). In theory of CSR (Corporate Social responsability) there are four components of sustainability: the impact on society, impact on the environment, organizational culture and finances.

CSR is a set of ethical aspects among which are included human rights, health and safety of workers, the use of good business practice, management, environmental management, client relationships, market activities, community involvement and social development (Goetsch, Stanley, 2010, 91). International Standard SA 8000:2008 is a tool for implementing CSR in companies. SA 8000:2008 international standard was issued in 1997. by SAI (Social Accountability International), New York, and CEPA (Council on Economic Priorties Accreditation Agency, London). Untill 2012. norm has undergone two revisions while the last one was in 2008. The mission of norm is to globally improve working conditions. The standard is applicable to all types of organizations and in public sector.

Technical Committee of the International Organization for Standardization - ISO has in 2008. organized an ad hoc group which was working to develop an international ISO standard for CSR. In year 2010. first version of the International Standard ISO 26000:2010 was released that makes the array of international professional knowledge on social responsibility. According to SAI reports at the end of 2010. in the world were certified 3034 companies according to the requirements of SA 8000:2008, of which there are 4 companies from Croatia. ISO 26000:2010 is not intended for certification, and its purpose is to be used as a tool for the implementation of CSR. The analysis of the companies from Croatia that have implemented SA 8000:2008 norm has determined that their total income is greater than the average for the sector in which they operate and that their operations in accordance with the principles of CSR positively affected the export of their products.

2. Overview of guidelines for CSR

International Standard ISO 26000:2010 and SA 8000:2008 are defined by several principles that provide guidance for further business and have a significant impact on comparative advantage, reputation, employee commitment, and end user. Standards SA 8000:2008 and ISO 26000:2010 have almost identical requirements, the difference between Standard SA 8000:2008 and ISO 26000:2010 is that the SA 8000:2008 standard does not provide specific guidelines relating to protection of the environment, involvement of organization in local community and guidelines relating to the organization's clients. ISO 26000:2010 and SA 8000:2008 are becoming the process of managing communications of organization with internal and external public relations for the purpose of achieving mutual understanding, build social responsibility and the realization of common interests, have a positive impact on investors, competitive enterprises, government, media, suppliers or the entire community in which it operates. Therefore it can be concluded that according to the Porters model of five competitive forces, business are weakened by all forces acting on it and by the fact that it operates according to principles of socially responsible behavior that are integrated into business strategy it guarantees a competitive advantage.

According to the guidelines of the ISO 26000:2010, standard is defined by seven principles of social responsibility which include accountability, transparency, ethical behavior, respect for stakeholder interests, respecting the rule of law, respect for international norms of behavior and respect for human rights (ISO/DIS 26000, 2010, 10-14). The Principles are intended to help achieve the transparency of values and company goals.

Organizational responsibility for their own impact on society and the environment is essential component in a competitive business enterprise, and it imposes the obligation on management to answer for the control of interest of organization and commitments of the organization to legal authorities. In addition to the necessary transparency of decisions covering the area, purpose, nature and location of the organization, decision making, implementation, and review of decisions, including defining roles, responsibilities and powers of different functions within the organization; developing standards and criteria by which an organization assesses its performance relating to social responsibility, performance in the execution of relevant and significant issues of social responsibility; their sources of funding, known and likely impact of their decisions and actions on its stakeholders, society and environment, the identity of its stakeholders, criteria and procedures used for the identification, their selection and involvement (ISO/DIS 26000, 2010, 11). Previously mentioned standards are the foundation of ethical behavior expected of all levels within the system. Set standards help in preventing or resolving conflict of interests throughout the organization, which could otherwise lead to unethical behavior, establish monitoring mechanisms to track and control the implementation of ethical behavior, establishing mechanisms whose purpose is to facilitate reporting of unethical behavior without fear of reprisal, recognize and resolve the situations where local laws and regulations that do not exist or are in conflict with ethical behavior and respect for animal welfare and when it influences their lives and existence, including guarantee of decent conditions for keeping, breeding, cultivation and use of animals (ISO/DIS 26000, 2010, 11-12).

In accordance with ISO / DIS 26 000 from 2010. organization must respect the interests of their target groups, owners, partners, employees and up to customers. All interested parties can significantly affect the activities of the organization. In addition to all of these components it is required to accept respect for the rule of law, or rule of law and regulations that are necessary for implementation in accordance with established procedures in all jurisdictions in which it operates, but parallel to that respect international standards of behavior.

3. Analysis of the competitive advantages of companies with implemented CSR

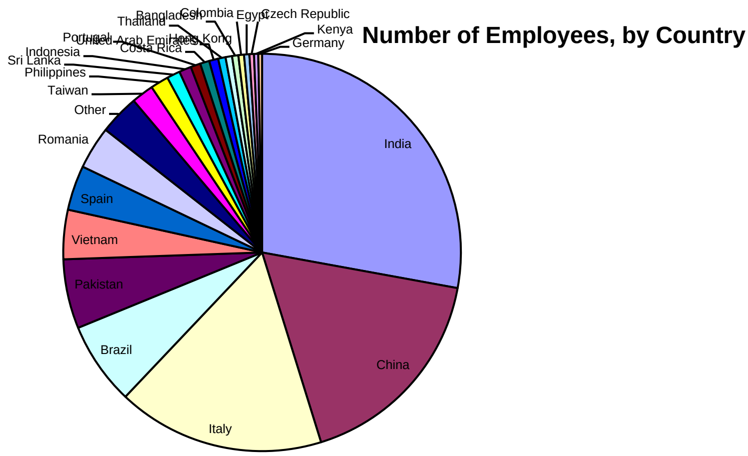
International Standard ISO 26000:2010 includes all forms of organizations regardless of its size and number of employees, although fewer or shallower organizations have a greater potential for flexibility, adaptability to rapid changes in technology and the environment which represents a fertile ground for social responsibility. ISO 26000:2010 Guidelines are a great help in making decisions particularly to small and medium enterprises.

According to a study carried out by IISD (International Institute for Sustainable Development) it is determined that the ISO 26000 Social Responsibility has a potential to be a comprehensive guide to the introduction of programs for small and medium enterprises (Lazibat i sur., 2011, 8). Studies show that the practice of social responsibility should be transferred from circuit emulation and bring it to a component that is based on business insight. Moving the focus of social responsibility, which rests on the foundations of large companies, will create an alternative tools and models and also provide assistance to small and medium enterprises in order to develop appropriate strategies to suit their businesses.

3.1. Implementation analysis of SA 8000:2008

By the end of 2010 in the world were 3034 organizations with implemented SA 8000:2008 standard. Most of them are implemented in Italy (913), India (639), China (440) while in Croatia SA 8000 has been implemented in only four organizations. According to information from ASI, the number of employees who work in organizations with implemented SA 8000 amounted to 1,731,207 employees. The graph no. 1 shows the structure of employees in organizations with SA 8000 standard implemented by countries.

Graph 1. Number of employees by countries



Source: ASI, 2010.

According to data from ASI in Croatia operate four organizations in accordance with SA 8000:2008 standard:

- Agencija za komercijalnu djelatnost d.o.o. – AKD (The Commercial Activity Agency)
- Hartmann d.o.o.
- Neomedica d.o.o.
- Zrinski d.o.o.

Based on the highlighted analysis is set a key hypothesis of this paper, which assumes that firms that have introduced the SA 8000:2008 are becoming more competitive in the market, by the fact that is better working environment and quality of final output. Additionally enterprises more easily sell their products on the market, because they are recognized member of the local community and thus manage to satisfy all the guidelines of the competitive strategies of Porter.

Due to the very small sample for analysis of only four companies in Croatia, an analysis was carried out on only one company, on the principle of observation techniques in naturally created situation (Marušić i Vranešević, 2001, 190), the main goal was to confirm a competitive advantage which is achieved by the fact that the company has introduced a SA 8000:2008, which is the key hypothesis of this paper.

3.2. Analysis of the competitive advantages of company Hartmann d.o.o.

Corporate social responsibility in the world is more and more used to build corporate image in a way that reflects favorably on its products. Expressing social responsibility through a commitment that exceeds the prescribed legal requirements, companies seek to increase the standards of social development, environmental protection and respect for human rights, promoting the interests of various stakeholders on the way to achieve quality, sustainability and strengthening the economic and social cohesion at local or national level. According to Kotler, power of mass advertising is weakening, and marketing managers are increasingly turning to marketing with public relations to achieve the state of consciousness of brands for both new and already known products. Marketing public relations are effective for coverage of local community and to reach specific groups. In several cases, marketing public relations proved more cost effective than advertising. However, they should be planned in conjunction with advertising (Kotler, 2008, 594). In this way are realized new partnerships and expanded existing cooperations within the company regarding social dialogue, skills acquisition, equal opportunities, forecasting and change management.

As the company Hartmann d.o.o. is a member of the Hartmann Group International, the company is one of the first in Croatia that has implemented SA 8000:2008 standard in 2009. Together with ISO 9001:2008 and ISO 14001:2004. Hartmann is an export oriented company that implemented standards are used, as well as SA 8000:2008 standard in order to build the image of the company that operates in a socially responsible manner. Hartmann's key customers require the possession of the SA 8000 certification and the company that operates in a socially responsible manner. In this way, Hartmann eliminated part of the competitors who do not operate according to SA 8000.

Hartmann's main product is the microfiber designed packaging for foods, consumer electronics, hospital equipment, etc. made from renewable raw materials, primarily paper, with controlled use of energy and water, which makes Hartmann a European manufacturer of environmentally-friendly and customer tailored packaging. Sustainable development as a strategic choice is reflected in the Hartmann's mission "to create packaging with minimum resources and maximum value for our customers, shareholders and employees.". STEP (Sustainability Tool for Entire Product Chain) is Hartmann's management model that clearly defines the five consecutive stages for the implementation of in-depth analysis of human resource management, safety and environment, using specific tools related to production processes, people management, supply chain management and reporting.

According to Hartmann's financial indicators in the period between 2009. and 2011. company operates with an average of 10% gain which is according to statistical indicators of the CBS above the sector average, thereby it is listed among the 500 most profitable companies in Croatia and has a stable liquidity. A special focus was placed on the quality of communication and cooperation with employees and all employees are familiar with the corporate strategy of sustainability through the booklet "Protect the values" that reflect the corporate values, sustainability principles, obligations towards international conventions for the protection of human rights (including CEDAW and the UN Convention on the children rights). The booklet contains a review of internal communications protocols, and appeals procedure and the obligation to implement an independent survey of employee satisfaction every two years, resulting in action plans for each department and production unit. In this way, organization practices "social awareness" in their relationships with clients and members of influential interest groups.

Customers are increasingly seeking information about social and environmental responsibilities of organizations so that they can decide from whom to buy, in who to invest and for whom work for (Kotler, 2008, 708). Using tools of SA 8000 the company has achieved a very high level of employee satisfaction, which was explored through the implementation of the survey on employee satisfaction. According to Central Bureau of Statistics (CBS), the average level of employee turnover in Croatia is significantly higher than average rates of employee turnover in Hatmann. Economic research on income and education shows that human capital is on average a good investment (Samuelson, Nordhaus, 2007, 250).

In accordance with that fact Hartmann's goal is to raise levels of employee satisfaction, with employee training and specialization Hatmann increases its effectiveness and also the end customer satisfaction. In the observed period of the last five years of operation, number of scrap was reduced by 12%, which has significantly reduced the cost of inadequacy, which corroborates the fact that adherence to the principles of social sensitivity gives a particular competitive advantage in the retail market.

4. Conclusion

Corporate social responsibility is in accordance with the basic message of the Sustainable Development Strategy and includes economic growth, social cohesion and environmental protection. Responsibility is noted through the relationship with employees, as well as all other participants in that business. Content of standards provides a picture of what could lead to social accountability in all organizations, including small and medium companies. Though a significant percentage of managers do not see ISO 26000 as a management tool for smaller organizations, and the key reason for this is that ISO 26000 considers a wide range, and only implicitly serves as a resource in operational challenges.

Selected profile of small and medium enterprises of potential users of standards include those that export to Europe and North America, those who work within the international supply chain, those firms whose products / services have environmental and social integrity, who are funded by the socially responsible and ethical investors and those firms whose top people value the environment and society of opportunities and risk seeing with macroeconomic level (Perera, 2008, 16).

Therefore, to operate a socially responsibly means not only to fulfill legal obligations, but to integrate care about society and the environment in their business, invest in human capital, environment and relationships with participants, thus ensuring the company a competitive advantage.

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DEVELOPMENT OF UNIVERSITIES' SOCIAL RESPONSIBILITY THROUGH ACADEMIC SERVICE LEARNING PROGRAMS

RAZVOJ DRUŠTVENE ODGOVORNOSTI SVEUČILIŠTA KROZ AKADEMSKE PROGRAME "UČENJA ZALAGANJEM U ZAJEDNICI"

ABSTRACT

Universities with their educational, research and social performance directly influence the quality of life in communities. Socially responsible universities foster the development of entrepreneurial behavior and social responsibility of their students and show that they know and can respond to actual social issues, not only through projects referred to community development, but also through programs and courses that educate young people how to become active participants in the process of making positive social changes. Such educational programs, also known as ***"academic service learning programs"****, allow students transfer knowledge and skills gained in the classroom into practical projects within their communities thus becoming more socially aware and active. Such programs are important component of socially responsible performance of universities; they reinforce the connection between universities and local communities, show that universities are capable to recognize what is going on in their society and actively participate in the development of the culture where socially responsible behavior of its actors is not a mean to an end but an end itself.*

In Croatia most universities are neglecting the responsibility they have toward their community thus focusing merely on educational and research component. This paper describes the case of the academic service learning course Entrepreneurial skill I at Faculty of Economics in Osijek as one of the rare examples of fostering development of social responsibilities of students. This course encourages students to stop being passive observers of social phenomena, but instead, through active participation in the community, to have direct impact on solving current social issues and develop skills with which they will ensure successful employment. The project "Contribution to the Community" within the course is an important activity that helps students retain and improve their skills, provides opportunity to explore new options, gives pleasure because of participating in solving community's problems, and contributes to building problem solving capacity.

Fostering and developing entrepreneurial mindset of students affects both their personal development and the economic and social development of the community they live in. The methodology used to identify models used for development of entrepreneurial behaviors of college students is based on a review of literature (entrepreneurship education, knowledge society, universities' social responsibility, academic service learning programs, higher *education and economic development) and qualitative studies and recommendations related to supporting students' active engagement in the community and collaboration between local communities, universities and students.*

Key words: *entrepreneurial behavior, entrepreneurial education, social responsibility, socially responsible universities, academic service learning program*

SAŽETAK

*Sveučilište sa svojom obrazovnom, znanstvenom i društvenom djelatnošćuizravno utječe na kvalitetu života u zajednici. Vlastitom društvenom odgovornošću sveučilišta potiču razvoj poduzetničkog ponašanja i društvene odgovornosti i kod svojih studenata te pokazuju da znaju i mogu odgovoriti na aktualne društvene probleme, ne samo kroz projekte vezane za razvoj zajednice nego i kroz obrazovne programe i kolegije koje potiču mlade ljude da postanu aktivni sudionici u procesu stvaranja pozitivnih društvenih promjena. Ovakvi programi i kolegiji poznati pod nazivom "**akademski programi učenja zalaganjem u zajednici"** omogućavaju studentima da znanje i vještine koje su stekli na fakultetu prenesu na stvarne projekte u svojoj zajednici i tako postanu socijalno osvještenijii aktivniji građani. Programi "učenja zalaganjem u zajednici" predstavljaju važnu komponentu društvenog djelovanja sveučilišta – jačaju vezu između sveučilišta i lokalne zajednice, te pokazuju da su sveučilišta sposobna prepoznati što se događa u njihovoj zajednici iaktivno sudjelovati u razvoju kulture u kojoj je društveno odgovorno ponašanje svih akteradruštva osnova njihova postojanja.*

U Hrvatskoj mnoga sveučilišta još uvijek zapostavljaju odgovornost koju imaju prema svojoj zajednici fokusirajući se pri tome isključivo na edukacijsku i istraživačku komponentu svoje djelatnosti. Ovaj rad opisuje kolegij Poduzetničke vještine 1 koji se izvodi na preddiplomskom studiju Poduzetništvo na Ekonomskom fakultetu u Osijeku i koji je, kao primjer učenja zalaganjem u zajednici, rijedak primjer poticanja društvene odgovornosti studenata. Ovaj kolegij omogućava studentima da ne budu samo pasivni promatrači, nego da, kroz aktivno sudjelovanje u zajednici, direktno utječu na rješavanje njenih problema. Uz poticanje društvene odgovornosti ovaj kolegij omogućava i osobni razvoj studenata kroz stjecanja znanja i vještina potrebnih za uspješnije zaposlenje. U sklopu kolegija kreiran je projekt "Doprinos zajednici" koji studente nastoji osposobiti za prepoznavanje potreba i prilika, pruža zadovoljstvo zbog osobne angažiranosti u rješavanju problema zajednice te pridonosi izgradnji kapaciteta za rješavanje problema.

Poticanje i razvijanje poduzetničkog načina razmišljanja studenata utječe i na njihov osobni razvoj, ali i na gospodarski razvoj zajednice u kojoj žive. Metodologija, korištena kako bi se identificirali modeli razvoja poduzetničkog ponašanja studenata temelji se na pregledu literature (poduzetničko obrazovanje, društvo znanja, društvena odgovornost sveučilišta, akademski programi učenja zalaganjem u zajednici, visoko obrazovanje, ekonomski razvoj) i kvalitativnim istraživanjima i preporukama fokusiranim na poticanje aktivne angažiranosti studenata u zajednici i razvoj odnosa između studenata, sveučilišta i lokalne zajednice.

Ključne riječi: *poduzetničko ponašanje, poduzetničko obrazovanje, društvena odgovornost, društveno odgovorno sveučilišta, akademski programi učenja zalaganjem u zajednici*

1. Introduction

The issue of social responsibility in the past several years has been emerging as an increasingly important component of sustainable economic and social development. Although, when it comes to social responsibility, it is usually large corporations that are under public scrutiny, social responsibility must be the backbone of operation of all other actors of society. Universities, which directly influence the quality of life in the community with their educational, research and social actions, certainly belong to these actors. Through socially responsible behavior universities demonstrate that know and can respond to current social issues both through personal projects related to community development and through educational programs which educate young people to become socially responsible individuals and equal participants in creating positive social change. By developing various educational programs such as academic service learning programs, universities prepare students not only for a business career, but also for active participation in activities which bring better future to their community. Wesheimer (2008), however, points out that many education institutions still do not understand their role in building "the good citizen". Most of them, according to Wesheimer still succumb to pressure of students' and their parents to prepare them for professional career, personal growth and economic gain neglecting the importance for creating an active and engaged citizens as well. However purely academic education in itself is not enough. Universities must create programs and projects that will emphasize the practical side of learning and participate in creating an entrepreneurial and stimulating environment in which both students as individuals and universities as institution play an important role as agents of positive social changes.

2. What is social responsibility?

Creation of common good used to be considered an obligation of the state and volunteers, but today other sectors are playing an increasingly important role in improving the quality of life of their communities (David Maurrasse, 2004). Social responsibility is becoming a more desirable form of doing business because success of organizations no longer depends solely on the market aspects. Organizations no longer take into account only the economic viability of the business; a socially responsible organization takes care of all its stakeholders (employees, investors, suppliers, financial institutions, final users of products and/or services, etc.) and of the community in which it operates (the environment and solving various problems of the community).

There are many different definitions and understandings of the concept of social responsibility. However, in order to develop social responsibility in terms of attitudes and values of the individual, the individual should be the starting point. The concept of individual social responsibility is not mentioned as frequently as corporate social responsibility but, nevertheless, is the basis for active participation of each individual and for solving problems in their immediate environment, which is comprised of their family and friends.

Cabahug (2009) argues that it is not necessary for an individual to belong to a corporation, institution or organization to meet the standards of socially responsible behavior. A community is composed of a set of individuals, and in order for it to develop, it is necessary that those individuals are socially conscious and responsible towards the society, which is the essence of their existence. Stengel (2010) believes that the definition of social responsibility must contain the foundations of both individual and corporate responsibility, since both, including a large number of institutions of other sectors, such as academia, state and the civil sector have an obligation to the community in which they live and work.

Nobel Prize winner Milton Friedman (1970) bases his theory on social responsibility on the thesis that only individuals separately can (and should) feel social responsibility towards the community and the people with whom they live. But when it comes to the business sector, Friedman believes that their only responsibility is to increase their profits, or to satisfy the interests of their investors. Accordingly, although corporations have to meet the conditions and laws of the country in which they operate, they do not have a direct obligation towards the community and society. Friedman believes that corporations, acting within the law, are inherently socially responsible because by increasing their profits they are creating thousands of new jobs (directly or indirectly through clients, retailers, distributors and suppliers), and are improving the lives of a large number of customers with their products and services.

Unlike Friedman, Maurrasse (2004) believes that social responsibility of the corporation is reflected in sacrificing of its profits for the social good, and in order to achieve that corporation has to operate outside the context of its legal and business framework. Maurrasse sees these frameworks in various behaviors of corporations, such as friendly relationship with employees, supporting the code of ethics, focusing on environmentally conscious business, respecting the community where the business is located, etc. Beverley Hughes (2007) especially emphasizes the importance of developing social responsibility in young people. According to Hughes, the young people today, more than ever before, are faced with inexhaustible sources of possibilities and choices on the one hand, and with changes, risks and challenges brought by the increasingly uncertain and complex environment, on the other hand. The development of social responsibility on young people can be accomplished through continuous education, encouraging of proactive behavior, and focusing their energy, optimism and initiative to utilization of their own potential. As educational institutions, universities have an increasingly important role in that process.

3. Socially responsible university

"Educating for personal and social responsibility will take nothing less than a persuasive cultural shift within the academy"

Richard H. Hersh

Universities are becoming more and more important participants in the creation of sustainable social development, because connecting the learning process with economic activities can affect the creation of sustainable dynamics of economic and social development of the community in which the university works (Etzkowitz, 2002). This connection of university with the community is a characteristic of the third mission of universities through which, according to numerous authors (Etzkowitz, 2002; Inzelt et al., 2007), universities follow the market trends, develop programs that meet the demands of the environment and focus on integrating their characteristics and programs into economy and society.

Monica Jimenez de la Jara[117] (2007) defines social responsibility of university as the ability to disseminate and practice a set of principles and values through four key activities: management, education, research and additional activities. She believes that universities should base their academic and organizational responsibility on ethical concepts that will

[117] Monica Jimenez de la Jara, Rector of the Catholic University from Temucoa, Chile, http://web.guni2005.upc.es/news/detail.php?chlang=en&id=1135; (accessed 13 February, 2012)

correspond with satisfying the needs of community in which they operate. According to Jimenez de la Jara, social responsibility of university must not represent an additional extracurricular activity. Universities have to be responsible on a daily basis, and social responsibility must be part of their personality, ethos and existence. Vasilescu et al. (2010) state that social responsibility of university is reflected in the need to strengthen civic responsibility and active citizenship and in volunteering, ethical approach, developing a sense of civic citizenship by encouraging students and academic staff to provide social services to its local community or to promote commitment to local and global sustainable development based on preservation of the environment.

Goossen (2009) points out that universities can chose whether they want to be followers, or use the opportunity and become leaders by accepting the concept of corporate social responsibility in their operations. Leitão and Silva (2007) believe that by implementing corporate social responsibility universities enable development of awareness and understanding of social responsibility among students, professors and the wider network of university stakeholders. According to Vanasupa, Slikovsky and Chen (2006) development of awareness of social responsibility complements “technical education“ and encourages the ability to act and the awareness of the need to act. Built relationships with the community and implementing the elements of corporate social responsibility create conditions for successful adapting to change and developing awareness of the importance of active involvement in positive social activities.

Patrick Albrecht (2005) also believes that universities have the main role in the process of social transformation and creation of sustainable development. However, many universities do not feel the pressure of institutional transformation that is carried by the modern society. According to Albrecht, these are mostly state universities, which think that, given that they serve the public by definition, they do not need to additionally invest in socially responsible behavior. Atkinson and Gilleland (2006) state that many authors (Durvey, 1973, Birnbaum 2000, Wick, 1976, Mintzberg, 1979) consider universities dysfunctional, fragmented, ambiguous, archaic, poorly connected and poorly coordinated. According to Codes and March (2000, cited by Atkinson and Gilleland, 2006), universities should be an integral part of the community, think outside of the context of rational and bureaucratic model, devote more time to complex problems, and be more persistent in seeking better solutions. The Parliamentary Council of Europe also sees universities as an integral part of the community. Universities should take into account the short-term needs and demands of the community, but, while doing so, they must not forget their third mission, which is manifested in the creation of long-term partnership and finding solutions to fundamental problems of the society.

Despite the clear role of universities in the development of economic and social sustainability, many universities fail to respond to challenges and demands posed by their environment. On the one hand, Weber believes that the reason for this is the indifference of universities towards the norms and values that enable the individual to feel like a part of the community. Their indifference lies in the fact that, for universities, these same values and norms represent something that should be accepted by everyone, and therefore there is no need to repeat or promote them. On the other hand, many universities believe that they are already operating in the manner that is expected from them, and that there is no space for new activities. These attitudes inhibit development of long-term responsibility of university, and Weber sees one of the best ways for universities to change in stimulating higher education institutions (through financial or other incentives) to, through education and research, invest into those activities that will be aimed at promoting a sustainable society and connecting with various interdisciplinary academic activities.

4. Development of Universities' Social Responsibility through Academic service learning programs

Through social responsibility, universities directly affect the development of active civil society by developing understanding of the importance of social awareness of each actor of the society and by encouraging young people to actively participate in the creation of a democratic society.

Cecilia Zaffaroni (cited by Jimenez de la Jara, 2007) believes that the importance of social responsibility of university increases by educating students about values and norms in the society, by encouraging students to understand the needs of the community in which they live, by educating students about their role as democratic citizens, by involving students in various projects, aimed at solving community problems, and by involving students, together with all the other university stakeholders in various volunteering activities and projects. One of the ways of involving students in various activities is through academic service learning programs, experiential education approach that is premised on "reciprocal learning" which means that both those who provide service and those who received it "learn from experience" (Sigmon, 1979 in Furco, 1996) . The term "service learning" was developed in 1967 by Robert Sigmon and William Ramsey, members of Southern Regional Education Board (Ćulum and Ledić, 2010). In 1979 and in 1989 Honnet and Poulsen, as consultants of the National Society for Experiential Education, developed the service learning model and the set of *Principles of Good Practice in Combining Service and Learning (Honnet and Poulsen, 1989*).

In 1990, National and Community Service Act defined service learning program as a method[118]:

1. under which students learn and develop through active participation in thoughtfully organized service experiences that meet actual community needs and that are coordinated in collaboration with the school and community;
2. that is integrated into the student's academic curriculum or provides structured time for a student to think, talk, or write about what the student did and saw during the actual activity;
3. that provides students with opportunities to use newly acquired skills and knowledge in real-life situations in their own communities; and
4. that enhances what is taught in school by extending student learning beyond the classroom and into the community and helps to foster the development of a sense of caring for others.

This Act represented a significant push to various debates about civil social responsibility of youth and educational institution towards their community, as well as significant support towards creating a model that will evaluate and give credit to those students involved in activities aimed at solving community's problems.

According to Howard (1998 in Stacey, Dale and Langer, 2006) academic service learning programs offer students a different experience than the traditional learning methods because the outcomes of academic service learning programs influence not only students but the whole community (Figure 1):

[118] http://learningtogive.org/papers/paper1.html, (accessed 24 February 2012)

Figure 1. Difference between traditional teaching methods and service learning program

Traditional teaching method	Academic service learning program
Theory	Theory and experience
Other people's knowledge	Personal knowledge
Observer	Participant
Individual learning	Mutual learning
Difference between teachers and students	Relieves the difference between teachers and students
Answers	Questions and answers
Complete predictability of outcome	Unpredictability of outcomes
homogeneous outcomes	Heterogeneous outcomes
Avoiding ignorance	Ignorance is a resource
Objectivist epistemology	Connectionist/feminist epistemology

Source: Stacey, K., Rice, D., Langer, G. (1997): ***Academic Sevice Learning****, Faculty Development Manual. Ypsilanti, Eastern Michigan University, Office of Academic Service Learning*

Unlike traditional education service learning programs support students to experience a learning and growth opportunity through three steps where each step in the process leads to another and can be accomplished by answering three simple questions:[119]

a) WHAT has happened? - Get students' initial observation of what has happened:
   - What did I observe during my first visit?
   - What is the community partner’s mission or goal?
   - Describe the people you worked with at the community site.
   - What roles did I play at the site?
   - What about myself did I share with others?
   - What did others share with me?;

b) SO WHAT? - Students must show the importance of a program, learning experience and problems
   - What are the relationship between my community service experience and my other life experiences?
   - What values, opinions, decisions have been made or changed through this experience?
   - What has surprised me about the community site, the people I work with, and myself?
   - How has your experience contributed to your growth in any of these areas: civic responsibility, political consciousness, professional development, spiritual fulfillment, social understanding, intellectual pursuit, or global citizenship?
   - What have you learned about a particular community or societal issue?
   - Describe and discuss a social problem that you have come into contact with during your experience. What do you think are the root causes of this problem?
   - Explain how your involvement may or may not contribute to its alleviation

c) NOW WHAT? - How to channel students' new understanding into continued action and transformation
   - Is it important to me to stay involved in the community?

[119]https://reason.kzoo.edu/servicelearning/assets/WHAT__So_WHAT__NOW_WHAT.pdf, (accessed 24 February 2012)

- How will my efforts working with this community partner contribute to social change? My career? What changes would I make in this experience if it were repeated?
- Will I continue to do this?
- How do we take what we have learned and convert it into action in the community we're working in?
- How can society be more compassionate/informed/involved regarding this community?
- How can society better deal with a problem?
- Where do we go from here? What's the next step in the process?

Service learning programs, although they might be different in praxis, have the same components: (a) Pedagogy embracing **experiential** and **reflective** education, (b) Intentionally **integrate** academic learning and relevant community service, (c) **Reciprocal** collaboration between campus and community partners, (d) Purpose is to **enhance** learning and never to compromise academic **rigor,** (e) include **structured** time for critical reflection.[120] All of those components enable students to convert gained knowledge into solutions to actual community problems and give them an opportunity to become active socially responsible citizens.

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

In Croatia, only a few universities encourage active involvement of students in solving the problems of the community, most often through various volunteer activities, and rarely through courses or programs that have markings of learning programs. Faculty of Economics in Osijek is the first faculty in Croatia that has developed a Voluntary Program with an aim to raise student's awareness about the meaning and importance of volunteering and active community involvement. One of the major activities of this program is the project ***"Contribution to the Community"*** which indicates the elements of service learning program**.** The "Contribution to the Community" project was designed as a mandatory part of the Entrepreneurial Skills I course, at undergraduate study Entrepreneurship, without which students cannot receive their final grade. The aim of this project is to enable students to identify needs and opportunities for personal involvement in resolving problems of the environment, and to make them aware that in allocation of personal time they can always find room for socially responsible activities. Within this project, around 60 undergraduate students each year have the opportunity to experience real-life problems and be a part of their solutions. As in an academic service learning program, the Entrepreneurial Skills I course teaches students about important components of entrepreneurial behavior and competences such as development of self-awareness, learning how to learn, managing stress, analytical and creative problem solving and development of stimulating communication. Having learned about developing those competences in the classroom, students have to spend a minimum of 20 hours in the community (mostly within civil society organizations) and apply the acquired knowledge in their practical work. Students also need to write a report "Strategy for strengthening entrepreneurial skills through the Contribution to the Community project", with which they show how they have applied what they have learned in a real-life situation and what they have learn about themselves, what needs to be improved, and could they and how did they impact the organization that they have worked for, and even their community.

[120] **Course Instructor Guide, Service-Learning Pedagogy Resource,** Assisting People in Planning Learning Experiences in Service, www.unc.edu/apples, February 1, 2012

6. Concluding Remarks

The complexity of modern society and a profound crisis of morals and values, which especially affects young people, highlight the great need for creating a new generation of people who will direct their knowledge and skills not only to their personal growth and development, but also to satisfy community's demands, recognizing and using opportunities to solve serious social problems. Therefore, it is important that universities base their socially responsible actions on encouraging the development of academic service learning programs and social activism among young people. Individual initiatives which aim to develop models to encourage critical thinking, proactivity and innovativeness in the process of solving real social problems are always welcomed but there still is a need for more structured projects and programs that will strengthen relationships between universities and local communities, and develop a sense in young people that with their active participation they can make a positive change and influence the lives of others in the community.

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Zaključna razmatranja

Final Reviews

Zaključna razmatranja

Prilikom otvaranja Prvog Međunarodnog znanstvenog simpozija „GOSPODARSTVO ISTOČNE HRVATSKE, JUČER, DANAS, SUTRA“ bila nam je želja da sve naše stručne, znanstvene i ine potencijale uključimo u aktivnosti kako bi koristili njihova praktična i znanstvena iskustva i radove na programima razvoja istočne Hrvatske.

Kao Ekonomski fakultet smatramo se jednim dijelom odgovorni za probleme zaostajanja u razvoju u odnosu na ostale regije u Zemlji. Svjesni smo da istočna Hrvatska ima ljudskog kapitala i potencijala u prirodnim resursima koji nisu iskorišteni.

U nastojanju da se pokrene šira aktivnost svih ljudskih potencijala, kreativnih, stručnih i znanstvenih u regiji, pokrenuli smo ovaj Simpozij i pozvali sve koji imaju neke vizije i ideje za budućnost, s obzirom na bogatu prošlost i vodstvo u razvoju u odnosu na ostale regije, kako bi dali svoju viziju razvoja koja bi se mogla ugraditi u osnovni dokument i po njemu kreirati programi i projekti koji bi doprinjeli poboljšanju postojeće situacije, otvaranje novih pogona, novih radnih mjesta i smanjenja zaposlenosti.

Ovo je naš doprinos razvoju s tim da kao kotač potaknemo ostale znanstvene i stručne institucije i ljudske potencijale, kreatore i lidere na aktivosti u pokretanju razvoja istočne Hrvatske.

Posebno nam je drago da su se na ovaj simpozij javili pretežno mladi znanstvenici i stručnjaci iz prakse, koji su iznjeli svoja viđenja razvoja gospodarstva s primjerima iz prakse, ali i teoretskim postavkama temeljenim na znanstvenim istraživnjima i dobivenim rezultatima.

Od ukupno 41 rada dominiraju pretežno radovi s vizijama razvoja istočne Hrvatske, tehničkih i tehnoloških dostignuća u procesu globalizacije.

Tako je postignuta i opravdanost našeg nastojanja u pokretanju inicijative u viđenju novih razvojnih mogućnosti naše regije.

Radovi obrađuju:

- nove trendove u razvoju gospodarstva,
- inicijative EU u poticaju razvoja,
- održivi razvoj kroz korištenje obnovljive izvore energije,
- novi pristup edukaciji, zajednice prakse i njihov utjecaj na poduzetnička ponašanja,
- potporne institucije u razvoju poduzetništva,
- orijentacija na razvitak prehrambene industrije i malih OPG-a,
- razvoj društvenih mreža u regiji istočne Hrvatske,
- značaj regionalne politike u razvoju gospodarstva,
- istraživanja i rezultate analize prometa,
- istraživačke spoznaje u graditeljstvu,

- značaj sakralnih objekata u razvoju gospodarstva,
- područje kontinentalnog turizma, partnerstva, turističke destinacije, mreža, klastera u turističkoj ponudi, gastronomija i dr.
- uloga socioloških aspekata, te potreba za stvaranje timova u strategiji razvoja,
- povijesna uloga športa u razvoju Osijeka i istočne Hrvatske,
- regionalne razlike u kvaliteti života,
- hrvatski kulturni krug,
- uloga i značaj biskupa i kardinala u razvoju gospodarstva,
- društveno odgovorno poduzetništvo kao važan čimbenik u razvoju društva.

Nakon svih ovih radova, prezentiranih i tiskanih u Zborniku, u kojima se pretežno obrađuje vizija razvojnih mogućnosti, može se sa zadovoljstvom zaključiti da je ovaj Simpozij opravdao svoja nastojanja.

Istovremeno nam je ovo poticaj za nastavak ovog Simpozija u slijedećoj i inoj godini kako bi postigli sinergiju prakse i znanosti u poticanju svekolikog razvoja regije istočne Hrvatske, a time i cijele RH.

Na kraju treba napomenuti da nam je za naš trud i nastojanja dao podršku Davor Pavuna, koji je izrazio žaljenje što nije mogao biti prisutan na ovom simpoziju, ali se nada da će u slijedećoj godini biti tu i aktivno u njemu sudjelovati.

Voditeljica organizacijskog odbora:

Prof. dr. sc Anka Mašek Tonković

Final Reviews

We opened the 1st International Scientific Symposium entitled ECONOMY OF EAST CROATIA, YESTERDAY, TODAY AND TOMORROW with the wish to involve our entire expert, scientific and other potentials in the activities. We aim at the use practical and scientific experiences, as well as of the papers for the benefit of programs of development of East Croatia.

In our capacity, as the Faculty of Economics, we deem ourselves partially responsible for the problems of falling behind in regard to other regions in our country. We are well aware of the fact that East Croatia has human capital and potentials in natural resources which have not been used.

Aiming at the start of a wider activity of all human, creative, expert and scientific resources in this region, we have initiated this Symposium and have invited all persons having visions and ideas for the future, hereby paying attention to the rich past and leadership in the development - when compared with other regions. The participants were expected to present their vision of development which could be included in the basic document. The same would be a basis of creation of programs and projects contributing to the improvement of the existing situation, to the opening of new plants, creation of new jobs and decline of unemployment.

This is our contribution to the development. We should be a wheel stimulating other scientific and expert institutions, as well as human resources, creators and leaders to initiate the development of East Croatia. We are very pleased that mostly young scientists and experts having practical experience have come and presented their views on the development of economy, as well as examples from the practice. The theoretical postulates, based on scientific research and obtained results, were also not lacking.

Most of a total of 41 papers are papers presenting visions of the development of East Croatia, technical and technological achievements in the globalization process.

Consequently, the justifiability of our efforts to initiate a vision of new possibilities of developing our region has been achieved.

The papers speak of:
- new trends in the development of economy,
- EU initiatives regarding the development stimulation,
- sustainable development through use of renewable sources of energy,
- new approach to education, practice community and their impact on the behavior of entrepreneurs,
- support institution in the development of entrepreneurship,
- orientation on the development of food processing industry and small family farms,
- development of social networks in East Croatia,
- importance of regional policy in the development of economy,
- research and results of turnover analysis,
- importance of sacral buildings in the development of economy,
- researcher's knowledge in building industry,
- field of continental tourism, partnership, tourist destinations, networks, cluster in tourist offers, gastronomy and the like

- role of sociological aspects, need to create teams in the development strategy,
- historical role of sports in the development of Osijek and East Croatia,
- regional differences in life quality,
- Croatian cultural sphere,
- role and importance of bishops and cardinals in the development of economy,
- social responsible entrepreneurship, as an important factor in the development of the society.

After presentation of all of the said papers, printed in the Proceedings of the Symposium, which dominantly speak of visions of developmental possibilities, we are pleased to conclude that this Symposium has justified the efforts.

At the same time, this is stimulation for the continuation of the Symposium in the following years. We would like to achieve the synergy of practice and science in the stimulation of the entire development of East Croatia and thus of the whole Republic of Croatia.

In the end we should stress the fact that our work and efforts have been supported by Mr. Davor Pavuna who regrets not being able to take part in this Symposium. However he is hoping to be here next year and have an active part in the same.

Head of the Organizing Committee

Prof. Ph.D. Anka Mašek Tonković

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