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**“Challenges of Economy in Environment
Under Crisis”**

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PREDGOVOR

Ekonomski fakultet Univerziteta u Tuzli u saradnji sa koorganizatorima iz Hrvatske (Ekonomski fakultet u Osijeku, Sveučilište Josip Juraj Strossmayer), Slovenije (Ekonomsko-poslovna fakulteta, Univerza v Mariboru), Srbije (Beogradska bankarska akademija - Fakultet za bankarstvo, osiguranje i finansije, Beograd), Crne Gore (Ekonomski fakultet u Podgorici) i Makedonije (Ekonomski fakultet Prilep, Univerzitet „Sv. Kliment Ohridski“) su po četvrti put s uspjehom organizovali, sada već tradicionalnu, međunarodnu naučnu konferenciju „Ekonomija integracija“ (ICEI).

Prva ICEI konferencija organizovana je 2009. godine na kojoj su eminentni eksperti iz regiona Jugoistočne Evrope raspravljali na temu „Kako upravljati u vrijeme krize“. Druga konferencija, koja je održana 2011. godine, bila je posvećena temi „Izazovi i perspektive integracija zemalja Jugoistočne Evrope“, dok se na trećoj konferenciji 2013. godine diskutovalo na temu „Znanjem od recesije ka prosperitetu“. Posljednja konferencija, održana 2015. godine, na temu „Izazovi ekonomije u kriznom okruženju“, bila je nova prilika za diskusiju i mjesto ponovnog susreta velikog broja istraživača, praktičara i naučnika iz polja ekonomije i biznisa.

Savremenu društveno-ekonomsku realnost većine zemalja, uključujući i zemlje iz regiona Jugoistočne Evrope, karakteriše kriza koja, u najširem smislu te riječi, ostavlja dugoročne posljedice na njihov ekonomski rast i razvoj. Imajući u vidu ekonomsko-geografsku povezanost zemalja iz regiona Jugoistočne Evrope, cilj „ICEI 2015“ bio je da se kroz razmjenu iskustava, znanja i kritičkog razmišljanja ukaže na važnost ekonomije integracija u kriznom okruženju, kako bi se sinergetskim djelovanjem svih stejkholdera kreirao povoljan poslovni ambijent u nacionalnom i regionalnom kontekstu.

Da su nauka, znanje, ekonomija i tehnologija ključni faktori za rješavanje krize potvrdili su rezultati istraživanja učesnika konferencije. Ove rezultate u cijelosti publikujemo u Zborniku koji je podijeljen u osam tematskih područja, pri čemu se najveći broj radova bavi područjima menadžmenta i poduzetništva, finansija i finansijske politike, kvantitativne ekonomije i ekonomske teorije i politike. Iako različiti po područjima istraživanja prezentovani rezultati jasno ukazuju na veliku ulogu i značaj fundamentalnih i primijenjenih znanja i istraživanja u savladavanju izazova ekonomije u kriznom okruženju.

Ono što je novum ovogodišnje ICEI jeste organizovanje studentske sesije pod pokroviteljstvom respektabilne Microsoft korporacije. Microsoft studentska sesija nastala je iz ideje da se mladi motiviraju da budu generatori zapošljavanja i poduzetničke aktivnosti te aktivni članovi društva i generatori društvenih promjena.

„ICEI 2015“ je potvrdila sva očekivanja organizatora, posebno u smislu povećanja broja koorganizatora, radova i autora, kao i primjetnog povećanog broja citiranosti radova koji su publikovani u zbornicima ICEI-a. Pored toga, rezultati istraživanja prezentovanih na „ICEI 2015“ doprinose razumijevanju različitih aspekata složenog kriznog okruženja i njegovog djelovanja na ekonomiju uopšte, a posebno kada je riječ o zemljama iz regiona Jugoistočne Evrope. Pored pomenutog, rezultati istraživanja nalaze svoju primjenu u praksi, čime se dodatno unapređuje i jača komunikacija između privrednika, univerziteta i vlada.

Programski i recenzentski odbor svojim sastavom i dignitetom članova koji dolaze sa ekonomskih fakulteta iz zemalja organizatora konferencije i razvijenih zemalja svijeta, garantuje kvalitet radova koji su prošli serioznu selekciju i dvostruku anonimnu recenziju.

Za ICEI 2015 konferenciju bilo je prijavljeno preko 80 radova, od kojih je 60 bilo uvršteno u program, pri čemu je 20 radova iz inostranstva, a 40 iz Bosne i Hercegovine. Od 94 autora radova, 56 autora je iz Bosne i Hercegovine, a 38 iz inostranstva (10 iz Srbije, 5 iz Crne Gore, 16 iz Hrvatske, 1 iz Albanije, 1 iz Turske, 2 iz Kanade, 1 iz Njemačke, 1 iz Makedonije i 1 iz Australije).

Na Microsoft studentskoj sesiji prisustvovalo je 148 studenata, gdje su o vlastitim iskustvima i važnim aspektima poduzetništva, omladinskog poduzetništva i omladinskog aktivizma diskutovali renomirani predavači iz sfere privrede i civilnog sektora.

Na kraju, ali ne po važnosti, ovom prilikom želimo izraziti svoju posebnu zahvalnost našim uvodničarima Mary Ann Henessey, Šefici kancelarije Savjeta/Vijeća Evrope u BiH, profesoru Kadriji Hožiću sa Ekonomskog fakulteta Univerziteta u Tuzli i profesoru Jovi Ateljeviću sa Ekonomskog fakulteta Univerziteta u Banjoj Luci, zbog izuzetnog doprinosa u organizaciji ICEI 2015 konferencije.

Urednice

FOREWORD

Faculty of Economics, University of Tuzla, together with the co-organisers from Croatia (Faculty of Economics in Osijek, Josip Juraj Strossmayer), Slovenia (Faculty of Economics and Business, University of Maribor), Serbia (Belgrade Banking Academy - Faculty for Banking, Insurance and Finance, Belgrade), Montenegro (Faculty of Economics, Podgorica) and Macedonia (Prilep Faculty of Economics, University St. Kliment Ohridski) successfully organised the 4th International scientific conference “Economy of Integration” (ICEI) which was held at the Faculty of Economics, University of Tuzla from 3-5 December, 2015.

ICEI was originally initiated in 2009 when recognized experts from the South East Europe discussed the 1st conference’s topic *How to manage in times of crisis*. The tradition has been continued by the conference held in 2011, which was oriented towards *Challenges and Perspectives of Integration of the South Eastern European Countries*, as well as the conference in 2013, which promoted the theme *With Knowledge from Recession to Prosperity*. The last conference was held in 2015 focusing on *Challenges of Economy in Environment under Crisis*, during which a large number of researchers, practitioners, and scholars from economy and business exchanged their experience and knowledge.

Contemporary socio-economic reality of most countries (including the South East European countries) is characterized by an overall crisis which significantly affects their respective economic growth and development. Taking into account the economic and geofigureical connections between the South East European countries, “ICEI 2015” was aimed at promoting the exchange of experience, knowledge, and critical thinking for the purpose of highlighting the importance of economic integration in the context of crisis thus creating a positive business environment in national and regional context through synergetic effort of all stakeholders.

The papers presented at “ICEI 2015” unequivocally confirmed that science, knowledge, economy, and technology are key factors in a crisis environment. All the papers presented at “ICEI 2015” are published in this Book of Proceedings which is divided into eight topic areas, with the vast majority of papers focusing on management and entrepreneurship, finance and financial policy, quantitative economics, and economic theory and policy. Although covering different research areas, the presented results suggest that fundamental and applied knowledge and research studies are of immense importance for the purpose of coping with economic challenges in overcoming the crisis.

This year’s ICEI introduced the student session sponsored by the well-known and respectable Microsoft Corporation. This student session originated from the idea to motivate young people to become generators of employment and entrepreneurial activities as well as active members of society and initiators of social changes.

“ICEI 2015” has completely fulfilled all expectations, especially in terms of a constantly increasing number of co-organizers, authors, papers, and the ICEI Conference Proceedings citation rate. Moreover, the papers presented at the conference have significantly contributed to better understanding of various aspects of complex crisis issues and their effects on the global economy and the economy of the South East European countries.

Finally, research results have also been recognized as applicable to practice which has additionally strengthened and improved the communication between business, academia, and government.

Program and Review Board of ICEI which consists of highly reputable faculty representatives and the distinguished members from abroad ensure high quality of selected papers which underwent a strict selection process and double anonymous reviews. Out of 80 papers originally submitted for the conference, 60 were included in the conference program, out of which 20 were submitted from abroad and 40 from Bosnia and Herzegovina. Out of 94 authors, 56 are from Bosnia and Herzegovina and 38 from abroad (10 from Serbia, 5 from Montenegro, 16 from Croatia, 1 from Albania, 1 from Turkey, 2 from Canada, 1 from Germany, 1 from Macedonia, and 1 from Australia).

Microsoft student session was attended by 148 students and included discussions with accomplished individuals from economy and government, exchange of experiences on important topics such as youth entrepreneurship and activism, development and business opportunities.

Last but not least, we would like to express our special gratitude to our distinguished keynote speakers Mary Ann Hennessey, the Head of Office of the Council of Europe in Bosnia and Herzegovina, prof. Kadrija Hodžić, the Faculty of Economics at University of Tuzla, and prof. Jovo Ateljević, the Faculty of Economics at University of Banja Luka for their outstanding contributions to the organisation of ICEI 2015 conference.

The Editors

**FINANCE AND FINANCIAL POLICY /
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CAPITAL STRUCTURE, SOLVENCY AND LIQUIDITY MANAGEMENT OF THE FEDERATION OF BOSNIA AND HERZEGOVINA COMPANIES DURING AND AFTER THE GLOBAL FINANCIAL CRISIS

STRUKTURA KAPITALA I UPRAVLJANJE LIKVIDNOŠĆU I SOLVENTNOŠĆU KOMPAKNIJA U FEDERACIJI BOSNE I HERCEGOVINE TOKOM I NAKON GLOBALNE FINANSIJSKE KRIZE

Abstract

Ever-changing business environment creates constant pressure for companies to continuously improve their performance. In particular, the global financial crisis had huge influence on just about every company, forcing adjustment of their business operations. The crisis created a series of simultaneous effects among financial institutions, especially banks, such as reduction in the general availability of loans and tightening of the credit approval process due to risk exposure. This was coupled with reduced demand for credit by both corporate and households. These conditions have resulted in either proactive or reactive business operations adjustment for many impacted business, and companies in Bosnia and Herzegovina are no exception.

This paper analyses companies' capital structure, solvency, and liquidity management during and after the global financial crisis. The research covers a comprehensive dataset related to companies in the Federation of Bosnia and Herzegovina and their financial performance.

The dynamic panel regression model was used to check the significance of the capital structure and indebtedness impacts on firms' liquidity during five consecutive years (2009-2013). The research findings are focused on the overall production and processing industry as well as nine sectors that deserve special consideration.

The findings and recommendations resulting from this study are designed to help various decision makers develop better understanding of the relationship between the economic crisis and companies capital structure management. The paper covers a review of relevant literature, a brief theoretical framework, and research methods as well as findings, descriptions, and explanations of the analysis results. The resulting recommendations can be useful to corporate officials, financial markets participants as well as economic policy decision makers. Moreover, it may serve as motivation for other researchers to undertake further study in the area of financial management.

Keywords: company's capital structure, solvency, liquidity management, global financial crisis, Federation of Bosnia and Herzegovina

JEL: G01, G30, G32

Sažetak

Stalne promjene u poslovnom okruženju vrše snažan pritisak na preduzeća u smislu zahtjeva za kontinuiranim poboljšanjem poslovnih performansi. Globalna finansijska kriza, posebno, utjecala je na skoro sva preduzeća u smislu da ih je primorala da koriguju (modifikuju) svoje poslovne aktivnosti. Kriza je rezultirala brojnim ozbiljnim efektima po finansijske institucije, posebno banke, kao što su smanjenje opšte dostupnosti kredita i pooštavanje procesa odobravanja kredita usljed izloženosti riziku. Paralelno s tim odvijao se proces opadanja tražnje za kreditima od strane preduzeća i građana. Takvo stanje navelo je preduzeća širom svijeta da bilo reaktivno bilo proaktivno izmijene svoj način poslovanja. Naravno, ni preduzeća u Bosni i Hercegovini nisu bila izuzetak.

Ovaj rad analizira strukturu kapitala, solventnost i upravljanje likvidnošću preduzeća u svjetlu globalne finansijske krize. Istraživanje uključuje sveobuhvatan skup podataka o preduzećima iz Federacije Bosne i Hercegovine i njihovim finansijskim rezultatima.

U svrhu utvrđivanja značaja kojim promjena strukture kapitala i ukupne zaduženosti utječe na likvidnost preduzeća tokom pet sukcesivnih godina (2009-2013) korišten je dinamični model regresije panela. Rezultati istraživanja fokusirani su na cjelokupnu industriju, kao i na neke sektore koji zaslužuju posebnu pažnju.

Nalazi i preporuke koji su proizašli iz predmetnog istraživanja dizajnirani su s namjerom da različitim donosiocima odluka pomognu kod boljeg razumijevanja odnosa između ekonomske krize i upravljanja strukturom kapitala u preduzećima. Rad uključuje pregled relevantne literature, koncizan teorijski okvir i metode istraživanja, kao ideskripciju i pojašnjenja rezultata analize. Formulirane preporuke mogu biti od koristi odgovornim osobama u preduzećima, učesnicima na tržištu kapitala, kao i kreatorima ekonomske politike. Povrh toga, ovaj rad može poslužiti kao podstrek drugim istraživačima kod daljnjeg proučavanja tretiranih odnosa u oblasti finansijskog menadžmenta.

Ključne riječi: struktura kapitala preduzeća, solventnost, upravljanje likvidnošću, globalna finansijska kriza, Federacija Bosne i Hercegovine

JEL: G01, G30, G32

1. Introduction

There is hardly any company in the world that has not been exposed to the aftermaths of the global financial crisis, which quickly spread its destruction on the economy worldwide after first striking the financial markets. Much, if not everything, has been said about the major causes of the crisis and its macroeconomic impacts. As a consequence, regulatory framework (especially in the banking sector) imposed additional rules in an attempt to prevent future reoccurrences. Financial markets took a very long time to recover and some are still struggling to survive, particularly the developing countries that suffered significant losses of credibility and trust.

Governments of the most developed countries are on constant alert, ready to mitigate any further tremors that might occur in the after-crises seismic area. In general, we may claim that the lessons of the financial crises forced many to at least start listening carefully, if not learn, at the macro level. However, there is a visible disparity between the number of researchers who focus on the impact that the financial crises has had on firms and those who focus on the macroeconomic side. At first, public is more concerned about the overall aspects and the effects of the crisis than specific microeconomic issues, with the exception of the investment funds takeovers or bankruptcies that again inspired global debates rather than becoming the focus. Moreover, there may be much more difficult and tedious to obtain data supporting research on the issues at firm level than it is to use readily available global database containing data for each country impacted by the financial crisis. And yet, theoretical background for certain cases which occur as a direct effect of the crisis at firm level reveals the contrary evidence that makes further research

efforts quite demanding, for example requiring very detailed insight into particular industry sector, country, *etc.* Again, this implies the need for a comprehensive database, which often is not easily available. Finally, for all these reasons, the investigation about specific relations during and after the financial crisis at firm level often takes much more effort and time, which is probably one of the main causes behind the earlier mentioned research disparity.

This paper aims to contribute to the research of the firm performance during and immediately after the effects of the recent financial crisis in the Federation of Bosnia and Herzegovina (referred to as FBiH afterwards). More specifically, it encompasses the solid base of medium and large size production and processing companies in the FBiH and their performance during the 2009-2013 period. The primary focus is on the relationship between firms' financial structure being exposed to the financial crisis and liquidity as a major factor to be managed during the turbulent crisis period. In particular, the paper examines the influence of the financial crisis on the shift in the business financing and debt as well as company performance in the light of the crisis. Under the normal circumstances we may assume positive correlation between the debt ratio (total debt divided by the equity) and the current ratio (current assets divided by current liabilities).

The sample chosen for this research is the liquidity and solvency of companies that operate in the FBiH. There are several reasons behind this approach. Firstly, the aim was to investigate the main motivations behind the changes in financial structure of firms during this turbulent observation period. Secondly, we wanted to explain the extent to which these shifts influenced the major liquidity ratios. Thirdly, we intended to find out if the companies changed their investment policies under the fears caused by the crisis and how they responded toward the short and long-term company liabilities. Our final goal was to use the findings from the research and provide some useful recommendations.

The sample used in this research covers 427 companies, which represents almost all medium and large size production companies operating in the FBiH, with some minor adjustments (*i.e.* outliers excluded). For data analysis we used the dynamic panel model with random effects to estimate relationships between variables both across and within the set period. The panel data was set for the period of five years (2009-2013), constructed so that it would reveal some interesting findings such as multiple regression

with four independent variables, which included total debt, debt ratio, size, and time (year). During the development of the model we also employed some additional variables (as required by the dynamic panel regression method), used to capture the dynamic effect of the nature of the main variables. We used Stata 13 software package to perform complex dynamic analysis and to estimate the relationships that might be relevant to this research.

2. Brief literature overview and theoretical background

Prevalent literature on the impacts of the recent financial crisis, as argued, focuses mostly on macroeconomic aspects. However, some of the findings related to the crisis also consider firm level issues such as operational performance, leverage, and corporate financial structure, aiming to compare and estimate relationships during and immediately after financial turmoil. This section provides some significant findings on the firm-specific performance.

Chan and Chang (2013, p. 26) report on the increase in corporate liquidity during and after the Asian financial crisis, investigating the cash and cash equivalent holdings from 1990 to 2006. They found that this is due to stronger inclination to use cash from earnings as well as to engage into some market opportunities for further growth during and after the financial distress. On the other hand, Thangavelu *et al.* (2009, p. 1475) suggest the decline of the corporate liquidity during the financial crisis period as a result of the refrained investment strategy, driven mostly by the foreign investors. Opler *et al.* (1999, p. 43) analyse opposite evidence of the corporate liquidity trends in financial turmoil, applying trade-off theory, financial hierarchy theory, and agency theory.

Gryglewicz (2011, p. 381) provides further insight into the theoretical background of the simultaneous role of corporate liquidity and solvency on financial distress and argues that there was evidence of low credit spreads in many studies as a result of the corporate leverage selection being designed to prevent high exposure to liquidity risk. Besides, Garcia-Appendini and Montoriol-Garriga (2013, p. 288) illuminate an increase of trade credit as intra-company vehicle to support troubled clients liquidity issue caused by constraints on the supply side during the subprime mortgage financial crisis. Also, Zulkhibri (2015, p. 33) contributes with the evidence provided at the firm specific level that size, turnover pace, and solvency influence corporate

financial structure and liquidity as well as macroeconomic (namely interest rate) impact.

Shin and Kim (2015, p. 59) suggest there was a significant non-default component in corporate spreads before the crisis and indicate that credit risk is the dominant determinant of corporate bond spreads during the post-crisis, as market participants seem to care more about default risk after the crisis than they did before.

Furthermore, Dewally and Shao (2014, p. 238) investigate the impact of the bank lending activities on firms leverage and report lesser leverage increase in cases of bank-dependent companies than that of the companies with better access to public funding. In addition, bank dependent companies use their inner liquidity potential to maintain proper leverage to liquidity balance, rather than entering into new equity issuing activities.

The interesting and the most recent findings related to the impact of the institutional variables on firms leverage reporting are provided by Alves and Francisco (2015, p. 17). Among other things, the researchers find that during financial crisis corporate sector leverage is faced with the challenge of long term debt rollover and threatened by the raise of government debt that significantly influences its solvency.

Vithessonthia and Tonguraib (2015, p. 27) contributes to the subject with their findings from the extensive (in terms of population size) sample of Thailand firms. They argue negative and non-linear impact of leverage on firm's performance. Performance evidenced in the past does positively affect medium sized firms and negatively affect small firms, while this performance has no affect in case of very small and very large firms.

Despite conflicting evidence of the firm's financial structure impact on the performance, liquidity in particular, there appears to be a certain theoretical foundation to be examined. At first, during financial crisis, there is a reasonable expectation that there should be negative relationship between the firm size and its liquidity. In addition, as firms are constrained by the traditional funding by banks, the response towards crisis influences the firms to pay special attention and utilise inner reserves in order to improve their liquidity. Thus, lack of funding is expected to provide an incentive for liquidity increase during and immediately after a financial crisis.

3. Empirical analysis

Analysis that follows comprises an estimate of the relationship between selected liquidity ratio as dependent variable in the specified model as well as four independent variables. This is in an attempt to control their isolated impact as well as to test their relationship against theoretical expectations that argue in favour of liquidity increase and significant relationship between the leverage of the represented variables to liquidity ratio.

3.1. Sample and data description

Our sample comprises almost all medium and large production and processing companies in the FBiH. The term medium and large are applied according to the regulatory provisions which prescribe the terms related to the number of employees, annual turnover, and equity funding. Prior to outliers' removal, 447 companies were sampled, but due to some excessive data that could lead towards inappropriate overall estimations, 20 companies were excluded. Therefore, our sample contains 427 companies operating in 9 industries, as follows: food processing, wood processing, textile, metal, construction, energy, electric equipment production, chemicals, and other industries. Out of these 427 companies, 133 satisfy terms of being large, while the remaining (294) are of medium size nature.

In Table 1 we present some descriptive features of the large companies within the sample. As expected, the average current ratio (as the main variable used to report firm's liquidity in this paper) remains rather stable during the observed period. However, the variability of current ratio declines steadily resulting in the decrease of variability coefficient from 1.67 in 2009 to 1.08 in 2013. Leverage ratio also declines sharply in 2009 and 2010, while the remaining period saw the progressive upward trend, thereby outreaching the opening debt ratio.

Table 1. *Large companies descriptive statistics*
(observed variables, 2009-2013)

	2009			2010			2011			2012			2013		
	TO	LEV	UO	TO	LEV	UO	TO	LEV	UO	TO	LEV	UO	TO	LEV	UO
average	2,53	2,54	30,22	2,23	1,89	26,83	2,41	1,38	29,15	2,42	2,03	29,13	2,40	3,09	28,77
stdev	4,22	9,31	87,97	2,32	5,35	61,95	3,84	2,13	68,30	3,16	6,04	69,41	2,59	11,68	67,62
CV	1,67	3,66	2,91	1,04	2,83	2,31	1,59	1,54	2,34	1,31	2,98	2,38	1,08	3,78	2,35
min	0,10	0,01	0,09	0,14	0,04	0,08	0,15	0,06	0,12	0,15	0,04	0,14	0,13	0,05	0,00
max	42,01	94,38	867,40	11,59	54,65	449,45	40,36	14,77	497,91	26,80	59,78	519,69	18,60	97,34	463,86

Source: Authors' calculation

Total debt of large companies remains stable over the period and demonstrates a slight reduction of variation due to deviation contraction reported in 2010, stabilizing for the rest of the period under observation. Besides, Table 2 provides insight into descriptive nature of the medium size sampled firms.

Table 2. *Medium size companies descriptive statistics*
(observed variables, 2009-2013)

	2009			2010			2011			2012			2013		
	TO	LEV	UO	TO	LEV	UO	TO	LEV	UO	TO	LEV	UO	TO	LEV	UO
average	2,52	5,14	3,91	2,15	2,35	3,84	2,50	2,32	4,04	2,12	2,95	4,09	2,42	2,74	3,99
stdev	5,29	37,12	8,23	2,99	5,97	7,61	6,06	5,19	8,31	2,57	11,41	7,79	3,51	7,84	7,77
CV	2,10	7,22	2,11	1,39	2,54	1,98	2,42	2,23	2,06	1,21	3,87	1,91	1,45	2,86	1,95
min	0,00	0,01	0,00	0,01	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,07	0,00	0,00	0,00
max	71,81	604,81	78,73	31,39	82,00	77,77	90,27	51,05	94,94	21,23	143,38	88,35	33,16	79,48	91,11

Source: Authors' calculation

It is worth mentioning that behaviour of the variables related to medium size companies follow almost perfectly the fluctuations of those reported for large companies, with only slight deviations. On average, large and medium size production and processing companies in the FBiH operate in similar condition, revealing highly correlated trend for liquidity, solvency, and total debt performance, both during and after the financial crisis.

In both tables the standard deviation is significantly in excess of the average performance measures, attributing to the high variation coefficient. This implies there is little associated with the findings based on descriptive statistics. Therefore, more developed methodology is needed to estimate the relationships and suggest the impacts that selected variables have on firms' liquidity.

3.2. *Model specification and methodology*

In order to estimate possible relationships between the dependent variable (*i.e.* current ratio that represent firms liquidity) and several independent variables that capture the cross section, time series, and time variant nature of leverage policy applied by the firms, we developed the dynamic panel regression analysis model with random affects. As a dependent variable we use the logarithm of the current ratio (denoted as logTO) of the data obtained for all 427 companies and comprising five consecutive years (2009-2013). Two independent variables of special interest are the leverage ratio

(denoted as logLEV), capturing the relationship between debt to equity and total company debts (denoted as logUO). Both independent variables are expressed in logarithm form, since the relative change of both variables explains much better the relative change of the current ratio. As model accounts for several impacts by applying dummy variables, better estimates can be achieved by use of the log form instead of direct ratio measurements.¹ To control for the size of companies in the sample, we applied dummy variable (SIZE), attributing 1 to large companies and 0 otherwise. Also, to effectively handle the period under the direct impact of financial crisis and after, we employed the time dummy variable (FNKRZ) arbitrarily setting 1 for 2009 and 2010 and 0 for the rest of the observed period. Then, to capture sectors differences, we introduced nine dummy variables to identify one of the abovementioned industry sectors associated with the firms structure (FOOD-food processing, WOOD-wood processing, TXT-textile industry, MTL-metal industry, ENRG-energy production, CNSTR-construction, ELC-electric equipment production, CHEM-chemicals production, and OTH-other industries, non-specified).

Random affect model is specified as follows:

$$\log TO_{i,t} = \alpha + \beta \log LEV_{i,t} + \gamma \log UO_{i,t} + \delta SIZE_i + \sigma_1 FOOD_i + \sigma_2 WOOD_i + \sigma_3 TXT_i + \sigma_4 MTL_i + \sigma_5 ENRG_i + \sigma_6 CNSTR_i + \sigma_7 ELC_i + \sigma_8 CHEM_i + \sigma_9 OTH_i + U_{i,t} + \varepsilon_{i,t}$$

Upper cases denote vectors feature of the specified variables. Also, an intercept parameter α and within variables error denoted as ε are vectors in the specification. $U_{i,t}$ captures errors across variables.

Instead of fixed affect model, we applied random affect as a consequence of Hausman test that reports Prob>chi2 = 0.9415.

3.3. Dynamic panel regression analysis and findings

As mentioned earlier, we used Stata 13 regression package to estimate the key relationships captured by the model specification. Summary statistics of the sample reveals the following remarks (see Figure 1).

Variable	Obs	Mean	Std. Dev.	Min	Max
logto	2134	.335831	1.027248	-8.405003	4.502816
loglev	2135	-.1954923	1.4186	-6.023593	6.404914
loguo	2131	.95201	1.612106	-6.615086	6.765495
size	2135	.3114754	.4632051	0	1
fnkrz	2135	.4	.4900127	0	1
food	2135	.2084309	.4062817	0	1
wood	2135	.1217799	.327108	0	1
txt	2135	.098829	.2985023	0	1
mtl	2135	.1943794	.3958149	0	1
enrg	2135	.0351288	.1841485	0	1
cns	2135	.1147541	.3187996	0	1
elc	2135	.030445	.1718485	0	1
chm	2135	.1194379	.3243791	0	1
oth	2135	.0749415	.2633585	0	1
_Iyear_2	2135	.2	.4000937	0	1
_Iyear_3	2135	.2	.4000937	0	1
_Iyear_4	2135	.2	.4000937	0	1
_Iyear_5	2135	.2	.4000937	0	1

Figure 1. *Sample summary statistics*

Firstly, a minor imbalance can be identified as 1 and 4 data are missing in logTO and logUO variables, respectively. However, panel models are able to tackle unbalanced sample structure of much higher severity than reported in this sample, so no negative effects of this imbalance are to be expected.

Secondly, we used 9 dummy variables to control for industry related variations.

Thirdly, two dummy variables are applied to capture firms' size and time period. But, as FNKRZ variable is in strong multicollinearity with other industry related dummy variables, the time series nature of the sample is recognised by the selection of the "year" variable, we omitted FNKRZ variable in the regression analysis. Finally, the lagged variables were added prior to regression run to control the time variant nature.

To obtain data on the correlation between variables, we applied the pairwise variables correlation run with significance (see Figure 2).

	logto	loglev	loguo	size	food	wood	txt	mtl	enrg	cns	elc	chm	oth
logto	1												
loglev	-0.5253	1											
	0												
loguo	-0.2533	0.2862	1										
	0	0											
size	0.0456	-0.055	0.4222	1									
	0.035	0.011	0										
food	-0.0621	-0.0318	0.0846	0.1155	1								
	0.0041	0.1425	0.0001	0									
wood	-0.0165	-0.0712	-0.1009	-0.1422	-0.1911	1.0000							
	0.4457	0.001	0	0	0								
txt	-0.034	0.0314	-0.0991	-0.0533	-0.1699	-0.1233	1						
	0.1163	0.1468	0	0.0138	0	0							
mtl	0.0535	-0.0249	0.0502	0.053	-0.2521	-0.1829	-0.1627	1					
	0.0134	0.2503	0.0204	0.0143	0	0	0						
enrg	0.0407	-0.0825	0.0787	0.0639	-0.0979	-0.0711	-0.0632	-0.0937	1				
	0.0603	0.0001	0.0003	0.0031	0	0.001	0.0035	0					
cns	0.0324	0.0313	-0.0433	-0.0994	-0.1848	-0.1192	-0.1192	-0.1769	-0.0687	1			
	0.1351	0.1476	0.0456	0	0	0	0	0	0.0015				
elc	0.0317	0.0466	-0.0913	0.0574	-0.0909	-0.066	-0.0587	-0.087	-0.0338	-0.0638	1		
	0.1428	0.0312	0	0.008	0	0.0023	0.0067	0.0001	0.1183	0.0032			
chm	-0.0205	0.0838	0.076	0.0018	-0.189	-0.1371	-0.122	-0.1809	-0.0703	-0.1326	-0.0653	1	
	0.3447	0.0001	0.0004	0.9341	0	0	0	0	0.0012	0	0.0026		
oth	0.007	0.0278	-0.0009	0.0198	-0.1461	-0.106	-0.0943	-0.1398	-0.0543	-0.1025	-0.0504	-0.1048	1
	0.7449	0.1983	0.9666	0.3596	0	0	0	0	0.0121	0	0.0198	0	

Figure 2. *Pairwise variables correlation with significance sign*

Correlations revealed no significant multicollinearity issues. On the contrary, except for correlation in three cases, all other correlations are below absolute value 0.2, most of which report no correlation at all.

Empirical results of the regression, presented in Table 3, provide deep insight into the nature and significance of the relationship between sampled firms leverage policy and solvency to liquidity during the 2009-2013 period. Regression automatically recognized 2009 as a basis year so the time variant nature as well as lagged variables impact was compared to that year.

Table 3. *Random affect model regression output*

Random-effects GLS regression	Number of obs	=	1703
Group variable: code	Number of groups	=	427
R-sq: within = 0.2374	Obs per group: min =		3
between = 0.9584	avg =		4.0
overall = 0.8224	max =		4
corr(u _i , X) = 0 (assumed)	Wald chi2(18)	=	8722.44
	Prob> chi2	=	0.0000

		Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
logto	L1.	.8736447	.0319528	27.34	0.000	.8110184	.936271
loglev	--.	-.3579826	.0373832	-9.58	0.000	-.4312524	-.2847128
	L1.	.3155695	.0372215	8.48	0.000	.2426167	.3885223
loguo	--.	-.1440163	.054531	-2.64	0.008	-.2508952	-.0371375
	L1.	.1260297	.0539115	2.34	0.019	.0203652	.2316943
	size	.0458315	.0241609	1.90	0.058	-.0015231	.0931861
	food	-.1665731	.0320752	-5.19	0.000	-.2294394	-.1037069
	wood	-.154924	.0480907	-3.22	0.001	-.24918	-.0606679
	txt	-.0881635	.0302255	-2.92	0.004	-.1474044	-.0289225
mtl		-.1127363	.0308542	-3.65	0.000	-.1732093	-.0522632
enrg		-.0824456	.0707237	-1.17	0.244	-.2210615	.0561703
cns		-.0657594	.0314741	-2.09	0.037	-.1274475	-.0040713
elc		-.1183843	.0845847	-1.40	0.162	-.2841673	.0473988
	chm	-.0867256	.0398236	-2.18	0.029	-.1647784	-.0086727
oth		-.057753	.033239	-1.74	0.082	-.1229002	.0073942
	_Iyear_2	-.0460022	.0243525	-1.89	0.059	-.0937322	.0017279
	_Iyear_3	.0230527	.0283245	0.81	0.416	-.0324623	.0785677
	_Iyear_4	-.0121442	.0270862	-0.45	0.654	-.0652321	.0409438
	_Iyear_5	0 (omitted)					
	_cons	.1672581	.032718	5.11	0.000	.103132	.2313842
sigma_u		.04762267					
sigma_e		.36172252					
rho		.01703779	(fraction of variance due to u _i)				

Source: Stata 13 dynamic panel linear model random affect calculation

We found no reason to influence the model recognition as 2009 year seemed to be the most appropriate year to compare with. As a result of this process, the regression ran over 1703 observations with 427 firms of, as previously described, medium and large production and processing firms in the FBiH.

The model explains 23.74% of within firms' variations and almost all (95.84%) variations across firms. The coupled *R*-squared results allow for overall variations explanation at 82.24% and these findings give us satisfactory understanding of the model representation and the quality of estimations.

Rho coefficient of 17% variations recognized by the error terms is in line with the stated quality of estimates.

Dynamic panel regression reports total ($p=0$) significance of the lagged leverage and liquidity variables and almost total ($p=0.019$) significance of the lagged total debt variable. This explicitly tells us of the dynamic regression nature necessity and reliability of the relationship estimates.

Moreover, almost all industry-related variables indicate significance at 95% confidence interval and these findings call for more detailed insight into particular industries in further research effortson firm's performance measurements and relationships.

The model reports significant relationship between leverage ratio to liquidity ($p=0$),and debt to liquidity ($p=0.008$), and size to liquidity (0,058) after control for time variant impact and industry specifics. Both variables are negatively related to liquidity ratio, indicating the liquidity increase, while leverage and debt decline. The firms size to liquidity is positively related with significance at almost 95% confidence interval ($p=0,058$) but the coefficient (0,045) of impact appears to be relatively small.

Finally, only 2010 time dummy variable seems to be significant in capturing time dimension of the model and this in turn suggests either crisis impact or just the time length impact.

4. Concluding remarks and recommendations

Dynamic panel regression provides a solid base for the relationship evaluation of multidimensional data within a large sample over a relatively short observational period. The outcomes of the research that covered the vast majority of medium and large size production and processing

organisations in the FBiH showed some comprehensive remarks that help understand the striking effects of the variables both over the observed periods and the snapshots within that time.

The research results indicate that there is, in relative terms, significant impact that the leverage and borrowing policies have on firms' liquidity. After controlling the impact of the specifics associated with individual industries and the time variant of the nature of variables, it can be concluded that increases of total debt and the debt-to-equity ratio have a negative impact on firms' liquidity. This is not in line with similar earlier findings and the theory of firm behaviour during the recent financial meltdown. It is important to note that the implications of these findings raise certain ambiguities. It might be the case that either the firms tend to underestimate the critical importance of liquidity during or after crisis period, or they fail to grasp the need to reconsider their investment policies during and after the period of financial turmoil.

Deeper understanding of global dynamics and crises is critical for company managers and to policy makers, since liquidity mismanagement can lead toward disastrous effects. Corporate ignorance of the importance of the continuous liquidity improvement can be behind the recent risk-averse behaviour where banks refrained from dealing with some companies despite them being far in the excess of the required capital adequacy ratio.

The time dimension of the estimated relationships seems to be highly relevant since *R*-squared output went from 30% up to 82% solely as a result of the lagged variables contribution. Therefore, any estimation without time variant consideration could lead toward inconsistent conclusions and wrong understanding of the relationships. Previous ratios, both the leverage (solvency) and liquidity, also affect the relationships during the observed period.

Misbalance between the literature focused on the macroeconomic impact of the financial crisis and that of the organisation-specific nature remains one of the challenges for further research. This paper aims to fill the gap in the available studies related to the financial crisis impact at the firm level. To support continuity of research in this space, it is recommended that further in-depth investigation is conducted into organisational level relations regarding the aftermath of the latest global crisis. At first, deep analysis at industry level could provide useful information about organisational performance in a specific industry with regards to the impact of the crisis. Secondly, in order to obtain better estimates, additional variables need to be incorporated that will explain operating performance. Finally, research

efforts that will help understand the impact on organisational growth during and after the financial crisis could be of the striking importance. Findings from the research focusing on companies at national level could provide fruitful information for the policy makers when making legislative decision as well as provide support to companies with mitigation efforts of the current and future effects of crises that might occur not only on global scale, but also within national borders.

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Endnotes

- 1 Calculations used the logarithmic values of the variables measured as % changes, rather than changes in absolute values.

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INSTITUTIONAL REFORMS NEEDED FOR BETTER ACCESS TO FINANCE FOR SMALL AND MEDIUM ENTERPRISES IN BOSNIA AND HERZEGOVINA¹

NEOPHODNE INSTITUCIONALNE REFORME ZA BOLJI PRISTUP FINANSIRANJU MALIH I SREDNJIH PREDUZEĆA U BOSNI I HERCEGOVINI

Abstract

Small and medium enterprises (SMEs) are the major contributor to overall economic growth and development in Bosnia and Herzegovina (BiH) according to the Annual structural business survey for the enterprises for 2013, published by the Agency for Statistics of BiH. Approximately 99% of the total number of enterprises in BiH are SMEs. Moreover, 41.85% of the total number of employed persons in BiH is employed in SMEs.

However, major problem faced by SMEs is access to finance. This paper investigates the problems of SMEs' access to finance in the European Union (EU) focusing on the institutional framework for resolving the gap between SMEs' needs for external financing, on the one hand, and financial products/services offered by financial institutions, on the other hand. Furthermore, the aim of this paper is to address this issue by determining the degree of adequacy of different financial products/services available to SMEs in the Federation of Bosnia and Herzegovina (FBiH) and by evaluating the existing institutional framework for attracting different types of financial institutions (especially banks), which are capable to offer financial products/services tailored to the needs of SMEs.

In order to assess the existing institutional framework for better access to finance for SMEs, a survey among SMEs in FBiH and financial institutions was conducted. As the research results show, it is important that financial institutions, as well as SMEs, engage in “lobbying” the government bodies to change regulations governing the SME sector. In that respect, the banking agencies of FBiH and Republic of Srpska, as the state supervisory bodies for banks, should, together with banks, start initiatives to change the laws on taxation of SMEs.

Keywords: SMEs, finance, financial/banking sector, institutional reforms

JEL: G20, G30

Sažetak

Prema podacima iz Izvještaja o strukturnim poslovnim statistikama za 2013. godinu Agencije za statistiku Bosne i Hercegovine (BiH), mala i srednja preduzeća (MSP) u najvećem obimu doprinose cjelokupnom ekonomskom rastu i razvoju u Bosni i Hercegovini. MSP čine približno 99% od ukupnog broja preduzeća u BiH. Također, u sektoru MSP-a zaposleno je 41,8% od ukupnog broja zaposlenih u BiH.

Međutim, jedan od najvećih problema sa kojima se suočavaju MSP je pristup finansiranju. Ovaj rad istražuje problem pristupa finansiranju malim i srednjim preduzećima u Evropskoj Uniji sa fokusom na institucionalni okvir kojim bi se umanjio raskorak između potreba MSP za eksternim izvorima finansiranja s jedne strane, i finansijskih proizvoda/usluga koje nude finansijske institucije s druge strane. Nadalje, cilj rada je utvrditi stepen adekvatnosti različitih finansijskih proizvoda/usluga dostupnih malim i srednjim preduzećima u Federaciji Bosne i Hercegovine (FBiH) i evaluirati postojeći institucionalni okvir za privlačenje različitih finansijskih institucija (naročito banaka) koje su sposobne ponudu finansijske proizvode/usluge prema potrebama malih i srednjih preduzeća.

S ciljem ocjene postojećeg institucionalnog okvira za poboljšanje pristupa finansiranju za mala i srednja preduzeća provedeno je istraživanje na uzorku malih i srednjih preduzeća u FBiH, te finansijskih institucija. Rezultati istraživanja pokazuju da je od velike važnosti da finansijske institucije, kao i mala i srednja preduzeća započnu „lobiranje“ vlada da bi se izmijenila zakonska regulativa kojom je uređeno poslovanje MSP sektora. U tom smislu, Agencije za bankarstvo FBiH i Republike Srpske kao nadzorna tijela bankarskog sektora, moraju sa bankama započeti inicijativu za izmjenu zakona o oporezivanju za MSP.

Ključne riječi: MSP, finansije, finansijski/bankarski sektor, institucionalne reforme

JEL: G20, G30

1. Introduction

According to the data of the European Central Bank (ECB), small and medium enterprises (SMEs) in the European Union (EU) perceive access to finance as the most pressing problem. Access to finance is the ability of enterprise to access external financial sources necessary for financing its growth and it is related to the ability to obtain different financial products/services.

In terms of addressing their financial needs, SMEs strongly rely on the offer of financial institutions, dominantly on bank's short and long term loans, but at the same time on the financial support from the government. Furthermore, the SME sector strongly relies on the government to create an institutional framework for better access to finance through adequate taxation policy, strong accounting environment, adequate legal environment and property rights law, etc. Also, government policy needs to promote sound political, economic, and social environment, which will positively impact development of the financial system.

The goal of this paper is to evaluate the existing institutional framework for BiH SME sector in order to improve its financing, with an ultimate objective to detect key constraints for further SME development (and development of BiH economy) as well as to provide recommendations and solutions for overcoming these constraints.

The paper is structured in three parts. In the first part an overview of the previous research on financial constraints of SMEs is presented. In the second part a theoretical background on institutional framework for better access to finance for SMEs is discussed. This part is focused on defining a conceptual framework of institutional reforms and EU reforms on improving access to finance among EU SMEs. The third part brings an assessment of the institutional framework in BiH regarding the conditions for SMEs to access different types of external financial sources. Based on the survey conducted among SMEs and commercial banks in BiH, recommendations are formulated for improving access to finance for SMEs in BiH.

2. The evidence of financial constraints of SMEs: A review of previous research

Some of the early theoretical and empirical research of SMEs' financial constraints can be found in the papers of Berger and Udell (1998, 2006),

Kimhi (1997), following Cassar (2004), Beck (2007), La Rocca et al. (2011), Wu et al. (2008), etc.

The research of Berger and Udell (1998) and Beck (2007) provides an insight to a number of facets of SME finance, the investors and intermediaries that provide it, and the private equity and debt markets in which they function. They argued that the degree of informational opacity is a key feature that drives the financial growth cycle and distinguishes small business finance from large business finance. Information opacity such as lack of information on the specifics of business operations, lack of (audited) financial statements and repayment and profitability history, inadequate collateral, etc., are the key obstacles of SMEs to obtain external financial sources for financing their business projects, both in developing and developed countries.

According to Kerr and Nanda (2009), the most important factor governing the ability of SMEs to raise sufficient capital for their projects is the depth of the local capital markets. They found that more developed financial markets (measured by the number of different financial institutions) provide numerous financing opportunities for companies. Furthermore, developed financial markets are characterized by the existence of variety of financial instruments, which help financial institutions to reduce risks associated with lending to non-financial firms. On the other hand, emerging financial markets are characterized by a lower number of financial institutions and financial instruments available to financing non-financial sector. Financing SMEs is shown to be a more challenging task in developing countries with underdeveloped financial system (and, consequently, shallow financial markets). Financial systems in developing countries are more oriented towards well established companies with credit history (i.e. bank-oriented financial system) and often do not provide more sophisticated forms of financial support to new SMEs, such as venture capital, factoring, forfeiting or leasing.

As the research of the International Financial Corporation (IFC) *Financial Inclusion Experts Group* shows, access to finance is, and remains, the key constraint to SMEs in emerging economies. Comprehensive data on the SME finance gap is still to be more consistently collected and monitored over time. However, various data sources and studies indicate that small firms rely on internal financing much more than large firms do, and that the likelihood of a small firm having access to a bank loan in low-income countries is about a third of what it is for a medium-sized firm, and less than half of what it is

for a larger firm. Furthermore, other sources of SME finance, such as leasing and factoring, are also less developed in emerging countries (IFC, 2010).

The ECB together with the European Commission (EC) *Directorate General (DG) Enterprises and Industry* are conducting the surveys named “The Survey on the Access to Finance of Enterprises (SAFE)” from 2008, in order to follow up on the financing constraints of SMEs in the EU.² These surveys have led to several initiatives and action plans for improvement of institutional framework and government intervention to improve access to finance for SMEs in the EU. These implications will be discussed in the following part of the paper as the theoretical background on institutional framework initiatives which need to be implemented in order to improve financial environment for SMEs.

3. Theoretical background on institutional framework for better access to finance of SMEs and the EU experiences

3.1. Conceptual framework for institutional reforms

In the light of efforts to provide answers to the questions of government intervention in improving SME access to finance, Berger and Udell (2006) provide a complete conceptual framework for thinking about research and policy issues related to SME access to credit in various circumstances. They argue that there is a causal chain between government policies and financial structures, on the one hand, and SME credit (external financial sources) availability, on the other hand.

According to Berger and Udell’s research, several aspects of SME financing infrastructure can be addressed by the government in order to create an adequate institutional framework for better access to external finance for SMEs.³ In that respect, institutional reforms need to address the issues related to several aspects of financing environment, such as:

- information environment;
- legal, judicial and bankruptcy environment;
- social environment;
- tax environment, and
- regulatory environment.

Information environment is related to the need that a strong accounting standards are enforced in order to produce informative and reliable

financial statements of SMEs. This is important due to the fact that financial institutions make their decisions on financing SMEs, based on their financial statements. The judicial and bankruptcy environments determine how well these laws are enforced in commercial disputes and in bankruptcy resolutions. This enforceability, in turn, determines the confidence of contracting parties in financial contracts (Berger & Udell, 2006, p. 2957). Social environment, in form of social capital and trust, is also important for engaging in financial contracts. Government can positively impact social environment indirectly, rather than directly, through advancing other aspects of financing environment. Tax environment can impact both SMEs and financial institutions. From the SMEs' perspective, higher taxes might have a negative impact on firm's revenues and, therefore, on firm's ability to repay loans. Regulatory environment can be rather restricting for financial institutions to provide liquidity. High capital requirements posed by Basel Accords, especially Basel III, are reducing banks' ability to provide loans for SMEs.⁴

Government regulatory policies affect nation's financial institution structure and lending infrastructure supporting SMEs. The research of Berger and Udell strongly suggests that lending infrastructures have important effects on SME credit availability. "Better" lending infrastructures may significantly improve SME credit availability through facilitating the use of the various lending technologies. Their research is limited only to credit products, but it can be translated to all financial products (venture capital, leasing products, other banking products, etc.) SMEs need for their business operations.

In order to address the issue of financing constraints of SMEs in developing and emerging economies, Beck (2007) finds that government's role in the process of reforming the institutional environment, providing regulatory frameworks and fostering competition is very important. He believes that it is important to better understand SME lending practices by financial institutions and identify best practices, but that it is also important to understand how these practices depend on the business environment in which financial institutions operate.

Now, we turn our attention to EU experience on implementing legislation and recommendations for improving access to finance for SMEs.

3.2. EU experience on improving access to finance for SMEs

As the results of the mentioned SAFE surveys, the EC issued an action plan to improve access to finance for SMEs in 2011. Based on the information on the problems that EU SMEs face, the key priorities to facilitate access to finance for SMEs for the next decade were determined in the Action plan. It was determined that the EC would act in the following three directions (EC 2001, pp. 1-2):

Firstly, the EC will use regulations to make SMEs more visible to investors and markets more attractive and accessible for SMEs.

Secondly, the EC intends to continue using the EU budget for facilitating access to finance for SMEs in order to address the key market failures.

Finally, the EC will use its coordinating role, working in particular with EU member states, to exchange best practices and develop synergies between actions taken at the national and EU levels.

In respect to regulation, the EC undertook measures to improve the regulation on venture capital and venture capital investments, to carry out tax reforms benefiting SMEs and inquire on bank's capital requirements in respect to the size of the loans for SMEs.

In respect to the usage of EU budget, the EU has created EU financial instruments with risk-sharing figures, such as guarantees backed by EU funds to financial intermediaries who provide lending, lease finance or co-investments with venture capital funds. In this way the EU is creating an infrastructural environment for better SME access to finance by closely cooperating with financial institutions that are in closer contact with SMEs and are better qualified to address SMEs' financial needs.

In respect to coordination at the EU level and among EU member states, several important agencies were created or their financial advisory capacities were reinforced. Nowadays, SAFE is used to measure whether the EC action plan is resulting in improvement of access to finance for SMEs.

4. Assessment and perspective of institutional framework for access to finance for SMEs in Bosnia and Herzegovina

In order to assess the institutional framework in BiH regarding the conditions for SMEs to access different types of external financial sources, a survey among SMEs was conducted. A survey among commercial banks was conducted as well in order to better understand their perspective on adequacy of different financial products/services available to SMEs and to obtain banks' opinions on the necessary government efforts to improve institutional environment for better access to finance for SMEs in BiH.

4.1. SME's perspective on adequacy of different financial products/services

In order to evaluate the existing institutional framework for access to finance for SMEs in BiH a survey was conducted using a sample of SMEs in FBiH. The aim of the survey was to analyse the perception of SMEs in BiH regarding availability and adequacy of financial products/services offered by banks and other financial institutions as well as to determine the level of SME managers' knowledge about different financial sources offered to SMEs in general. Furthermore, the aim of the survey was to analyse opinions of SME managers about the necessary institutional reforms for improving business environment and assuring better access to finance.

For the purpose of the survey a questionnaire was created, which besides the part on general characteristics of the surveyed SME, consisted of five sections.⁵In this paper, the survey results are presented providing an overview of the financial situation among SMEs in BiH and of the SME financial structure (usage of different types of financial sources), SMEs' expectations regarding access to finance, and SMEs' opinions on state's role in providing better access to finance for SMEs in BiH.

The survey sample consisted of 100 SMEs registered in FBiH, randomly chosen from the Register of SMEs established by the Federal Ministry of Development, Entrepreneurship and Crafts.⁶ The rate of response was 78%, which can be considered as the representative sample of respondents to make justifiable conclusions on the issues related to access to finance for SMEs in BiH.

The sample is stratified by cantons, economic activity, enterprise size class (number of employees and total revenue), and ownership. Figure 1 shows the structure of the surveyed SMEs that returned the questionnaires across cantons, while sample allocation across the number of employees is given in Figure 2.

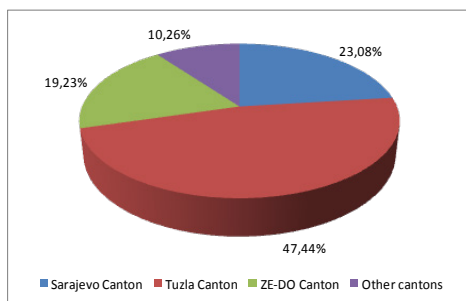


Figure 1. *Sample allocation across cantons*

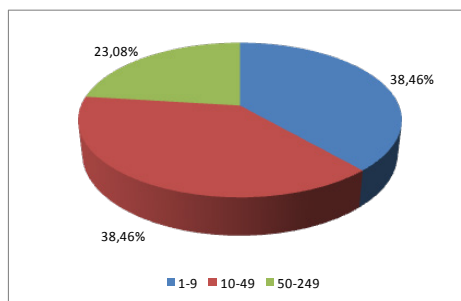


Figure 2. *Sample allocation across number of employees*

Source: Authors' research

As regards the stratification by enterprise size class, the sample was constructed in respect to the EU definition of SME enterprises and the number of employees.⁷

In order to assess the current situation in SMEs in BiH, the surveyed SMEs were asked to indicate what the most pressing problem for their business is. The majority of SMEs have responded that the most pressing problem faced by SMEs in BiH is finding customers, followed by regulations and competition. The problem of access to finance was rated as extremely important by 27.03% respondents, and as important by more than half of the surveyed SMEs in BiH, namely 54.04% (see Figure 3).

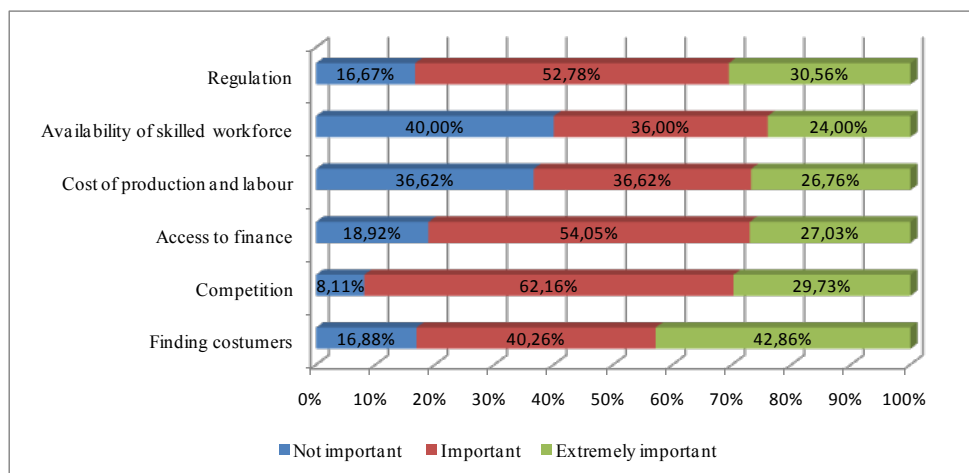


Figure 3. *The most important problems faced by SMEs in BiH*

Source: Authors' research

In respect to the leverage level of SMEs in BiH, 80.26% of the surveyed SMEs report debt to asset ratio being under 25% (see Figure 4), while only 1.32% reported that this ratio is higher than 75%. This indicates that SMEs in BiH are using a low level of leverage. Furthermore, the research shows that leverage level remained unchanged for 43.06% of the reporting SMEs and was decreased for 27.78% of the surveyed SMEs (Figure 5).

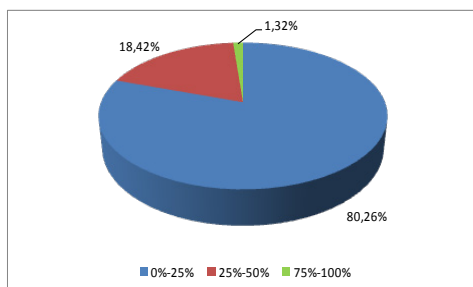


Figure 4. *Current debt to asset ratio of SMEs in BiH*

Source: Authors' research

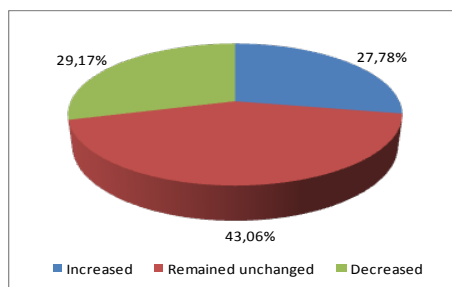


Figure 5. *Change of debt to asset ratio among SMEs in BiH*

In respect to the financial structure of SMEs, the usage of different types of internal and external financial sources was analysed. Figure 6 shows different types of financial sources used by SMEs in BiH in the past year.

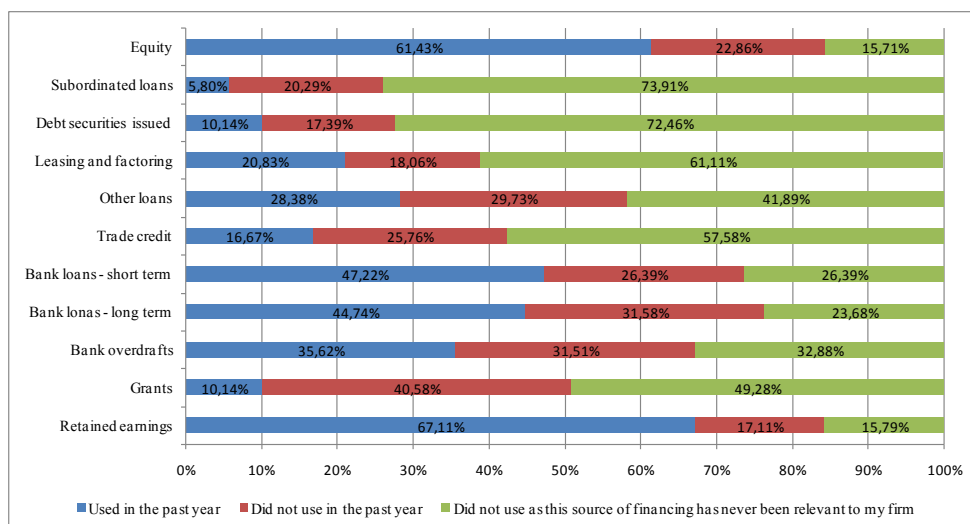


Figure 6. *Sources of financing of SMEs in BiH in the past year*

Source: Authors' research

As the research results show, the most used financing sources among the surveyed SMEs are internal financial sources – equity in 61.43% of the cases and retained earnings 67.11%. The second important group of financial sources are bank related products: short-term loans (47.22%), long-term loans (44.74%), bank overdrafts (35.62%), and other loans (28.38%). Less than a quarter of the surveyed SMEs used other external financial sources such as leasing and factoring, trade credits, debt securities, subordinate loans, and grants. In respect to the sources of financing, it can be concluded that the majority of the surveyed SMEs in BiH rely on commercial banks to assure external financing for their enterprises.

In respect to SMEs' expectations regarding access to finance, the surveyed SMEs were asked to assess whether conditions for access to different external financial will improve, deteriorate or remain unchanged in the future (see Figure 7).

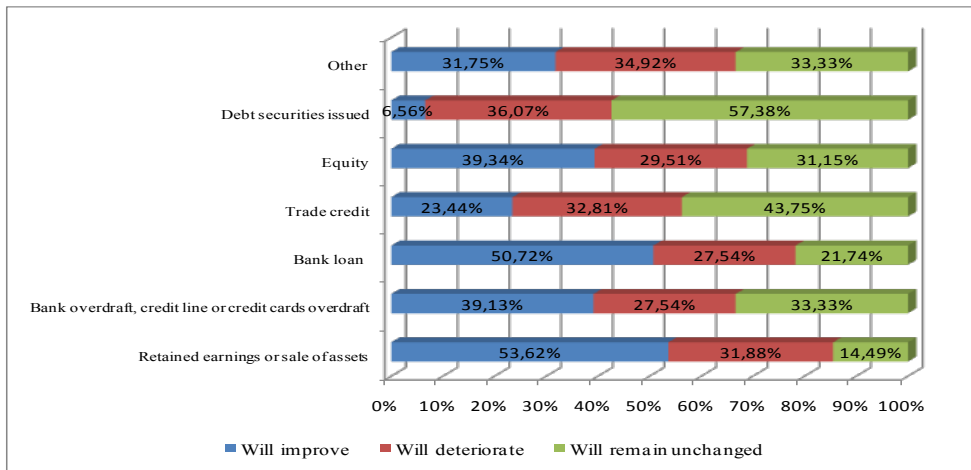


Figure 7. *SMEs' expectations regarding access to financing*

Source: Authors' research

The general opinion of SMEs regarding expectations for improvement of access to finance is that access to external financing will either remain unchanged or will deteriorate in the future period.

In order to formulate practical guidelines for the government to improve the institutional framework for better access to finance for SMEs in BiH, the surveyed SMEs were asked to express their opinions on state's role in providing better access to finance, by answering the question about ten identified areas in which the government needs to intervene.

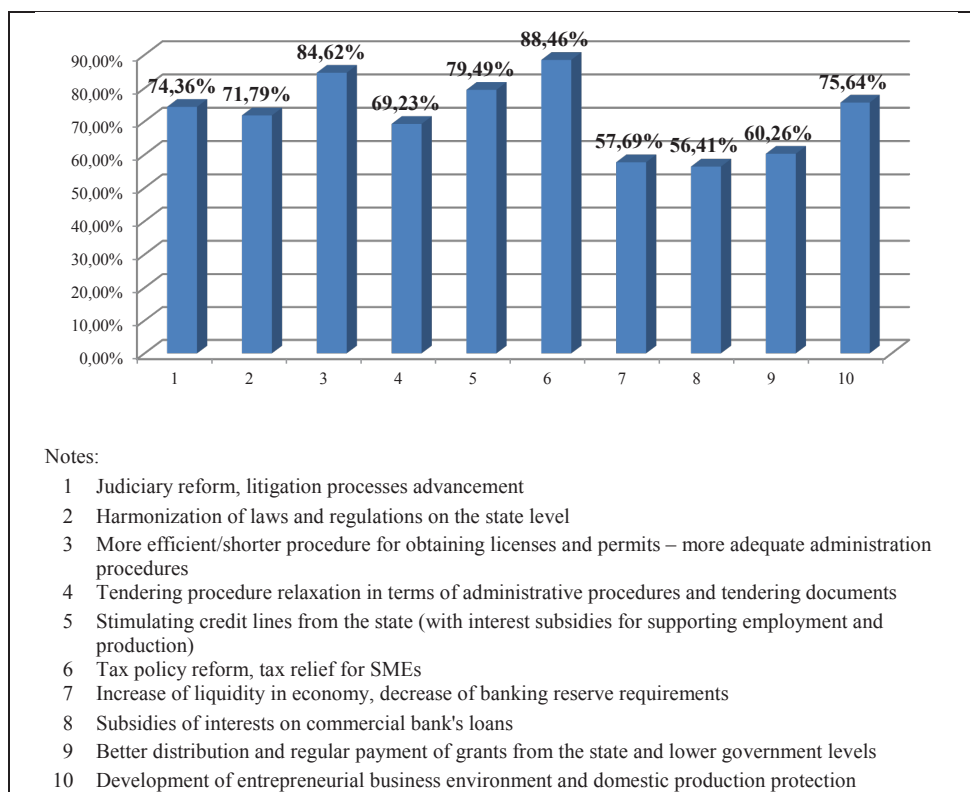


Figure 8. *Opinions of SMEs on state's role in providing better access to finance for SMEs in BiH*

Source: Authors' research

As it is shown in Figure 8, the surveyed SMEs agree that the government needs to address all the identified areas. As indicated by 88.46% of the surveyed SMEs, tax policy reforms are the most important area that needs to be addressed. The tax policy reform needs to focus on creating the taxation system which will be more favourable for development of SMEs, which means that SMEs need to be exempt from some taxes or need to have tax reliefs.

The second important area of government intervention, indicated by 84.26% of the surveyed SMEs, is the creation of more efficient procedures for obtaining licenses and permits. SMEs need shorter and less complicated administrative procedures. Moreover, 69.23 % of the surveyed SMEs indicate that tender procedures in terms of administrative procedures and tender documents need to be more relaxed.

Thirdly, SMEs need stimulating credit lines from the state and/or program for interest subsidies on commercial banks loans, and furthermore, 75.64% of the surveyed SMEs believes that the government needs to be more involved in developing entrepreneurial business environment and domestic production protection.

4.2. Banks' perspective on adequacy of different financial products/ services available to SMEs⁸

In order to assess the perspective of financial institutions regarding the reforms of the institutional framework on better access to finance for SMEs in BiH, a survey among banks was conducted. The main reasons for choosing banks among a wide range of financial institutions operating in BiH financial sector are the fact that commercial banks hold 87% of the total financial assets in BiH financial sector (according to the Central Bank of BiH – Annual Report CBBiH 2014) and the fact that the above mentioned research results showed that SMEs in BiH rely mostly on commercial banks to assure external financing for their enterprises.

For the purpose of the research a questionnaire consisting of 16 questions was created. The questionnaire was designed to address three broad areas. This paper brings the results related to understanding banks' obstacles to future involvement in the SME sector with focus on their opinions on the role of government to enhance business environment and assure better connection between financial and non-financial sector. The questionnaire was sent to 23 banks in BiH, with the response rate of 37% (10 banks returned the filled questionnaire).

For the purpose of determining what obstacles the banks face through financing SMEs, the banks were asked to indicate the obstacles to SME lending and to explain how significant these obstacles are in their level of involvement in the segment. The options available to qualify the importance of obstacles vary from not significant to extremely significant. Figure 9 shows the percentage of the banks that consider these factors to be significant or extremely significant obstacles. The percentage of the banks that consider these factors not significant is not presented.

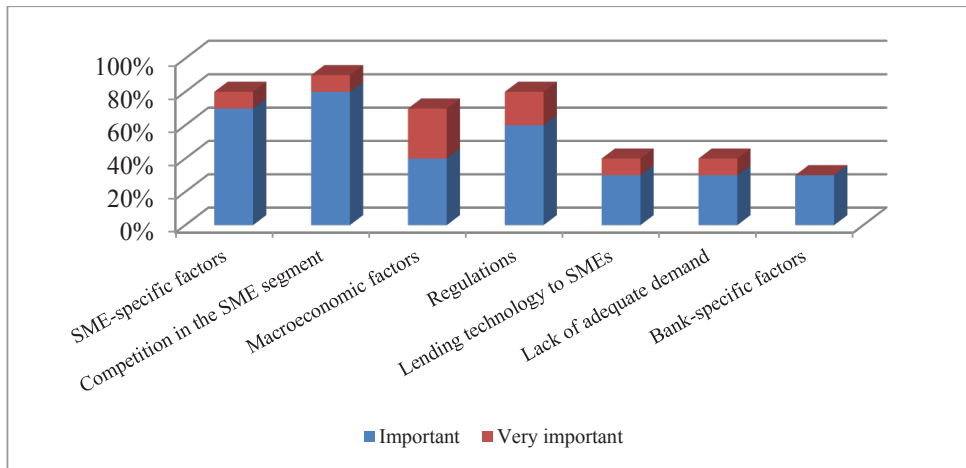


Figure 9. *Obstacles to banks' involvement in SME sector*

Source: Authors' research

Competition among banks in the SME segment is considered as the most important obstacle for SME financing. Therefore, the banks in BiH have to compete for SMEs with all their resources in order to stay in the market and/or to increase market share. The second largest obstacle are regulations, with 20% of the banks finding them very important and 60% of the banks finding them important. Further explanations by the banks indicate that these regulations include not only banking regulations, but also taxes, high documentation requirements, lack of legal uniformity, and weak overall legal environment. SME-specific factors, i.e. factors intrinsic to their nature, are evaluated as a very important obstacle by 10% of the banks and important by 70% of the banks. It is obvious that the banks find SMEs harder to deal with in comparison to other clients, which could be connected to high risks and lack of information which characterize SMEs. The fourth important obstacle concerns macroeconomic factors. The banks in BiH feel the consequences of the overall macroeconomic instability and imbalance, which affects them on the side of financing sources and on the side of lending as well. The obstacles which were given the lowest importance are lending technology to SMEs, lack of adequate demand, and bank-specific factors, which are considered unimportant by most of the banks.

When asked about possible areas in which government actions could help enhance banks' incentives to increase SME lending, the banks provided similar answers. The most important actions needed are in the areas of tax policies, dispute settlement and legal uniformity assurance, administrative

procedures, and SME environment enhancement. More specifically, the banks suggested that the government should assure interest rate subsidies and more liquidity to the real sector.

Tax reforms in the form of tax reliefs and lower tax burden for SMEs could have a positive effect on SMEs business and thus enhance demand for banks' services. Interest rate subsidies would lead to a decrease in financing costs for SMEs, while keeping banks' profit at the same level. Of course, the government should finance only the interest rates for loans directed to production, development, and new job creation. Slow dispute settlement process burdens regular business activities for banks and also for SMEs, which is why banks suggest improvement of the judiciary. Complicated administrative procedures should be simplified by reducing the quantity of documents as well as the time for its gathering. Because of a complex inner structure of BiH, from municipalities, through cantons, entities to state level, there is a problem of different regulations. That is why banks suggest the unifying of regulations at the state level and deeper communication between institutions, which would facilitate banks and SMEs' business activities. A significant problem in BiH is the illiquidity of companies, which affects their creditworthiness. That is why the government should make some steps towards solving this problem, for example with strong regulations on collection of receivables. General liquidity of BiH economy could be improved by decreasing the reserve requirement for commercial banks. At the end, fostering SME environment implies developing strong overall business environment, increasing support and investment in SME sector, stimulating production, encouraging start-ups, and protecting domestic production.

Some banks also suggested measures which could be applied on a micro level, such as improving and simplifying the necessary documents for opening bank accounts and loans, accepting weaker collaterals, focusing more on production companies, analytically considering client's needs, and offering appropriate types of loans. There is a need for partner relationship between bank and SMEs, with bank helping its client to use the best products/services to meet the needs, and client being fair and stable.

5. Conclusions and recommendations

The research shows that, besides finding customers and competition issues, the most pressing problem among SMEs in BiH is access to finance, where 27.3% of the surveyed SMEs indicated that this is an extremely pressing

problem, while 54.05% indicated that access to finance is important. That is the reason why the majority of SMEs in BiH are using a low level of leverage, which hurts their profitability and slows down their growth. The research also showed that the majority of the surveyed SMEs in BiH rely on commercial banks to assure external financing for their enterprises.

In terms of improving institutional framework for access to finance for SMEs in BiH, both the surveyed SMEs and the surveyed banks agree that tax policy reforms are the most important area that needs to be addressed. The tax policy reform needs to focus on creating the taxation system which will be more favourable for development of SMEs but could also have a positive effect on SMEs' demand for banks' services.

The second important area of government intervention is in the area of regulations and laws. There is a need for SMEs to have more efficient procedures for obtaining licenses and permits, including tender procedures by reducing the quantity of documents as well as the time for its gathering. Banks also identified regulations as the obstacle to their involvement in the SME sector, where these regulations include not only banking regulations, but also taxes, high documentation requirements, lack of legal uniformity, and weak overall legal environment.

Finally, SMEs need stimulating credit lines from the state and/or program for interest subsidies on commercial bank loans. Interest rate subsidies would lead to a decrease in financing costs for SMEs, but the government should finance only the interest rates for loans directed to production, development, and new job creation.

The overall conclusion is that there is a need for unifying the regulations at the state level and deeper communication between institutions, which would facilitate banks (and other financial institutions) and SMEs' business activities.

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Endnotes

- 1 This paper presents the results of the research project “*The financing of small and medium enterprises (SMEs) in the Federation of Bosnia and Herzegovina – present state and required institutional reforms for linking with financial/banking sector*”, financed by the Federal Ministry of Education and Science (Contract No. 01-4169/14, from 30th June 2014).
- 2 More detailed information on the SAFE can be obtained from the following European Commission website: http://ec.europa.eu/growth/access-to-finance/data-surveys/safe/index_en.htm.
- 3 Beger and Udell (2006) discuss this financial infrastructure in the context of lending infrastructure which may affect SME credit availability and better access to different loans. These elements of lending infrastructure need to be in place in order to improve financing environment and assure development of different types of financing products, not just credits offered by banks. In that respect, this conceptual framework is presented in the paper as the general model for improving different aspects of institutional framework for better access to finance for SMEs and is extended beyond credit (lending) products.
- 4 As the European Central Bank survey on access to finance for SMEs shows, most companies largely rely on banks when selecting sources of external financing (SAFE Report, 2014).
- 5 The first section assessed the general situation in the surveyed SMEs and structure of financial sources, while the second section assessed the availability of different types of financial products/ services. The first and the second part of the survey are consistent with the questionnaire used by SAFE and can be used for comparison between the EU and BiH SME problems in access to finance. The third part of the questionnaire was aimed to investigate the degree of SMEs' cooperation with banks, leasing companies, and microcredit organizations, which are financial institutions that dominantly offer different financial products to SMEs in BiH. The fourth section is constructed to assess the need of SMEs' managers for additional education in the area of financing, while the fifth part of the paper analyzed perceptions of the surveyed SMEs' managers about the activities that the government should undertake in order to improve the institutional framework for better access to finance for SMEs in BiH.
- 6 Since there is no unique register of SMEs at the state level of BiH, the Register of SMEs in FBiH was used instead. According to the data from the Register there were 138,060 registered SMEs in FBiH at the end of 2014. Based on the distribution of registered SMEs across cantons of FBiH, the survey sample was formed having in mind that 57.86% of SMEs are registered in Sarajevo Canton, Tuzla Canton, and Zenica-Doboj Canton.
- 7 Commission Recommendation 2003/361/EC of 6th May 2003 concerning the definition of micro, small, and medium-sized enterprises (Text with EEA relevance), Official Journal L 124, pp. 36-41, of 20th May 2003. Retrieved from <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:124:0036:0041:en:PDF>.
- 8 This part of the paper provides a part of the already published research results. Detailed information on SME banking in BiH can be found in Kozarević, E., Kokorović Jukan, M. & Softić, A. (2015) Overview and Development Perspectives of SME Banking, with a Focus on Bosnia and Herzegovina. *Journal of Economic and Social Studies*. 5(1), pp. 107-125.

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DYNAMIC ANALYSIS OF THE CONCENTRATION DEGREE OF THE BANKING SECTOR IN SERBIA

DINAMIČKA ANALIZA STEPENA KONCENTRACIJE BANKARSKOG SEKTORA U SRBIJI

Abstract

The financial sector of the Republic of Serbia is highly bank-centric. The number of banks in recent years has decreased, which could represent an indicator of increasing concentration in this segment of the financial services sector. The regulatory body responsible for measuring and monitoring the level of market concentration in the banking sector in Serbia, the National Bank of Serbia. The paper presents the results of dynamic analysis of the degree of market concentration in the domestic banking sector, where it was made the corresponding comparative analysis with countries in the region. The analysis used a standard measure of market concentration - Herfindahl-Hirschman Index and the concentration ratio, which issued by the National Bank of Serbia. The paper confirmed the hypothesis: (1) the degree of concentration of the banking market in Serbia increased over time the reporting period increased, and (2) that competition in the banking sector in Serbia, compared to neighboring countries, there is still intense enough.

Keywords: market concentration, HHI Index, CR_n, Serbian banking sector

JEL: D42, G21

Sažetak

Finansijski sektor Republike Srbije izrazito je bankocentričan. Broj banaka se u poslednjih nekoliko godina smanjio, što bi moglo da predstavlja indikator povećanja koncentracije u ovom segmentu sektora finansijskih usluga. Domaća pravna regulativa u domenu zaštite konkurencije, usklađena je sa regulativom Evropske unije. Regulatorni organ zadužen za merenje i praćenje stepena tržišne koncentracije u bankarskom sektoru Srbije je Narodna banka Srbije. U radu je izvršena dinamička analiza stepena tržišne koncentracije u domaćem bankarskom sektoru, kao i poređenje sa stepenom koncentracije koji je karakterističan za bankarske sisteme zemalja iz regiona. Kao metodološki alati u analizi su korišćeni Herfindal-Hiršmanov indeks i ratio koncentracije. Rezultati istraživanja ukazuju na to da se stepen koncentracije u posmatranom periodu povećao, ali da je domaći bankarski sektor i dalje konkurentan u svim ključnim kategorijama.

Ključne reči: tržišna koncentracija, bankarski sektor Republike Srbije, Herfindal-Hiršmanov indeks, ratio koncentracije

JEL: D42, G21

1. Introduction

The banking sector covers a significant part of the Serbian service economy, due to the need that almost everyone uses banking products and services, both citizens and the industry and state institutions. Banks are currently faced with great changes in their business environment, which are a consequence of the global economic and financial crisis. Furthermore, there is constant growth of user's expectations in banking services. These factors affect the growth of demand from banks and strengthening competition in the banking sector.

Frequent changes in the number and market share of banks have been present in the Serbian banking sector. Mergers and acquisitions of banks, as the most common forms of concentration, can have an impact on competition between banks by changing the number and size of market participants. Globalization, internationalization, technological advances, the emergence of new products and services, the creation of the European Monetary Union, the implementation of electronic banking, increased awareness and knowledge of clients are just some of changes that are present in the financial system. Under the influence of these changes banks are looking for ways to survive in the market which necessarily has strong effects on competition and concentration (Slijepčević & Živko 2008, p. 152).

In order to achieve competitiveness, banks must develop differentiating its services in relation to competition while retaining existing and attracting new clients. Currently in Serbia, banks tend to offer similar services, both business of the retail and in corporate operations, which further complicates establishing and maintaining a certain market position.

The banking sector of the Republic of Serbia from 2000 until today went through the development process, followed by the changes in banking regulation, consolidation and the entry of foreign banks into the job market. In the beginning of the 21st century domestic banking was collapsed. Two thirds of the sector liabilities consisted of immobilized sources - liabilities from long-term foreign currency loans and so-called old foreign currency savings, equity represented 3.4% of total liabilities, capital adequacy have not fulfilled 14 banks (regulatory capital adequacy is the equivalent of 8% of risk weighted assets), many banks did not have the capital threshold of five million dollars in cash, the greater part of assets were claims from the SFRJ on the basis of old foreign currency savings deposited (22.9%) and short-term loans (22.8%), contaminated assets reached 13.6%, only 11 banks had adjusted relative indicators with the standards while almost 51 banks had more than three incompatible indicators (Vuković 2009, p. 47).

Rehabilitation of banking sector in Serbia was impossible without privatization of state owned banks. The largest domestic banks were taken over from large foreign financial institutions and now they are dominant in banking system in Serbia. At the largest wave of consolidation of banks in foreign ownership has reached record at the end of 2006 (22 banks), while the number of banks in domestic ownership fell from 38 banks to 15 banks in just three years. The entry of foreign banks made banking marketplace much more stable and reliable.

From all the above it can be concluded that events in the Serbian banking market in the last ten years reflect process of consolidation. The above change is reflected in the absolute movement in the number of the banks. At the beginning of 2003, the number of banks was 50, while in the first quarter of 2015 the number of banks fell to 29, representing a decrease of 21 banks for a period of 12 years. Regarding the ownership, the situation moved in favor of foreign ownership, primarily by taking over domestic banks, but also the establishment of subsidiaries of banks in Serbia.

2. The concentration of market

For economists, the concentration is amount of market power in the industries. The market power means the level of impact which only one company, or small number of companies has over the key decisions in some industry. In other words, market power is an ability of the company to increase the price (above the marginal costs) without lowering its own sale in total.

Some studies examined connection between bank concentration and macro and micro indicators of overall condition of economy. On one side, studies find negative effects from high concentration including less new firm creation, expansion, and employment; less economic growth and slower exit of mature firms (Cetorelli & Strahan 2002, pp. 617-648; Beck, Demirgüç-Kunt & Levine 2003, p. 263). On the other side, studies find favorable effects of high concentration like higher growth rates and easier access to credit by new firms and small and medium firms (Bonaccorsidi & Gobbi 2001, p. 404).

Considering that there are researches which support both theories it is difficult to conclude if the concentration is positively or negatively correlated to industry development and thereby to effectiveness and development of the banking sector.

3. Indicators of the concentration degree

To estimate the concentration of supply within one branch, economic theory provided a large number of indicators. The researchers use different indicators of concentration. These indicators are measuring a degree of supply's concentration and also perceiving the natural competition between companies on the observed market and at the given point of time.

In the sequel of this paper will be considered the most common methods of measuring the concentration of the market, and they are CR and Herfindahl-Hirschman Index.

3.1. Ration concentration (CR_k)

Ration concentration (CR_k) is a measure of the total output produced by a given number of companies in the observed industry. It is usually used to show the extent of market control by major companies and to illustrate

the level in which the industry is oligopolistic. The most used ratio concentrations are (Hanić, Kočović & Jovović 2012, p. 159-160):

- Ratio concentration of four companies (CR4), which measures total market participation of four largest companies in the industry and
- Ratio concentration of eight companies (CR8), which measures total market participation of eight largest companies in the industry.

Concentration ratios can also be calculated for any other number of companies. In general, the concentration ratio, denoted by CR_k represents the cumulative market percentage of the largest enterprises:

$$CR_k = \sum_{i=1}^k s_i$$

Where s_i is the market participation of the k company, and k is a number of companies.

The values of the concentration ratio vary between 0% and 100%, indicating market structure characterized by an absence of concentration, full, low, medium or high concentrations:

- Without concentration: 0% indicates perfect competition or the least monopoly competition. If the ratio CR4 is 0%, the four largest companies in the industry will not have significant market participation.
- Total concentration: 100% indicates an extremely concentrated monopoly. If CR1 ratio equal is to 100%, it is a monopoly.
- Low levels of concentration: from 0% to 50%. Given market structure is in the range of perfect competition to oligopoly.
- Medium concentration: from 50% to 80%. Industry whose ratio is within the specified range of concentration is likely oligopoly.
- High concentration: from 80% to 100%. Given market situation in the range of oligopoly to monopoly.

The advantages of the mentioned measures are in the simplicity of calculation. For calculating of the indicators, with data of total industry sales, information about selling the largest industrial companies are needed. It is not necessary to know the value of every single company, which can facilitate the task, particularly when it comes to industries with large numbers of subjects. It is enough to just follow some of the biggest (Tipurić, Kolaković & Dumičić 2002, p. 4).

Ratio concentration definition does not use the market shares of all companies in the industry and gives no insight into the distribution of the size of the company. These measures do not provide information about important details concerning the competition of given industry. The ratio concentration signalizes only oligopolistic nature of the industry and indicates the level of competition.

3.2. Herfindahl-Hirschman's Index

The US Justice Department in 1968 issued an instruction for integration in which are specified types of integration that should be prevented. Under these laws the Ministry of Justice has given specific definitions of percentage share of the market highly-concentrated and low concentrated industries. These guidelines have relied on the ratio of the concentration and it was considered to be a branch a highly concentrated if the four largest companies have a 75% market share. As a response to the shortcomings of concentration coefficient in 1982 appeared the Herfindahl-Hirschman Index.

Herfindahl-Hirschman Index is a measure of the company size compared to the industry (industry group, region of production or services) to which the company belongs, and as such is an important indicator of the degree of competition between bidders - companies from observed industries. The importance of this index is reflected in the fact that he recognizes the market participation of all companies, especially react to the appearance of those with a high participation (Hanić, Kočović & Jovović 2012, p. 157), It is easily seen from the form to calculate the Index, which is also called the HHI Index.

$$HHI = \sum_{i=1}^N s_i^2$$

s_i represents a market participation of i company, and N is the total number of firms in the market. For example, in a market in which there are two companies - suppliers with a share of 50%, Herfindahl Index is 1/2: $HHI = 0.502 + 0.502 = 1/2$.

The competent authorities of the United States have set the following standards or limit values of this index:

- If the post integration HHI is below 100 indicates a high level of competition in the market.

- If the post integration HHI is between 100 and 1,000, the market is Non-concentrated and will not start up the anti-monopoly measures
- If the post integration HHI between 1000 and 1800, the market is moderately concentrated
- If the post integration HHI is above 1,800, the market is highly concentrated. If the integration would increase HHI by less than 50 points, it probably would not be disputed. But if integration would increase the HHI by more than 50 points it would cause a reaction of the competent authorities and initiation of anti-monopoly measures.

This index can be expressed in relative terms when its value ranges in interval from 0 to 1, if the basis for the calculation of market shares are expressed in relative numbers.

There is also the so-called standardized Herfindahl Index (H^*), whose value ranges from 0 to 1, unlike Herfindahl's Index, which takes values ranging from $1/N$ to 1. The index is calculated as follows:

$$H^* = \frac{HHI - 1/N}{1 - 1/N}$$

where N is (as before) the number of companies in the market, HHI predefined Herfindahl-Hirschman Index.

Usability of this statistics (statistical measures) for the purpose of detecting and preventing further formation of harmful monopolies, however, directly depends on the appropriate definition of the market (which relies primarily on the concept of substitution). For example, the statistics calculated for the hypothetical financial sector as a whole, which includes six major participants in the individual market participation of 15%, will indicate the absence of a monopoly in the commercial sector, although let's say one of the participants belong to 90% of current and savings accounts and channels of physical distribution, which then uses his monopoly in determining the amount of the fees, while the other participants are primarily engaged in commercial and investment banking. In such a scenario, the population will be affected by the market dominance of a single company; market in this case is not adequately defined because current accounts and manufactures commercial and investment banking are not mutual substitutes. The problem of defining the market can be manifested in other ways.

For example, one cinema can cover 90% of the film market, but the comparison with video stores, pubs and nightclubs would result in a relatively lower level of vulnerability of the population because of its dominance in the market.

Another problem is to define a geofigureical area. For example, companies can have a single 20% market share, but they occupy different regions of the country and behave as monopolists, and do not compete with each other. The company in one town is not necessarily interchangeable with the company in another town, depending on the importance of local nature activities.

3.3. Problems related to the use of measures of concentration branches

Although processed, coefficients provide important information about the structure of the market (its concentration), still should be noted that there are limitations that should be considered. Some of the problems are:

- **Problem of determining the size of the market.** Defining the market where concentration is measured must involve all the players in this market. It should be noted that the measurement of the concentration will not give the same results when calculating the national and local markets. It may be that at the local level one company is a monopolist on the national not, so well positioned frames of the market affect the quality of the indicators of concentration;
- **Omission of imports and exports.** Samuelson and Nordhaus suggest that conventional indicators include only domestic production and exclusive imports, ignoring foreign competitors. Given that foreign competition is growing, real power of domestic companies is much smaller than indicated by conventional measures of concentration;
- **Change in the concentration of supply.** Over time, place various changes to the tender branches that may affect the concentration indicators. This deficiency is linked primarily to the ratio of the concentration. In fact, any change in market share between the of n firms that enter into the calculation of this indicator does not affect its change even though such changes may affect the degree of concentration of supply. It should be noted another drawback concentration ratio, which is that he gives a summary view of participation of n firms but does not provide information on how that share is distributed between them (Kostić 2008, p. 103).
- **Differences in the methodology applied.** Problems in determining concentrations may occur in relation to what concentration is measured.

Is it in terms of total assets, production, distribution, revenue, number of employees etc. Whether measured by quantity or value indicators (Savić 2000, p. 6).

4. Concentration of Serbian banking sector

Concentration and competition are linked to product markets and geographical areas. Banks provide a multitude of products that do not serve a unique market, and defining a relevant market involves making a preliminary decision about potentially relevant structural characteristics, such as concentration and competition (Bikker & Haaf 2000, p. 63). When it comes to relevant geographical market we are assuming that it is the banking market of Serbia, without dividing the market on major cities. The product definition of a market requires the determination of the range of products which can be assigned to a particular market on the basis of this substitutability in terms of consumer demand. As far as the relevant market for products is concerned, all licensed commercial banks in Serbia will be considered as relevant banking market.

The importance of concentration measure arises from their capacity to display changes in the market structure as well as changes in the market power of banks. The main measures of concentration, through which we will analyze banking sector in Serbia are concentration coefficient and Herfindahl-Hirschman Index, published by the NBS.

4.1. Concentration coefficient

The concentration coefficient shows the extent of the market share of the largest n companies in the sector. The choice of the number n depends on the characteristics of the sector. In a further study of the banking sector in Serbia will be shown the largest market share of five (CR5) and ten (CR10) banks, mainly due to the methodology of the National Bank of Serbia and comparable studies in which analysts define as follows. The main objection to this method of measurement of concentration is the neglect of structural changes within the selected group, which can be explored more detailed analysis (Vukovic 2008, p. 140).

Table 1. CR_5 i CR_{10}

	2012		2013		2014		2015	
	CR_5	CR_{10}	CR_5	CR_{10}	CR_5	CR_{10}	CR_5	CR_{10}
Assets	48%	72%	51.6%	74%	53.6%	76,3%	53,8%	76,2%
Loans	51%	73%	53.2%	75.2%	53.9%	75.4%	53,7%	75,7%
Deposits	49%	73%	50.4%	75.4%	52.5%	77.5%	53,2%	78%

Source: National Bank of Serbia report (2012-1Q 2015)

In the period under both the concentration ratio recorded a slight increase, primarily due to the liquidation of three domestic banks from 2012 to Q12015. However, the Serbian banking sector is competitively segmented in key categories (assets, deposits and loans). Top five banks makes 53.8% of the total assets of the banking sector in total deposits and loans: 53.7% and 53.2%. The two largest banks in Serbia, in the period under review, are Banca Intesa Belgrade, which makes 15.9% and Commercial Bank Belgrade, which makes 13.4% of the total assets of the sector. In the reporting period there were no significant changes in the structure of the fruit of five banks in Serbia (Table 2).

Table 2. *Top five banks in Serbia in 1Q 2015, according to assets*

Bank	Assets (mlrd. RSD)	Market share
Banca Intesa	473	15,9%
Komercijalna banka	406	13,7%
Unicredit Bank Srbija	265	8,9%
Raiffeisen Banka	224	7,5%
Societe Generale banka	222	7,5%

Source: National Bank of Serbia report (1Q 2015)

4.2. *Herfindahl-Hirschmanov indeks (HHI)*

Herfindahl-Hirschman Index covers the basic lack of concentration ratio, since this index measures the impact of bank concentration and not just the leaders. The importance of this index is reflected in the fact that he recognizes the market shares of all companies; especially react to the appearance of those with a high share (this index gives greater weight to large companies).

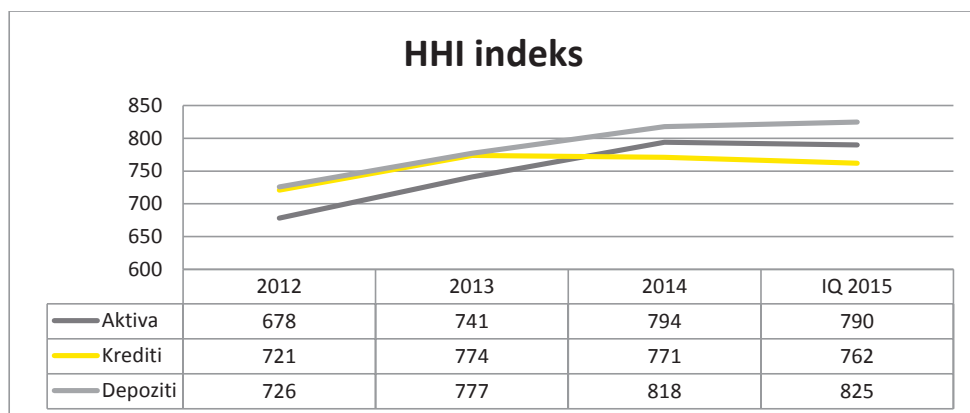


Figure 1. HHI index (2012- 1Q 2015)

Source: National Bank of Serbia report (2012 – 1Q 2015)

Concentration of assets, deposits and loans of banks in Serbia is significantly below the limit of a competitive market of 1,000 points. On average alike are concentrated assets and loans, while the highest concentration noted in the category of deposits (818 points marked increase in the HHI Index from year to year indicates the consolidation of the banking sector in Serbia. This unfavorable trend is partly the result of allocations leadership of banks in the market, primarily Banca Intesa and Commercial banks which increased their market and now accounts for almost one-third of the total assets of the banking sector. Also, the decline in the number of banks affected the increase concentration in the sector.

Rating competitiveness can be completed by comparing the Serbian banking sector with banking sectors in the region and developed countries.

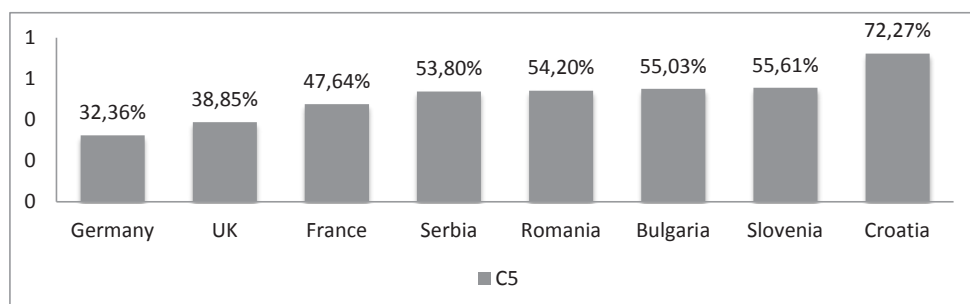


Figure 2. C_5 for 2014

Source: National Bank of Serbia report (2014), ECB statistical warehouse

Comparison with the concentration of asset top five banks in the region shows that Serbia has significantly lower levels of concentration of all regional countries except. The biggest difference is between Serbia and Croatia, while Serbia has good indicators of competitiveness, Croatia is showing signs of oligopolistic structure of banking sector. However, all of those countries, including Serbia, are still behind the most developed EU countries, such as Germany, Britain and France.

HHI Index paints the similar picture as CR_5 concerning concentration in banking sector in Serbia and region (Figure 3).

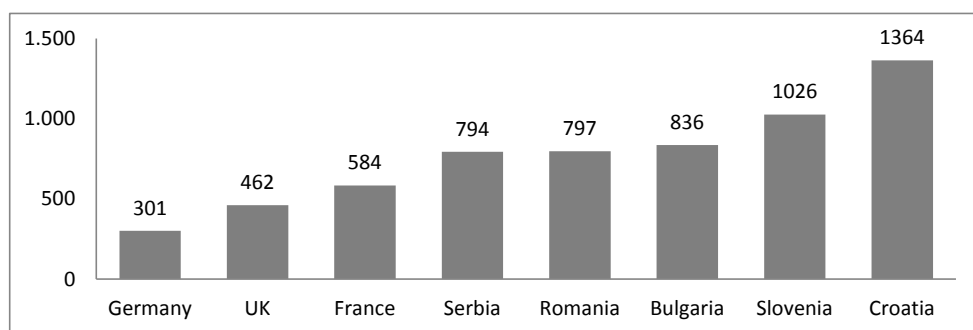


Figure 3. *HHI for Serbia and selected countries for 2014*

Source: National Bank of Serbia report (2014), ECB statistical warehouse

Like CR_5 , HHI Index shows that Serbian banking sector is less concentrated than banking sector in region well under 1000 points which indicates competitive market place. Again Croatia is leading and showing signs of oligopolistic market. Regional countries are far from Germany, UK and France which are significantly less concentrated, especially from Germany and UK which have a lot of number of small and middle size banks.

4.3. *Lending margins*

Concentration of banking sector in Serbia shows signs of good competition among banks but if we want to deeply understand pricing power of the banks we will examine lending margins on loans to non-financial institutions in Serbia compared to selected countries. In figure 5 we can see that Serbia has highest lending margins in the region - more than two times more than Croatia and 1.67 times more than Slovenia. If we look most developed countries in EU, Serbia is not even close – 3.35 times higher from Germany and almost 5 times higher than France.

We can say that Serbian banking market is less concentrated than market of regional countries, but the banks have huge market power, which is reflected in the large lending margins and in comparison to other countries.

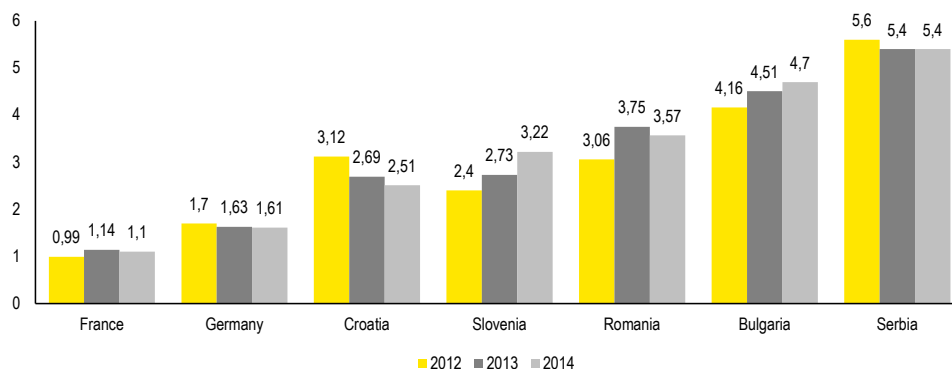


Figure 4. *Lending margins (2012-2014)*

Source: National Bank of Serbia report (2014), ECB statistical warehouse

5. Conclusion

The banking sector of the Republic of Serbia from 2000 until today went through the development process, followed by the changes in banking regulation, consolidation and the entry of foreign banks into the job market. Consolidation of banking sector in Serbia is not finished. Market concentration indicators such as Concentration coefficient (CR_n) and HHI Index show that Serbian banking sector is weakly concentrated, but concentration is growing from year to year. CR_5 Index rose from 48% to 53,8% and HHI Index rose from 678 point to 790 points from 2012 looking in bank assets. We can expect further increase of concentration of banking sector through sales of remaining state owned banks. Banks in Serbia have high pricing power that resulted in the highest lending margins in the region. We can see different results of consolidation in different countries. For example, in Croatia consolidation of banking sector is constantly lowering landing margins, but in Romania and Bulgaria that are significantly less concentrated lending margins are much higher. Considering different examples, we cannot say for sure where Serbian market is heading to but we can expect that landing margins should decrease in following years.

Current situation shows low degree of market concentration but high pricing power of banks in Serbia. In this paper we have focused on indicators used by the NBS. For a more detailed and clearer picture of the situation

it is necessary to calculate other indicators of market concentration (Jinny's coefficient, Hall Tideman and Rosenbluht Index, Horvat Index, Hannah-Kay's Index and coefficient of entropy) which is recommendation for further research.

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RANKING BANKS IN THE FEDERATION OF BOSNIA AND HERZEGOVINA USING MULTIDIMENSIONAL ANALYTICAL HIERARCHY PROCESS

RANGIRANJE BANAKA U FEDERACIJI BOSNE I HERCEGOVINE UPOTREBOM VIŠEDIMENZIONALNOG ANALITIČKOG HIJERARHIJSKOG PROCESA

Abstract

In current practice, ranking of the commercial banks in the FBiH, mainly, was based on a single criterion or indicator of bank performance. The main objective of this research is to create a multidimensional model for the ranking of commercial banks in the FBiH. The model includes quantitative criteria of bank performance. As the quantitative criteria there were used selected financial indicators (Liquidity, Efficiency, Profitability and Capital Ratios). Scientific contribution of the research is to create a multidimensional model, which also involves a number of individual indicators and construction of synthetic weights on the basis of which it can make ranking of banks in the FBiH.

Main sources of data used in this study are collected from the financial statements of the banks operated in the territory of the FBiH in 2013. The results showed a statistically significant difference in the ranking of banks in the FBiH on the basis of absolute and relative performance indicators. Also, there is statistically significant difference in the ranking of banks in the FBiH on the basis of single and multi-dimensional indicators.

Keywords: AHP, multidimensional decision making, commercial banks, ranking, financial indicators

JEL: G21, C30

Sažetak

U dosadašnjoj praksi rangiranje banaka u FBiH, uglavnom, se zasnivalo na pojedinačnim kriterijima odnosno pojedinačnim finansijskim pokazateljima poslovanja banaka. Osnovni cilj ovog istraživanja jeste kreiranje multidimenzionalnog modela za rangiranje banaka u FBiH. U kreirani model su uključeni kvantitativni kriteriji. Kao kvantitativni kriteriji korišteni su odabrani finansijski pokazatelji poslovanja banaka (pokazatelji likvidnosti, pokazatelji efikasnosti, pokazatelji profitabilnosti, pokazatelji adekvatnosti kapitala). Naučni doprinos istraživanja ogleda se u kreiranju multidimenzionalnog modela koji istovremeno uključuje veći broj pojedinačnih pokazatelja poslovanja i izgradnji sintetičkih pondera na bazi kojih se može izvršiti rangiranje banaka u FBiH.

Osnovni izvor podataka u ovom istraživanju predstavljaju podaci dobijeni iz finansijskih izvještaja banaka koje posluju na teritoriju FBiH u 2013. godini. Rezultati pokazuju da postoji statistički značajna razlika u rangiranju banaka u FBiH na bazi apsolutnih i relativnih pokazatelja poslovanja. Također, postoji statistički značajna razlika u rangiranju banaka u FBiH na bazi pojedinačnih i multidimenzionalnih pokazatelja poslovanja.

Keywords: AHP, multidimenzionalno odlučivanje, komercijalne banke, finansijski indikatori

JEL: G21, C30

1. Introduction

Successful operations of commercial banks is often understood and measured through the prism of a single business indicator. However, the fact is that research shows multidimensionality of successful operations of banks, which is reflected in numerous financial performance indicators. The paper used 16 different financial performance indicators grouped into 4 main groups of indicators (liquidity, efficiency, profitability, and capital ratios). In the ranking of commercial banks it is important to answer on two key questions: (a) What is the most successful bank according to multiple dimensions of business? (B) Which is the most important dimension of business for the comparison and ranking of banks?

Developing a suitable model for ranking of banks has multiple relevance for all stakeholders (depositors, creditors, investors and regulators of the state). However, the most benefit from adequate ranking of banks has their own depositors. Timely identification of the successful bank depositors can avoid the loss of invested capital or at least minimize it. Furthermore, the state or state agencies responsible for monitoring banks' operations, is useful to

realize that banks are stable according to financial and management aspects of the business. Also, investors in banks have a great interest to identify profitable investment opportunities to invest their capital.

This study aimed to analyze the possible determinants of success of bank operations, identify key dimensions (variables) that contribute most in the ranking of banks and create a multi-dimensional model to rank of banks in FBiH.

2. Literature review

Traditionally, measuring the performance of banks is based on the analysis of financial indicators. In previous practice in BiH there has not been developed a comprehensive model that adequately to analyze and evaluate business performance of banks includes multiple business indicators simultaneously. The researchers in BiH have used many single indicators to assess the bank performance.

According to available literature, researchers in BiH found significant relationship between the bank performance and its single financial indicators such as Assets, Assets per employee, Total Capital, Shareholders' Equity, Total Profit (Losses) per Employee, ROE (%), ROA (%), Deposits growth (%), Total deposits, Deposit growth and Number of Employees (Simić 2014, pp. 4-10); Total capital, Assets, Net Profit (Losses), Total deposits, Loans and Receivables, Number of Employees, Assets per employee, ROA (%), ROE (%), Capital / Assets (%), Shareholders' Equity (Dmitrović 2012, pp. 20-31) and other. These papers contain single rank list according to single absolute and/or relative indicators of bank performance.

According to available literature in other countries, most researchers found significant relationship between the bank performance and its multiple financial indicators simultaneously (Önder, Taş & Hepşen 2012, pp. 475-478; Hunjak & Jakovčević 2012, p. 154; Dragašćević 2012, pp. 172-173; Celen 2014, p. 59; Bhandari & Nakarmi Soltani 2014, p. 3; Soltani et al. 2013, pp. 481-483; Kumbirai & Webb 2010, pp. 39-40; Čehulić, Hunjak & Begičević 2011, pp. 191). These financial indicators are given in summary in Table 1.

Table 1. *Financial indicators used in AHP in previous papers*

<div> <div></div> <div>Researchers</div> </div>	Önder, Taş & Hepşen ¹ (2012)	Hunjak & Jakovčević (2012)	Dragašević (2012)	Celen (2014)	Bhandari & Nakarmi (2012)	Kumbirai & Webb (2010)	Čehulić, Hunjak & Begićević (2011) ²
Indicators							
Shareholders' Equity / (Credit Risk + Market Risk + Operational Risk)	x			x			
Shareholders' Equity / Total Assets	x			x			
(Shareholders' Equity-Permanent Assets) / Total Assets	x			x			
Net on Balance-sheet Position / Total Shareholders' Equity	x			x			
N(on+off) Balance-sheet Position / Total Shareholders' Equity	x			x			
TC Assets / Total Assets	x			x			
TC Liabilities / Total Liabilities	x			x			
FC Assets / FC Liabilities	x			x			
TC Deposits / Total Deposits	x			x			
Total Deposits / Total Assets	x			x			x
Funds Borrowed / Total Assets	x			x			
Financial Assets (Net) / Total Assets	x			x			
Total Loans and Receivables / Total Assets	x			x		x	x
Total Loans and Receivables / Total Deposits	x	x		x	x	x	x
Liquid Assets / Total Assets	x		x	x	x		x
Liquid Assets / Short-term Liabilities	x			x			x
TC Liquid Assets / Total Assets	x			x	x		
Liquid Assets / (Deposits + Non-Deposit Funds)	x					x	
Net Profit (Losses) / Total Assets	x	x		x	x	x	x
Net Profit (Losses) / Total Shareholders' Equity	x			x	x	x	x
Income Before Taxes / Total Assets	x			x			
Net Interest Income After Specific Provisions / Total Assets	x			x			
Net Interest Income After Specific Provisions / Total Operating Income	x			x			

Non-Interest Income (Net) / Total Assets	x			x			
Non-Interest Income (Net) / Other Operating Expenses	x			x			
Total Income / Total Expense	x					x	x
Personnel Expenses / Other Operating Expenses	x			x			
Other Operating Expenses / Total Asset	x			x			
Cash and cash equivalent +cash due from fin. Inst. / Total deposits		x	x				
Total loans / Total deposits		x	x				x
Net cash flow from operating activities / Total cash flow		x					
Operating cost / Operating income		x	x				
Loan loss reserves / Gross loans		x	x			x	
Provisions for loans / Net interest income		x					
Operating income / Total number of employees		x	x				
Profit before taxes / Equity		x	x				
Profit before taxes / Asset		x	x				
Profit before taxes / Operating income		x	x				
Total liabilities / Equity		x	x				
Equity / Loans		x	x				
Total deposits / Equity		x	x				
Capital adequacy ratio		x	x				

Source: Authors

3. Data and methodology

3.1. Data

The statistical data set in this study includes 17 commercial banks operating in Federation of Bosnia and Herzegovina in 2013. The data set is collected from the Annual financial reports of Central bank of BiH, Condensed reports of external auditors on financial statements of banks in FBiH for 2013 and Annual financial statements of banks in FBiH for 2013. The selection of major criteria and sub criteria were based on literature findings and on the basis of questionnaire conducted among managers of banks and experts from bank industry.

3.2. Methodology

The Analytic Hierarchy Process (AHP) represents multi-criteria model for decision making which results in a better solution of the problem research

by initially separating complex problem into smaller ones and obtaining separate solutions. Hierarchical structure of the AHP model, developed by Thomas L. Saaty, is divided into three parts: goal (top), criteria (middle) and alternatives or possibilities (bottom).

Comparison in pairs is, with hierarchies, the most important thing for multi criteria decision making by using hierarchies. A_i and A_j are two alternatives that we want to compare in accordance with the criteria K_p . We have the following possibilities: (a) decision maker is indifferent - alternatives A_i and A_j are equally preferred in accordance with the criteria K_p ; (b) decision maker prefers alternative A_i over A_j compared to the criteria K_p ; (c) decision maker prefers alternative A_j over A_i compared to the criteria K_p . It is not important to state only the preferred alternative but also determine the weight of the preference. Following table represents Saaty's scale for comparison of relative importance of elements in AHP model.

Table 2. *Saaty's scale for comparison of relative importance of elements*

Evaluation priorities	Definition	Explanation
1	Equal Importance	Two activities contribute equally to the objective
2	Weak or slight	
3	Moderate importance	Experience and judgment slightly favor one activity over another
4	Moderate plus	
5	Strong importance	Experience and judgment strongly favor one activity over another
6	Strong plus	
7	Very strong or demonstrated importance	An activity is favored very strongly over another; its dominance demonstrated in practice
8	Very, very strong	
9	Extreme importance	The evidence favoring one activity over another is of the highest possible order of affirmation

Source: Saaty 2008, p. 86

In the previous table, mentioned descriptive preferences are adjoined to the proper scale. If alternative A_j is chosen over alternative A_i , scale is uniquely determined on the basis of mentioned values. The following equation is

always satisfied: $a_{ij} = \frac{1}{a_{ji}}$. On the basis of mutual comparison of all objects (elements), matrix of comparison is formed and denoted as matrix A. Matrix

A, which represents ratios of relative weighted coefficients of elements i and j , is presented by the following:

$$A = \begin{matrix} & K_1 & K_2 & \dots & K_m \\ \begin{matrix} K_1 \\ K_2 \\ \dots \\ K_m \end{matrix} & \begin{bmatrix} a_{11} & a_{12} & \dots & a_{1m} \\ a_{21} & a_{22} & \dots & a_{2m} \\ \dots & \dots & \dots & \dots \\ a_{m1} & a_{m2} & \dots & a_{mm} \end{bmatrix} \end{matrix} \quad (1)$$

There are various methods of extraction of values of weights which could be close approximations for corresponding elements of matrix A. Saaty used potential method for obtaining eigenvector. He recommended that unique value λ_{\max} should be used as maximum value for matrix A. Corresponding vector of unique values of matrix A can be used as vector of approximate values of weights $w = (w_1, w_2, w_3, \dots, w_m)^T$. Matrix A for the case of consistent assessments for which $a_{ij} = a_{ik} \cdot a_{kj}$ satisfies the equation:

$$A \cdot w = m \cdot w \quad (2)$$

If the matrix A is multiplied from the right side with vector $w = (w_1, w_2, w_3, \dots, w_m)^T$, the following is obtained:

$$Aw = \begin{bmatrix} \frac{w_1}{w_1} & \frac{w_1}{w_2} & \dots & \frac{w_1}{w_m} \\ \frac{w_2}{w_1} & \frac{w_2}{w_2} & \dots & \frac{w_2}{w_m} \\ \dots & \dots & \dots & \dots \\ \frac{w_m}{w_1} & \frac{w_m}{w_2} & \dots & \frac{w_m}{w_m} \end{bmatrix} \begin{bmatrix} w_1 \\ w_2 \\ \dots \\ w_m \end{bmatrix} = m \begin{bmatrix} w_1 \\ w_2 \\ \dots \\ w_m \end{bmatrix} \quad (3)$$

Vector of unique values in the matrix A (vector w) is calculated by solving the system of homogeneous linear equations:

$$\begin{aligned} Aw &= \lambda w \\ e^T w &= 1 \end{aligned} \tag{4}$$

where: λ - main unique characteristic of matrix A

e - n component unit vector, $e^T = (1, 1, 1, \dots, 1)$

If decision maker is consistent, then $\lambda = m$ and usually $\lambda > m$. Previous system of linear equations has non-trivial solution if and only if m is unique value of matrix A - if determinant of matrix $(A - mI)$ is equal to zero. After the vector of weights w is determined by using any of the mentioned methods, it is multiplied by weight of element from upper level which was used as a criterion for comparison. The same procedure is repeated from the top of hierarchy to the lower levels of hierarchy. Procedure in the AHP model is consisted of four phases (Saaty 2008, p. 85):

- a) Definition of the problem of decision making with the goal on top, criteria at lower levels and alternatives on the bottom of the hierarchies;
- b) Determination of the most important criteria – benchmark of criteria;
- c) Determination of the most significant alternative – benchmark of alternatives;
- d) Determination of the final solution (goal) – synthetic benchmark.

It is necessary to develop hierarchical model of problem of decision making with defined goal on the top, defined criteria at the lower levels and chosen alternatives on the bottom of the hierarchies in the first phase. Elements of the structure on each level of hierarchical structure are compared in pairs. Preferences of decision makers are expressed using appropriate scales which are consisted of nine levels of descriptive intensities and corresponding numerical values for those in the interval from one to nine (as it was described in the Table 1). The AHP method has the ability to identify and analyze the consistency of the decision maker which can occur in the process of judgment and valuation of elements of hierarchy. In order to measure the degree of consistency of decisions (CR), Saaty recommended consistency index CI which has the following mathematical representation:

$$CI = \frac{\lambda_{\max} - n}{n - 1} \tag{5}$$

where λ_{\max} is maximum unique value of comparison matrix $\left(\lambda_{\max} = \frac{1}{n} \sum_{i=1}^n \lambda_i \right)$.
As λ_{\max} is closer to number n the inconsistency will be smaller.

4. Results

Choice of best bank is not unambiguous because according to one criterion, one bank is the best; according to second criterion, other bank is better; according to third, third bank is the best, etc. While constructing the AHP model, we have to know that goal is to rank banks from the best one to the worst one and those criteria can be chosen according to various characteristics. Questionnaires was conducted among bank managers and bank industry experts and according to its results, following criteria are included into analysis:

Table 3. *Criteria*

Criteria	Sub criteria	Name of criteria
Liquidity (L)	L1	Cash, cash equivalents, gold and receivables from operations / Liabilities due to deposits and loans
	L2	Liquid assets / Total assets
	L3	Net cash flows from operating activities / Cash and cash equivalent at beginning of period
Efficiency (E)	E1	Interest income / Interest expense
	E2	Fee and commission income / Fee and commission expenses
	E3	Total assets / Number of employees
	E4	Provisioning for impairment losses / Net interest income
	E5	Total operating income / Number of employees
Profitability (P)	P1	Return on equity
	P2	Return on assets
	P3	Net profit / Total operating income
Capital Ratios (C)	C1	Total Liabilities / Shareholder capital
	C2	Total Liabilities / Total Equity
	C3	Shareholder capital / Liabilities due to deposits and loans
	C4	Capital adequacy ratio
	C5	Total equity / Total Equity and Liabilities

Source: Authors

Mentioned criteria include quantitative indicators which are actually standard financial ratios of special aspects of performance banks. Alternatives are the banks. Hierarchical structure of AHP model can be seen as the one on Figure 1. Each bank was compared according to each of 16 criteria in pairs. In order to make the ranking list of banks, it is necessary to evaluate relative importance of alternatives according to each pair and each criterion.

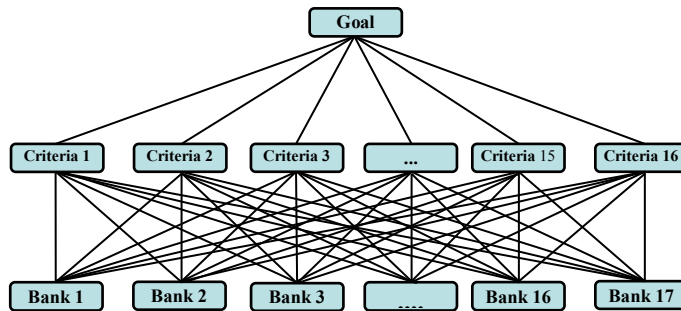


Figure 1. *The hierarchical structure of the AHP model*

Source: Authors

Assessment of the relative importance of criteria in pair was conducted in two separate ways:

- a) Model 1 (all criteria have the same relative importance) and
- b) Model 2 (relative importance of criteria is benchmarked on the basis of questionnaires conducted on management of banks and experts from practice).

Model 1

Based on the relative importance of criteria, benchmarks of 16 criteria have been calculated in program Expert Choice 2000. All criteria have the same benchmark which is equal to 0.0625. For each of 16 criteria in Table 3 nine different levels of intensities were determined which were derived on the basis of interval to which their values belong. Intervals were determined according to the principle figureically explained in the Figure 2. The levels of intensities of criteria were used as entry information in the AHP model.

Border values	Min-C11	C11-C22	C22-C33	C33-C44	C44-C56	C56-C67	C67-C78	C78-C89	C89-Max
Level of intensity of criteria	1	2	3	4	5	6	7	8	9

Min–Lowest value of criteria (indicators); Max–Highest value of criteria (indicators); C11, C22, C33, ... , C89 – Centils of value criteria (indicators)

Figure 2. Scale for determination of border values of criteria and levels of intensity of criteria

Source: Authors

The values of financial indicators of the bank performance and the levels of intensities of criteria are given in Table 4 and Table 5.

Table 4. Values of financial indicators

Criteria	Liquidity			Efficiency					Profitability			Capital Ratios				
Sub criteria	L1	L2	L3	E1	E2	E3	E4	E5	P1	P2	P3	C1	C2	C3	C4	C5
BOR Banka	0.004	0.058	0.058	2.59	8.15	3968562	2.31	233878	0.022	0.003	0.045	6.86	4.34	0.187	0.217	0.119
BBi	0.137	0.058	0.058	2.09	11.40	3468239	1.90	106740	0.037	0.003	0.100	5.95	5.46	0.171	0.194	0.083
Hypo Alpe Adria Bank	0.769	0.058	0.058	2.58	5.35	2362699	2.47	158909	-0.553	-0.096	-1.433	2.68	2.27	0.401	0.179	0.174
Intesa Sanpaolo Banka	0.154	0.058	0.058	2.89	9.44	2892026	1.10	193332	0.348	0.010	0.153	25.60	6.13	0.043	0.147	0.061
Investiciono-komercijalna banka	0.569	0.058	0.058	3.37	3.81	1236385	1.46	62381	0.050	0.010	0.198	3.30	2.55	0.309	0.474	0.198
Komercijalno-investiciona banka	0.567	0.058	0.058	2.10	15.27	1118642	0.28	88828	0.079	0.015	0.189	3.26	2.06	0.320	0.150	0.189
MOJA BANKA	0.352	0.058	0.058	1.97	5.18	2730447	2.48	83123	0.008	0.001	0.018	5.92	8.29	0.189	0.135	0.070
NLB Banka	0.089	0.058	0.058	2.24	5.13	3483895	1.80	139264	0.109	0.003	0.068	18.73	8.98	0.057	0.151	0.025
PBS	0.179	0.058	0.058	1.68	7.05	2031593	11.73	71595	-0.504	-0.052	-1.463	3.77	6.26	0.278	0.123	0.102
ProCredit Bank	0.149	0.058	0.058	2.45	6.87	1221242	0.76	95908	0.021	0.003	0.035	6.09	7.42	0.177	0.155	0.130
Raiffeisen Bank	0.249	0.058	0.058	3.74	7.46	3030379	1.27	170080	0.176	0.009	0.163	13.60	6.45	0.075	0.180	0.052
Sberbank BH	0.101	0.058	0.058	2.87	12.69	5184457	1.16	133105	0.058	0.001	0.050	15.81	6.20	0.065	0.148	0.035
Sparkasse Bank	0.109	0.058	0.058	3.43	6.73	2377503	1.95	162903	0.098	0.008	0.113	9.85	7.49	0.104	0.136	0.081
UniCredit Bank	0.153	0.058	0.058	4.46	7.55	3661524	1.32	201034	0.464	0.012	0.218	26.56	5.47	0.040	0.200	0.036
Union banka	0.421	0.058	0.058	2.18	4.91	3952446	1.40	55265	0.015	0.001	0.046	5.57	3.68	0.185	0.359	0.043
Vakufska banka	0.314	0.058	0.058	2.08	8.99	2942143	2.71	78655	-0.118	-0.008	-0.294	5.43	5.16	0.188	0.125	0.072
Ziraat Bank BH	0.157	0.058	0.058	4.83	22.68	3151961	0.56	95575	0.032	0.003	0.087	5.41	4.47	0.188	0.203	0.083

Source: Authors

While comparing the banks based on one criterion, their local weights were obtained by assessment of their relative importance according to Saaty's scale. After determining relative relations between the criteria and relative relations according to criteria, total benchmark which takes into account both weights of criteria and weights of alternatives compared to individual criteria is calculated and in the end it gives the ranking of alternatives.

Table 5. *Levels of intensities of criteria*

Criteria	Liquidity			Efficiency					Profitability			Capital Ratios				
Sub criteria	L1	L2	L3	E1	E2	E3	E4	E5	P1	P2	P3	C1	C2	C3	C4	C5
Type of criteria	Max	Max	Max	Max	Max	Max	Min	Max	Max	Max	Max	Min	Min	Max	Max	Max
Min	0.004	0.058	-0.202	1.68	3.81	1118642	0.279	55265	-0.553	-0.096	-1.463	18.73	8.98	0.187	0.217	0.119
C11	0.098	0.102	0.065	2.06	5.07	1232751	0.714	69383	-0.211	-0.018	-0.567	26.56	5.47	0.171	0.194	0.083
C22	0.123	0.116	0.192	2.09	5.27	2203768	1.127	80978	0.012	0.001	0.027	3.77	6.26	0.401	0.179	0.174
C33	0.150	0.136	0.266	2.19	6.77	2476327	1.285	90717	0.021	0.002	0.045	3.26	2.06	0.043	0.147	0.061
C44	0.154	0.153	0.302	2.45	7.07	2894031	1.406	96341	0.032	0.003	0.051	3.30	2.55	0.309	0.474	0.198
C56	0.178	0.165	0.352	2.59	7.55	3026850	1.789	132050	0.050	0.003	0.086	9.85	7.49	0.320	0.150	0.189
C67	0.296	0.215	0.394	2.89	8.75	3379681	1.938	153408	0.073	0.006	0.109	5.43	5.16	0.189	0.135	0.070
C78	0.385	0.289	0.453	3.40	10.38	3569157	2.388	166348	0.104	0.010	0.158	13.60	6.45	0.057	0.151	0.025
C89	0.568	0.392	0.807	3.91	13.31	3956314	2.532	195181	0.217	0.011	0.191	5.41	4.47	0.278	0.123	0.102
Max	0.769	0.426	5.257	4.83	22.68	5184457	11.729	233878	0.464	0.015	0.218	6.09	7.42	0.177	0.155	0.130
Min	0.004	0.058	-0.202	1.68	3.81	1118642	0.279	55265	-0.553	-0.096	-1.463	2.68	2.27	0.075	0.180	0.052
C11	0.098	0.102	0.065	2.06	5.07	1232751	0.714	69383	-0.211	-0.018	-0.567	5.92	8.29	0.065	0.148	0.035

Source: Authors

Based on the results obtained using the AHP method, we have created ranking list of the banks for the year 2013. The best bank is Investiciono-komercijalna bank, followed by Unicredit Bank, Raiffeisen Bank, Komercijalno-investiciona bank and Intesa Sanpaolo Bank.

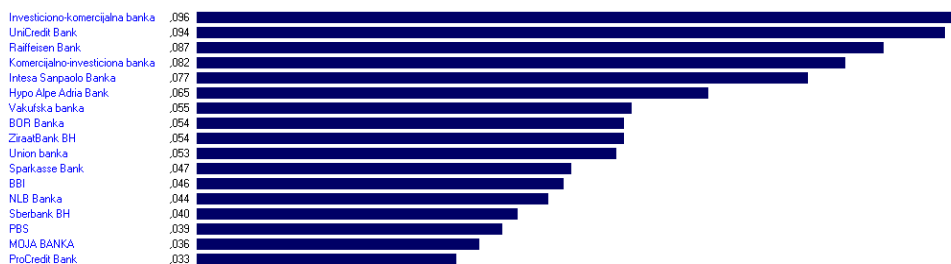


Figure 3. Rank list of banks for 2013 year (equal ponders)

Source: Authors

Special benefit of the AHP method is possibility of measurement of consistency of subjective assessment of researcher. If all assessments are consistent, then consistency index will be equal to 0. However, in reality, many situations are not consistent and therefore, allowed value of degree of consistency is up to 0.1 (10%). In our model, level of inconsistency is equal to 0.0.

Model 2

In the Table 6, grades of priority of criteria are given based on results of questionnaires. Using the program Expert Choice 2000, benchmarks of criteria were determined based on questionnaires and they are shown in the Figure 4.

Table 6. Average grades of priority of criteria based on questionnaires

Financial Indicators	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Financial Indicators
Liquidity							x											Efficiency
Liquidity										x								Profitability
Liquidity									x									Capital Ratios
Efficiency										x								Profitability
Efficiency											x							Capital Ratios
Profitability								x										Capital Ratios

Source: Authors



Figure 4. Ponder of indicators

Source: Authors

Levels of intensities within individual criteria were determined in the same way as for *Model 1* and were afterwards used as entry data for *Model 2*. After we determined relative relations between criteria and relative relations between alternatives according to criteria, we calculated total benchmark which incorporates both weights of criteria and weights of alternatives compared to individual criteria. In the end, we obtain rankings of alternatives as it is represented on Figure 5.

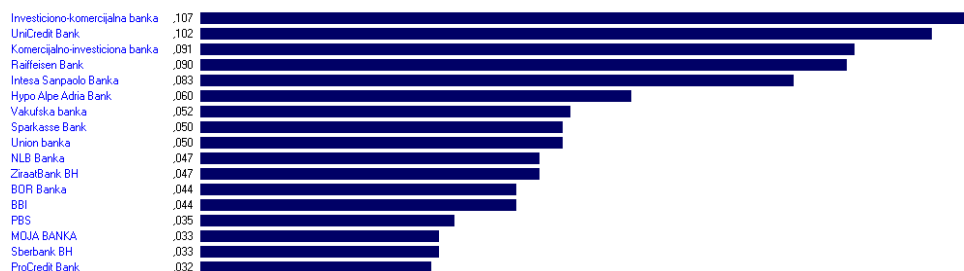


Figure 5. Rank list of banks for 2013 year (unequal ponders)

Source: Authors

The results obtained by the AHP method point that the best bank is Investiciono-komercijalna bank and it is followed by UniCredit Bank, Komercijalno-investiciona bank, Raiffeissen Bank, Intesa Sanpaolo Bank and Hypo Alpe Adria Bank. Degree of inconsistency in our model is 0.06 which is within limits of the allowed degree of inconsistency. The rank correlation test for agreement in multiple judgments (ranking banks by Total capital, by ROE and by Priority of AHP) is conducted. The null hypothesis of agreement between the judgments is rejected ($F_e = 4.16 > F_{16; 34; 0.05} = 1.95$).

5. Discussion and concluding remarks

In the research part of the work, on the basis of data from the reports of Annual financial reports of Central bank of BiH, Condensed reports of external auditors on financial statements of banks in FBiH for 2013 and Annual financial statements of banks in FBiH for 2013, the multi-dimensional AHP model of decision making is applied. The goal of this paper was to create ranking lists of the banks from the least to the most successful one and we used 16 indicators of performance of the banks as criteria. Alternatives were the 17 banks in FBiH. Mathematical model of this method was based on mutual comparison of relative relations between criteria and relative relation of alternatives according to criteria. Preferences of decision maker are expressed by the means of Saaty's scale because the assumption was that intensity of preferences between two alternatives can be expressed by using scales. For each of 16 criteria, we have determined ten levels of intensities which were derived on the basis of intervals to which their values belong. Therefore, it was necessary to assess individual importance of alternatives according to all pair and all criteria for the needs of creating ranking lists of banks.

After determining relative relations between criteria and relative relations according to criteria, total ponder is determined which takes into account both weight of criteria and weights of the alternatives in relation to individual criteria. In the end, ranking lists of the banks for the year 2013 were created based on total benchmark. Indicators of performance of the banks are related to a period of one year only (2013). Choosing period of one year was necessary due to difficulties in collecting data and constraints of the work for figureical and table representation of ranking lists of the banks for longer time period. This work showed that application of the AHP method can be used to create adequate ranking lists of banks. This study is particularly based on the data derived from the published annual report of the 17 banks along with financial performance and does not consider Management Efficiency, Market Risks and Customer Satisfaction to evaluate

bank performance. Unavailability and inadequacy of necessary data for the all banks in given period of time was the major constraint for conducting analysis. Therefore, in order to improve the analysis, it is necessary to be able to access all the data about performance of banks.

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Endnotes

- 1 They used many other factors.
- 2 They used many other factors.

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**A FINE LINE BETWEEN STRICT FINANCIAL
REGULATIONS TO PREVENT CRISIS AND FINANCIAL
LIBERALISATION TO SUPPORT DEVELOPMENT:
LEARNING LESSONS FOR BOSNIA AND
HERZEGOVINA**

**TANKA LINIJA IZMEĐU STROGE FINANSIJSKE
REGULACIJE KOJA SPREČAVA KRIZU I FINANSIJSKE
LIBERALIZACIJE KOJA POSPJEŠUJE RAZVOJ:
LEKCIJE ZA UČENJE ZA BOSNU I HERCEGOVINU**

Abstract

Efficient and well-functioning financial system is an essential factor in transforming centrally-planned economy into a market-oriented, globally integrated performer. Prolonged underdevelopment of a financial system increases the overall costs and risks associated with change efforts. Widening and diversifying of financial markets allows for improved allocations of savings and better productivity, new investment opportunities, and improved employment.

One of the important components of a well-functioning financial system is effective regulation that can provide confidence in the system as well as support the transformation. Global experience has taught us that financial liberalisation supports the economy growth, but also that the development efforts do not bring the same results everywhere. Developing countries such as Bosnia and Herzegovina can increase their chances for economic growth through liberalisation,

creating new investments through increased deposits, which also increases the risk of banking crisis due to higher volatility. Therefore, it is important to look at the process of financial liberalisation and integration in combination with regulatory transformation. In case of BiH this also includes the role of the currency board. Policymakers in developing countries such as BiH can find valuable learning lessons in literature and empirical research that can be useful in better understanding the benefits and challenges associated with financial liberalisation. The experience from other countries clearly shows that there is a fine line between progressive liberalisation actions and effective regulations to support the transformation and provide confidence in the financial system. Open communication and encouragement of ideas among the main economic players (including general public) are the key elements in designing a balanced response to financial globalisation and transformation efforts.

The paper addresses some historical elements relevant to predominantly bank-oriented financial systems characteristic to many developing countries such as BiH, as well as pros and cons associated with economic development efforts, currency board, prudential regulation, and supervision practices.

Keywords: transformation of the economy, financial system, financial liberalisation and integration, prudential regulation and supervision, Bosnia and Herzegovina (BiH)

JEL: G18, G21, G28

Sažetak

Efikasan i funkcionalan finansijski sistem esencijalan je faktor u transformisanju centralno-planske ekonomije u tržišno-orijentisanu i globalno integrisanu. Prolongirana nerazvijenost finansijskog sistema povećava ukupne troškove i rizike naporâ za promjenama. Širenje i diversifikacija finansijskih tržišta omogućava napredniju alokaciju štednje i bolju produktivnost, nove prilike za investiranje i unapređuje zaposlenost.

Jedna od važnih komponenti funkcionalnog finansijskog sistema je efektivna regulacija, koja ulijeva povjerenje u sistem i podržava transformaciju. Globalno iskustvo naučilo nas je da finansijska liberalizacija podržava ekonomski rast, ali da ne donosi iste rezultate svugdje. Zemlje u razvoju, kao što je Bosna i Hercegovina, mogu putem liberalizacije povećati njihovu šansu za ekonomskim rastom, kreirajući nove investicije kroz povećane depozite, ali to takođe povećava rizik od bankarske krize usljed veće volatilnosti. Stoga je proces finansijske liberalizacije i integracije važno posmatrati u kombinaciji sa regulatornom transformacijom. U slučaju BiH ovo takođe uključuje ulogu currency board-a. Kreatori politike u zemljama u razvoju, kakva je BiH, u literaturi i empirijskim istraživanjima mogu naći vrijedne lekcije, koje mogu biti korisne za bolje razumijevanje benefita i izazova vezanih za finansijsku liberalizaciju. Iskustvo drugih zemalja jasno pokazuje da u svrhu

podrške transformaciji i obezbjeđenja povjerenja u finansijski sistem postoji tanka linija između progresivnih akcija liberalizacije i efektivne regulacije. Otvorena komunikacija i promocija ideja među glavnim ekonomskim učesnicima (uključujući široku javnost) ključni je element u dizajniranju balansirano odgovora na napore za finansijskog globalizacijom i transformacijom.

Ovaj članak adresira neke historijske elemente relevantne za pretežno bankocentrične finansijske sisteme, koji su karakteristični za mnoge zemlje u razvoju pa tako i BiH, kao i argumente pro et contra pojedinih nastojanja za ekonomskim razvojem, currency board aranžmana, prudencione regulacije i supervizorskih praksi.

Ključne riječi: transformacija ekonomije, finansijski sistem, finansijska liberalizacija i integracija, prudenciona regulacija i supervizija, Bosna i Hercegovina (BiH)

JEL: G18, G21, G28

1. Introduction

Ever-changing financial, social, and political global landscape creates additional challenges for developing countries in their quest to achieve economic growth. In order to join the growing integration in world financial markets, developing countries need to achieve certain standards in financial management that enables them to take equal part in the global business interaction.

The history has shown that, while liberalisation supports the economy growth, the development efforts do not bring the same results everywhere. Developing countries are already disadvantaged in the global economic race and any wrong steps can seriously derail the efforts, further delaying much needed economic growth. Besides, there are many lessons available today that can be effectively utilised by developing countries to learn from the world and be more effective in their efforts to understand the dynamics of the global integrations and apply them to their own internal characteristics. Many developing countries in Europe face additional challenges with regards to economic growth as they strive to meet conditions for European integration, namely acceptance into the European Union. BiH has been highly disadvantaged in these efforts due to war devastations which created social and economic turmoil. With high unemployment and low GDP, shallow market conditions, and limited investment, it is essential that BiH learns as much as possible from the available experiences, so that the future

steps and decisions bring good results and ensure strong development and economic growth.

Traditional centrally-planned economic practices and predominantly bank-oriented financial system are limiting when it comes to attracting new investments. Heavily regulated and restrictive market prevents development of free market conditions and further deteriorates economic efforts. Delays with liberalisation process will not only reduce chances for success, but will also increase the gap between developed and developing economies, making it harder and harder to make any significant progress as the time passes. Furthermore, financial liberalisation is an essential step in the next stage of economic development for countries like BiH, but it is not by itself a guaranty for success. The recent financial crisis has shown the importance of effective regulation, especially in maintaining confidence among investors. The emphasis in the industrialised world today is on the surveillance and supervision of markets, not on centrally planned and directed economy. As globalisation progressed, the changing economic conditions, technology developments, and the world financial landscape also influenced the changes in political attitudes towards controls on financial and capital markets. It is essential that developing countries such as BiH find the correct balance between liberalisation changes and an effective regulatory framework, which will not only encourage new capital flows, but also provide confidence for investors.

This paper will summarise some of the valuable lessons from literature and liberalisation efforts around the world, hoping that some of these experiences will be valuable for developing countries, especially BiH. The paper covers a brief overview of liberalisation, regulation, and the financial crisis, followed by lessons sourced from the literature and summary with recommendations.

2. The context: liberalisation, regulation and the financial crisis

The past few decades have brought various political, economic, and social changes around the globe, shaping the world that we see today. Thanks to the development of technology and information, the world economy is now globally integrated, but still remaining heavily disparate when it comes to wealth distribution, economic practices, and overall financial and economic developments. During this time many countries have implemented various reforms in order to handle global competition, capitalise on opportunities, improve resourcing allocation, develop financial systems, and introduce various policies to support liberalisation (Niels Hermes 2015, p. 2154).

Financial liberalisation involves implementation of a set of measures aimed at eliminating the different restrictions on the financial sector of a country that could hinder the progress of its economy. These measures involve steps such as freeing interest rates, reducing credit controls, and removing restrictions on overseas financial transactions. Both the International Monetary Fund (IMF) and the World Bank (WB) suggested liberalisation as strategy to rescue fragile economies, namely those of developing countries. However, empirical evidence shows that liberalisation can also be cause of crisis (Hamdi 2014, p. 124).

Andreas and Capraru (2013) conducted a research into the effectiveness of liberalisation of Central and Eastern European countries. They found that financial liberalisation improves cost efficiency of banks of the observed countries and that economies with higher level of liberalisation and openness were able to increase cost efficiency and offer cheaper services to clients. The study also claims that dominance of foreign banks on the market does not increase cost efficiency, but the best practices that they bring do impact positively on the banking sector. The study supports the Single European Market principles and encourages foreign banks to enter the Central and Eastern European market (Andries & Capraru 2013, pp. 6-8).

The global financial crisis strongly affected developing countries, highlighting the risks and political importance of liberalizing restrictions on cross-border capital flows. The crisis also emphasised the role and influence of the international non-governmental organisations and their collaboration with individual governments during the handling of crisis (Pinheiro *et al.* 2015, pp. 147-150). This creates a question how to find the most effective balance between financial liberalisation, global integration, internal regulations, and financial system efficiency.

Successful financial liberalisation heavily depends on the quality of the existing regulatory and supervisory framework (Niels Hermes 2015, p. 2154). Financial deregulation has significantly altered the previously bank-dominated financial systems and blurred the lines between commercial banks and other financial institutions such as insurance companies, money market funds, and investment banks (de Araujo *et al.* 2015, pp. 1-3). Strong financial liberalisation movements across countries over the past two decades have created the need for new types of regulatory and supervisory practices – many are included in the Basel III accord, which focuses on increasing bank capital adequacy standards, improving transparency and disclosure by banks

as well as strengthening bank market liquidity risk management. While these practices are primarily aimed at reducing the risk of financial crises in the future, several countries have also introduced practices regarding bank governance and remuneration policies as part of codes of best practices for banks (Niels Hermes 2015, pp. 2169-2170).

Young (2013) investigated how financial industry groups adapted to the changing regulatory environment, in particularly after the crisis. The research observed some discrepancies between financial regulation and industry preferences in the post-crisis period. Financial industry groups have opted for subtle advocacy strategies rather than challenging stringent new policies. Table 1 summarises the changes of the role taken by financial organisations before and after the crisis with regards to different steps in the regulatory policymaking.

Table 1. *Stages of regulatory policymaking before and after the global financial crisis*

	Agenda setting	Policy formulation General parameters	Policy formulation Details	Implementation
Pre-crisis	Very Active Role <i>Proposed Industry Friendly Regulations</i>	Very Active Role <i>Veto Stringent Proposals</i>	Very Active Role <i>Shaping Details of Regulation</i>	Less Active Role <i>Little Emphasis on Implementation</i>
Post-crisis	Active Role <i>Engage in Self- Regulatory Moves to Thwart New Regulation</i>	Less Active Role <i>Relatively Passive Acceptance</i>	Less Active Role <i>Selective Involvement</i>	Very Active Role <i>Seek to Delay Implementation</i>

Source: Young 2013

The study conducted by de Araujo (2015) found the existence of positive correlation between gross holdings of international assets and liabilities and its level of financial deregulation. The research covered 155 countries over the period 1995-2007. The results showed that more freedom is given to the banking system, the higher likelihood that the country will hold large international portfolio positions. Deregulation enables greater competition, lowering costs of transactions, and providing greater variety of financial instruments leading to increase in cross-border trade in assets. The research also indicated that deregulated countries tend to hold a larger portion of their portfolios in equity, while countries with more heavily regulated banking sectors tend to hold long positions in debt. The countries with liberalised banking system tend to be net borrowers in international financial markets as the decrease in lending standards relaxes the borrowing constraints of local

agents and fuels current consumption at the expense of a deteriorating net foreign position (de Araujo *et al.* 2015, pp.1-3).

An important factor to consider when it comes to BiH is the existence and role of the currency board, which controls the inflation and fiscal behaviour. The research in late 1990s (Ghosh 1998) found that countries with currency boards on average achieve 4% lower inflation rate than those without it, which is highly relevant to developing countries. In addition to the inflation rate control, countries with the currency board exchange regime contribute to credibility of their monetary authorities that maintain an exchange rate peg (Pilinkus *et al.* 2011, p. 393). Under the hard peg regime, the central bank has no discretionary powers to pursue monetary policy and is only eligible for maintaining an appropriate level of foreign currency reserves (see Table 2).

Table 2. *Advantages and disadvantages of currency board regime*

Advantages	Disadvantages
Helps to deliver lower inflation; inflation is also less volatile than with floating regime: a) lower money growth rates, b) a higher demand for money (confidence effect) at a given money growth rate	Precludes monetary authorities from running an independent monetary policy: a) no money printing option b) “impossible trinity”
Empirical evidence of faster economic growth in comparison to pegged regimes	Limits the ability of central bank to act as a lender of last resort, lender during the downturn
Stronger political commitment to the regime - often reflected in a central bank law or constitutional amendment: a) deter speculative attacks, b) lower borrowing costs, c) higher credibility	Greater susceptibility to currency and financial crisis, such as: a) debt crisis b) stop in capital flow c) banking crisis
Generates fiscal discipline: a) prohibits direct money financing of government expenditures (no money printing) b) restriction on credit expansion c) better external visibility and high cost of devaluation d) empirical evidence of smaller fiscal deficits	Exchange rate cannot adjust in response to real shocks; often currency is overvalued or undervalued leading to: a) negative impact on economic activity b) tendency to dis-balance the trade
Effect on trade as a result of the stability; similar effect as for countries that adopt a common currency with other countries	Hindering the possibility of developing a local based financial sector
Stable exchange rate, predictability and disciplined rule-based nature (gold standard) which promotes both trade and investments	Stimulates large currency mismatches in the portfolio structures of government and the private sector

Source: Pilinkus *et al.* 2011, p. 394

In the case of BiH, the main advantage associated with the existence of the currency board is related to inflation control, while the main limitations are associated with strong dependency on euro and lack of control over discretionary monetary policy, especially during the financial crisis. It is commonly accepted that the anchor country is directly dependent on financial markets in the currency board country, even when there is not a particularly high degree of real economic integration between the two (Aaron Tornell, 2003). In the case of BiH this means strong dependence on financial conditions of not only one but several foreign economies (all EMU members).

3. Liberalisation experience from around the world

An old proverb says that “it takes a wise man to learn from his mistakes, but even wiser man to learn from mistakes of others”. Another one says “learn from mistakes of others, as you will not live long enough to make them all yourselves”. The second one is more applicable to developing countries, as they do not have the luxury to repeat mistakes that can be avoided, especially knowing that the gap between developed and underdeveloped countries is wider every day. This section of the paper covers some experiences that can be useful to BiH when considering the next steps in liberalisation and economic growth efforts.

3.1. Experiences from Scandinavia and Iceland

Scandinavian countries are known for their welfare-conscious policies and some of the highest standards of living in the world today. Prior to the liberalisation momentum, Scandinavian countries were operating in bank-dominated environment, due to interest rates being controlled by the respective central banks. This meant that the demand for credit continuously exceeded the available supply. The region focused on the employment and welfare, operating in somewhat isolated, heavily regulated conditions (Hongyi *et al.* 2014, pp. 14-15).

Financial liberalisation in Scandinavia started in mid 1980s, with Norway, Finland, and Sweden taking the “big-bang” approach to change, keeping pegged (but adjustable) exchange rates regime. Financial liberalisation started with a lending boom and capital inflows, which turned into crisis during 1990, with capital outflows, bankruptcies, low employment, reduced investments, negative GDP growth, systemic banking crises, currency crises, and depression. Sharp decline in economic activity also caused significant

public budget deficits, so central banks of Finland, Norway, and Sweden were forced to move to flexible rates in order to avert the depression. Removal of regulatory restrictions gave more freedom to the banks and created competition, resulting in a lending boom, which contributed to the increase of asset prices, higher collateral values, further supporting credit expansion. The increase in interest rates had significant impact on financial markets, causing deflation of real assets value, including property prices falling below collateral values. Investment became less valued than savings, construction, and employment fell sharply and overall wealth was significantly reduced. The recovery after the floating of the currencies was also supported by significant exports growth through financial opening and integration (Jonung 2011, pp. 3-5).

Denmark managed to avoid the banking crisis even though the loan losses of Danish banks were significant and a few banks had to be rescued. The main reason for better handling of the crisis was related to more effective timing of the deregulation reforms. Denmark started to deregulate the financial system earlier than the other Nordic countries, making it better prepared for the changes associated with liberalisation, and subsequent financial crisis, enabling the banks to raise new private equity in conjunction with cost-cutting and restructuring operations with very little government intervention (Honkapohja 2008, pp. 19-20).

Privatisation and deregulation in Iceland started with strong government support in 2001, allowing their banks as well as external debt to grow about 10 times the size of their economy (Varblane 2008). This made the Iceland economy increasingly dependent on financial services and more vulnerable to the global financial crisis. The mistrust in banks gradually caused major issues, three major banks defaulted and the Central Bank made unsuccessful pegging attempts at saving foreign reserves. The financial crisis caused huge economic issues (unemployment, inflation, fall of indices, banking sector in legal disputes, political instability, *etc.*). Iceland example shows that small countries have limited chances in fighting against devaluation, as it requires extraordinary measures like the restriction on capital outflow. In order to recover, Iceland needed international assistance (IMF and Nordic countries) (Pilinkus *et al.* 2011).

3.2. Sub-Saharan¹ African experience

The main motivation behind African liberalisation efforts was the removal of trade barriers, leading to overall welfare gain, reduction of poverty, and

mitigation of inequality. In addition to welfare-related elements, African countries also aimed to introduce financial reforms to support growth and address inefficiency of political and economic institutions in order to reduce bureaucracy and enhance internal skills, leading to more independence and overall regional progress (Asongu 2013, pp. 7-9).

African countries in Sub-Saharan region embarked on financial liberalisation in early 1980s as part of their efforts to deal with financial repression. The results of empirical research conducted by Fowowe (2013) determined that, while financial liberalisation provided valuable experience for the involved nations and the world in general, it did not achieve the original goals. Another research conducted in 2013 showed that there was evidence of strong growth of informal and semi-formal financial sectors, which is often not considered in the official statistical progress calculations. This shows that rethinking of the financial system definition is needed, as well as consideration of the informal economy when creating regulatory and liberalisation policies (Asongu 2013, p. 7).

The theory of financial liberalisation expects an improvement in savings and investment, which increases the rate of economic growth. This is expected to be achieved from deeper and broader financial systems, conditions created by liberalisation. The lending interest rates in this region also increased after financial liberalisation (lending rates increased at a faster rate than deposit rates), making banking more expensive – preventing the expected increased savings being channelled to investment. This situation can be interpreted as lack of credibility of liberalisation policies. Success of liberalisation directly depends on conditions such as stable inflation, consistent and credible macroeconomic policies, fiscal discipline, and overall financial responsibility (Fowowe 2013).

This is an important liberalisation attempt example for other developing countries, including BiH. Sub-Saharan experience also teaches us that significant reforms might be needed for some financial institutions before developing countries embark on their own liberalisation journey. The discovery of informal economy growth with liberalisation shows the necessity of strong understanding of the climate and environment when making policy decisions. Every liberalisation step needs to be evaluated with regards to their effect on the economy.

3.3. Mexican experience

Financial liberalisation movement in Mexico started in the late 1980s with Salinas government reforms. With liberalisation, Mexico went from being a closed economy to one of the most open in the world and experienced dramatic increase in exports. Before the reforms Mexico's capital account was not totally closed, but financial markets and capital flows were heavily regulated (Martinez *et al.* 2003).

The reforms were heavily influenced by the demands for change from the USA, Canada, and IMF and included deregulation of financial markets, privatization of the nationalised banking industry, as well as the opening of the economy to international competition. Early 1990s saw Mexico increase net private capital inflows from \$8.4 billion to \$33.8 billion, most of it being invested in the stock market (private sector and government securities) rather than in manufacturing and productive activities, fostering serious macroeconomic vulnerability (Kwon 2012). Rising capital inflows appreciated the local currency, undermining the export competitiveness, and leading to large current account deficit (Martinez *et al.*, 2003). Newly privatised banks were not properly supervised and the non-performing loans quickly became an issue. Raising interest rate in the USA accelerated the outflow of capital from the Mexican financial market, causing serious issues for largely foreign-funded account deficit (Kwon 2012). Several large banks collapsed amidst widespread mortgage defaults and the Mexican economy experienced severe recession, needing international assistance.

The main issues with the liberalisation program in Mexico were lack of judicial and structural reforms. Also, some of key sectors were late in liberalisation and that caused higher costs overall. The reforms were not effectively continued after the currency crisis, which did not provide the environment for further benefits associated with liberalisation (Martinez *et al.* 2003). By adopting a pegged exchange rate regime (1988-1994), Mexico made itself more vulnerable to the USA monetary policy as well as to internal political movements. Any event that could influence the pegged rate gave Mexican and foreign investors an incentive to jump from peso assets into dollar assets (Meigs 1997).

An important lesson here is that the growth-enhancing financial deepening is not a smooth process and it often experiences boom-bust cycles, which need to be anticipated and managed. Another insight provided by Mexico experience is that the long-term growth should not be heavily reliant on

export, but on equally balanced growth of several economic sectors, in order to support the genuine and sustainable economic growth.

3.4. South Korean experience

South Korea started with liberalisation preparation activities in the 1980s, with the removal of various restrictions on bank management and privatisation of commercial banks. The overall liberalisation process can be characterised as cautious and slow, with carefully planned and executed macroeconomic and regulatory steps. For example, the liberalisation steps in the 1990s were executed in three phases, which included banks liberalisation and lending rates as well as deposit liberalisation and open market operations with foreign borrowing and ownership (Park 1996, pp. 247-251).

The USA was an important influence in Korean liberalisation, pressing Korea to open its trade and financial markets, hoping to decrease their own trade deficit. Financial liberalisation and opening of markets attracted huge amounts of foreign capital since 1990, similar to the Mexican experience, but Korea's capital inflows stemmed from portfolio and other investments, instead of reliance on foreign investments like it was the case with Mexico (Kwon 2012).

Like Mexico, Korea too experienced surge in non-performing loans due to privatised commercial banks providing loans without due diligence or strict supervision. Powerful conglomerates (*chaebol*) used the liberalisation and deregulation opportunities to access foreign capital, investing mainly in stock and real estate markets instead of productive research and development. Several significant *chaebol* bankruptcies further weakened the Korean currency and drove the foreign investors away from Korean financial market. Speculative attacks on currency caused the economic default, which had to be rescued by the IMF in 1997 (Kwon 2012).

After the crisis, the Korean government further increased the country's financial openness, dismantling most capital flow restriction and letting inflows/outflows being fully market-determined. After the global crisis, the inflows were resumed due to portfolio flows into debt and equity markets, driven by both external factors and quick economic recovery (Fritz & Prates 2014).

South Korean experience shows us that even well-planned and patient, slow-paced measures can experience challenges and get into crisis under the

liberalisation process. Also, the influence of *chaebol* reminds us that internal political, cultural or traditional elements can also become highly influential factors when it comes to financial crisis. Having a turbulent history that has created a specific cultural and traditional elements, BiH can learn a lot from the Korean experience, especially in understanding the influences associated with cultural, traditional, and political factors when trying to implement a major change.

4. Learning lessons for Bosnia and Herzegovina

The economic figures published in mid-2015 have alarmed the residents of BiH, especially with regards to employment, education, GDP, and ranking indicators. The WB statistics for 2014 acknowledged the negative impact caused by 2014 floods and estimated that the overall damage caused by floods amounts to around 15% of GDP, which is significant for any country, especially for an economy struggling to develop and address high unemployment figures and other obstacles to its economic growth.

GDP for BiH in 2014 has been estimated to \$18.34 billion, the lowest in Europe. According to the WB report (2015), BiH will need to make significant progress in implementing structural reforms if the country is to achieve faster economic growth than currently foreseen. Reforms include strengthening public finance, improving business environment, and advancing the institutional and labour market reform agenda. These steps are critical if BiH is to make notable progress in fostering job creation and growth in the medium term.

If we have learned anything from the liberalisation experience around the world, we can immediately ask a question about the attractiveness of BiH to foreign investors. While Standard & Poor's affirmed a sovereign credit rating of "B with stable outlook", the WB described BiH as "one of the most difficult places to do business in Europe, despite a well-educated labour force and proximity to the EU" (Bank, April 2015, p. 4). This strongly indicates an urgent need for improve BiH image among potential foreign investors. The statistical data shows that BiH has had one of the lowest levels of direct foreign investment among the Western Balkan countries (e.g. only \$234m in 2009 or, according to the Ministry of Foreign Trade and Economic Relations of BiH, only 2,298m in the period 1/1/2009-30/09/2014). In order to attract higher investments, the government should embark on a series of medium-term reforms aimed at improving the investment climate. These should focus on business regulation, inspections, land management, construction

permits, and property rights, thus advancing the competitiveness of specific value chains where BiH has a competitive advantage (Bank, April 2015). Clarity of regulatory frameworks for various sectors is crucial for stability and flexibility needed to succeed on the road towards liberalisation and international integration, ultimately leading to economic growth.

Based on the world liberalisation experience described in this paper and the insight into some specific conditions and situation in BiH, the following lessons have emerged that could prove valuable to BiH in its quest for international integration and liberalisation process.

4.1. Lesson No 1: Higher degree of deregulation means larger international portfolio positions

The available literature and experience from around the world clearly show that the foreign capital inflows and the overall increase in international portfolio positions are directly related to the degree of deregulation implemented within the financial system. More freedom given to the financial (especially banking) system means the higher likelihood that the country will hold large international portfolio positions.

The lesson for BiH is to give a high priority to the deregulation efforts in order to attract foreign investors and present itself as transparent and flexible economy. Potential investors expect to easily access various financial products and conduct their business without the red tape and other regulatory obstacles.

Last year (2014) Forbes ranked² BiH as the 84th on the list of countries considered the best for business.³ This, in addition to the lessons outlined in this paper, is clear indication that BiH should urgently consider deregulation steps in order to become more attractive for business, especially when it comes to foreign investors.

4.2. Lesson No 2: Patience is a virtue – big changes needed, but the results will not happen overnight

Scandinavian and Mexican experience thought us that fast and large changes (“big bang” approach) can be very dangerous and that more cautious approach to management of liberalisation is safer and more successful. The well planned long-term actions and adjustments on the way (Korea and Denmark example) are more appropriate and can reduce the impact of crisis,

giving adjustment time to the overall economy and participants that need to adapt to changes.

The lesson for BiH is to avoid hastily-made decisions based on impatience, instead of thoroughly evaluated and developed ideas and actions. Liberalisation itself does not guaranty economic growth. Cautious approach with planned small steps will allow the time to evaluate progress and mistakes made over time, giving the opportunity for occasional backtracking steps and adjustments needed to ensure positive progress on the liberalisation path.

BiH needs to be well aware of its traditional and cultural characteristics when deciding on long-term commitment to changes and needed discipline to implement long-term plans and actions. Especially, it is important to effectively manage expectations regarding slow but steady progress in the environment that might prefer shortcuts and risk-taking rather than long planned wait for success that might test the patience of everyone involved.

4.3. Lesson No 3: High degree of flexibility needed to readily evaluate and make changes along the way

Scandinavian countries were far better economically prepared for liberalisation than BiH but did not put any systems in place that will track progress and provide early warnings when problems arise.

The lesson for BiH is to ensure there is effective monitoring and alerting system in place that can be used for quick evaluation and adjustment of actions when issues arise, especially in cases of potential future crises. Sometimes it will be needed to act swiftly to address issues, including making unpopular decisions. Also, transparent and prompt actions by government when needed will maintain public confidence and commitment to changes.

The key in being flexible in this process is to be transparent and engage all subjects that are impacted with the decisions and any changes needed to achieve the economic growth goals.

4.4. Lesson No 4: Appropriate level of regulation is needed that can be tuned and adjusted over time

Scandinavian experience shows us that even deregulated and highly advanced prudential supervision is not an effective tool in preventing the

crisis. Even Mexico with all flexibility regarding foreign investments could not sustain the hit of crisis once internal and external factors caused huge capital outflow.

The lesson for BiH is that appropriate reforms need to be made in the area of prudential supervision that will enable liberalisation actions and support the changes. The regulatory bodies need to be alert at all times and carefully observe the economic climate, being readily available to make regulatory adjustments to attract investments and to prevent negative effects on affected sectors, groups, and regions. For example, opening the doors for foreign integrations can affect the agriculture or trade with regards to their exports, so regulatory bodies need to ensure appropriate actions to protect or compensate any negative impacts on short or long term development of the affected sectors.

BiH's regulatory bodies and economic decision makers need to be continuously aware that no financial supervision (prudential or any other) can prevent the occurrence of crisis without appropriate macroeconomic policies being in place. Economic decisions and regulatory reforms need to be coordinated and aligned at all times.

4.5. Lesson No 5: Education, financial awareness and full transparency with regards to processes area must

Experience from Mexico and Korea give us very good insight into internal and external factors associated with economic decision making, influences, and groups that promote different interests in the process.

The lesson for BiH is that economic success is directly related to full commitment from the majority of major players, including general public. In order to get full support and engage everyone in the change process, it is essential to provide full transparency and communicate effectively not only goals and decisions, but also the justification behind decisions. In order to do that, it is necessary to increase overall financial awareness of economic subjects, groups, decision makers, regulators, and general public. Well informed community and general public will rally behind a transparent and truthful leadership.

Full transparency, trust in leadership and full understanding of the direction are even more important for the country that still has high degree of imbedded corruption and bureaucracy that prevents full alignment and

mutual trust between general public, political, and economic decision makers.

5. Conclusion and recommendations

This paper focused on the experiences from around the world that could be useful to BiH when it comes to financial liberalisation and international integration. The following lessons were selected:

- Higher degree of deregulation means larger international portfolio positions.
- Patience is a virtue – big changes needed, but the results will not happen overnight.
- High degree of flexibility needed to readily evaluate and make changes along the way.
- Appropriate level of regulation is needed that can be tuned and adjusted over time.
- Education, financial awareness and full transparency with regards to processes are a must.

Liberalisation is an essential step in the long and painstaking journey towards a better economic future, and the degree of success will directly depend on the way BiH uses the available lessons and applies them to own environment. Liberalisation itself will not bring the economic growth, but well-thought decisions and full continuous alignment between regulatory and economic decision making and implementation will give a good fighting chance on the quest for the long-term economic prosperity. While liberalisation process opens the country to new capital inflows, it is essential to ensure effective regulation that will not only support new investments and developments, but also provide trust and confidence in administrative and legal structures within the country. The degree of success will depend directly on the fine line between the regulatory framework and liberalisation actions, an effective balance between the rules and regulations and economic and financial freedom.

With regards to further research, it is recommended that additional studies are conducted to research the channels through which liberalisation reforms influence capital allocation in different settings and economic climates. This will be useful to BiH in choosing the most effective actions needed to take advantage of the new market conditions and growth opportunities.

Instead of wasting energy on useless elements designed to only derail economic progress (such as political and ethnic differences), BiH should regroup and focus on financial education and learning from the available lessons from around the world in preparation for a road to recovery. Through financial liberalisation and effective deregulation actions as well as working closely with international organisations on image and self-improvement, BiH should focus on attracting investors and building internal economic capability to control its own “destiny” and achieve continuous economic growth. In the end, being named as one of the poorest countries in Europe should not be discouraging for BiH. We should tap into the strong traditional pride and defiance and use it to build determination and unity on the road to recovery. And, we should remember that when you hit the rock bottom, the only way you can go is up!

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Endnotes

- 1 Botswana, Burundi, Cameroon, Congo Republic, Cote d'Ivoire, Gambia, Ghana, Kenya, Madagascar, Malawi, Mali, Mauritius, Nigeria, Senegal, Sierra Leone, South Africa, Uganda, Zambia, and Zimbabwe
- 2 Forbes 2014 Best Countries for Business ranking for Western Balkan countries and Croatia: Macedonia 31st, Croatia 46th, Montenegro 48th, Albania 58th, BiH and Serbia 84th.
- 3 The ranking is based on The Heritage Foundation's Index of Economic Freedom (trade freedom and monetary freedom).

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BANCASSURANCE CONCEPT FROM THE PERSPECTIVE OF MONTENEGRIN MARKET

KONCEPT BANKOOSIGURANJA IZ PERSPECTIVE CRNOGORSKOG TRŽIŠTA

Abstract

Integrated services of financial institutions contribute to the quality and development of financial markets. The collaboration of banks and insurance companies through the bancassurance model, as the distribution channel of insurance products, resulting in reduction of business risk and costs of market research, achieving better profitability and other mutual benefits, which anyhow have a positive effect on the performance of the insurance and financial markets. More specifically, the effective implementation of bancassurance provides benefits to banks, insurance companies, and to their customers.

Although bancassurance has development perspective on the Montenegrin market, the paper will prove that adequate education and motivation of employees in the banking sector, as well as the adequate demand for this type of financial services, are necessary for its successful implementation. The purpose of this paper is to show the current trend of banks entering into the insurance market in Montenegro, and to point out the perspective and development problems of bancassurance in Montenegro.

Keywords: financial services, banks, insurance sales channels, bancassurance, insurance market

JEL: G22

Sažetak

Integrirano pružanje usluga finansijskih institucija doprinosi kvalitetu i razvoju finansijskog tržišta. Povezanost banaka i osiguravajućih kompanija, kroz model bankoosiguranja kao kanala prodaje osiguranja, rezultira smanjenjem poslovnog rizika i troškova istraživanja tržišta, ostvarivanjem bolje profitabilnosti poslovanja i drugim obostranim koristima, što svakako pozitivno utiče na performance tržišta osiguranja, ali i samog finansijskog tržišta. Tačnije, efektivna primjena bankoosiguranja korisna je za banke, osiguravajuća društva, ali i same klijente. Iako bankoosiguranje ima perspektivu razvoja na crnogorskom tržištu, radom će se pokazati da je za njegovu uspješnu implementaciju neophodna adekvatna edukacija i motivisanost zaposlenih u bankarskom sektoru, kao i platežno adekvatna tražnja za ovom vrstom finansijske usluge. Dakle, svrha rada je da pokaže trenutni trend ulaska banaka na crnogorsko tržište osiguranja, odnosno da ukaže na perspektivu i razvojne problem bankoosiguranja kaokanala prodaje osiguranja u Crnoj Gori.

Ključne riječi: finansijske usluge, banke, kanali prodaje osiguranja, bankoosiguranje, tržište osiguranja

JEL: G22

1. Introduction

Insurance product distribution through banks is becoming present in the process of deregulation and globalization of the financial market. Bancassurance occurred as a result of the simultaneous goal of insurance companies to reduce sales costs and increase revenues and banks to achieve an additional income and expansion of financial services, where clients were given the opportunity to use services of banks and insurance at the same place. In the situation of global drop in profit, conglomeration, oligopolization, as well as the market segmentation by large financial groups, banks are becoming more oriented to the integration with insurance companies, motivated by higher business profitability in the first place, but also by the expansion of the financial service they offer to their clients. In order to reduce transaction costs and strengthen competitive positions, some insurance companies can use and combine different sales channels depending on institutional solutions. Distribution channels through agents, Internet, banks and media are often combined.

Bancassurance has a forty-year-old tradition and the similarity between bank business and insurance business could be best observed in France. At first, bancassurance was mostly realized in the field of sale of life insurance

policies (term insurance) in order to secure home loans and other bank loans. Later, the products of simpler technology of property insurance were introduced, too (casco insurance, home insurance, travel medical insurance etc.), and at the end of the eighties, the sale of unit-linked policies as well. At the beginning of the nineties, banks begin more intense over-the-counter sales of life insurance, when the European Union brings the First Directive on the sale of non-life insurance through bank channels.

Since bancassurance has a high potential in the markets with low insurance penetration and limited choice of distribution channels, which is typical for the developing markets, its successful application can be expected in Montenegro, especially when it comes to simple insurance products compatible with banking services. Also, the amendments and changes of the Law on Insurance of Montenegro from August 2012, created legal conditions for the implementation and development of bancassurance in Montenegro.

Many studies of bancassurance focused on the benefits that can result from the cooperation of banks and insurance companies. Bergendahl (1995) cites several economic reasons that banks sell insurance while Baumol et al. (1982) do not find benefits for insurance companies from consolidation with banks. Saunders and Walter (1994), Hughes et al. (1999) showed that consolidation of banks and insurance companies reduces business risk, and banks achieve higher cost advantage from the sale of insurance products than insurance companies have. However, Carow (2001) argues that the prices of bank shares are not significantly changed after banks integration with insurance industry. Although many studies have shown that the bancassurance is profitable strategy for a bank as a partner in the business, there is no solely opinion on whether insurance companies gain significant benefit or a cost advantage by selling the products through the bancassurance channel (Chank et al. 2011).

Although there are no significant studies dealing with key success factors of bancassurance, Benoist (2002) proposes three golden rules for its successful implementation. These are: a) bancassurance is successful if the model is adjusted to the context of banks and the insurance companies business, b) it is essential to managing key success factors such as quality, innovation, short time penetration and selling of new products to market, advanced technology and low costs and c) strengthening cooperation with customers.

Researchers have definitely shown that bancassurance provides significant benefits to customers. Corneliu B. and Ghilimei E (2008) indicate that the

reduction of distribution costs leads to a reduction of insurance price. On the other hand, the introduction of new products is certainly better adapted to the needs of clients (insurance deposits, loans, etc.) in relation to those products that banks and insurance companies independently launched.

Based on a survey conducted by Price Waterhouse Coopers and Economist Intelligence Unit (2000), it can be concluded that the key success factor of insurance company, which plans to do diversification of its sales through the bancassurance channel, is the ability to develop new innovative insurance products.

The aim of this paper is to show the level of bancassurance development in Montenegro, as well as the key factors that limit or contribute its further development. The research was done on the territory of Montenegro where 120 people, employed in banks and insurance companies, were surveyed.

2. Models and specificities of bancassurance

In a narrow sense, bancassurance represents the distribution of insurance products through a bank, while in a broad sense, it can be defined as a model of the integration of banking and insurance market in order to connect and control the whole process of emission and distribution of life and non-life insurance products. Although the relation between banks and insurance companies in a way that banks undertake obligations from insurance and create insurance products is not allowed, different product distribution through these financial institutions is becoming present in the process of deregulation and globalization of financial market. A bank can join the sale of insurance products on the basis of the agreement of distribution with the insurer, through joint venture, but also through financial conglomerate to which the bank also belongs, but which has evolved either from merger or acquisition, as well as from the establishment of an insurance company or a bank (Ćurak & Jakovčević 2007, p. 204).

Bancassurance based on the agreement of distribution implies the situation in which bank acts as an intermediary offering products of one or more insurance companies. This type of bancassurance is typical for the sale of simple and standardized products. Within this model, or even especially, the model of Strategic Alliance can be extracted, in which banks sell products exclusively for an insurance company (Teunissen 2008). Strategic Alliance is an agreement between banks and insurance companies for the joint use of distribution channel. In this model, the advantage of a bank is the

possibility to choose the best insurance company in terms of product quality, image and etc. At the same time, a bank informs the insurance company about its important clients, which both institutions could have benefits from. The shortcoming of the model is a low level of integration between banks and insurance companies. The cooperation within the framework of strategic alliance does not result in the loss of organizational and functional independence of partners. Cooperation leads to attracting new customers, enabling partners to maintain a competitive advantage in the financial market. The main risk of the model is insufficient sale due to relatively low level of formalized cooperation. Banks certainly gain experience in the field of insurance and for them it can be assumed that this model is a phase that leads towards a strategy of creating their own insurance companies.

According to joint venture model of bancassurance, banks and insurance companies strengthen their cooperation through management coordination, sharing a database of clients, as well as through the joint development of the products. Specifically, this model achieves the joint ownership of the products and customers and long-term cooperation. The essence of joint venture is funds allocations of banks and insurers with the goal of creating a legal and independent organizational entity which has to realize defined business objectives.

The next model of bancassurance includes the offer of different financial services through the integration of the institutions, mergers or acquisitions, and very often through a holding company for financial services. In this business model, a holding company owns the insurance company and bank, and it is often called financial conglomerate. The potential benefits of this model are the full integration of processes and systems, access to existing bank clients, providing financial services in one place, as well as the possibility of developing fully integrated financial products.

Table 1. *Bancassurance models*

	Specificities	Benefits	Disadvantages	Representation
Agreement of distribution	Bank as an insurance agent	Simplicity, low start-up costs and no capital investment	Less flexibility of supply, possible conflict of business cultures	Germany, Great Britain, USA and Japan
Joint venture	Join ownership of bank and one or more insurance companies	Exchange of databases, transfer of knowledge and experience	More complex management in long term	Italy, Spain, Portugal
Integration model	Acquisition or bank or insurance companies establishment	Integrated business, unique business culture	More investment and higher capital risk	United Kingdom, Ireland, France, Spain, Belgium

Source: Fiordelisi & Ricci 2012

In practice, there are various hybrid models of bancassurance, so it is possible to give them a different classification. For example, models can be viewed on the basis of income source of banks participating in the business of bancassurance. Besides the provision, there are also specific profit-sharing agreements signed among bank and insurance company. Bancassurance can also be viewed through the integrative model, specialist model and the financial planning model (Dumm & Hoyt 2003). In the integrative model, insurance product distribution is carried out through the existing bank channels and with the help of bank clerks. In the specialist model, insurance products are distributed by product experts who are usually employed in insurance companies or represent them. Financial planning model is a bancassurance model which is characterized by team approach and through which every client is offered a possibility to use an overall package of financial services in order to satisfy individual financial needs. Every model must be compatible with the bank's data base of clients and the strategic goals of the insurance company.

Regardless of the analyzed and applied bancassurance model, it is important to define the joint strategy and standards of evaluation of business cooperation. Realized premium per insurance product is among the most important indicators of insurance sales success through banks, as well as average premium per bank clerk, the number of cancelled insurance

contracts, and the income from the commission for every counter officer in the bank.

The combining of bank and insurance services in one financial institution, brings multiple benefits to both institutions. Banks expand their area of operation and they are especially interested in life insurance, while insurance companies can offer their products through banks in the market with lower costs (Novović & Purić 2011, p. 105). The acceptance of bancassurance as a sales channel results from different motives of the bank, insurance company or clients. The product diversification method and the source of additional income from commissions are the key motives of banks, while insurance companies see bancassurance as a way to increase total revenues, improve the penetration into the market itself, and as a better access to the data base of clients. For clients, bancassurance represents a special benefit in terms of reduced prices of high quality products, but also as a possibility of more efficient delivery of products, or so-called home delivery (Ostojić 2011).

Bancassurance, especially life insurance due to high commissions charged by insurance agents, is a more efficient distribution channel than through agents. Through this product distribution model, insurers have the access to the bank's data base of clients, which gives them the possibility to create products harmonized with the needs and possibilities of clients. Further, the market segment which is not available in other distribution channels, here is available for insurers, enabling the increase in sale, i.e. the increase in the revenue from insurance premium.

With the distribution of insurance products, banks improve their profitability. Close relationship between the bank and the client contributes to the increase in profitability based on bancassurance business, and the reputation banks enjoy among a significant number of financial services users, which is stimulative for the purchase of insurance products offered at bank counters. Banks also realize the access to potential buyers thanks to widespread bank branches and owning large data bases for the assessment of needs and possibilities of clients. It is estimated that bancassurance makes up 20-30% of total revenues of leading European banks in this business (Ćurak & Jakovčević 2007, p. 105).

The advantages of bancassurance from the aspect of banks are reflected in avoiding dismissals of the employed due to the development of information technologies. Bancassurance expands the activities of the bank, gradually

building them into financial supermarkets satisfying those clients who prefer realizing all, or a larger part of financial services in one institution.

3. Bancassurance in developed European market

According to different economic, social, political and cultural ambient of certain countries, the experiences worldwide in the field of the development and usage of bancassurance are different. Analyzing the European market, it can be observed that banks are a significant distribution channel of life and pension insurance. More specifically, a sale of life insurance through banks is present in Australia, South America, Central and Eastern Europe.

The following table shows the representation of selling insurance products through bancassurance.

Table 2. *Bancassurance, sales of insurance products in Europe and the Anglo-Saxon markets*

	Eastern Europe	Central Europe	Western Europe	Anglo-Saxon markets
Countries	Lithuania, Croatia, Bulgaria, Turkey	Poland, Czech Republic, Slovakia, Slovenia	Austria, Belgium, Netherlands, Italy, France, Ireland, Spain, Portugal	Great Britain, Denmark
Dominant type of offer	Simplified low price offer of life insurance	Simplified low price offer of personal insurance	Simplified low price offer of life and non-life insurance	Total offer of life and non-life insurance

Source: Reed & Read 2010

Bancassurance accounted for over 70% of total sales in Turkey, Italy and Spain. In these countries, the second important sales channels were agents who generated over 10% of the insurance premium. Bancassurance was not the dominant sales channel in Slovakia, Netherlands, Ireland and Bulgaria. In Slovakia and Ireland the sale was the most generated by insurance companies (37% and 59%), while in the Netherlands and Bulgaria by agents (74% and 39.3%).

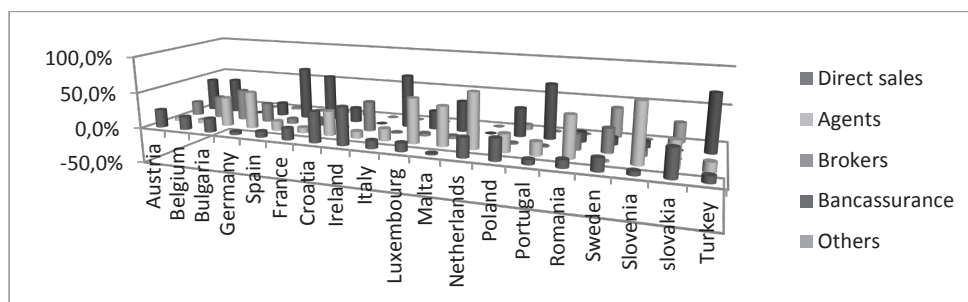


Figure 1. *Distribution channels in selected European countries in 2012*

Source: European Insurance, Statistics No. 50, 2014

Distribution of non-life insurance through banks is less represented in Europe, where agents and direct sales channel are dominant. Agents are the biggest suppliers of non-life insurance products in Germany, Italy and Portugal. Brokers dominate in the UK, Belgium and Bulgaria, while direct sales in the Netherlands, Finland and Croatia.

According to the data from Figure 3, the domination of bancassurance regarding the sale of life insurance in the countries of Western Europe compared to other insurance sales channels can be observed. In Portugal, Turkey and Italy about 70% of total life insurance premium in 2012 was realized through bancassurance, while it was least represented in Germany and Sweden in the same year. In the East European countries, and according to the dynamics of development of life insurance, bancassurance as a sales channel had no significant share in the total sale of life insurance. The share of sold policies of life insurance through banks in 2012 amounted 13.6% in Romania and 20% in Croatia. Like in non-life insurance, agents and brokers played an important role in the distribution of life insurance products in East European countries (European Insurance in Figures, Statistics No. 50, 2014).

The best results of the sale of non-life insurance through banks were achieved in Turkey, Portugal (more then 14%). These are certainly the countries where bancassurance is the most significant sales channel for life insurance as well. Figure 2 shows that the premium of non-life insurance was not collected through banks in Slovakia, Netherlands, Malta, Ireland and Bulgaria. Figure 3 shows that bancassurance accounted for more than 70% of life insurance premiums in Portugal, Italy, Turkey and Spain, more than 60% in France and more than 40% in Austria, Belgium and Malta.

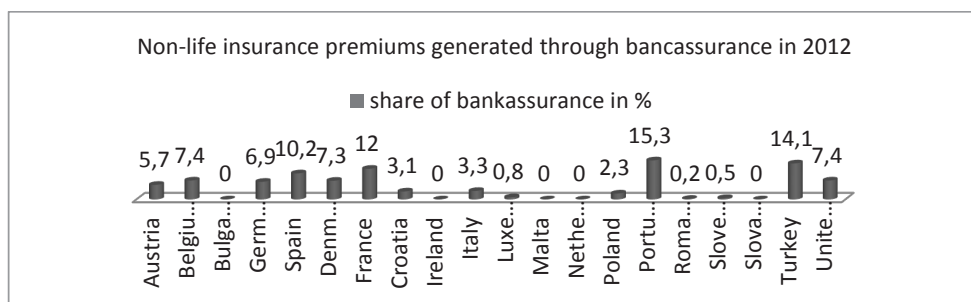


Figure 2. *Non-life insurance premiums generated through bancassurance in selected EU countries in 2012*

Source: European Insurance in Figures, Statistics No. 50

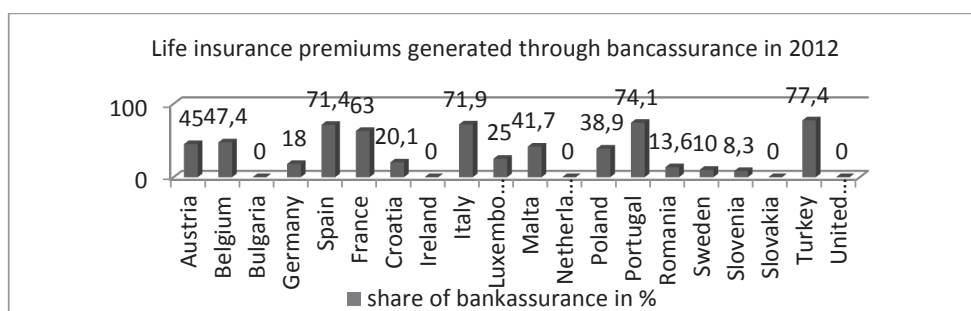


Figure 3. *Life insurance premiums generated through bancassurance in selected EU countries in 2012*

Source: European Insurance in Figures, Statistics No. 50

If we analyze Croatia and Slovenia, as countries of the former Yugoslavia and now members of the EU, we can notice that the share of sold policies of life insurance through banks was about 20% in Croatia and 8.3% in Slovenia, while the percentage for non-life insurance was 3.1% and 0, 5%. Analyzing countries in the region, Slovenia and Croatia have the most success in bancassurance. In Serbia, bancassurance has been applied since 2006, in Bosnia since 2009, while in Montenegro since 2012.

4. Bancassurance in Montenegro

The amendments and changes of the Law on Insurance of Montenegro from August 2012, created legal conditions for the implementation and development of bancassurance in Montenegro. The conditions for a bank to act as an agent in insurance are defined by the Insurance Supervision Agency of Montenegro (ANO), which brought the Rulebook on Terms of Granting Approval to Banks to Act as Insurance Agents in January 2013.

Bancassurance can be carried out by banks which have an operation license issued by the Central Bank of Montenegro (CBCG) and the approval of ANO, i.e. agency activities in banks can be carried out only by persons employed in the bank, who own a license to act as agents in insurance.

A bank in Montenegro, which wants to act as an agent in insurance, in its business premises must mark visibly the place where the business is carried out and display the name of insurance company which it represents. Also, work place must have adequate computer equipment and software support for the agency business in insurance. In the premises where the agency business is carried out in the bank, a printed list of all insurance companies with whom the bank has an agency agreement, must be displayed in alphabetical order, including the types of insurance offered in the bank. Bank acting as an agent in insurance can distribute promotional material only for insurance companies with whom it has an agreement of agency. For this job, the bank cannot realize additional revenues aside from the commission revenues (Agencija za nadzor osiguranja Crne Gore 2012).

The role of banks as agents in insurance is very modest in Montenegro, since only four banks received work permissions so far (Societe Generale Montenegro, Atlas Bank, Hypo Alpe Adria Bank and Hipotekrana Bank). All banks were licensed in 2014, when they began to work. During 2015, the registration of two new banks can be expected. The gross written premium generated by the banks amounted to 130 thousand Euros, what is 0.19% of the total market gross premiums in 2014. Banks concluded 971 insurance policies, 426 life insurance policies and 545 non- life insurance policies in 2014 (Insurance Supervision Agency of Montenegro 2015).

Banks did not have special interest to represent the insurance company until the expansion of term insurance which is used as collateral for consumer loans in Montenegro. Recognizing the benefits that bancassurance gives, both through operating revenues and income realized on the basis of provision, banks have launched the process of integration with insurers. The most sold product through bancassurance in Montenegro is a term insurance, which serve as collateral, primarily for consumer and cash loans, and then for mortgage and housing loans. Products of property insurance, used as a security instrument when buying property on credit, are also sold through bancassurance in Montenegro.

Experience has shown that the integration of banks and insurance companies resulting in reduction of business risk, strengthen the market position and

achieving better business results. Analyzing Montenegrin financial market, a need for integrating banking and insurance products is noticed in the field of credit insurance, life insurance sales through bank counters, for providing certain benefits to existing bank customers when taking insurance, as well as for providing benefits to consumers of insurance in certain banks, which use the services of the bank. Montenegrin banks that are licensed for insurance agents, mainly offer term insurance and property insurance as the security for loans. Hypo Alpe Adria Bank is the first bank in Montenegro which started to offer insurance products to their customers. Of all loan packages, the most important are:¹

1. Cash loans for employees- include job loss insurance and disability insurance over 50%.
2. Cash loans for retirees- include accidental death insurance and death insurance due to illness.
3. Housing and Mortgage Loans - include term insurance, or beneficiary of the loan must be insured for the time of its repayment.

Hypo Alpe Adria Bank offers contents insurance (as a separate policy or related to a credit) as well as casco and travel insurance. Also, it is important to stress that all items of leasing contracts must be insured.

In order to analyze the potential of bancassurance in Montenegro, a survey which included employees of the insurance sector and banking was conducted. From a total of 150 questionnaires sent, 30 were invalid, so we analyzed the responses of 120 participants. The survey covered 64% of respondents aged 25-40 years and 36% of 40-60 year olds. Of those surveyed, 72% have higher education, 28% secondary education, and 60% of respondents were male and 40% female.

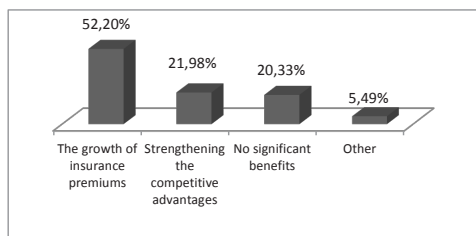


Figure 4. *Bancassurance benefits for banks*

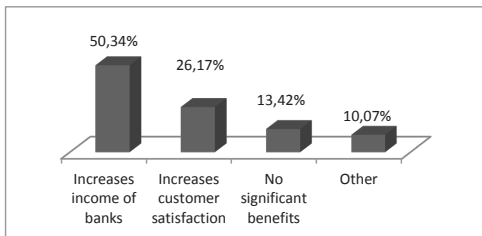


Figure 5. *Bancassurance benefits for insurers*

Source: Authors

Figure 4 and 5 show that the most important benefits of bancassurance for banks and insurance companies. Attitude of over 50% of respondents was that the most important advantage of bancassurance is the growth of the commission fee income (for banks), and the growth of insurance premium (for insurers). The opinion of 13.4% respondents is that bancassurance does not provide significant benefits to banks and 20.3% of respondents believe that bancassurance does not give particular benefit to insurance companies. Specifically, the survey results suggest that bancassurance provides significant benefits to banks in relation to the insurance companies.

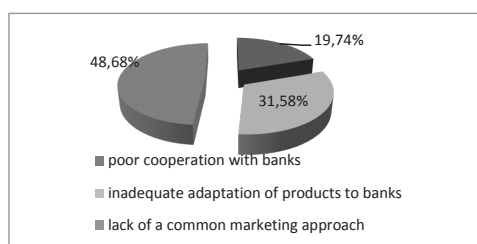


Figure 6. *Limiting factors – banks*

Source: Authors

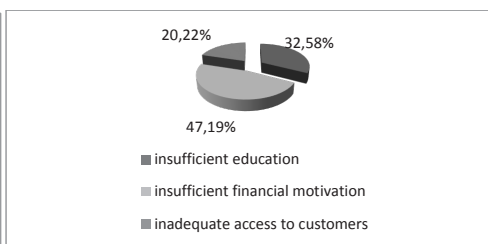


Figure 7. *Limiting factors – insurers*

Limiting factors of bancassurance development from the aspect of banks and insurance companies are shown in the Figure 6 and 7.

The respondents (54.5% of them) consider that the poor purchasing power of citizens is a key economic factor that slows the growth of bancassurance. The lack of interest of clients to buy insurance through banks also negatively affects the development of bancassurance in the opinion of 26.14% of respondents, or distrust to financial institutions at least influence the further prospects bancassurance. It should also be noted that bancassurance has prospects of further development in Montenegro regarding the opinion of more than 60% of respondents.

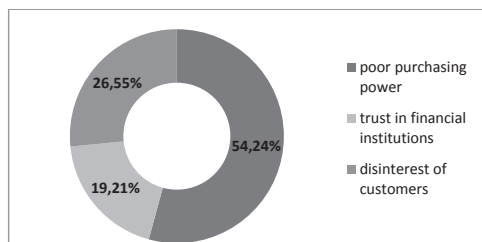


Figure 8. *Other limited development factors*

Source: Authors

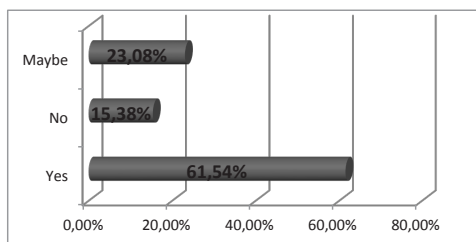


Figure 9. *Perspective of bancassurance*

Bancassurance has a potential in Montenegrin market especially regarding simple products, compatible with the services of the bank, such as life insurance, for example. The fact is that it cannot be expected from Montenegrin citizens to go to banks in order to buy an insurance product. Therefore, it seems more realistic to observe the prospects of bancassurance in Montenegro through connected purchase, i.e. a loan and insurance, deposit and insurance etc. It can be realized if there is a professional relation between the personal banker and the client, when all financial needs and possibilities which can be realized in the same bank are pointed to the client.

In order to implement the specified, it is necessary to have adequate education of bankers about the importance and characteristics of insurance products that are offered. In Montenegro, bankers who offer insurance products have to be licensed by the Insurance Supervision Agency. Anyhow the question is if the acquired knowledge (with the aim of getting the licence) is sufficient for the successful insurance sales. Bankers also have to be motivated to sell insurance products.

The integration of insurance products into bank products means an easy way of selling, due to the fact that clients accept to conclude insurance contracts more easily together with another financial product, especially when it comes to a loan arrangement - lower interest rate if life insurance is concluded too, etc. (Šker 2012). Through approved loans, clients can also be offered different insurance products, such as fire insurance (home loan), motor vehicle liability insurance and casco insurance (car loans), travel and medical insurance (payment cards) etc. For Montenegrin insurance market, bancassurance is certainly very important because the growth of insurance premium can be expected, especially taking into account the fact that banks have a better rating among Montenegrin citizens than insurance companies, and that buying insurance in a bank lowers the pressures on citizens present in telephone selling and through agents and brokers.

Besides the mentioned advantages, banks and insurance companies are facing with the certain problems. In order to successfully introduce bancassurance, it is necessary to adapt information systems, for example programs for the sale of insurance products, but also to enable training of bank employees due to insufficient knowledge of the specifics of insurance products. Costs of education of employees represent one of the limiting factors for selling modern and more complex insurance products through banks. In contrast to intermediaries and other representatives, employees of

the banks do not receive a commission for every product sold, which can not simulative affect to sales of insurance products. Also, due to the possibility of greater channelling savings into the sector of insurance, not banking sectors, the bank may have a passive approach to the sales of insurance products. Reputational risk is also present in bancassurance. If customers are dissatisfied with the method of sum insured payment, or the actual amount of the compensation, it may appear mistrust or leaving the bank, which negatively affects the rating of the bank.

Analyzing the achieved results in the first year of bancassurance in Montenegro, as well as the tendency of already integrated banks and insurance companies to further promote this distribution channel, it could be expected a penetration of other Montenegrin banks to insurance market.

5. Conclusion

Successful application of bancassurance in Montenegro in the following period can be expected if both banks and insurance companies recognize multiple advantages of this sales channel. In the promotion and development of bancassurance in Montenegro, personal bankers are expected to play an important role. They are supposed to be motivated by their managers to carry out these operations. In order to provide the prospects for bancassurance in Montenegro, compared to other sales channels, it is necessary to set up a joint strategy of presentation of simple insurance products in financial market. Banks and insurance companies should jointly work on the planning of sale and marketing of insurance products, in order to provide a successful sale service. A continued education of the personnel is also necessary in banks, which would certainly improve the sale of insurance products.

Bancassurance enables the expansion of insurance company's portfolio with the reduction of product distribution costs compared to traditional sales channels. For the development of bancassurance, it is necessary to adjust insurance products to the needs which are coherent to the needs of bank clients, and further to identify and educate professional staff who the insurance service distribution would be entrusted with. Precisely, a bank officer has an access to the information about client's financial capabilities, they get to know their wishes and needs, and according to this, the client can be advised in a more quality way about the choice of insurance services, which is certainly a benefit for the client, as well as the save of time and costs compared to individual conclusion of an insurance contract.

From the aspect of globalization of financial markets, banks and insurance companies have to be observed as two inseparable sectors whose perspective primarily depends on the key factors which determine development of the financial market (economic growth and development, liquidity of the economy, purchasing power of citizens, etc.). In addition to greater number of insurance services and accessibility, dispersion of operational risk and profitability of banks, bancassurance will contribute to the development of Montenegrin financial market, as well as to the savings growth and competitiveness of market economy.

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SPECIFICS OF TAWARRUQ FINANCING MODELS IN ISLAMIC BANKING

SPECIFIČNOSTI TAVARUK MODELA FINANSIRANJA U ISLAMSKOM BANKARSTVU

Abstract

Islamic banking defines money strictly as a medium of exchange; it has no value in itself and each note is the same as another banknote of the same denomination. Because Islamic banking has recent history, not all of their instruments are still fully created and one such model is tawarruq; model known as “reverse or commodity Murabahah that operates by borrowing cash based on two separate transactions. There are two basic types; the first type implies that an individual buys commodity from a bank, deferred, which later sold to another person or a bank for money in order to obtain the necessary liquidity. Another type is “organized tawarruq” that involves a transaction in which an individual buys commodity from Islamic bank on credit. It is a kind of standardized types such as metal or wheat. The bank purchased commodity sells to the client at a higher price with the term of payment in the future. The client hires the bank as its agent who sells commodity for cash. The result of this transactions means that the client gets the cash and bank owes funded amount plus the anticipated return. Many Islamic experts and economists express reservation under this model, considering that it achieves what Islamic banking seeks to avoid and it is the interest generated by activities of conventional banks. Although the model is acceptable from a legal point of Islamic economics, essentially in a spiritual way it isn't, since it opens the possibility of creating a multitude of transactions without creating real value and the possibility of creating interest. The aim of this paper is to introduce the basics of tawarruq model and its functioning, to examine its acceptability in terms of Islamic economics, and thereby contribute to further discussion on the admissibility and the purpose of its use.

Keywords: Islamic banking, interest, Shari'ah, tawarruq

JEL: G21

Sažetak

Islamsko bankarstvo definiše novac isključivo kao sredstvo razmjene; nema vrijednost sam po sebi i svaka novčanica je jednaka drugoj novčanici iste denominacije. Zbog toga što islamsko bankarstvo ima relativno noviju historiju, svi njihovi instrumenti nisu u potpunosti kreirani a jedan od takvih modela jeste i tawarruq model poznatiji kao „obrnuti Mudarabah“ koji funkcioniše po principu posuđivanja gotovine ali uz dvije odvojene transakcije. Postoje dva osnovna tipa. Prvi tip podrazumijeva da pojedinac kupi robu od banke, na odloženo, koju kasnije prodaje drugoj osobi ili banci za novac u cilju dobivanja potrebnih likvidnih sredstava. Drugi tip tawarruq modela jeste „organizovani tawarruq“. Ovaj model podrazumijeva transakciju u kojoj pojedinac kupuje robu od islamske banke na kredit. Radi se o robi standardizovanog tipa poput metala ili pšenice. Banka kupljenu robu prodaje klijentu po cijeni većoj sa rokom plaćanja u budućnosti. Klijent angažuje banku kao svog agenta koja prodaje robu brokeru za gotovinu i depozite koju uplaćuje na svoj račun. Rezultat ovih transakcija znači da klijent dobiva gotovinu a banci duuguje finansirani iznos uvećan za predviđeni povrat. Mnogi islamski stručnjaci i ekonomisti izražavaju rezervu prema ovom modelu smatrajući da se njime postiže ono što islamsko bankarstvo nastoji da izbjegne a to je kamata koja se generiše aktivnostima konvencionalnih banaka. Iako je model prihvatljiv sa pravnog aspekta islamske ekonomije, suštinski i duhovno nije, budući da otvara mogućnost kreiranja mnoštva transakcija bez stvaranje realne vrijednosti kao i mogućnosti kreiranja kamate koja je u islamu strogo zabranjena. Cilj ovog rada jeste upoznati se osnovama tawarruq modela i njegovog funkcionisanja, ispitati njegovu prihvatljivostsa aspekta islamske ekonomije, te time doprinijeti daljoj diskusiji o prihvatljivosti i svrsi njegovog korištenja.

Ključne riječi: islamsko bankarstvo, kamata, šerijatsko pravo, tawarruq

JEL: G21

1. Introduction

“Gold for gold, silver for silver, wheat for wheat, barley for barley, dates for dates, and salt for salt - like for like, equal for equal, and hand-to-hand; if the commodities differ, then you may sell as you wish, provided that the exchange is hand-to-hand”.

Imam Muslim, *Sahih*, Kitab al-muzara’a, h. 97

Islamic banking is not a new concept in the world economy but it became a fast growing financial services sector and a worldwide phenomenon in the last decade. Although the „western“ economists try to present Islamic banking as a subsystem of a conventional banking system, the facts

show that Islamic banking has his own history and path, his own rules and principles and ways of doing business. It is important to notice that, generally, Islamic banking is known as an interest-free business model because “*Allah has allowed trade and has prohibited riba*”(surah Al-Baqarah: 257).(Sami Ibrahim al-Suwaylim, n.d.) Shari’ah prohibited riba on both sides, the creditor and the debtor, because it is the result of their mutual consent. The history of Islam, as a basis of Islamic banking, teaches us that the prohibition of interest is not the only thing that is connected to Islamic banking, but also the whole set of ethical, moral and social principles that are important for, both, economic and social progress of every community and where (Chapra 1984, p. 1) socio-economic justice is one of the cherished goals of all societies. In that way, in Islamic banking there is importance in risk sharing, in terms that there could be no profit without taking the risk, where every financial activity should be backed by an underlying asset and, generally, every economic activity must be Halal (permitted) and not Haram (prohibited). In economic terms, Islamic banking products must be in accordance with Shari’ah¹ and must be approved by the Shari’ah Supervisory Board that every Islamic bank must have. „*The Shari’ah Supervisory Board is comprising of Shari’ah scholars and advisors that should be independent and qualified to give rulings that pass moral judgment on proposed contracts and transactions as well as to ensure that business conducted is according to the requirements of the Shari’ah.*“²

Islamic banking products can be divided into: a) sales based (Murabaha, Istisn’a, Ijarah, Tawarruq), b) equity based (Musharakah, Mudarabah), c) fee based (Wakalah, Kafalah, Rahn), d) Islamic deposits (Wadai’ah, Qard, Tawarruq), e) Investment Accounts (Mudarabah, Musharakah) and f) Investment Accounts (Wakalah). The history of Islamic banking instruments and models starts from 1970, so not all of the products are fully developed yet, including tawarruq, who is a relatively new product. It started to use in 2000 in Saudi Arabia and later in other countries, not just in the GCC region. Tawarruq is known as a “reverse or commodity Murabahah” operating by borrowing cash including two separate transactions. There are two basic types. The first type, “classical tawarruq”, implies that an individual buys goods from a bank, deferred, which later sold to another person or a bank for money in order to obtain the necessary liquidity. The second type is “organized tawarruq” that involves a transaction in which an individual buys goods from Islamic banks on credit. It is a kind of standardized types such as metal or wheat. In the case of metal it uses the platform of London Metal Exchange – LME. The bank purchased goods sold to the client at a price

higher with the term of payment in the future. The client hires the bank as its agent who sells goods for cash and broker deposits that paid to your account. The result of these transactions means that the client gets the cash and bank owes funded amount plus the anticipated return. The organized tawarruq is the subject of debate and some Islamic economist call it as a hybrid contract (Mihajat 2015, p. 90) because its mechanism is frowned as a form of *hilah* (legal trick). Although „*it has been widely used to structure various financial products and liquidity management instruments, such as attracting deposits, financing and structuring government and corporate sukuk*“³, every tawarruq transactions creates a debt (Siddiqi 2007, p. 1) which can lead to financial and speculative transactions. On the other hand the use and the acceptance of tawarruq model also depends on the point of view of school of thought in Islamic jurisprudence, because some Islamic scholars say tawarruq should be forbidden and others say it is in accordance with Shari’ah.

The aim of this paper is to explain the key elements of tawarruq financing model, as one of the most intriguing model in Islamic banking, and to examine its use in the Islamic banking system. This paper is organized as follows. The following section reviews the literature of the meaning of tawarruq and its use, the point of view of different School of Thoughts and the perspective of use of tawarruq model. The next section discusses the methodology being used in creating the classical and organized tawarruq what is followed by the analysis of the results that tawarruq brings to financial institution but also to the buyer. At the end of the paper there is conclusion and recommendation.

2. Literature review

To understand better tawarruq model and its components, it is necessary to define the meaning of the word itself. Tawarruq comes from the word *wariq* what means silver coin. It is important to emphasize the difference between the word *tawarruq* and *tawriq* because many researchers mix this terms. Dabu (n.d., p. 2) says that *tawriq* means documentation (*taskiik*); transferring existing commodities into *sukuk*, which are subject to circulation. The OIC Fiqh Academy defines *tawarruq* as: “*a person (mustawriq) who buys a commodity at a deferred price, in order to sell it in cash at a lower price. Usually, he sells the commodity to a third party, with the aim to obtain cash.*” The Islamic Fiqh Academy of Muslim World League defined *tawarruq* as: „*a contract to purchase a commodity from a seller on terms of spot delivery and deferred settlement and then the buyer sells the same*

commodity to a third party other than the original seller on terms of spot deliver and spot settlements“.⁴ The parties involved in tawarruq contract are: the seller of the commodity or the creditor (Muwarriq), the buyer of the commodity (Mutawarriq) and the subject of the transaction (the commodity). Some islamic scholars consider tawarruq very close to the term inah⁵ (credit sale) and in (Al-Zuhaili n.d., p. 3) *inah* is a fake sale, which is used as a means of usury (interest), and not to conclude a genuine sale. On the other hand some scholars say tawarruq is not inah and it is in the accordance with Shari’ah and there is no barrier in its use. In that way many Islamic bank use tawarruq very extensively (Bouheraoua 2009, p. 3) because they believe it ensures that depositors will continue to do business with them and because it provides the liquidity that is considered to be their lifeblood. (Ibrahim Fadhil Dabu n.d.,p.1) says that many Islamic banks use tawarruq because they believe that it aims to provide liquidity to banking customers, in which they will immediately receive an amount of money vis-à-vis their commitment to pay a deferred amount that is more than the cash that they have received. Generally, if we consider the definitions above, tawarruq model can become a three mechanisms (Hosen & Nahrawi, 2012, p. 126) because it includes a person that needs cash and buys an item, on a installment plan, and then sells the item to the third person, at a lower cost for cash. Also there could be a situation where person A needs the cash and tries to borrow it from the person B, but B may refuse such a transaction while offering A that an item that he needs is to be purchased by a person who needs money whereupon he can sell the item back at a low price, or a higher price, for cash.

There are two types of tawarruq, classical (Al-Tawarruq al-Fardi; tawarruq on an individual basis) and organized tawarruq (Al-Tawarruq al-Munazzam). OIC Fiqh Academy defines classical tawaruq as “*the purchase of a commodity possessed and owned by a seller on a deferred payment basis, whereupon the buyer then resell the commodity for cash to other than the original seller in order to acquire cash (al-wariq)*“ and organized tawarruq as situation “*when a person (mutawarriq) buys a merchandise from a local or international market on deferred price basis. The financier arranges the sale agreement either himself or through his agent. Simultaneously, the mutawarriq and the financier execute the transactions, usually at a lower spot price.*”⁶ Habib and Aleshaikh (2014, p. 2) say that Islamic banks use this instrument to provide financing on the asset side and accept deposits on the liability side. Dr. Sami Ibrahim al-Suwaylimhas cited three differences between tawarruq on an individual basis and organized tawarruq:

- *“In organized tawarruq the original seller acts as an intermediary by selling the commodity for cash on behalf of the mutawarriq, whereas the original seller in individual tawarruq takes absolutely no role in the resale of the commodity and has no relation with the final buyer.*
- *In organized tawarruq the mutawarriq receives the cash from the original seller, to whom he owes the delayed price, whereas the cash in individual tawarruq will be taken by the mutawarriq directly from the final buyer without any involvement by the seller.*
- *In organized tawarruq the original seller might agree beforehand with the final buyer that he will purchase the commodity. This agreement will occur by the commitment of the final buyer to the purchase so as to avoid fluctuation of the price.”⁷*

(Mihajat n.d., p.8) says that organized tawarruq is usually practiced on the commodity murabahah which is the most commonly used in liquidity management instrument by IFI, because IFI can get a fix return from this instrument. Generally, this process is described in (Khan 2009, p. 17) as a model where Party A purchases a commodity on deferred payment and rapidly sells the same commodity on spot, where the seller in the first trade is supposedly a different party to the buyer in the second.

As a result, Party A obtains the cash, as well as a higher debt obligation. The International Council of Fiqh Academy in 2009 declared organized tawarruq impermissible, reasoning that it contains elements of interest-based lending. In (Ahmed & Aleshaikh 2014, p. 1) in terms of organized tawarruq it says that the legalistic forms of contracts are fulfilled but the substance and spirit are not because (Dusuki 2007, p. 17) its mechanism resembles bay` al-`inah⁸; whereby the Islamic financial institution who is acting as an agent to the customer (mustawriq) who need cash sells the asset which was initially purchased from the same institution to the third party and at the end (Nagaoka n.d., p.11) the actual transactions of the real good tend to become just nominal on paper. In analyzing tawarruq, it is important to explain the point of view of school of thought in Islam, regarding tawarruq.

There are four well-known schools of thought; Maliki (founded by Imam Malik Ibn Anas), Hanafi (founded by Abu Hanifah Numan ibn Thabit), the Syafi'i School (known after Al-Shafi'i Mohammad ibn Idris) and the Hanbali School. In (Hosen & Nahrawi 2012, p. 126) the Hanafi, Syafi'i and Hambali schools of jurisprudence, view a tawarruq transaction as legal declaring that *„all trading transactions are halal, except for trading transactions*

*about whose haram-inducing qualities are disputed by the holy Qur'an or the Sunnah, while the Maliki school do not agree with the sale of goods at a price lower than that of the market, when this is done by someone who obtains profit on a loan by methods which is within the usury category.'*⁹ In accordance with quote above, (Siddiqi 2007, p.6) lists some „harmful effects (mafasisd) of organized tawarruq“¹⁰ such as:

- *It leads to creation of debt whose volume is likely to go on increasing.*
- *It results in exchange of money now with more money in future, which is unfair in view of the risk and uncertainty involved.*
- *It leads, through debt proliferation, to gambling like speculation.*
- *It leads, through debt finance, to greater instability in the economy.*
- *In a debt-based economy, the money supply is linked to debt with a tendency towards inflationary expansion.*
- *It results in inequity in the distribution of income and wealth.*
- *It results, through debt finance, in inefficient allocation of resources.*
- *It contributes, by consolidating debt financing, to raising anxiety levels and destruction of environment.*

As seen from above, classical tawarruq is permissible because it represent a classical way of trade. The organized tawarruq (Hosen & Nahrawi 2012, p. 140) is merely a word game in the contract, which in the end can cause suffering to and deceive the bank customer so as to obtain a profit what is not acceptable by Islam. Sheikh Mohammed Mukhtar Al Salami, Head of the Sharia (Islamic) Panel in the Jeddah-based IDB, said that „*tawarruq differs from usury in one thing; a usury deal is done through one window while tawarruq is done through two windows*“.¹¹

3. Theoretical background

Islamic banking has it core values, for entire financial system, and every Islamic financial institution must always have in consideration those values. But as we have seen from the previous section, there are differences in school of thoughts about tawarruq which directly affects its use in Islamic banking globally. The next table shows in which countries tawarruq is being used the most and where it has been restricted.

Table 1. *Key differences across jurisdictions*

	IRAN	SUDAN & SAUDI ARABIA	SOUTH ASIA	GCC & EUROPE	SOUTH EAST ASIA
MEZAHIB	Shiah	Sunni Maliki (Sudan), Hanbali (SA)	Sunni Hanafi	Sunni Hanbali	Sunni Shafi'i
BANKING SYSTEM	Single (Islamic) banking system	Single (Sudan) Dual (SA)	Dual banking system	Dual banking system	Dual banking system
SHARIAH GOVERNANCE	Centralized	Centralized (Sudan) and self governed (SA)	Hybrid (centralized & self governed)	Self governed except UAE (hybrid)	Centralized (Malaysia, Brunei & Indonesia) only
ISSUES ON SHARIAH CONTRACTS		Tawarruq restricted for liquidity instruments	Tawarruq restricted for liquidity instruments Salam on currency (Bill acceptance)	Tawarruq widely applied (except for banks supervised by Sheikh Husain Hamed Hassan – replaced by Salaam)	Bai' `Inah and Bai' Dayn Tawarruq widely applied

Source: Bank Islam

According to „*Islamic Financial Services Industry Stability Report 2015*“, the global Islamic finance industry's assets are estimated to be worth USD1.87 trillion as at 1H2014, having grown from USD1.79 trillion as at end of 2013.

The largest segment of the global Islamic finance industry is the Islamic banking sector, with assets in full-fledged Islamic banks, subsidiaries and windows amounting to approximately USD1.48 trillion as at 1H2014. The sector has grown by 16% in 2013. When we speak about the use of all Islamic banking instruments, on the next figure there is a representation of the use of Islamic banking instruments.

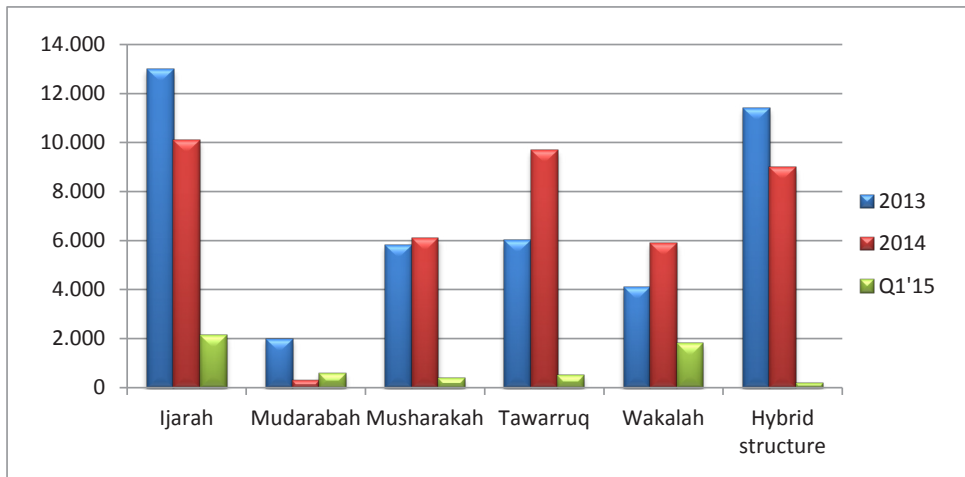


Figure 1. *The use of Islamic banking products widely*

Source: IFIS, Ideal Ratings

As seen from the figure, tawarruq is being used very actively. Before analyzing the reasons for such trend, it is important to explain the differences between the classical and organized tawarruq.

Table 2. *Differences between the classical and organized tawarruq*

<i>Classical tawarruq (Al-Tawarruq al-Fardi)</i>	<i>Organized tawarruq (Al-Tawarruq al-Munazzam)</i>
The original seller (Muwarriq) of the commodity doesn't play any role in the resale of the commodity and also has no relation with the final buyer.	The original seller (Muwarriq) acts as an agent of Mutawarriq by selling the commodity for cash on behalf of the Mutawarriq.
The buyer (Mutawarriq) will receive the cash directly from the final buyer without the involment of the seller.	The buyer (Mutawarriq) will receive the cash from the original seller and owe him a delayed price
The original seller has no relation with the final buyer.	The original seller might have a pre-arrangement with the final buyer of purchasing the commodity.

Source: Authors

Classical tawarruq is accepted by the majority of jurists but to be valid, the following requirements must be fulfilled:¹²

- a) Each transaction in the tawarruq arrangement must be in a accordance with the Shari'ah conditions.

- b) The tawarruq arrangement means two transactions a) between the client and a bank and 2) between the client and third party. To avoid *inah* it is not allowed that these transactions are between the two same persons or institutions. The subject of the sale can't be returned to the original seller.
- c) The subject of the sale must be commodity or tangible assets.
- d) The subject of the sale must be clearly defined and distinctive as compared to other assets and commodity owned by the bank.
- e) The subject of the sale must be taken from the buyer before it can be sold to the third party.
- f) Transactions of buying and selling must be separated and independent from each other. The contract is not valid if it consist the condition of sales purchase or vice versa.
- g) Selling the item can be made only after the customer takes over the goods.

Organized tawarruq can be represented as the following:

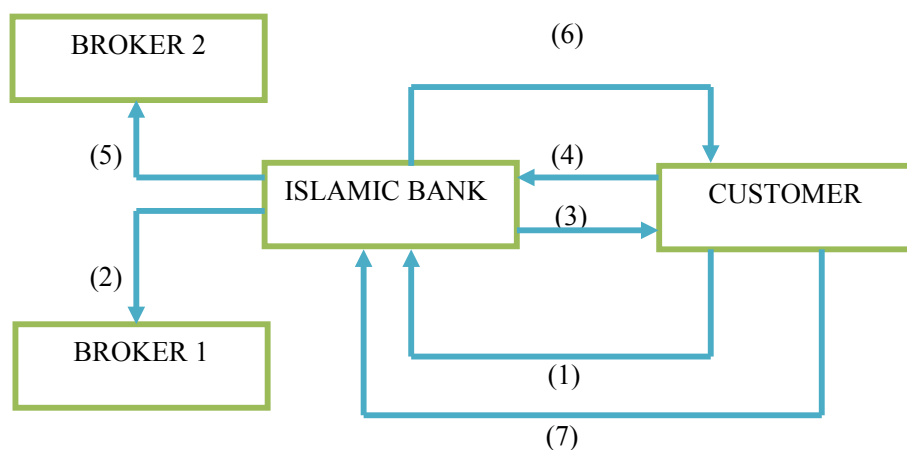


Figure 1. Organized tawarruq structure

Source: Bank Islam

1. "The customer applies financing product based on Tawarruq concept from the Bank and the bank obtains Tawarruq transaction documents from the customer.
2. Bank buys the commodity at London Metal Exchange (LME) through Broker 1.
3. Under the Murabahah contract, Bank then sells the commodity to the customer at Bank' Selling Price (Principle + Profit) on deferred payment term.

4. Under the *Wakalah* contract, customer requests Bank to sell the commodity in the market.
5. Acting as the appointed sale agent for the customer, Bank sells the commodity to Broker 2.
6. Bank then credits the *Wariq* (proceed) from the sale of commodity to the customer's account.
7. Finally, customer pays amount due to the Bank (Principal + Profit) by way of agreed installment method."

One form of the organized *tawarruq* is banking *tawarruq* (***Al-Tawarruq Al-Masrafi***). The bank sells the commodity from the market to the buyer with deferred payment. In selling the commodity, the bank will represent the buyer to third party for cash, and it will deliver the payment to the buyer (*Mutawarruq*). One of the most used concept of organized *tawarruq* is a form of commodity *Murabahah* (Mihajat, n.d., p. 8) because IFI can get a fix return from this instrument. Although they are similar, there are differences between these two instruments because *tawarruq* includes three parties while commodity *Murabahah* includes four parties.

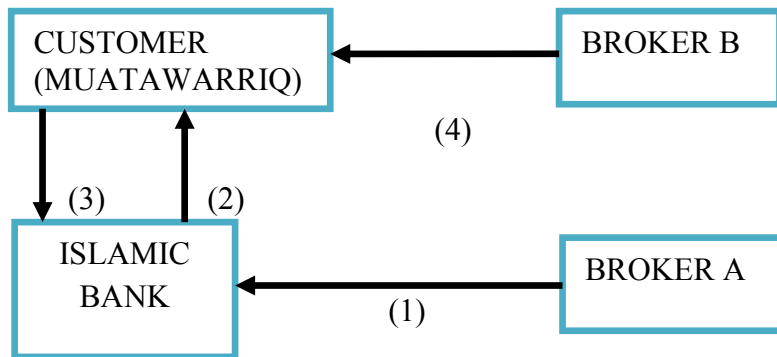


Figure 2. Commodity Murabahah structure

Source: Bank Islam

1. The client and the bank agree on the details of the transaction and the amount of money that is required. The bank buys certain commodity on the market from the broker A worth 100.000 euros for cash.
2. Purchased commodity the bank sells to the client for the price increased for the profit margin, for example 110.000 euros.
3. The client commits to pay the purchased commodity within a specified time and in installments.
4. He sells the purchased commodity to the broker B for 100.000 euros in cash.

4. Methodology

Tawarruq as a model can be used to manage liquidity risk that plays an important role in the banking sector. Generally, liquidity risk incurs because of a mismatch of the asset side and a liability side in a balance sheet of a financial institution. Liquidity risk in Islamic banks can happen because of the nature of the Islamic banking products and also because of the influence of the other types of risks, depending on the phase of the realization of the contract. Therefore liquidity risk management lies at the heart of confidence in the banking system. Failure to address liquidity problems not only can cause an insolvent bank to runs but may also have contagious effects (Dusuki 2007, p. 5) banks transform the term of their liabilities to have different maturities on the asset side of the balance sheet. At the same time, banks must be able to meet their commitments such as deposits at the point at which they become due. Thus, liquidity management lies at the heart of confidence in the banking operation. Customers place their deposits with a bank, confident they can withdraw the deposit when they wish. If the ability of the bank to pay out on demand is questioned, all its business may be lost overnight. The importance of liquidity transcends the individual institution, since a liquidity shortfall at a single institution may invoke systemic repercussion causing harm to the whole financial stability of a country. Therefore it is important for banks to have adequate liquidity potential when it can obtain sufficient funds promptly and at a reasonable cost. For Islamic banks, liquidity risk is a significant risk owing to the limited availability of Shariah-compatible money market instruments and lender-of-last-resort (LOLR). The importance of managing the liquidity risk in Islamic banking confirms the founding of International Islamic Financial Market (IIFM) and Liquidity Management Center (LMC) with the goal to “*enable IFI to manage their liquidity mismatch through short and medium term liquid investments structured in accordance with the Shari’ah principles.*”¹² In managing the liquidity risk, Central Bank of Malaysia (Bank Negara Malaysia) developed Islamic Inter – bank Money Market (IIMM)¹³ in 1994. In March 2007, Bank Negara Malaysia introduced the Commodity Murabahah Programme (CMP), a liquidity management tool in order to connect surplus and deficit units. CMP uses the tawarruq model that utilizes the Crude Palm Oil (CPO) as the underlying concept. The structure of CMP for liquidity management (both to absorb and inject liquidity) can be represented in the next few steps (Dusuki 2007, p. 13) banks transform the term of their liabilities to have different maturities on the asset side of the balance sheet. At the same time, banks must be able to meet their commitments such as deposits at the point at which they

become due. Thus, liquidity management lies at the heart of confidence in the banking operation. Customers place their deposits with a bank, confident they can withdraw the deposit when they wish. If the ability of the bank to pay out on demand is questioned, all its business may be lost overnight. The importance of liquidity transcends the individual institution, since a liquidity shortfall at a single institution may invoke systemic repercussion causing harm to the whole financial stability of a country. Therefore it is important for banks to have adequate liquidity potential when it can obtain sufficient funds promptly and at a reasonable cost. For Islamic banks, liquidity risk is a significant risk owing to the limited availability of Shariah-compatible money market instruments and lender-of-last-resort (LOLR):

1. *“Bank A that faces excess liquidity can manage their liquidity by purchasing commodities from Broker A on cash basis. For example, one million USD.*
2. *The bank sells the commodities to Central Bank of Malaysia on deferred price (cost price plus profit margin). For example, one million USD (cost) plus 7.5 profit margin for a duration of six months ($7.5\% \times 6/12 \times 1 \text{ million USD} = \text{USD } 1,037,500$).*
3. *Central Bank of Malaysia sells the commodity to Broker B in on spot at the original price to net off the commodity position that it holds when it purchased from Bank A. The Central Bank of Malaysia may appoint the bank as his agent to sell the commodities in the commodity market.*
4. *On maturity date, Bank A will be receiving the amount equivalent to the principal plus the net yield as agreed beforehand.* “¹⁴

In the case of temporary liquidity problems, the use of CMP instrument would look as the following:

1. *„Central Bank of Malaysia purchases the commodities from Broker A on cash basis. For example, 1 million USD. Alternatively, the Central Bank of Malaysia can appoint Bank B (that faces temporary liquidity problem) as its agent to buy the commodities from commodity market. Bank B will receive the funds for the purchase of commodities on spot basis. The ownership of the commodities is then transferred to the Central Bank of Malaysia.*
2. *The Central Bank of Malaysia sells the commodities to Bank B on deferred price (cost price plus profit margin). Hence, the ownership of the commodities is now transferred to Bank B.*

3. *Bank B sells the commodities to Broker B in on spot at the original cost price to net off the commodity position that it holds when it purchased from Central Bank.*
4. *On maturity date, Bank B will have to pay Central Bank for the funds equivalent to the principal plus profits. In the final analysis, Bank B obtains funds on spot which is required to manage its liquidity effectively and efficiently.*¹⁵

Bank Negara Malaysia also developed a concept of using tawarruq called *Bursa Suq Al-Sila* (BSAS), “a commodity trading platform specifically dedicated to facilitate Islamic liquidity management and financing by Islamic banks.”¹⁶ It is a fully electronic webbased platform that enables participants to undertake multi-commodity and multicurrency trades. It offers commodity Murabahah, tawarruq, wakala and wadiah for short-term money market. On the other hand, Islamic banks widely use tawarruq for mobilization of needed capital by the investor and the public. This is mainly considered in terms of deposit where on the previous platform there is a Commodity Murabahah Deposits. In this case, (Dusuki, 2010, p. 4) since the client has the money and is looking for avenues to place the fund and earn return, he would first buy the metal (using the bank as his agent) and then sell it to the Islamic bank on a deferred basis. That can be explained in following:

- a) *The client buys the commodity from broker A on a spot basis, using BSAS.*
- b) *The client then sells the commodity to bank on a deferred basis at Cost + Profit model.*
- c) *Bank sells the commodity to Broker B using BSAS, on a spot basis and obtains cash.*
- d) *The Islamic bank makes payment of the selling price upon maturity.*

5. Conclusion and recommendation

Islamic banking became a way of doing business around the world. Because of the prohibition of interest, Islamic banks have developed many products as an alternative to the conventional banking, with the aim to satisfy their clients financial needs but on a more ethical and moral way. On the other hand, some of the newly developed products are the subject of debate among the Islamic scholars because every Islamic banking product must be in accordance with Shari’ah. One of these instruments is a tawarruq model, developed on a base for a client to get cash by reselling the commodity that

he (the client) purchased from the seller. There are two basic types; classical tawarruq (*Al-Tawarruq al-Fardi*) and organized tawarruq (*Al-Tawarruq al-Munazzam*). Classical tawarruq implies that an individual buys commodity from a bank, deferred, which later sold to another person or a bank for money in order to obtain the necessary liquidity. Organized tawarruq involves a transaction that allows the bank to act as an agent for repurchasing the commodity that has been sold. The result of these transactions is that the client gets the cash and bank owes funded amount plus the anticipated return. Although the tawarruq is being used as liquidity management tool, especially in a form of a Commodity Murabahah Programme with the aim of solving problems with lack of liquidity, there is a debate in terms of organized tawarruq because some Islamic scholars believe that this model contains interest. One of the reasons for the existence of differences, in the concept of the eligibility of an instrument, is the conditions and regulatory regimes under which Islamic banks operate. The Hanafi, Syafi'i and Hambali schools of jurisprudence view tawarruq transaction as legal while the Maliki school do not agree with the sale of goods at a price lower than that of the market. Because every Islamic banking product must be approved by the Shari'ah board, it is important to notice that the decision on acceptance or rejection of a product will depend exclusively on to which mezahib belongs the members of the Shari'ah Board. For example, we have a situation where in Iran tawarruq is completely banned while in Malaysia or Saudi Arabia, it's been used widely. This can lead to a situation where a bank develops new products but during the time they also become a subject of debate among Islamic scholars, which raises the question whether Islamic banking is really a different way of doing business or yet a conventional banking just called with a different name? Also it is a good opportunity for critics of Islamic banking to confirm their thesis that Islamic banking is not ethical as claimed. Although the scholars still debate on tawarruq, the fact is that this instrument is being used in many Islamic banks, not only in GCC region but around the world, which raises the question for further studies whether should tawarruq be used only as an exception or as a rule in the Islamic financial institutions?

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THE ROLE OF MACROECONOMIC DETERMINANTS OF NPLS IN ENVIRONMENT UNDER CRISIS: CHALLENGE FOR BOSNIA AND HERZEGOVINA AND OTHER CEE COUNTRIES

ULOGA MAKROEKONOMSKIH DETERMINANTI NEKVALITETNIH KREDITA U KRIZNOM OKRUŽENJU: IZAZOV ZA BOSNU I HERCEGOVINU I OSTALE CEE ZEMLJE

Abstract

This paper analyze macroeconomic determinants of non-performing loans in Bosnia and Herzegovina banking sector; together with comparison between this country and other Central and Eastern Europe (CEE) countries. The recent global financial crisis in the countries of CEE has caused high increase in the share of non-performing loans in the total volume of loans granted. In accordance with definition settled by Basel Committee on Banking Supervision non-performing loans are the one with delay in repayment more than 90 days from maturity date. As they are main source of risks for banks and entire financial sector; entire financial intellectuals are considering non-performing loans problem and methods of its solving. Therefore, banks often, with scrutiny of international institutions, restructure non-performing loans and preform balance cleaning. It is currently the most common move in the dealing with the non-performing loans. The aim of this paper is to identify which of macroeconomic determinants have impact on level of non-performing loans in banking sector. For that purpose, macroeconomic data for period 2006-2013 from Bosnia and Herzegovina as well as data about non-performing loans for the same period have been used. This time series is representative, because it covers pre-crisis as well as crisis period. Thus, it was possible to detect moment of NPLs appearance as well as its growth and movements. Further, in order to perceive the problem more globally, a comparison between levels of non-performing loans, as well as disclosed macroeconomic determinants of non-performing loans in CEE countries have been conducted. Therefore, analysis of panel data was conducted as well as regression analysis. Results have shown that improvement in macroeconomic condition cause

improvement in credit quality. This conclusion is quite similar for all CEE countries, with the exception of those which are old EU members.

Keywords: non-performing, loans, macroeconomic, crisis, comparison

JEL: E44, G01, G21

Sažetak

Ovaj rada analizira makroekonomske determinante nekvalitetnih kredita u bankarskom sektoru Bosne i Hercegovine, ujedno vršeći komparaciju sa ostalim zemljama CEE regije. Općeprisutna finansijska kriza u CEE zemljama je uzrokovala veliki rast udjela nekvalitetnih kredita u ukupnim. Bazelski komitet za superviziju banaka nekvalitetne kredite definiše kao one koji kasne u otplati devedeset ili više dana od dana dospijeća rate. Budući da su oni glavni izvor rizika za banke i cijeli finansijski sektor, ovi krediti kao i metode njihovog rješavanja našli su se u fokusu interesovanja finansijskih inetelektualaca. Tako banke često vrše restrukturiranje nekvalitetnih kredita i “čišćenje” bilansa. Ovo je, trenutno, najzastupljeniji način rješavanja problema nekvalitetnih kredita. Cilj ovog rada je identifikovati makroekonomske determinante nekvalitetnih kredita. U tu svrhu su prikupljeni makroekonomski podaci za period 2006-2013. godina za Bosnu i Hercegovinu, kao i podaci o nekvalitetnim kreditima za taj isti period. Ovaj vremenski raspon je relevantan budući da obuhvata i period prije krize, kao i sam krizni period. Stoga je moguće identifikovati trenutak pojave nekvalitetnih kredita, kao i njihov rast i kretanje. Kako bi se ovaj problem sagledao sa globalnog nivoa izvršena je komparacija nivoa nekvalitetnih kredita, kao i utvrđenih makroekonomskih determinanti CEE zemalja. Stoga je provedena analiza panel podataka, kao i regresijska analiza. Rezultati su pokazali da poboljšanje u makroekonomskim uslovima uzrokuje i poboljšanje u kvaliteti kredita. Ovaj zaključak je sličan u većini CEE zemalja, sa izuzetkom onih koje su stare EU članice.

Ključne riječi: nekvalitetni krediti, makroekonomski, kriza, komparacija

JEL: E44, G01, G21

1. Introduction

Since the loans are the most part of bank asset, their quality represent one of the most meaningful determinants of stability and business performances. In accordance with definition settled by Basel Committee for Risk Management non-performing loans are the one with delay in repayment more than 90 days from maturity date. A recent financial crisis has shown importance of appropriate risk management techniques. Accordingly, numerous methods of managing this risk have been developed. They are their efficiency/inefficiency

demonstrated during the financial crisis. In this regard, everyone is talking about non-performing loans and methods of resolving them. Thus, banks are carry out the restructuring of non-performing loans and the balance cleaning. Those are, temporary, the most common method of solving the problem of non-performing loans. Efficiency of these methods depends on macroeconomic environment of country where some bank operates.

2. Literature review

By analyzing the available literature and the works of other authors, a better insight into the state of research in this area has gotten. The first disclosed paper research connection between return on equity and risk determinants measured by capital markets volatility on the example of US banking sector. It was shown that market volatility is transferred on business as well as on return on capital, what causes weaker business results (Stiroh 2006, p. 242). Further, authors have researched factors which have influence on level of non-performing loans in India banking sector. The primary data have been used and they are conducted from bank credit managers. It was shown that external factors are much more meaningful then internal (Sanjeev 2007, p. 18). Some authors' non-performing loans consider as macroeconomic problem and analyze it as such. Considering problem of non-performing loans macroeconomic problem rather than financial system problem, it was suggested that central banks have to take greater responsibility for procyclicality maintains as well as balancing the resulting imbalance (White 2009, p. 3). Also, the influence of credit growth on bank risk in 16 countries was conducted. The relationship between asset risk, banking profitability and solvency was tested. It was disclosed that credit growth lead to growth in loan losses, interest revenue decline as well as lower capital craft. Thus, it was shown that credit growth has negative impact on risk weighted interest revenue. Also, it was proven that credit growth positively correlates with loan loss provision, and negative with profitability and solvency (Foos, Noorden & Weber 2010, p. 22).

Further, research was conducted in Croatia where authors have researched level of non-performing loans as well as level of single as well as portfolio risk in Croatia banking sector. The correlation between ascertain variables and macroeconomic indicators was conducted (Šverko, Prga & Vrdoljak 2010, p. 12). Than, authors have define a model whose subject is the cumulative effects of macroeconomic shocks in a time horizon of three years and their impact on non-performing loans. Therefore, they have applied VAR model on panel

data in order to test settled model (Espinoza & Prasad 2010, p. 16). Further, paper proved strong connection between banking crisis and unlimited default through economic history of many countries. Three hypotheses were tested: private debt contributes to banking crisis, banking crisis goes together with debt crisis and public debt has the greater impact on to banking crisis than private debt (Reinhart & Rofoff 2010, p. 20). Than the connection between credit growth and asset quality and ascertain external and internal factors in developing countries has been tested. It was proved that slowdown in economic growth, the weakening of the exchange rate and fast credit growth are independently connected with higher level of non-performing loans (De Bock & Demyanets 2012, p. 12). Some authors have used dynamical methods for panel data analysis in order to disclose determinants of non-performing loans in Greece banking sector, for each type of loans. It has been proven that non-performing loan can be explained with macroeconomic factors and quality of management through the ascertain measures (Lousiz, Vouldis & Metaxas 2012, p. 32).

Research that has been conducted in Italian banks demonstrated that banks have succeeded to modify their liquid portfolio in order to be able to meet requirements of Basel III. Measures taken to reduce liquidity risk also reduce the profit margin, but enables banks to reduce capital needed for risk of interest rates, thereby achieving better global effect (Baldan, Zen & Rebonato 2012, pp. 27-51). Further, research showed significant negative impact of export and industrial production on non-performing loans. With increase of export and industrial production, economy also increase and level of non-performing loans decrease (Fawad & Taquadus 2013, pp. 243-255). Also, it was disclosed that following variables have significant impact on level of non-performing loans: GDP growth, stock prices, exchange rates and interest rates. Direction of exchange rate impact depends on volume of lending in foreign currencies to uninsured clients. When it comes to stock price, there is a bigger impact in countries with higher stock market/GDP ratio (Beck, Jakubik & Piloiu 2013, p. 28). Furthermore, authors have researched macroeconomic determinants of non-performing loans in CESEE countries. It has been showed that non-performing loans started to rise just after beginning of financial crisis 2008th, but sharp rise happened a year later when GDP in majority of CESEE countries contracted. Except these macroeconomic determinants, relatively high volatility in non-performing loans indicates on non-negligible contribution factors specific to individual bank (Klein 2013, p. 13). Moreover, authors' recommendations imply creating a healthy macro-economic environment in order to reduce level of non-performing loans in Pakistan commercial banks.

The emphasis is, also, on adequate credit culture and lending policy designed in accordance with appropriate economical and financial factors (Mehmood, Zahid & Nisar 2013, pp. 1-14). Connection between microeconomic factors and level of non-performing loans was examined. Econometric model which distinct influential factors of those less influential has been settled (Šturc, & Žoldakova 2013, p. 320-322). Also, impact of procyclicality in Eurozone on non-performing loans and its connection with Basel III was examined. It has been proven that compliance with new, stricter requirements of Basel leads reducing cyclicity and the decline in non-performing loans (Horvatova 2013, p. 6).

3. Research methodology

In order to identify which of macroeconomic determinants have impact on level of non-performing loans in banking sector, macroeconomic data for period 2006-2013 from Bosnia and Herzegovina as well as data about non-performing loans for the same period have been used. This time series is representative, because it covers pre-crisis as well as crisis period. Thus, it was possible to detect moment of NPLs appearance as well as its growth and movements. Further, in order to perceive the problem more globally, a comparison between levels of non-performing loans as well as disclosed macroeconomic determinants of non-performing loans for CEE countries has been conducted. In order to explore impact of macroeconomic variables on level of non-performing loans, the ordinary least squares model (OLS) was used. Before carrying out the econometric analysis, descriptive data analysis has been provided as well as verification of normality and symmetry distribution and the existence of multicollinearity problem. Since the model involves time series, the problem of autocorrelation may exist, but previous studies have shown that this approach is suitable for NPL time series analysis, as long as the problem of autocorrelation is solved. Therefore, in statistical literature linear regression model is defined as follows (Somun-Kapetanović 2008, p. 65):

$$y_t = \alpha + x_t' \beta + \varepsilon_t$$

Where y is the explained variable, in this case level of non-performing loans, is constant term and x is $n \times p$ matrix of regressors, in this case: inflation, unemployment and GDP growth, and is error term. In order to measure non-performing loans, the ratio of non-performing loans to total loans was used. The data is based on Central bank of Bosnia and Herzegovina reports. GDP

growth is expected to have negative relationship with non-performing loans as increase in GDP represent an additional source of liquidity at the market what should allow the borrowers to repay their debts. Thus, non-performing loans ratio should decline or at least stay stable when GDP rise. The yearly rate of GDP growth was used, since the all other observed data were on yearly basis. Next, independent variable – unemployment, should cause increase in level of non-performing loans since an increase in this predictor should be associated with number of borrowers who become unemployed and couldn't repay their debts. In order to examine impact of price stability on level of non-performing loans, inflation rate was included in model. For this predictor, the positive relationship was expected since as inflation increases, the cost of borrowing increases what should cause deterioration in loan quality. But, results have showed something different what will be presented at results section of this paper.

Further, causality and functional analysis have been employed. Causality analysis was used to detect dependencies between level of non-performing loans and macroeconomic determinants. Functional analysis has helped to understand the relationships and dependencies between the above-mentioned elements. Using the method of synthesis all the individual findings are combined into an overall conclusion. When it comes to CEE countries analysis for the purposes of this study as a relevant categorization CEE countries we took the definition of the OECD¹, that the CEE countries include: Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro, Serbia, Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Slovakia, Slovenia, Estonia, Latvia and Lithuania.

4. Results

At the beginning of analysis assumptions for regression analyses were tested. Firstly, Kolmogorov–Smirnov test was conducted. Its value shows as that all variables are normally distributed with significance less than 0.05. Analysis of multicollinearity was then implemented. Obtained results show absence of multicollinearity and that model is good. The assumption of homoscedasticity was, also, tested. It was done by Whites' test which has shown that this assumption is satisfied. The regression results are given in following table.

Table1. *Regression results*

Inflation	-0.014 ***
Unemployment	0.257***
GDPgrowth	-0.729***
R-squared	59.2

Robust standard errors are reported in parentheses. *, **, *** indicates significance at the 90%, 95% and 99% level respectively

Source: Author's calculation

From the R-square value we can see that with this model we explain 59.2% variance in non-performing loans. Durbin Watson test is 2.09 what is acceptable value. Also F-test shows us that the model is good. As we can see from above table the greatest contribution to the model gives GDP growth with 72.9% explained. Unemployment rate contributes with 25.7% and inflation with 1.4%. Therefore we can conclude that GDP growth has the greatest influence on level of non-performing loans, what was expected if we look at this variable as indicator of situation at observed country. Outliers have been checked by the help of standard deviation and histograms. The results of this analysis didn't show any special outliers, so there was no necessary to cope with them. So we can define this problem into an regression model as follows.

$$NPL = 3.653 - 0.729 \times GDPgrowth + 0.257 \times Unemployment - 0.014 \times Inflation + 0.041$$

These results are confirmed by Central bank of Bosnia and Herzegovina reports. Namely, Financial Stability Report says that poor economic growth together with problems in real sector have impact on banking sector. But, besides all banking sector in 2013 remained stable, if we don't take into account a number of banks that have problems in business. Also it's important to emphasize that banking sector is well capitalized. When it comes to risks for financial stability of Bosnia and Herzegovina banking sector, first of all it is necessary to point out the level of non-performing loans. This, actually, represents the main source of increased systematic risk, together with fact that there isn't adequate solution for this problem. Regarding to 2012, in 2013 improvements in some indicators can be noticeable. According to the Central Bank, based on the excerpt from the Central Credit Registry of total household debt in 2013 is 7,78 billion and increased by 5% compared to the previous year. Despite high unemployment, stagnation of the average net salary in Bosnia and Herzegovina as well as the reduction in deposit rates, however, there was growth in retail deposits. The level of non-performing loans in Bosnia and Herzegovina banking sector in 2013 was 15,2%. However, despite the fact that this is a lower level of these loans than that

recorded in neighboring countries, yet they pose the greatest risk to financial stability. On the following figure it can be seen that 2009 is breakpoint and years after that non-performing loans, together with unemployment starting to rise and inflation and GDP are starting to decline.

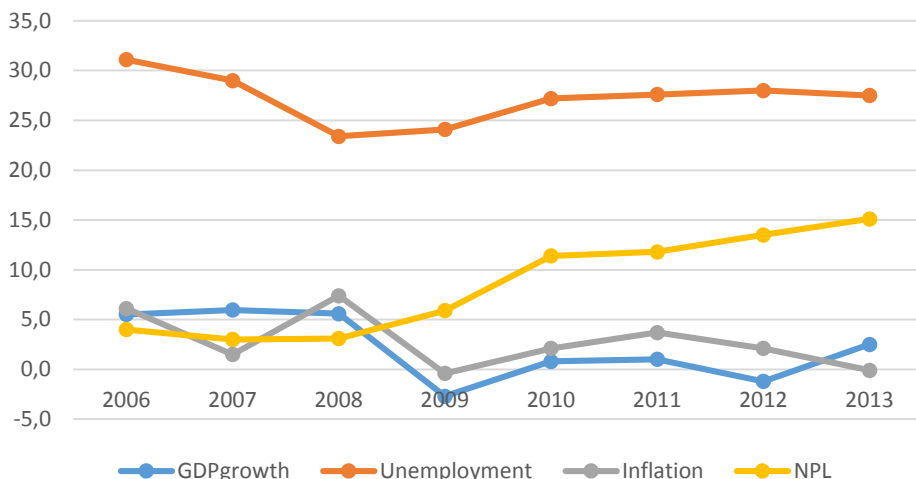


Figure 1. *Bosnia and Herzegovina indicators*

Source: Central bank of Bosnia and Herzegovina Financial Stability Report (www.cbcbbh.ba, Accessed 06/08/2015)

Extremely low inflation and ultra-expansionary monetary policy is currently being implemented by the European Central Bank opened the way to a low reference rates while interest rates on the money market remained the same. Many economists believe that in Poland, Hungary and Romania, there is space for even further reduction. It should be noted that, basically speaking, some countries of Central and Eastern Europe do not look too much debt as some countries within the euro area, indicating a great need for revision. However, in some countries of the region are noticeable credit-driven success-crash cycles as they are very similar to those in Spain, Greece, Ireland and Portugal. In these countries, unadjusted ratio of total loans/GDP seems low, but the situation is much serious if we look at the ratio of total loans, and income. In such heavily indebted economies of the region credit expansion are likely to be delayed for a long time, while economic growth is very likely to reach the level before the crisis very quickly. From the perspective of the bank it is necessary to point out the lack of quality of the loan that need to pay attention to the current market conditions. With this, it creates a need for concrete measures of support in this environment. At almost all over-indebted banking markets, either in Western Europe or

CEE countries, the level of non-performing loans is at a high level may even in some countries, reaching double-digit ratio in recent years. These figures clearly indicate the underestimation of risk and possibly inadequate risk assessment before and during the crisis. Thus, as long as economic growth is on disappointing low in lot of Western Europe and CEE countries, it will be very difficult to manage a large proportion of non-performing loans appropriately. The following figure represents a clear view of non-performing loans increase as well as GDP decline.

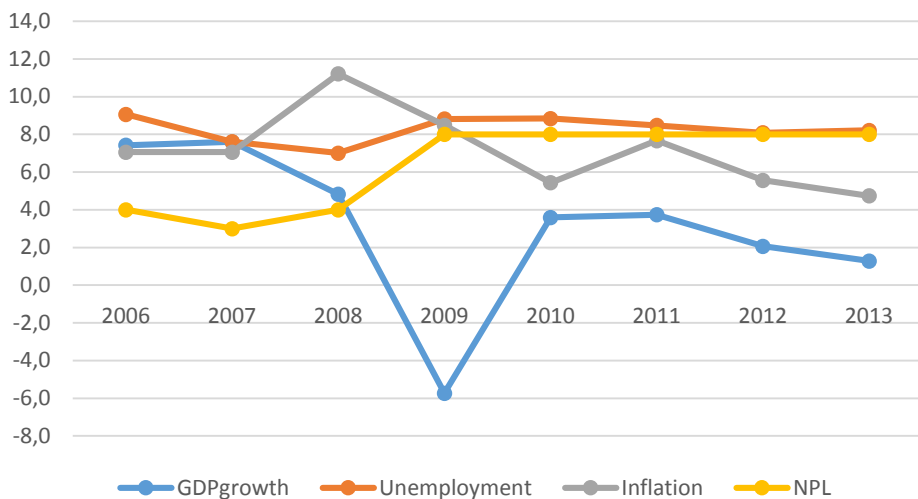


Figure 2. CEE indicators

Source: Author's calculation

If we compare observed indicators between Bosnia and Herzegovina and CEE countries average it's obvious that they are moving together with minor variations. For all indicators, for both regions the breakpoint is 2009 – the crisis year. It can be seen on the following figure.

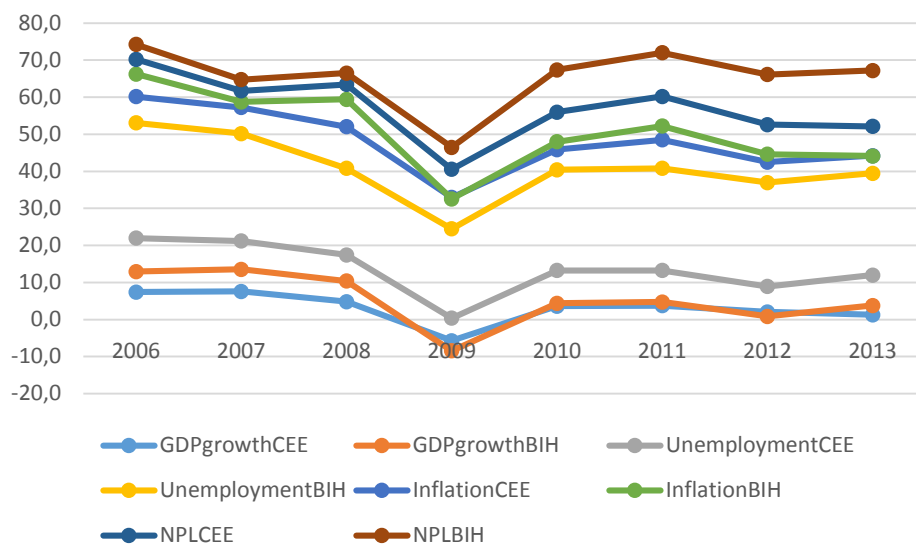


Figure 3. *Indicators comparison*

Source: Author's calculation

5. Discussion and conclusion

If we take a look to each of CEE countries the following can be concluded. Together with the positive results from the Kosovo banking sector, declining trend of costs of bad loans is noticeable. Kosovo banking sector is well capitalized and it is above regulatory minimum. Further, when we talk about threats to Albanian banking sector financial stability, as well as for most other countries there is need to pay attention to credit risk and consequently non-performing loans. The share of non-performing loans to total loans in the banking sector of Albania in June 2014 increased to 24.1%. Thus, portfolio quality indicators are worrying, especially for little banks where the share of these loans grew by 5%, while in large and medium-sized banks this indicator increased by 1% and 0.1% respectively. In Croatia all indicators of credit portfolio quality are slightly improved in 2013, but credit risk is still the greatest threat to stability of banking sector. At the end of 2013 level of non-performing loans was 18.4% and it has been decreased for 1% regarding to the beginning of the year. This gradual decline is the result of activities of banks on the restructuring of loan portfolios, so the proportion of restructured loans to total loans at the end of 2013 stood at 21.1%. Macroeconomic environment in Macedonia set off to gradually economic activity recovery. But, still present impact of the crisis continue to impair the quality of the loan portfolio of a large increase in non-performing

loans to the private sector, which is particularly noticeable in the first half of 2013. However, banks are already at the beginning of the second semester began with activities to address the problems of non-performing loans. These activities, together with more intensive lending activity of banks have contributed to the fact that at the end of 2013, these loans will significantly decline. The most important risk for financial stability of Serbian banking sector is, surely, credit risk measured by level of non-performing loans. So, this country recorded a high level of non-performing loans in 2013. But one should not be forgotten that Serbia entered the crisis with a relatively high proportion of non-performing loans (11.3% at end-2008) and has not recorded enormous growth in this category during the crisis as other countries have recorded.

At the end, as research has proven, it can be concluded that better macroeconomic environment leads to lower level of non-performing loans and vice versa. Lower GDP growth leads to higher level of non-performing loans and higher credit risk to financial stability. Further, unemployment rate is positively related to non-performing loans, since the people who lost their jobs usually get into trouble with debt repayment.

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Endnotes

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FISCAL RISKS AND PUBLIC DEBT GROWTH IN THE REGION OF FORMER SFR YUGOSLAVIA

FISKALNI RIZICI I RAST JAVNOG DUGA U REGIJI BIVŠE SFR JUGOSLAVIJE

Abstract

The main objective of the paper is to analyse fiscal risks and their impact on public debt and deficit of former Yugoslav countries (Slovenia, Croatia, Serbia, Bosnia and Herzegovina, Montenegro, Macedonia and Kosovo). The former Yugoslav region as a whole is not over indebted but certain countries are under the significant fiscal pressure and transform number of potential liabilities into direct debt. Since the beginning of the financial crisis in 2007, most of the countries have seen an increasing trend in budget deficit and debt, seriously threatening the long term financial sustainability. Some countries (Slovenia, Croatia and Serbia) individually have greater public debt than Former Yugoslavia had at the end of 1990. Due to the lack of transparency in debt statistics (government arrears, guarantees, etc.), undeveloped bond market (smallest countries rely on short to medium term credit borrowing) and the lack of public debt management strategy (Croatia and Bosnia and Herzegovina), countries mostly rely on external borrowing with constantly increasing borrowing costs (yields on government bonds and interest payments). Some countries still do not have long term projections of the total public debt and debt servicing costs.

Keywords: public debt, government guarantees, fiscal risks, SFR Yugoslavia

JEL: H6

Sažetak

Osnovni cilj rada je analizirati fiskalne rizike i njihov utjecaj na javni dug i deficit država s prostora bivše Jugoslavije (Slovenije, Hrvatske, Srbije, Bosne i Hercegovine, Crne Gore, Makedonije i Kosova). Regija bivše Jugoslavije u cjelini je prezadužena, ali su neke države pod značajnim fiskalnim pritiskom i transformiraju velik dio svojih potencijalnih obveza u izravni dug. Od početka financijske krize u 2007., većina država je zabilježila rastući trend razine proračunskog deficita i javnog duga, koji je postao ozbiljna prijetnja za dugoročnu financijsku održivost. Neke države (Slovenija, Hrvatska i Srbija) zasebno imaju veći javni dug nego što je imala cjelokupna bivša Jugoslavija krajem 1990. Zbog nedostatka transparentnosti u statistikama javnog duga (državna jamstva, nepodmirene obveze itd.), nerazvijenog tržišta državnim vrijednosnicama (najmanje zemlje se oslanjaju na kratkoročna i srednjeročna kreditna zaduženja) i nedostatka strategije upravljanja javnim dugom (Hrvatska i Bosna i Hercegovina), države se uglavnom oslanjaju na vanjsko zaduživanje uz konstantan porast troškova zaduživanja (prinosi na državne obveznice i kamata). Neke države još uvijek nemaju dugoročne projekcije ukupnog javnog duga i troškova servisiranja.

Ključne riječi: javni dug, državna jamstva, fiskalni rizici, SFR Jugoslavija

JEL: H6

1. Introduction

With the breakup of the former Socialistic Federative Republic of Yugoslavia, seven independent countries have so far emerged on its former territory. Those are Bosnia and Herzegovina, Croatia, Kosovo, Macedonia, Montenegro, Serbia and Slovenia. Although the political turmoil was initiated well in advance, the formal breakup of Yugoslavia was initiated on June 25, 1991 when Croatia and Slovenia declared independence. Macedonia became independent a few months later, whereas Bosnia and Herzegovina declared independence in April of 1992. Serbia, Kosovo and Montenegro formed a single state until 2006, when population of Montenegro made a decision to declare independence through the referendum. Finally, Kosovo declared its independence from Serbia in 2008. Out of all those newly established countries, only Croatia and Slovenia joined the European Union (Slovenia in 2004 and Croatia in 2014).

Countries that emerged after the breakup of former SFRY had to take on part of the debt accumulated by the former country. Prior to the breakup, total debt of the former SFRY amounted to 14.6 billion EUR. The debt of

former SFRY included borrowing from Paris and London club. The debt to the Paris club consisted of the debt owed to international governments – foreign countries, whereas that to the London club related to debt to commercial banks. According to the data from the finance ministries, the allocation of that debt was performed according to the IMF key (schedule). Croatia took over 28.5% of the debt, Slovenia 16.4%, Serbia and Montenegro (including Kosovo) 36.5%, Bosnia and Herzegovina 13.2%, whereas Macedonia inherited the lowest share of 5.4%. After the breakup of former SFRY, the biggest share of the debt of newly established countries consisted mostly of foreign debt emerging from the liabilities of former SFRY. Thereafter, countries have implemented their individual public debt policies and acquired new debt according to their individual borrowing needs, creditworthiness and available financing sources. Varying paths those countries have embarked on influenced varying levels and structures of their public debts – both in absolute and relative terms.

The main objective of the paper is to analyse fiscal risks and their impact on public debt and deficit of former Yugoslav countries (Slovenia, Croatia, Serbia, Bosnia and Herzegovina, Montenegro, Macedonia and Kosovo). The paper consists of six chapters. After introduction, the second part analyses budget deficit and public debt in former SFRY countries. Third part is devoted to the structure of public debt of former SFRY countries. Fiscal risks and creditworthiness of former SFRY countries are presented in the fourth part. Fifth part lays down an overview of the institutional support for public debt management, whereas sixth part is the conclusion.

2. Budget deficit and public debt in former SFRY countries

We begin our analysis with an overview of public debt and deficit of former SFRY countries from 2002 until now. One of the basic budgetary principles is the balance between revenues and expenditures. However, countries very often fail to keep their expenditures that low facing the budget deficit, which has to be financed through borrowing, and increases the public debt. Former SFRY countries are no exception – most of the countries have been running deficits, especially from 2009 onwards as a result of a global economic crisis.

Although some countries (like Bosnia and Herzegovina and Montenegro) recorded a period of fiscal surpluses prior to crisis, after 2008 all countries have budget deficits. The highest budget deficit was recorded in Slovenia in

2013 when it reached almost 15% of GDP. In line with that, the public debt of former SFRY countries increased significantly in the post-crisis period.

Table 1. *Budget deficit in former SFRY countries from 2002 to 2014 (in % of GDP)*

Year	Croatia	B&H	Serbia	Montenegro	Macedonia	Slovenia	Kosovo
2002	-2.6	-0.2	-1.8	-1.9	-5.6	-2.4	
2003	-3.0	0.8	-2.4	-3.0	-1.0	-2.7	
2004	-3.9	1.8	0.8	-2.0	0.0	-2.3	
2005	-3.7	2.4	0.9	-1.7	0.2	-1.5	
2006	-3.2	2.9	-1.6	3.3	-0.5	-1.4	
2007	-2.4	1.3	-3.0	6.6	0.6	0.0	
2008	-2.7	-2.0	-2.7	0.5	-0.9	-1.9	
2009	-5.8	-4.5	-4.5	-4.4	-2.7	-6.3	-0.8
2010	-5.9	-2.5	-4.5	-3.6	-2.5	-5.9	-2.6
2011	-7.5	-2.8	-5.3	-1.9	-2.5	-6.4	-1.7
2012	-5.3	-2.7	-6.7	-6.6	-2.2	-4.0	-2.6
2013	-5.4	-1.9	-4.9	-3.7	-4.1	-14.7	-3.1
2014	-5.7	-2.8	-6.6	-0.7	-4.2	-4.9	-2.2

Source: Ministries of Finance of former SFRY countries

Before diving deeper into the international comparison, it has to be noted that former SFRY countries, although once different territories of the same country, were not equally successful in conducting reforms. Only two out of seven countries are currently members of the European Union (Croatia and Slovenia), three countries are candidate countries for the accession (Macedonia, Montenegro and Serbia), whereas two countries (Bosnia and Herzegovina and Kosovo) are potential candidates.

By accession to the EU countries have gradually exposed their government finances by acquiring international statistical and accounting frameworks to make the financial data more transparent and comparable to other countries. However, this process was not initiated in all counties at the same time.

Therefore, most former SFRY countries have a long way to go to adjust their government statistics to the international standards. Although a lot of effort has been invested so far in this regard, frequent changes of statistical frameworks make the longer series of data (10 years and more) not comparable even for one country. This fact limits the credibility of the cross-country comparison since the extent to which they have aligned scope of public debt and deficit is questionable.

Table 2. *Public debt in former SFRY countries from 2002 to 2014 (in % of GDP)*

Year	Croatia	B&H	Serbia	Montenegro	Macedonia	Slovenia	Kosovo
2002	35.1	36.5	68.3	84.5	42.9	27.8	
2003	35.8	32.7	61.7	47.1	37.9	27.2	
2004	37.8	29.8	52.6	44.5	35.6	27.3	
2005	40.7	25.7	50.2	38.6	38.4	26.7	
2006	38.3	21.3	35.9	32.6	32.0	26.4	
2007	37.1	40.4	29.9	27.5	24.0	23.0	
2008	38.9	29.9	28.3	29.0	20.6	22.1	
2009	48.0	34.4	32.8	38.0	23.8	35.2	6.4
2010	57.0	38.6	41.8	42.0	24.2	38.7	6.2
2011	63.7	39.3	45.4	45.3	28.0	47.1	5.5
2012	69.2	39.7	56.2	54.0	34.1	54.4	8.4
2013	80.8	39.7	59.6	60.0	35.8	71.7	9.1
2014	85.1	43.5	70.9	56.9	35.3	81.0	10.6

Source: Ministries of Finance of former SFRY countries

The scope of public debt is not even fully harmonised at the global (international) level because IMF, OECD, World Bank and European Union (Eurostat) often provide different data. The difference in the scope of public debt and deficit between countries most often depends on different varying interpretations (scope) of public sector institutions. Data presented in this paper mostly rely on national statistics (ministries of finance) since Eurostat data are only available for Croatia and Slovenia.

In 2002, the share of public debt in GDP of former SFRY countries varied between 27.8% for Slovenia and 84.5% for Montenegro. The level of public debt to GDP has decreased until 2008 mostly because of solid growth rates those countries were facing. However, in the aftermath of the financial crisis, these countries were faced with twofold problem – shrinking of GDP and expansion of public debt.

This combination of negative economic trend made the relative public debt numbers skyrocketing. In 2014, Croatian public debt was 85.1% of GDP, Slovenian 81% of GDP and Serbian 70.9% of GDP. Individual debts of these three countries were much greater than total debt of complete former SFRY just before the breakup (in absolute terms). Other countries faced lower levels of public debt – Montenegro 56.9, Bosnia and Herzegovina 43.5, Macedonia 35.3 and Kosovo 10.6% of GDP. It has to be noted that Kosovo declared independence in 2008 so no longer reliable data series

were available. Moreover, data for Croatia, Slovenia and Serbia are presented according to the ESA 2010 methodology, whereas it is not certain according to which methodology other countries reported the level of their deficit and debt in their ministry of finances' reports. They most likely use national methodologies that usually underestimate the scope of the public sector making their public debts and deficits slightly lower than it would be if recorded according to ESA 2010.

Table 3. *GDP growth rates in former SFRY countries from 1996 to 2014 (in % of GDP)*

Year	Croatia	Slovenia	Montenegro	Macedonia	Serbia	B&H	Kosovo
2002	4.9	3.8	1.9	0.9	4.3		
2003	5.4	2.9	2.5	2.8	2.5		
2004	4.1	4.4	4.4	4.6	9.3		
2005	4.3	4.0	4.2	4.4	5.4		
2006	4.9	5.8	8.6	5.0	3.6		
2007	5.1	7.0	10.7	6.1	5.4		
2008	2.1	3.4	6.9	5.0	3.8		
2009	-6.9	-7.9	-5.7	-0.9	-3.5	-2.7	3.5
2010	-2.3	1.3	2.5	2.9	1.0	0.8	3.2
2011	-0.2	0.7	3.2	2.8	1.6	1.0	4.4
2012	-2.2	-2.5	-2.5	-0.4	-1.5	-1.2	2.5
2013	-0.9	-1.1	3.5	2.9	2.5	1.5	2.5
2014	-0.4	2.6	1.5	3.8	-1.8	1.3	1.0

Source: Ministries of Finance of former SFRY countries

It has to be noted that changes in the level of deficit and debt related to GDP largely depend on GDP figures. All former SFRY countries have suffered a significant decline in GDP which increased the level of deficit and debt to GDP even more than what could be observed if only the change in the nominal amount of debt and deficit were observed.

3. Public debt structure of former Yugoslav republics

When observing the indebtedness of a country, it is important to pay attention to the structure of the public debt. Poorly structured debt can be a significant risk source as the relative amount of principal or interest can increase due to factors that cannot be controlled by the government.

The structure of public debt can be observed in terms of the residency of creditors (internal vs. external), marketability of public debt (securities vs. loans), interest rate structure (fixed vs. floating), currency structure

(domestic vs. foreign), maturity (long, medium or short term), probability of occurrence of liability (direct vs. indirect) etc. The optimal composition of debt differs from country to country. However, in order to maintain the level of external risks low, debt denominated in domestic currency is usually preferable over debt denominated in foreign currency, fixed interest rate over floating, and so on.

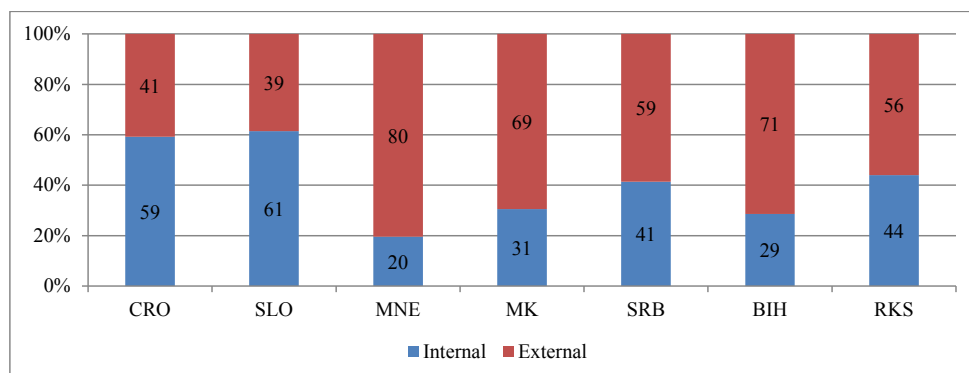


Figure 1. *Residency structure of former SFRY countries' public debt in 2014*
Source: Ministries of Finance of former SFRY countries

Former SFRY countries have varying structures of public debt according to residency of their lenders. The share of internal public debt in 2014 varies from 20% in Montenegro to 61% in Slovenia. Although domestic borrowing might be preferable for the development of domestic debt market and reducing risks, it can also be disadvantageous in terms of crowding out private investments.

External borrowing often comes with lower interest rates than domestic (if performed under the same conditions), because of the higher competition on the debt market, higher transparency and close to perfect market conditions that tend to decrease margins (auctions etc.). However, external funding is not always available for small transition countries – as former SFRY countries mostly are – because of the poor credibility in the financial market (poor credit rating) which makes foreign investors reluctant to take on risk or if they do they might require higher yields to distrust.

Borrowing in the domestic market is often associated with unfavourable borrowing terms because they tend to be discretionary determined in direct negotiations with lenders (mostly commercial banks). Croatia and Slovenia have quite favourable residency structure of public debt, whereas

other countries, especially Montenegro should intensify borrowing on the domestic market.

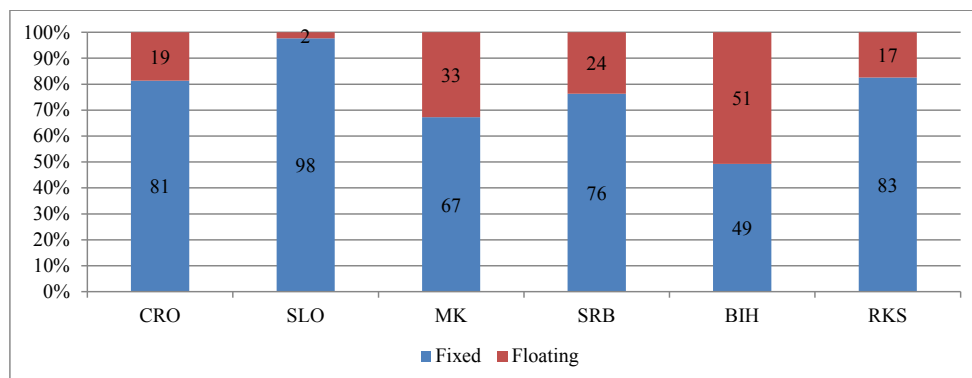


Figure 2. *Interest rate structure of former SFRY countries' public debt in 2014*

Note: Data for Montenegro are not available. Data for Bosnia and Herzegovina relate only to the foreign (external) component of public debt. Data for Croatia are for September 30, 2010 – the period for which the last available public debt report was issued.

Source: Ministries of Finance of former SFRY countries

The interest rate structure in Former SFRY countries in 2014 is also not harmonised. The share of debt with fixed interest rate varies from 49% in Bosnia and Herzegovina to 98% in Slovenia. Although even the floating interest rates have the fixed component, their flexible component is mostly tied to market interest rates (EURIBOR, LIBOR etc.).

Unfavourable market conditions can very quickly result with an increase in reference interest rate and an increase in the interest repayments. Since government does not perform lending activities to other sectors whereby it could balance the structure of interest rates, countries should tend to turn as much debt as possible to that with fixed interest rate to decrease the interest rate risk.

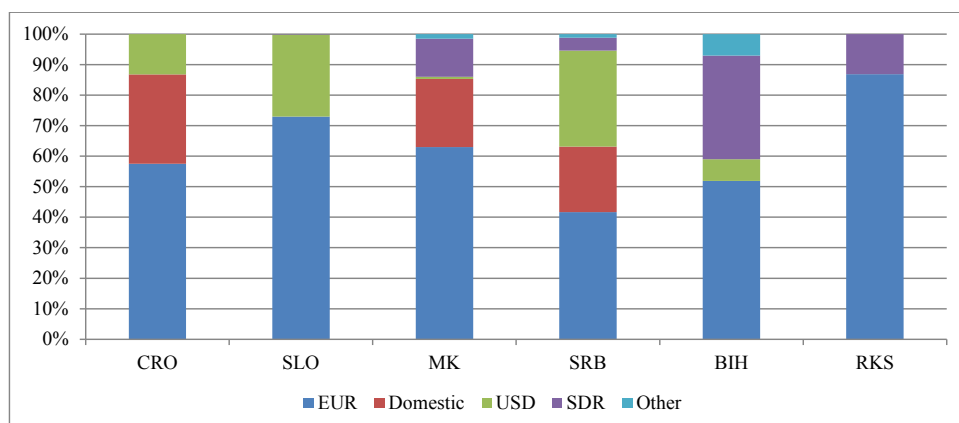


Figure 3. *Currency structure of former SFRY countries' public debt in 2014*

Note: Data for Montenegro are not available. Data for Bosnia and Herzegovina relate only to the foreign (external) component of public debt. Data for Croatia are for September 30, 2010 – the period for which the last available public debt report was issued. SDR are special drawing rights – a unit used by IMF, World Bank and some other international institutions. It comprises of a basket of currencies consisting of (USD-41.9%, EUR-37.4%, JPY-9.4% and GBP-11.3%).

Source: Ministries of Finance of former SFRY countries

The currency structure of debt in former SFRY countries is dominated by EUR denominated debt. This is natural since all observed countries tend to access the European Union and adopt the euro. The lowest share of EUR denominated debt is recorded in Serbia 41.7% and highest in Kosovo 86.8%. It has to be noted that two non-EU countries – Montenegro and Kosovo adopted euro unilaterally as their domestic currency. Slovenia adopted EUR by joining the EMU so the share of EUR denominated debt represents the debt issued in the domestic currency. It is therefore not surprising that Slovenia and Kosovo have the highest shares of debt denominated in EUR. Nevertheless, what strikes as odd is the low share of domestic currency denominated debt in other countries. All countries have their revenue denominated in domestic currency. Having their expenditures (and liabilities) denominated in foreign currencies always comes with foreign exchange risk. It has to be noted that countries can hedge currency risks by using swaps or other more sophisticated instruments so the real exposure to foreign currency risk does not have to be so high as it seems. For example, Croatia has used cross-currency swaps for all recent issues of government bonds denominated in USD. However, the financial stream in USD has been exchanged for EUR and not for HRK which still leaves the currency risk present (although less intense than it would be if the exposure remained in USD).

Despite Croatia has a so called managed floating exchange rate to EUR and Bosnia and Herzegovina even introduced a currency board pegging the exchange rate to 1.955830 BAM for 1 EUR, countries should be very careful in adjusting the currency structure of their debt to minimise the currency (exchange rate) risk. Recent developments with the appreciation of Swiss Franc have clearly shown how dangerous the exposure to foreign exchange fluctuations might be. Fluctuations in the exchange rate directly influence the burden of principal and interest repayment. Finally, borrowing in domestic currency promotes creation of a yield curve and development of the domestic financial market. Poorly structured yield curve and the lack of data on government benchmark (risk-free) yields hampers pricing of other debt instruments.

4. Fiscal risks and public debt growth

Explicit government liabilities are foreseeable and their occurrence is inevitable. However, the analysis of fiscal position (risks) of a certain country cannot be limited to explicit government debt, but also include contingent government liabilities (above all – government guarantees) because they sometimes pose the most significant threat to fiscal sustainability. Government guarantees are mostly recorded off-balance sheet and are not visible in government's financial statements. Having this in mind, government officials (politicians) often circumvent budgetary restrictions by issuing guarantees to public enterprises and local government units as well as to development banks and public-private partnership projects. Therefore, government guarantees pose one of the most important sources of fiscal risks.

In absolute terms, Slovenia has the most significant value of government guarantees reaching in 2014 slightly less than 8.3 billion EUR. Serbia and Croatia are facing moderate threat from government guarantees that amount in those countries about 2.5 and 1 billion EUR respectively. Bosnia and Herzegovina, Macedonia, Montenegro and Kosovo had less than 1 billion EUR active guarantees in 2014.

In relative terms, the position of the observed countries is more or less the same, excluding Montenegro which has (in relation to GDP) almost two times higher amount of guarantees than Serbia (14.6 comparing to 7.9% of GDP). It has to be pointed out that different statistical treatment of guarantees and different scope of the public sector (general government) in observed countries results with an altered image on the significance of guarantees

as a potential risk source. For example – the implementation of ESA 2010 methodology in Croatia resulted with an increased scope of the public sector, whereby the amount of government guarantees has decreased and the amount of public debt increased. This happened because in accordance with ESA 2010, certain public enterprises that received government guarantees were included in the sector of general government and their liabilities were added to the total general government debt. Therefore have the government guarantees for those enterprises been excluded from the guarantees' statistics to avoid double inclusion of the same amount of debt (first as a direct and then again as an indirect liability).

Table 4. *Government guarantees in former SFRY countries from 2006 to 2014 (in % of GDP)*

Year	Croatia	B&H	Serbia	Montenegro	Macedonia	Slovenia	Kosovo
2006	4,9	1,1	3,3	4,9	2,8	9,9	0,0
2007	4,4	1,0	3,0	4,0	2,3	10,8	0,0
2008	3,9	0,8	2,8	3,4	2,5	12,6	0,0
2009	4,0	0,9	4,8	3,6	2,6	20,1	0,0
2010	4,5	2,5	6,1	10,1	3,5	21,8	0,0
2011	2,5	2,9	6,8	11,8	4,0	19,3	0,0
2012	2,6	2,9	8,7	11,4	4,3	18,4	0,0
2013	2,4	2,3	8,9	9,4	6,6	23,4	0,0
2014	2,4	2,6	7,9	14,6	7,1	22,2	0,2

Source: Ministries of Finance of former SFRY countries

Bosnia and Herzegovina issued its first guarantee in 2005 when total guarantees amounted to 0.23% of GDP. The most significant share of government guarantees in Bosnia and Herzegovina relates to guarantees issued by lower tiers of government which is greater than the amount of grants issued by central government. Serbia started with issuing guarantees in 2001 when the country was exposed to this risk source in the amount of 0.2% of GDP. Since then, the amount of guarantees was rising to 7.9% of GDP in 2014. Government guarantees in Montenegro have been quite volatile amounting between 3.4% of GDP in 2008 to 14.6% of GDP in 2014 rising significantly as a consequence of the financial crisis. The same consequences were present in Macedonia where government guarantees increased from 2.3% of GDP in 2007 to 7.1% of GDP in 2014.

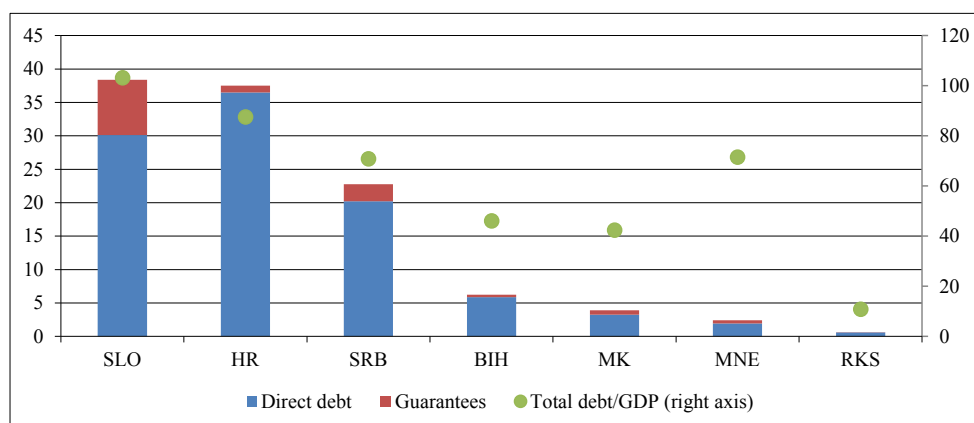


Figure 4. Total public debt in former SFRY countries in 2014 (in billion EUR-left axis and % of GDP-right axis)

Source: Ministries of Finance of former SFRY countries

Kosovo issued its first guarantee in 2014 and has the lowest share of guarantees in GDP, whereas Slovenia has the highest. Government guarantees in Slovenia reached in 2014 22.2% of GDP. The reason for this is the fact that Slovenia issued large amounts of guarantees to its financial sector due to the problems that the banking sector, which is mostly state-owned, has faced in the aftermath of the financial crisis.

All those features of particular countries' public finances influence the investors' perception about the risks associated with lending to those countries. To make the international comparison of risks easier, credit rating agencies tend to estimate credit risk of all countries present at the international financial market and grade their creditworthiness. Table 5 presents current credit rating of former SFRY countries provided by rating agency Standard and Poor's. The rating grades are (from highest to lowest): AAA, AA, A, BBB, BB, B, CCC, CC, C, R, SD and D. Interpretations of these grades range from "extremely strong capacity to meet financial commitments" (for AAA) to "defaulted or is believed to default on most or all obligations" (for D). Grades AAA to BBB are considered investment-grade, whereas those from BB to D are non-investment or speculative-grade.

All former SFRY countries (except Slovenia) are categorized in the speculative-grade rating category reflecting investors' beliefs that they might face serious fiscal problems in the near term, leading to their inadequate capacity to meet financial obligations. Slovenia is the only country with investment grade rating. Higher credit rating is associated with lower credit

risk, which in turn positively affects government bond yields, because for lower risk they take on, investors can require lower yields and vice versa. Lower government bond yields therefore have a positive impact on interest expenses, because for the same amount of debt, more creditworthy governments pay lower interest. As a consequence of the financial crisis, fiscal position of former SFRY countries has deteriorated, their creditworthiness decreased and interest expense increased. This is not only due to changes in government bond yields, but also due to increasing the amount of the total public debt in those countries.

Table 5. *S&P rating in 2015*

Country	S&P rating
Croatia	BB
Slovenia	A-
Montenegro	B+
Macedonia	BB-
Serbia	BB-
B&H	B
Kosovo	n/a

Source: Ministries of Finance of former SFRY countries

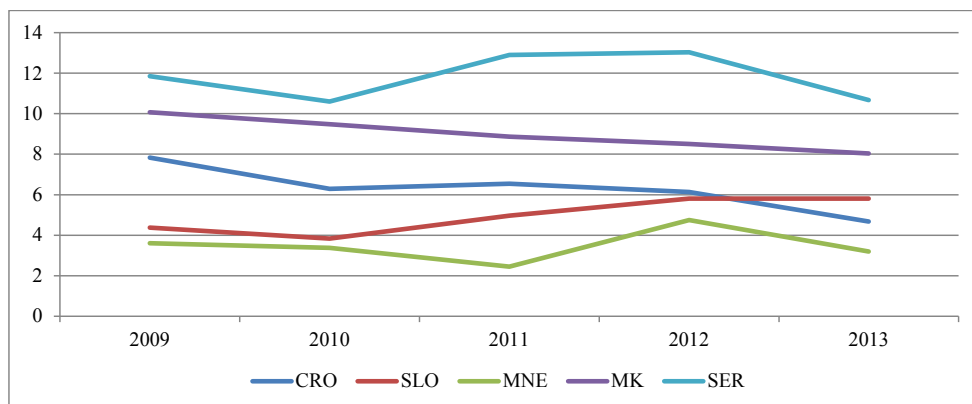


Figure 5. *Long term interest rates (in %)*

Source: Ministries of Finance of former SFRY countries

In 2013, Croatia had highest interest expenses amounting to 3% of GDP, followed by Slovenia, Serbia (2.6% of GDP) and Montenegro (2.1% of GDP). Interest expenses in Serbia have from 2007 expended by 3.25 times. Significantly increased interest expenses further increase those countries' borrowing requirements creating a "vicious circle" that might lead them to

default. If serious fiscal consolidation measures will not be implemented as soon as possible all former SFRY countries could follow the “Greek scenario” in a due course.

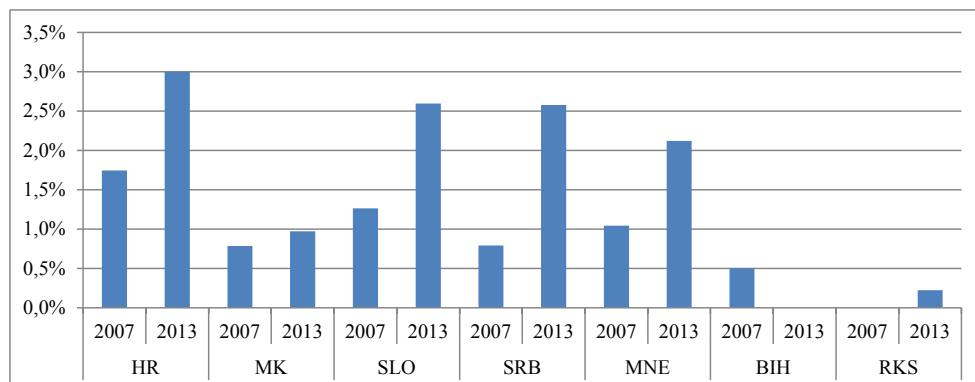


Figure 6. *Interest expenses of former SFRY countries in 2007 and 2013 (in % of GDP)*

Source: Ministries of Finance of former SFRY countries

To cope with this problem, countries have to implement sound public debt management policies including more transparent and comprehensive reporting and management of fiscal risks. Public debt management is the process of establishing and executing a strategy for managing the government’s debt in order to raise the required amount of funding at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk (IMF, 2014). Since government debt portfolio is very often the biggest financial portfolio in a country it often comprises complex and risky financial structures that have to be treated with caution. The fundament for the reliable public debt management policies is the administrative framework – legislation regulating duties and responsibilities of institutions involved in the process. We devote the remainder of the text to the analysis of the institutional framework of former SFRY countries by presenting the regulatory framework, organization of public debt management function and an overview of strategies implemented.

5. Institutional support for public debt management

The regulatory framework applies to the laws, rules, regulations, instructions and guidelines setting out rules and procedures for civil servants in making decisions about creating obligations for state and public debt management. The regulatory framework should facilitate the process of borrowing and effective use of borrowed funds and ensure that the process of borrowing is initiated only when necessary. A good regulatory framework for public

debt management should cover four areas: government authority to borrow, limits for borrowing and issuing guarantees, the state authority to issue guarantees, procedures that the state must respect when entering into financial transactions.

Four of seven former SFRY countries have adopted separate legislation regulating public debt, borrowing and issuing of guarantees. These are Bosnia and Herzegovina, Serbia, Macedonia and Kosovo. Croatia, Montenegro and Slovenia have regulated this field through various laws regulating budget and budget execution as well as public finance in general. This makes the regulation fragmented and not very flexible because any amendments or changes related to borrowing require budgetary procedures that open the possibility for other important fiscal regulations to be altered as well so it is rarely done. However, such a complex field that is subject to frequent changes due to the development of the financial market should be regulated in one law which would facilitate the administrative procedures and make the whole process more clear and transparent.

Table 6. *Regulatory framework for public debt management in former SFRY countries*

Country	Law
Croatia	Budget Law, Law on Budget Execution
Bosnia and Herzegovina	Budget Law, Law on Borrowing, Debt and Guarantees
Serbia	Budget Law, Law on Public Debt
Montenegro	Budget Law, Law on Budget and Fiscal Responsibility
Macedonia	Law on Public Debt
Slovenia	Law on Budget Execution, Law on Public Finances
Kosovo	Law on Public Debt

Source: Ministries of Finance of former SFRY countries

The basic foundation for the efficient management of the public debt is a high-quality institutional infrastructure. All the functions of public debt management should be consolidated within one institution because vaguely defined objectives and responsibilities scattered among departments and institutions proved to be major obstacles for public debt management reform. There is no optimal institutional framework, but the organization and location of public debt management functions depend on the role given to the policy of public debt management.

All former SFRY countries have placed their public debt management functions within the Ministry of Finance and have particular departments devoted to public debt management. Countries with developed systems of

public debt management have established the functional organization of the public debt management office in three operational divisions, each of them attributed to one category of public debt management functions: Department for the mobilization of financial sources (front office), Department for debt and risk analysis (middle office) and Department for information and settlement (back office).

Table 7. *Institutional setup for public debt management in former SFRY countries*

Country	Department	Institution
Croatia	Sector for public debt management	MoF
Bosnia and Herzegovina	Sector for public debt	MoF
Serbia	Directorate of public debt	MoF
Montenegro	Department for debt, liquidity and international relations management	MoF
Macedonia	Department for international financial relations and public debt management	MoF
Slovenia	Public debt management department	MoF
Kosovo	Debt Management Division	MoF

Source: Ministries of Finance of former SFRY countries

Public debt management strategy is probably the crucial document for defining strategic, tactical and operational steps for reaching the public debt management objectives. Objectives of public debt management are a starting point in developing the public debt management strategy. They should be expressed in the form of strategic targets as indicators of the degree of exposure to particular risks. Strategic targets are established, desirable values for the structure of the debt portfolio with an acceptable level of risk within the stipulated period and they become the frame of performance evaluation of public debt. Poorly structured debt in terms of maturity, currency or interest rates may be an indication of the origin and development of the economic crisis. An example of a well-structured debt would be a debt that is long-term, with fixed interest rate, denominated in domestic currency and traded on transparent and efficient domestic capital market.

The observed countries have only recently become aware of the importance of the adoption of strategic goals and targets and implementation of strategies for public debt management. Only because of the growing public debt, increased exposure to risks, negative influence of the financial crisis and the overall macroeconomic situation have countries of former Yugoslavia realized the need for a greater concern for public debt management. Table 8

shows an overview of adopted public debt management strategies in former Yugoslav countries.

Table 8. *Public debt management strategies in former SFRY countries*

Country	Strategy for the period
Croatia	2007-2009, 2011-2013
Bosnia and Herzegovina	None
Serbia	2012-2014, 2013-2015, 2014-2016, 2015-2017
Montenegro	2005-2007, 2008-2010, 2011-2013
Macedonia	2006-2008, 2007-2009, 2008-2010, 2009-2011, 2010-2012
Slovenia	Annual State Budget Financial Plan
Kosovo	2013, 2014-2017, 2016-2018

Source: Ministries of Finance of former SFRY countries

In Slovenia, the Law on public finances from 2011 provided for the adoption of the State Budget Financial Plan for each fiscal year. The execution of the budget and public debt management in a given fiscal year are based on a financing program adopted by the Government. Among other countries, Macedonia is leading according to the number of adopted strategies, whereas Bosnia and Herzegovina still does not have a defined strategy for public debt management. Montenegro has so far been a very good example of taking care about the public debt since it started to adopt public debt management strategies immediately after gaining the independence. The latest strategy for the next two years was presented by Kosovo.

6. Conclusion

Following the breakup of Yugoslavia, former SFRY countries have all taken control over their government finances and started to conduct their sovereign fiscal policies. Although part of their liabilities was inherited from former Yugoslavia, they all took independent transition paths (both in terms of the transformation to the market economy and in terms of the accession to the EU), which in turn reflected on the level and structure of their public debts and other (contingent) liabilities.

Despite the fact that total debt of former Yugoslavia was considered high, some countries now have individually higher debt than the complete former Yugoslavia at the end of 1990 (in absolute terms, though). The lack of transparency in some countries and differing methodologies used to record government liabilities hamper the cross-country analysis. Different

statistical treatment may result in different classification of liabilities (direct vs. indirect). However, the total amount of liabilities (public debt plus government guarantees) should be comparable for all countries and should therefore provide a basis for cross-country analysis.

Croatia, Slovenia and Serbia have highest amount of debt related to GDP. Besides the amount of debt, its structure plays a crucial role in the possibility of controlling for various fiscal risks. Currency structure of public debt in former SFRY countries is close to optimal. EUR denominated debt dominates the structure which is good since no larger exchange rate fluctuations are expected in most of the observed countries (due to their specific exchange rate regimes), i.e. the exposure to currency risk is not significant. However, some countries (Croatia, Serbia and Macedonia) could increase the share of debt denominated in the domestic currency. The structure of interest rates is also not problematic in most of the countries due to the fact that the largest share of debt is carrying fixed interest. However, observed countries should in the future strive to convert as much debt as possible to one with the fixed interest rate (especially BIH, Serbia and Macedonia).

The ownership structure of debt in observed countries varies. The benefits of external vs. internal borrowing have long been debated without unique conclusions. In general, the preference depends on domestic circumstances, but countries should mostly seek the balance between the domestic and international borrowing. More important than the ownership is the marketability of the debt. Not just because of the development of the debt (financial) market, but also because of the broadening of the investors' base which proved to be beneficial for decreasing borrowing costs. However, the data on the marketability of debt in the observed countries was available just for a few countries and only for a part of the debt.

Regarding the public debt management infrastructure, countries that still do not have a separate legislation regulating the public debt and borrowing should strive to implement it as soon as possible. All former SFRY countries have public debt management offices located within the ministry of finance which is adequate. They should gradually strengthen the administrative capacities of their public debt management offices and implement a clear division of tasks performed by front office, middle office and back office. Moreover, they should more regularly adopt public debt management strategies with clear objectives and strategic targets. In order to maintain credibility and increase the base of investors, public debt management offices

should more regularly publish the issuing calendar (both for the short term and the long term borrowing). Aiming to decrease the political influence and increase the efficiency in reaching objectives, former SFRY countries should consider forming independent public debt management agencies.

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MODERN FORM OF TAXES IN THE CONCEPT OF HUMAN SUSTAINABLE DEVELOPMENT (HSD)

MODERNI OBLIK POREZNIH DAVANJA U KONCEPTU HUMANOG ODRŽIVOG RAZVOJA (HOR)

Abstract

The current tax paradigm in egoistic global society is the generator of huge illegal evasion of public revenue. Tax evasion, whether it considers classic forms or organized crime, are the expression of moral crisis and deterioration of the current socio-economic reality. Risks and financial damage from the crime of tax fraud generate risk for an individual, society as a whole and related natural environment. Underdeveloped countries, developing countries and post-war countries are particularly exposed to crime, poverty and various forms of discrimination, without a clear development concept. The objective of this study is to evaluate the validity of the concept of human sustainable development (HSD), as well as a different and innovative form of development in general, with an emphasis on the social interest. The paper presents the results of scientific research and screening of the current tax legislation in Bosnia and Herzegovina, as well as the negative impact of corruption on human resource management, applying the so-called IMRAD method. By clarification of the dominant tax paradigm, a different and more modern view of taxes has been pointed out, which in the concept of Human sustainable development has a synergic impact on satisfying needs, on flourishing of a potential of all and of each individual, as well as the development of society as a whole in endurable natural environment.

Keywords: tax evasion, organized crime, tax paradigm, HDS, needs

JEL: E26, K14, H26, P40

Sažetak

Aktuelna porezna paradigma u egoističkom globalnom društvu, generator je enormnih nezakonitih evazija javnih prihoda. Porezne utaje bilo da se radi o klasičnim oblicima ili organizovanom kriminalu, izraz su krize morala i istrošenosti aktuelne društveno–ekonomske zbilje. Rizici i finansijske štete od kriminala poreznih utaja generišu opasnosti za pojedinca, društvo u cjelini kao i za pripadajuće prirodno okruženje. Nerazvijene zemlje, zemlje u razvoju i post ratne države posebno su izložene kriminalu, siromaštvu i različitim oblicima diskriminacije, bez jasnog koncepta razvoja. Cilj ovog rada je ukazivanje na valjanost koncepta humanog održivog razvoja (HOR), kao drugačijeg i savremenijeg oblika razvoja u cjelini, sa naglaskom na društveni interes. U radu se prezentiraju rezultati naučnog istraživanja i ispitivanja aktuelnog poreznog zakonodavstva u Bosni i Hercegovini, kao i negativan uticaj korupcije na upravljanje ljudskim resursima, primjenom tzv. IMRAD metoda. Rasvjetljavanjem dominantne porezne paradigme, ukazuje se na drugačiji i savremeniji pogled na porezna davanja, što u konceptu HOR-a sinergiski utiče na zadovoljenje potreba, procvat potencijala svih i svakog pojedinca, kao i razvoj društva u cjelini u podnošljivom prirodnom okruženju.

Ključne riječi: porezne utaje, siva ekonomija, porezna paradigma, HOR, potrebe

JEL: E26, K14, H26, P40

1. Introduction

The concept of taxes is always related to the state, to the state functioning and implementation of economic security. Approaches to the notion of tax vary from author to author, and the definition of tax often departs from various aspects. As one of the views on taxes in “Public Finance in Theory and Practice,” the authors determine the following: “Taxes and fees are charged from the private sector without any obligation of the state to the taxpayer” (Musgrave & Musgrave 1993, p. 223). “From the economic point of view, taxes are compulsory payments which are assessed by state institutions and that in return they are not requested an economic service. They are a borderline case in the spectrum of public revenue in which these characteristics are more or less pronounced” (Brummerhoff 1996, p. 222). However, it is possible to understand dimensions of taxes as a social phenomenon, from a political, security, sociological, legal, psychological aspect, which means much wider than just from the economic aspect, and with all the practical and scientific aspects that affect the determination of the term, significance, purpose and role of various forms of taxes. In “Public finances” within the definition of the term and types of taxes, the author broadly concludes that “the state

acquires its revenues in the form of taxes, contributions, customs duties, fees, compensations and public debt. These are all ongoing and regular state incomes, except public debt, which is current but also extraordinary income. The state may acquire its income also on the basis of capital ownership, sale of assets, seignorage, grants and similar” (Jurković 2002, p. 90). Special features of public finance, from state to state, are reflected in the application of different types and forms of taxation, the size of tax rates, prescribed accounts for the payment of public income, method of keeping various records and bookkeeping, and the manner and form of sanctions when payment of public revenue is avoided. Neo-liberal concept of the dominant economic thought necessarily generates unbearable differences between small egoistic layer of rich people and the rest of the world, generally poor. The idea of neoliberalism, political idea of proclaimed unlimited freedom, has become a tool in the hands of powerful people to accumulate enormous wealth without supervision that is not the result of theoretical market capabilities. This scarce, ruthless, egoistical and selfish caste of powerful people, put the idea of individual freedom and economic liberalism after enormous enrichment of individuals, 1% of them possessing nearly 99% of the world’s wealth, at the expense of the rest of the world. Neoliberalism in thirties, advocated the so-called middle path, between the “wild capitalism” on one hand and “Stalinist totalitarianism” on the other. However, proclaimed “middle path of development”, under the auspices of the dominant economic thought, is practically unrealizable. It is evident that the current economic thought of using so-called invisible hand, within the framework of neoliberal concept, practically almost all the world’s wealth allocate in undeserved favor to a small, privileged part of enormously wealthy people. In the stockpiling chain of undeserved wealth, under the concept of the dominant economic thought, the existing regulatory domain of tax policy is not a fair tool or means, for the regulation of intrinsic and extrinsic needs of individuals, society as a whole and the related natural environment, especially the poor part of the society. Proclaimed “liberal freedom”, is practically converted to continuous robbery of natural and social resources by the rich minority, from the vast majority of the population at the global level. “Once created, capital reproduces itself, faster than the production growth. The past devours the future“ (Piketty 2014, p. 677). Dictatorship of egoistic minority is being carried out through action of invisible hand of the virtual market, in a way that without natural and social control, natural and social resources that belong to the rest of the population are being seized by this minority. Also, in the field of labor and wages for the work accomplished, are appearing incomprehensible differences between

“neo-liberal managers”, who are able to pay remuneration to themselves, at a ratio greater than 40,000 times respect to the wage of a worker under the same manager.

Under such circumstances, it is inevitable to consider the current tax paradigm, which is evidently in the service of dominant economic thought, in favor of egoistic minority. “The paradigm is that, the basic income of the state is tax, without any compensation and that public revenues are used only for public purposes. Unjustified view of public revenue through “this dimension” restricts the mind in the reality and presents a negative image, and narrows impermeable mental filter of relevant information, about the importance of taxes and tax policy”. By introducing elements of social capital in theoretical debate and discussing about positive effects of social capital that is achieved through a fair and development tax policy, a clearer picture of the importance of taxes in the community is being created.

Although intangible and difficult to measure, social benefits achieved by growth of social capital in interaction with fair and development tax policy, obviously in organized and developing communities, meet social, health, cultural, and other needs. Raising to a higher level of satisfaction of social needs in the present, and on the basis of accrued benefits in the present stage of social development, it is reasonable to be expected that on this basis of social development in the future, social capital will constitute a springboard, unstoppable driving force and an important economic significance and strong bonding material for flourishing potentials of all and every single member of the community. This modern theoretical view of the broad significance of taxes and tax policy, in the present situation is, somehow characteristic for highly developed societies, but is acceptable and possible to achieve through a theoretical concept and the human dimension of sustainable development in democratic social systems.

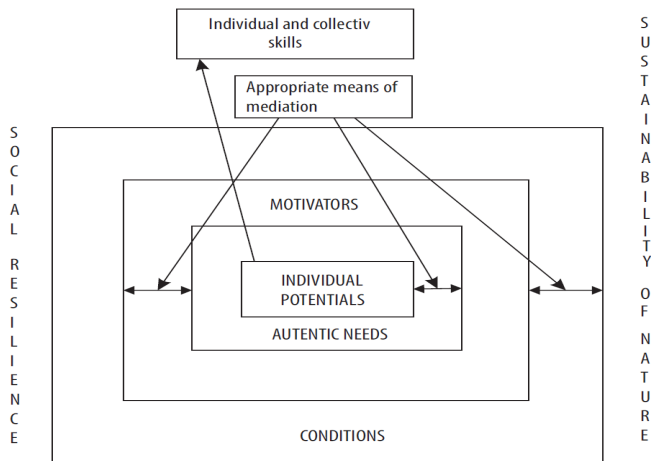


Figure 1. *HSD model*

Source: Trputec 2007, p. 52

In contrast to dominant neoclassical economic thought, the system of human sustainable development designs, in a holistic way, explanations of certain natural and social phenomena, on a different theoretical and practical basis, and offers complete and realistic solution to the development of individual, society as a whole and the natural environment. Current research results point out the fact that the system of Human sustainable development integrates theories and laws related to sustainable social and economic development in a stable natural environment, and is capable to offer different solutions to counter various economic, social and natural negative phenomena.

Needs as a phenomenon in the Human sustainable development system represent important indicators for observation and study of development and tax evasion. Needs basically can be seen as intrinsic and extrinsic. Intrinsic needs are needs for maintaining the existence and improvement of existing potentials, and flourishing of new individual ones. Extrinsic needs are needs which meet external requirements and conditions of existence and flourishing potential. Needs are commensurable and comparable (Trputec 2007). Meeting the needs in the system of sustainable development implies a healthy and comfort zone for the individual and society as a whole. Here is being argued the importance and benefits of an equitable tax collection, without discrimination of taxpayers, in relation to the community as a whole but also of an individual in the community, and is being pointed out the security aspect of illegal tax evasion, and the importance of detection, investigation,

prosecution, prevention and all other activities in combating this method of crime.

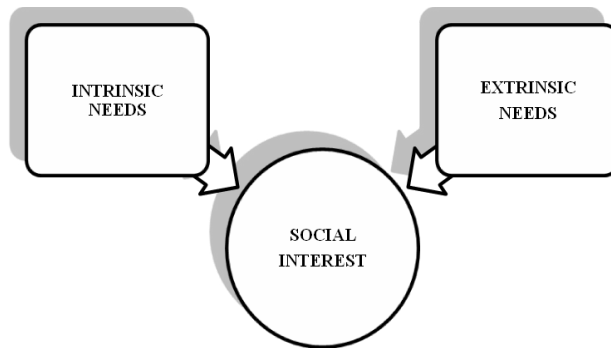


Figure 2. *Social interest and needs*

Source: Trputeć 2010

Modern economic theory gives an important role to the public interest which is a much broader concept than the traditional approach of neoclassical economic thought, which is reflected in the fact that all costs and benefits are translated into a quasi-market cash statement. The informal economy, organized through the phenomenon of the black market, is a present social pathology, which aims to create a parallel market beyond social control. In terms of neoliberal concept of economic thought, there is an ever-increasing tendency to avoid payment of public revenues. Avoiding public revenues can be justified with the legal background, but is much more present the phenomenon of illegal evasion of public revenue.

Tax evasion or illegal evasion of public revenue, is undertaken by person and/or more persons, with a clear purpose and a definite tendency to accomplish their criminal activities through non-payment, the appropriation and/or obtaining illegal benefits from tax refunds or public revenue, which they are not entitled to. From the very definition of the tax, which perceives taxes as a public revenue without compensation, in favor of the state, is being generated an additional motive for the commission of this crime. Tax evasion is defined by a limit of avoiding payment of taxes of the state concerned and is regulated by criminal legislation. The being of the crime of tax evasion is, in fact, a legislative framework which is explicitly prescribed as criminal offense of tax evasion.

„Therefore, to be able to talk about criminal offense, first of all there has to be an action of a human being, it has to be unlawful, it has to be described in a legislation as a criminal offense and it has to represent an offense” (Tomić 2007, p. 21). Related to the organizational scope of offense, it can be defined as a classic tax evasion or as a result of organized crime. Tax evasion as an act of enforcement may be predicative offense to the execution of other criminal offense such as the crime of money laundering. “In the literature there are various factors that are considered crucial for tax evasion, and in particular for tax evasion on income. Among other, there could be distinguished the following factors: (1) the assumption of fairness of certain laws, (2) the attitude of the taxpayer about the country, (3) the basic features (of tax morality), (4) penalty weight that can be expected after a proven tax evasion, (5) easiness of tax evasion, (6) the monetary benefits that can be expected as a result of tax evasion. It can form following function of tax evasion: $PU = PU(TPU, F, P, ..., O)$ where the PU is a size of tax evasion, TPU size of expected tax savings, F easiness of tax evasion, P measures the size of penalty containing the risk of detection, and O all cases and immeasurable factors“ (Brummerhoff 1996, p. 275).

However, the international community and therefore, most of the countries, realized that the usual evidence methods (traditional methods of investigation) are not sufficient in combating organized crime, but that ratio legis in using of special investigative methods (modern methods of investigation) in pre-trial and criminal proceedings of organized crime, is more efficient and effective way to combat organized crime (Šikman 2010, p. 369). Tax evasion, as a form of organized crime, is determined in the following way (Čolaković 2015, p.177):

$$PUOK = SPC(KA, VO, OFOG) PU(TPU, F, P, ..., O)$$

where:

- PUOK is tax evasion of organized crime;
- OK, organized criminal group;
- SPC, specialty in execution of serious crime;
- KA, capacity;
- VO, will;
- OFOK, other factors of criminal organizing;
- PU, size of tax evasion;
- TPU, size of expected tax savings;
- F, easiness of tax evasion;

- P, measure of the size of penalty containing the risk of detection, and
- O, all cases and immeasurable factors.

In detection activities of tax evasion as a criminal offense it is necessary to distinguish activities undertaken by authorized officials from the ones undertaken by the prosecutor in the proceedings.

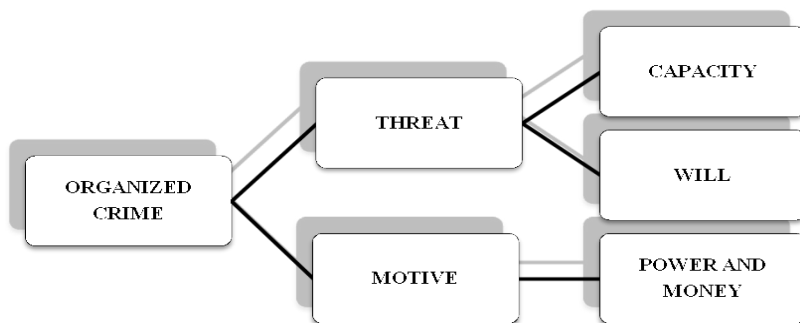


Figure 3. *Risk areas for determining the lowest degree of suspicion of tax evasion organized crime*

Source: Čolaković 2015, p. 299

“By analyzing the available understanding in relation to the content of the concept of organized crime, the view that can be accepted says that generally the following elements are not disputed: the existence of well-organized criminal organization, the objective of committing criminal acts, and getting rich and making profit” (Simović Nišević 2010, p. 30). While authorized officials take action on detecting the grounds for suspicion, the prosecutor undertakes its activities when there is already a suspicion that it has been committed or is being prepared a specific criminal offense of tax evasion of indirect taxes. Generally, whichever type of organized crime is considered “the FBI defines organized crime as any group having some manner of a formalized structure and whose primary objective is to obtain money through illegal activities. Such groups maintain their position through the use of actual or threatened violence, corrupt public officials, graft, or extortion, and generally have a significant impact on the people in their locales, region, or the country as a whole” (FBI 2015). When it comes to contemporary forms of tax evasion, as a form of organized crime, it is necessary to look at the entire system of dangers and threats, as well as motives for the commission of serious forms of criminal offenses of tax evasion. The vulnerability of tax system and the consequences of an organized criminal group, as well as their motive for committing serious crimes, make organized groups specialized, so

it is quite difficult to prevent them in terms of tax evasion crime.

2. Research methodology

The framework of methodological approach in this study is designed in several phases and research procedures, in order to provide guarantees for objectivity, and scientific accuracy of obtained information. In this paper, the research process will use and apply the following scientific-research methods:

- observation, analysis, synthesis, classification, specialization, induction, deduction, normative method, historical method, case study, content analysis, testing method, survey, comparison and introspection, as well as scientific and theoretical knowledge, relevant literature and contemporary business practices.

I - Main hypothesis:

The organizational form of tax system in several unrelated institutional layers favors criminal activities in the field of taxes and contributions.

II - Auxiliary hypotheses:

Hypothesis 1: Organization of tax institutions in BiH in several layers represents danger and threat of illegal tax evasion and for public security of the state.

Hypothesis 2: Current tax legislation in BiH favors corruption and criminal activities in the field of taxes and contributions.

Hypothesis 3: Continuous and common education of judicial and prosecutor authorities together with the management of agencies for law enforcement, in the field of tax evasion, is necessary.

Scientific-methodological approach of this research is descriptive and empirically designed, implemented and tested in rounded set of actual state of complete interdisciplinary occurrence of the phenomenology. The basic set of 254 surveyed respondents from all agencies for implementation of the tax law on the entire territory of Bosnia and Herzegovina, is further divided into five subsets according to specifics and jurisdictions of organizations in which they are employed in law enforcement.

Rule for reaching the conclusion of each t-test is the following: if the calculated value of t-test is less than or equal to the critical value of a one-sided t-test on the right side, then H_0 is accepted. In this case there is not enough evidence to conclude that the average response to the question is greater than 3, that is, on average, respondents agree with the statement of the issue. Otherwise, (if the

calculated value of t-test is greater than the critical value of a one-sided t-test on the right side) we have sufficient evidence to conclude that the average response to the question is greater than 3, that is, on average, respondents agree with the statement on this issue. So, if the null hypothesis is rejected, it will be a statistical confirmation that the answer to the question on average is greater than 3, which means that, on average, more respondents agree with the statement expressed in the question. Answers to the questions are measured on Likert-type scale (from 1- I completely disagree to 5- I completely agree). Tested average value of 3 is taken as a threshold value that divides answers into two groups: an average disagreeing with the question posed (answers < or = 3, namely 1 and 2) and the average agreement with the position in the question posed (answers > 3 and these are answers 4 and 5). The test results of auxiliary hypotheses still lead to the confirmation of results and conclusions in favor of the main hypotheses, and ultimately to the confirmation of the main hypotheses. Results of the research are subsequently presented with appropriate spreadsheets with a rating structure of relevant subjects.

3. Results and discussion

Test results, in the analysis of the frequency and percentage of attitudes of a relevant sample of respondents, compared to the evaluation of alternative responses on Likert-type scale of measurement, confirm the truthfulness of the main and auxiliary hypotheses.

Conclusions according to the survey results, point to unresolved organizational and practical problems of the tax system in Bosnia and Herzegovina, which are expressed through incoherence in organization of tax institutions. This situation adversely affects the efficiency and effectiveness of combating illegal evasion of public revenue.

Table 1. *The organization of tax institutions in Bosnia and Herzegovina should be adjusted in accordance to the legislation of the EU*

Answers	Number of the respondents	Percentage	Valid percentage	Cumulative percentage
I completely disagree	2	.8	.8	.8
I mostly disagree	3	1.2	1.2	2.0
Nor agree, nor disagree	23	9.1	9.1	11.0
I mostly agree	100	39.4	39.4	50.4
I completely agree	126	49.6	49.6	35.8
Total	254	100.0	100.0	100.0

Source: Čolaković 2015

“The organization of tax institutions in Bosnia and Herzegovina should be adjusted in accordance to the legislation of the EU,” considered very important and important 89% of respondents. Only 2% of respondents on average disagrees with this statement.

The average agreement with the statement in the question posed, means that the „organization of tax institutions in BiH in several layers, represents danger and threat of illegal tax evasion and for the public security of the state“, was expressed by 70.5% of respondents.

On the other hand 15.4% surveyed persons expressed a negative attitude regarding this issue, which is negligible, and represents part of the population needing additional education. The results confirm that a significant number of surveyed respondents, 88.2% agreed with the statement that “corruption has a significant impact on management of human resources in tax institutions in Bosnia and Herzegovina.”

Table 2. *Organization of tax institutions in BiH in several layers, represents danger and threat of illegal tax evasion and for public security of the state*

Answers	Number of the respondents	Percentage	Valid percentage	Cumulative percentage
I completely disagree	19	7.5	7.5	7.5
I mostly disagree	20	7.9	7.9	15.4
Nor agree, nor disagree	36	14.2	14.2	29.5
I mostly agree	92	36.2	36.2	65.7
I completely agree	87	34.3	34.3	100.0
Total	254	100.0	100.0	

Source: Čolaković 2015

What is the extent of the corruption can be seen from the percentage of the negative attitude of only 2.4% of respondents, who mostly disagree with the above statement, and also a very small percentage of 9.4% of respondents are neutral or neither agree nor disagree with the new statement.

Also, a significant number of respondents with a percentage of 62.2% was mostly and completely agreeing with the statement that “in the entities of Bosnia and Herzegovina, the current tax legislation favors criminal activities in the field of taxes and contributions.”

Table 3. *Corruption has a significant impact on management of human resources in tax institutions in Bosnia and Herzegovina*

Answers	Number of the respondents	Percentage	Valid percentage	Cumulative percentage
I mostly disagree	6	2.4	2.4	2.4
Nor agree, nor disagree	24	9.4	9.4	11.8
I mostly agree	90	35.4	35.4	47.2
I completely agree	134	52.8	52.8	100.0
Total	254	100.0	100.0	

Source: Čolaković 2015

This attitude can be explained by the fact that the entities and entity tax authorities in Bosnia and Herzegovina are responsible for the control of calculation and payment in the field of direct taxes and contributions. Bosnia and Herzegovina does not have a unique territory where identical regulations are applied, but the tax legislation of direct taxes belongs to jurisdictions of entity legislative bodies.

Table 4. *In the entities of Bosnia and Herzegovina, the current tax legislation favors criminal activities in the field of taxes and contributions*

Answers	Number of the respondents	Percentage	Valid percentage	Cumulative percentage
I completely disagree	9	3.5	3.5	3.5
I mostly disagree	38	15.0	15.0	18.5
Nor agree, nor disagree	49	19.3	19.3	37.8
I mostly agree	79	31.1	31.1	68.9
I completely agree	79	31.1	31.1	100.0
Total	254	100.0	100.0	

Source: Čolaković 2015

Therefore, within BiH, citizens of one entity are considered as non-residents in the other entity, or legislative they are considered foreigners, which represents the unique solution within the EU. Average disagreement with this attitude showed in total 18.5% of the respondents, while the rest of 19.3% respondents has a neutral attitude regarding this issue.

The highest average agreement the respondents showed in the statement that “the continuous and joint education of judicial and prosecutorial authorities

with the management of law enforcement agencies, in the field of tax fraud, is necessary“. The percentage of agreement with this statement is unbelievable 97.6% of respondents, while negligible 1.2% of respondents has a negative attitude and also 1.2% has a neutral position regarding this issue.

Table 5. *The continuous and joint education of judicial and prosecutorial authorities with the management of law enforcement agencies, in the field of tax fraud, is necessary*

Answers	Number of the respondents	Percentage	Valid percentage	Cumulative percentage
I completely disagree	1	.4	.4	.4
I mostly disagree	2	.8	.8	1.2
Nor agree, nor disagree	3	1.2	1.2	2.4
I mostly agree	80	31.5	31.5	33.9
I completely agree	168	66.1	66.1	100.0
Total	254	100.0	100.0	

Izvor: Čolaković 2015

According to the presented material evidence, it is confirmed that the current fragmented structure of the tax institutions, weakens the state system and generates tax crime in BiH. Neo-liberal concept of the dominant economic thought imposes far less influence of the state that under such circumstances should have less scope and powers. According to the dominant economic theory, the neoliberal state needs to use its leverage and very little authority, to protect individuals (rich), through the system of legal norms, from the will of the majority (the poor). Offering a completely different solutions the concept of Human sustainable development intends in a conscious, free and participative way, against the dominant economic thought, through the process of transformation of the relationship between people and them with the physical environment, to acquire for all legitimate and effective approach to the production and use of material, as well as social and environmental products and services, which in their total are conditions and assumptions of the full potential flourishing of each and every person. HSD is a revolutionary concept of development in general, in which the social interest of taxes is perceived through a modern form of understanding of the essence of taxation.

It is sustainable, and it represents the concept based on the individual and changing the individual, which has a need for human conception of development, where his potentials flourish. Of course, it is not a simple process especially in antagonistic conditions between groups and individuals, but it is a necessary need and represents a process of change in consciousness

inside the social system of Bosnia and Herzegovina, of all and each person individually. In other words, changing relationships between individuals means changing relationships between groups and layers, classes and different social communities, to reach the full flourishing of potentials of all and each individual in conditions of social endurance and natural (ecological) sustainability. Under these circumstances taxes are not only egoistic payments with no compensation, but they represent acceptable social interest for the individual, society as a whole and related natural environment.

4. Conclusion

The results and findings of scientific research conducted indicate that there has been no relevant research in this field, and therefore it is not possible to compare properly obtained scientific results with previous investigations. It is clear that the current tax system in BiH is incomplete and unfinished, and it is not adjusted or organized in a way that tax authorities in the EU system are organized. The results of scientific research show the undeveloped state of institutions, which favors the development of tax crime in BiH. Indicators and descriptive results of these investigations confirm that tax evasion as a form of organized crime exists in BiH, in various phenomenological forms, and it finds its fertile ground in the unbuilt tax system in BiH. According to the factual results of the research, it is concluded and confirmed that in BiH, especially in its entities, the current tax legislation is favorable for criminal activities in the field of taxes and contributions. Viewed through the prism of victimology, in this condition, victims are individuals, society as a whole and the related natural environment. These subjects are victims of the current concept of the dominant economic thought, as well as the still unsettled and unsustainable system in BiH, which is unable to confront ever-increasing crime by using institutional levers of the state. According to the analyzed results of the research, it is concluded that corruption has a significant impact on human resources management in tax institutions in Bosnia and Herzegovina. In such a suitable ground, classic and organized crime as one body, in cooperation with the developed corruption in BiH, continually undermine legal levers of a society as a whole and create uncertainty for the individual and society as a whole. In terms of the concept of HSD, such an uncertainty is an expressed social danger that in a long-term weakens and/or limits the flourishing potential of all and every member of the community. The conclusion is that in contrary to the egoistic neoliberal state, HSD concept offers a different understanding of taxes, arising from the conscious, free and participatory transformation of relations between people, where tax benefits have far larger public interest,

than only egoistic tax collection without compensation. In view of the results of research and discussion, it is necessary to continue studying the HSD and its impact on the change in the current tax paradigm, according to which: "taxes are enforced payment without compensation." The scientific body, facts and information, as well as the results of this test, represent a good basis for the continuation of scientific research in this field.

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RISK PREMIA APPROACH FOR DEVELOPING ELECTRICITY MARKETS

PRISTUP PREMIJE RIZIKA ZA TRŽIŠTA ELEKTRIČNE ENERGIJE U RAZVOJU

Abstract

Academic literature recognize the importance of pricing electricity derivatives since none of the well-known models for pricing derivatives in financial markets are not directly applicable to pricing electricity derivatives. Electricity possesses a unique characteristic of non storability which makes cost-of carry approach unusable for pricing electricity futures. Researches show that risk premium approach can be used for electricity forward pricing. Many authors investigated risk premia across power exchanges around the world with general conclusion that electricity futures markets have positive short-term risk premium and negative long-term risk premium.

This paper investigates the adequacy of risk premium approach for developing power exchanges in Central and Eastern Europe, namely Power Exchange Central Europe and Polish Power Exchange. Data set used in this research covers period from introduction of futures derivatives in the above mentioned power exchanges in 2008 up to the end of 2011, which is rather short period of time, but it is expected that meaningful results can be obtained. Also the term-structure and time-evolution of the risk premium is assessed.

Keywords: electricity derivatives, risk premium, electricity market

JEL: G23, Q4

Sažetak

Akademsko literature prepoznaje važnost određivanja cijena finansijskih derivata za električnu energiju, s obzirom da ni jedan poznati model za određivanje cijena (vrijednosti) finansijskih derivata na finansijskim tržištima nije direktno primjenjiv na finansijske derivate za električnu energiju. Električna energija posjeduje jedinstvenu karakteristiku neusklađenosti, što pristup troškova držanja čini neupotrebljivim kod vrednovanja fjučersa električne energije. Istraživanja pokazuju

da je za određivanje cijena forvarda električne energije moguće koristiti pristup premije rizika. Mnogi autori su istraživali premiju rizika na berzama električne energije u svijetu, formirajući generalni zaključak da tržišta fjučersa za električnu energiju imaju pozitivu kratkoročnu i negativnu dugoročnu premiju rizika.

Ovaj rad istražuje adekvatnost premije rizika na berzama električne energije u razvoju u centralnoj i istočnoj Evropi, odnosno na Berzi električne energije Centralne Evrope i Poljskoj berzi električne energije. Podaci korišteni u ovom istraživanju pokrivaju period od uvođenja fjučers ugovora na navedenim berzama od 2008. do kraja 2011. godine što je relativno kratak vremenski period, ali su dobiveni upotrebljivi rezultati. Također, u istraživanju je analizirana vremenska struktura i razvoj premije rizika.

Ključne riječi: finansijski derivati za električnu energiju, premija rizika, tržište električne energije

JEL: G23, Q4

1. Introduction

Electricity market liberalization fundamentally changed business model of power producers and consumers operating in these markets. In contrast to the positive macroeconomic effects of liberalization, such as overall price decrease for all consumer types, on the level of individual power producing company liberalization introduced uncertainties to day to day business. Major negative effect of electricity market liberalization is an increase of idiosyncratic risks, where most dominant are electricity price risk, following credit, liquidity and regulatory risk. The research conducted among twenty one power producing companies shows that the key risk in liberalized electricity market is electricity price risk (Kokorović Jukan & Jukan 2013). In that respect, it is important to address the issue of reducing price risk through financial derivative products and their pricing models.

As none of the well known models for pricing derivatives in financial market are directly applicable to pricing electricity derivatives, it is important to investigate applicable models for pricing electricity derivatives. Electricity possesses the unique characteristic of non storability which makes cost-of carry approach unusable for pricing electricity futures. Bessembinder and Lemmon (2002) wrote the most influential theoretical paper on electricity futures, where they develop an equilibrium model for electricity forward pricing using risk premium approach. As it is argued by Pietz, from an equilibrium point-of-view the risk premia approach seems to be most promising for explaining the price formation for electricity derivatives.

Based on the research of Bessembinder and Lemmon many authors investigated risk premia across power exchanges around the world with general conclusion that electricity futures markets have positive short-term risk premium and negative long-term risk premium.

To further analyze the adequacy of risk premium approach, research in this paper is extended to developing power exchanges of Central and Eastern Europe. The aim of this paper is to empirically test of the risk premia approach at Power Exchange Central Europe and Polish Power Exchange. For the purpose of this research we use data set covering period from introduction of futures derivatives in the above mentioned power exchanges in 2008 up to the end of 2011. Risk premia approach is analyzed from the perspective of ex-post risk premia, and also the term-structure and time-evolution of the risk premium is assessed.

This paper is organized as follows: The second section provides a literature review of up-to date research on electricity market risk premia. The third part of the paper deals with mathematical background of calculation of risk premia. In the fourth part of the paper the discussion of the results of risk premia for chosen power exchanges is presented, as well as the comparison of risk premia in developing and developed electricity markets.

2. Previous research on the electricity market risk premia

Previous research on electricity risk premium discussed characteristics and the sign of risk premium. While some of the research analyzed short-term risk premium (risk premium calculated based on day-ahead and intra-day price of electricity), other discussed long-term risk premium (risk premium for week and month future contract)

Most influential research on short-term risk premium are published by Bessembinder and Lemmon (2002), Longstaff and Wang (2004), Diko *et.al.* (2006) *etc.* Bessembinder and Lemmon concluded that in case of expected low demand and decreased risk related to electricity demands results in negative risk premiums, while in case of increase in demand and risk associated with that demand results in positive risk premiums. Other research provide similar conclusion on short-term risk premium and point that short-term premium vary during the day and is volatile.

Botterud *et. al.* (2002), Shawky *et al.* (2003), Bierbrauer *et al.* (2007), Wilkens and Wimschulte (2007), Lucia and Torro (2008), Torro (2008),

Kolos and Ronn (2008), Furio and Meneu (2009), Marckhoff and Wimschulte (2009) published research on long-term risk premium.

Botterud *et al.* (2002), Lucia and Torro (2008) and Torro (2008) investigated risk premium at Nord Pool electricity exchange. These researches showed positive risk premium for futures with time to delivery of one year and one week. Marckhoff and Wimschulte (2009) analyzed risk premium for contract for differences (CfDs) at Nord Pool and showed positive risk premium for short term contract and negative for long term. Furthermore, Shawky *et al.* (2003) analyzed risk premium for electricity futures for California – Oregon region, which are traded at NYMEX, and also established positive risk premium. On the other hand, research on risk premium for Iberian markets showed negative *ex-post* risk premium (Furio & Meneu, 2009). Research on risk premium for EEX conducted by Wilkens and Wimschulte (2007), Bierbrauer *et al.* (2007), Kolos and Ronn (2008) and Pietz (2009) showed similar results as one obtained for Nord Pool.

Based on the above discussed researches, the following conclusions regarding risk premium patterns can be made:

- Short-run risk premium (at day-ahead market) is positive, due to the fact that buyers (consumers) try to hedge risks related to sudden electricity price jumps, and therefore are willing to pay premium in short run to lock in the price of electricity consumed. This means that producers may achieve additional profits by concluding short term electricity future contract.
- Long term risk premium have negative sign due to the fact that producers try to hedge future electricity production. Producers prefer long term – quarterly or yearly contracts. By concluding long term contract, producers bear losses in the amount of risk premium.
- In unpredictable situations and market conditions (shortages due to the producers equipment malfunction, weather conditions or congestions) sign of risk premium may vary.

The existence of risk premium at electricity markets is a sign of possibility to gain additional profits from the trade at electricity derivative markets. But, as mentioned since electricity have the property of non-storability, risk premium existence also means that electricity market are not efficient as is case of financial markets. In terms of financial markets efficiency notation – electricity markets have a weak form of price efficiency. Risk premium shows rational behavior and risk aversion of market participants.

Due to the unique characteristics of a particular electricity market, it is not possible to generalize results obtained by previous studies, which is indicated in the work of Longstaff and Wang.

On the other hand it possible to make assumption that similar electricity exchanges (for example: similar degree of development, regional connection, similar production mix) can shows similar patterns of risk premium. Therefore, in the next part of this paper, this assumption is being tested for electricity exchanges with similar characteristics.

3. Theoretical and mathematical background on electricity price risk premia

According to the relevant financial literature, future price of a contract for delivery of electricity, or more precisely, price of the standardized future contract at electricity market cannot be determined by using the traditional cost-of-carry approach (Fama & French 1987).¹

While modeling of future price for financial and commodity assets is possible by using standardized cost-of -carry approach, modeling of future price for electricity needs different approach due to the specific nature of electricity. Electricity cannot be stored and needs to be consumed in the moment of its production. This characteristic of non-storability implies that price of the electricity to be delivered in the future cannot be determined in advanced (before the moment of actual production).

Theory suggests that accepted model for determining the price of the futures contract (in other words, relation between spot and future price of electricity) is the risk premia model or the risk premia approach (Pietz 2009).

Risk premium for futures contract on electricity can be calculated using the following formula:

$$\pi(t, T) = F(t, T) - E_t[S(T)], \quad (1)$$

where:

$\pi(t, T)$ is risk premium in moment t for futures contract with delivery date T ,

$F(t, T)$ is price of the futures contract with delivery date T , in moment t ,

$E_t[S(T)]$ is expected value of the spot price in moment T (for delivery period).

Model of calculation risk premium where expected value of the spot price of electricity is used for calculation is called model of *ex-ante* risk premium.

For adequate use of *ex-ante* risk premium model it is necessary to chose appropriate model for modeling electricity spot price. But, modeling of electricity spot price is a complex process, where most of the used models cannot accurately predict electricity spot price movements. In order to avoid the problem of predicting a future electricity price, a model of *ex-post* risk premium can be used for determination of electricity risk premium.

According to *ex-post* risk premium model, electricity risk premium can be calculated using the following formula:

$$\pi(T) = F(t, T) - S(T), \quad (2)$$

where $\pi(T)$ is risk premium calculated in the moment of futures contract delivery.

Relation between *ex-ante* and *ex-post* premium can be expressed through the following formula:

$$F(t, T) - S(T) = \pi(t, T) + \varepsilon_t, \quad (3)$$

where ε_t is average standard error or stochastic component associated with low predictability of electricity spot price.

If assumed that market participant are rational in forming their expectation, *ex-ante* risk premium is equal to *ex-post* premium, where $\varepsilon_t = 0$.

With above set precondition, *ex-post* risk premium in electricity market can be, further, calculated:

$$\pi(T) = \frac{1}{T} \sum_{t=1}^T (F(t, T) - S(T)), \quad (4)$$

where $S(T)$ is average price of hourly prices during delivery period for particular electricity futures contract.

Risk premium calculated using defined formula is call absolute risk premium. Also, it is possible to calculate relative risk premium. Relative risk premium is a percentage of the electricity price paid through the futures contract to

hedge price risk. Relative risk premium can be used for comparison with risk premiums for same contract on different power (electricity) exchanges.

Mathematical representation of relative risk premium is:

$$\pi_{rel}(T) = \frac{1}{T} \sum_{t=1}^T \left(\frac{F(t, T) - S(T)}{F(t, T)} \right). \quad (5)$$

The adequacy of the risk premium approach for electricity futures prices suggests that the futures prices cannot be seen as unbiased estimators of the expected future spot price. Rather they reflect the demand and supply for hedging instruments (Karakatsani & Bunn 2005).

4. Cases of electricity market risk premia at Power Exchange Central Europe (PXE) and Polish Power Exchange (POLPX)

4.1. Data collection and methods used for risk premia calculation

According to the theoretical background presented in the first part of the paper we use mathematical formulations (4) and (5) presented to calculate risk premium absolute and relative *ex-post* risk premium. For the purpose of comparison of electricity market risk premium in developing electricity markets, data were calculated for Power Exchange Central Europe and Polish Power Exchange.²

Risk premium for Power Exchange Central Europe was calculated based on 20 month futures for electricity covering January 2010 to August 2011. Data analysis shows that future contract for January 2011 is the first liquid futures for both load profiles (base and peak). Futures contract for electricity delivery in Czech Republic are used based on the fact that this is a most liquid market segment. For PXE we calculated risk premia six, five, four, three, two and one month to delivery of future contract.

Risk premium for Polish Power Exchange was calculated based on the series of 18 month futures contracts for base load covering period from June 2010 to December 2011. Base load future contracts at POLPX were introduced in December 2008, but first liquid traded base load future contract was June 2008. Furthermore, risk premium on peak load future contracts was calculated for 16 month futures from August 2010 to August 2011. In case of POLPX, we calculated risk premia three, two and one month to deliver of future contract.

4.2 Patterns of electricity market risk premia at PXE and POLPX

Based on the historical data of electricity prices at PXE we found the following patterns of risk premia. Risk premia for base load month futures is negative for almost the most part of the observed period. We found positive risk premia in August of 2010 for future contracts with three or less months to the delivery date. Risk premia was positive again in the summer months of 2011 (June, July and August) for futures with time to delivery of more than a month (see Figure 1). Risk premia for peak load month futures shows the same pattern as base load risk premia, but is significantly negative in fifth and twelve month. In summer months is positive for periods to the delivery (see Figure 2).

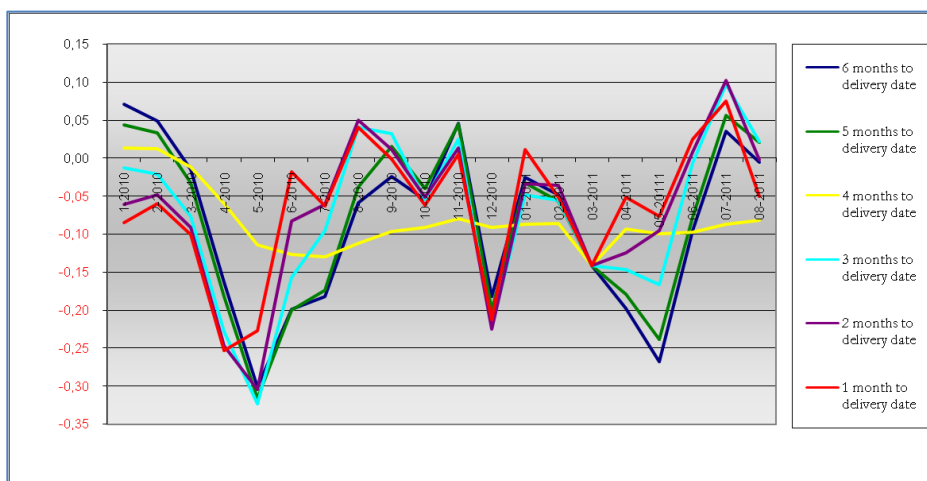


Figure 1. *Relative risk premia for base load month futures at PXE*

Source: Author's research

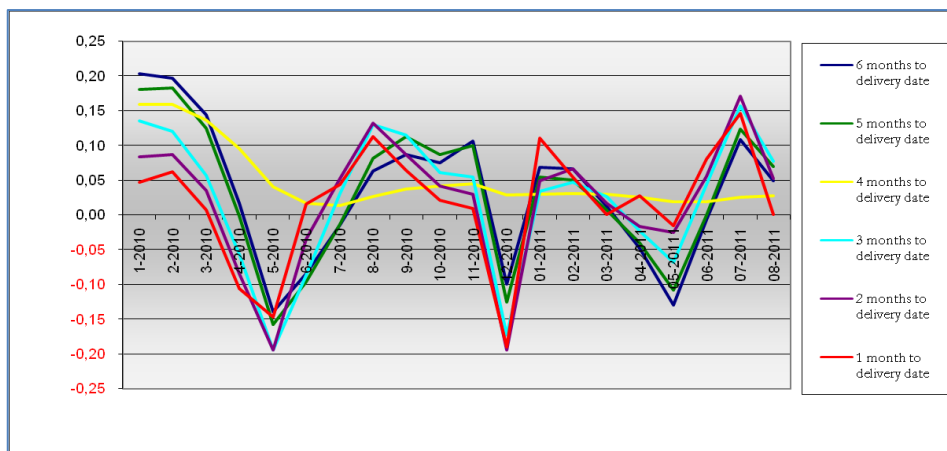


Figure 2. *Relative risk premia for peak load month futures at PXE*

Source: Author's research

Based on the calculation of risk premium at POLPX, we found negative risk premium in winter months with lowest value for December futures, while positive risk premium was observed in summer months June, July, August and, even, September (see Figures 3 and 4).

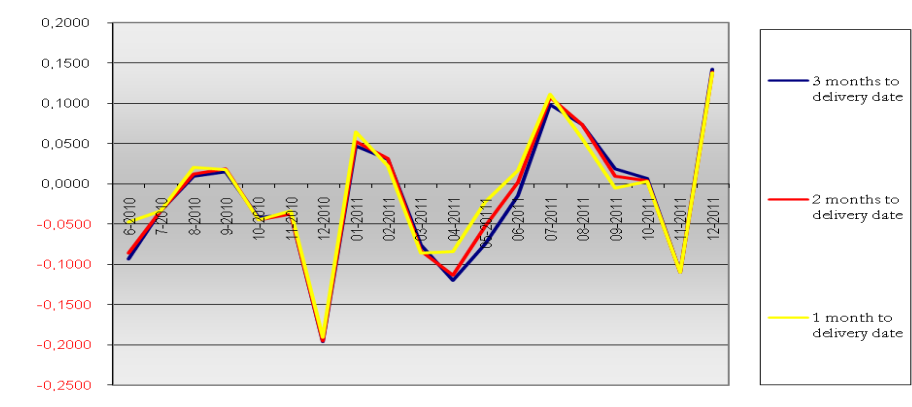


Figure 3. *Relative risk premia for base load month futures at POLPX*

Source: Author's research

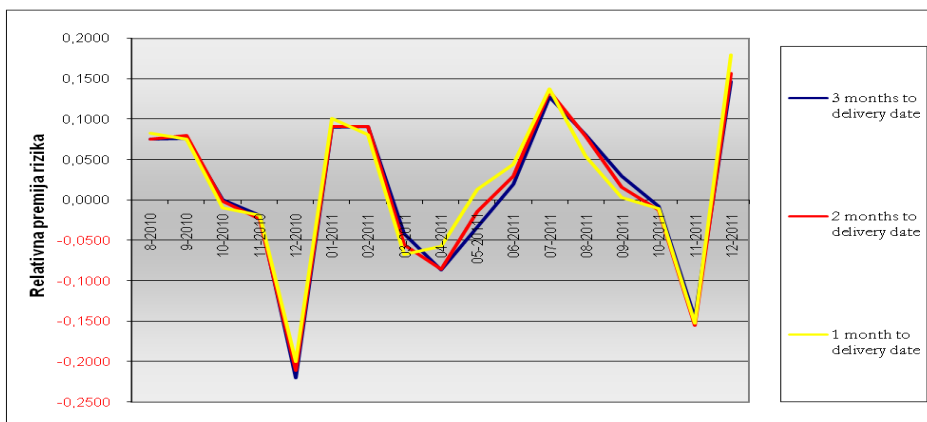


Figure 4. *Relative risk premia for peak load month futures at POLPX*

Source: Author's research

As it can be observed from illustrations presented above, it can be concluded that risk premiums at both power exchanges and for both load profiles show the same patterns.

4.3. *Absolute and relative market risk premia at PXE and POLPX in comparison to developed electricity exchanges*

Tables 1 and 2 show comparison of average value of absolute ex-post risk premia for month base load and month peak load future for chosen power exchanges.

Table 1. *Absolute risk premia for base-load month futures*

	EEX*		PXE**		POLPX**	
<i>Time to delivery (in months)</i>	<i>Avg.</i>	<i>Std. dev.</i>	<i>Avg.</i>	<i>Std. dev.</i>	<i>Avg.</i>	<i>Std. dev.</i>
One	2,3	9,26	-2,2	4,45	-1,79	15,16
Two	2,68	11,97	-2,31	4,95	-2,68	15,87
Three	2,34	12,73	-2,49	5,26	-3,17	15,97
Four	1,54	13,08	-2,89	1,65	-	-
Five	0,73	13,50	-2,58	5,59	-	-
Six	-0,03	13,79	-2,69	5,58	-	-

* Pietz 2009, ** Author's calculations

Table 2. *Absolute risk premia for peak-load month futures*

	EEX*		PXE**		POLPX**	
<i>Time to delivery (in months)</i>	<i>Avg.</i>	<i>Std. dev.</i>	<i>Avg.</i>	<i>Std. dev.</i>	<i>Avg.</i>	<i>Std. dev.</i>
One	4,36	17,09	1,43	4,79	3,87	21,83
Two	5,45	21,30	1,7	5,22	3,05	21,72
Three	4,95	21,75	1,99	5,59	2,88	21,28
Four	3,78	21,52	3,79	2,92	-	-
Five	2,82	21,55	2,54	6,02	-	-
Six	1,97	22,24	2,69	6,12	-	-

* Pietz 2009, ** Author's calculations

Tables 3 and 4 show comparison of average value of relative ex-post risk premia for month base-load and month peak-load future for chosen power exchanges.

Table 3. *Relative risk premia for base-load monthly futures*

	EEX*		PXE**		POLPX**	
<i>Time to delivery (in months)</i>	<i>Avg.</i>	<i>Std. dev.</i>	<i>Avg.</i>	<i>Std. dev.</i>	<i>Avg.</i>	<i>Std. dev.</i>
One	3,49	19,75	-6,46%	0,08	-1,13%	0,077
Two	2,93	24,43	-7,09%	0,10	-1,64%	0,081
Three	2	25,19	-7,70%	0,10	-1,91%	0,08
Four	0,28	25,83	-8,30%	0,04	-	-
Five	-1,7	26,52	-8,48%	0,11	-	-
Six	-3,61	27,77	-8,77%	0,11	-	-

* Pietz 2009, ** Author's calculations

Table 4. *Relative risk premia for peak-load month futures*

	EEX*		PXE**		POLPX**	
<i>Time to delivery (in months)</i>	<i>Avg.</i>	<i>Std. dev.</i>	<i>Avg.</i>	<i>Std. dev.</i>	<i>Avg.</i>	<i>Std. dev.</i>
One	5,05	25,53	1,78%	0,08	1,52%	0,09
Two	4,96	30,28	2,09%	0,09	1,14%	0,09
Three	4,24	30,37	2,45%	0,09	1,08%	0,097
Four	2,87	29,99	5,05%	0,04	-	-
Five	1,48	30,18	3,18%	0,09	-	-
Six	-0,15	32,33	3,36%	0,09	-	-

* Pietz 2009, ** Author's calculations

In case of EEX, absolute and relative risk premia shows similar characteristics for both types of future contracts. Risk premia is positive in both cases, but it can be observed that the value of the premia increase as the date of delivery approaches. Maximal value of risk premia is two months before the delivery date (for base load futures it is 2.68 Euros per MWh while for peak load futures it is 5.45 Euros per MWh). In case of base load futures, a negative risk premia can be observed only for futures with time to delivery of six months. Research shows that in the case of EEX, buyers (electricity consumers) are willing to pay risk premium in order to hedge electricity price risk, where this need is more pronounced as the time delivery approaches, hence risk premium increase.

In contrast to risk premia at EEX, data from developing power exchanges shows negative risk premia for base load futures where the negative value of the premia decrease as the date of delivery approaches. This means that power producers at developing markets are more sensitive to electricity price risks, and therefore, are willing to pay the premium for hedging that risk. As the results of absolute and relative risk premia for base load futures for PXE and POLPX shows, risk premia decrease as the date of delivery approach. This further means that power producers are hedging for the uncertainty of the price in longer terms.

In case of peak load futures, risk premia is positive, which implies that power producers are interested in hedging their base load production, while are ready to gamble on peak load prices. In other words, power consumers are more sensitive on the price movement for the peak load consumption, having in mind that this power is more expensive in all electricity markets (mainly because of insufficient power production capacities characteristic for most of the power markets, as well as the possible congestions of power lines).

5. Conclusion

Process of electricity market liberalization started two decades ago in developed part of the world and in developing countries of Central and Eastern Europe only a 5 years ago, there were no many studies on the behavior of market participants. Having in mind the potential consequences of electricity market crashes, or shutdowns, such as Californian market crash in 2001, the need for monitoring behavior of different parties at these markets became an important issue.

In this paper we addressed the issue of electricity market player behavior by analyzing a risk premia of particular electricity contracts at the developing electricity markets in Central and Eastern Europe. Risk premia approach was used as a tool for examining the risk appetite of power producers and power consumers.

For the purposes of the research, two major electricity exchanges were chosen: Power Exchange Central Europe and Polish Power Exchange. Due to liquidity considerations, analysis was restricted to month futures at two power exchanges.

The results of the analysis shows that calculated risk premia have different patterns then observed a risk premia observed at developed electricity market, which was shown by comparing obtained results from chosen exchanges to the developed one. In contrast to developed electricity markets, where long-term risk premium is negative and short-term risk premium positive, data shows that sign of risk premium in observed market depend on the load profile not on the time to delivery of future contract.

Based on the risk premia patterns observed at developing exchanges the following conclusions about behavior of the market participants can be made:

- Power producers at developing power markets are more risk averse when it comes to the base load production. The underlying reasons might be the unfamiliarity with market behavior, and more likely the importance of base load production in recovering the production costs (fixed more than variable costs) and gaining targeted normal profit margins.
- Power consumers, on the other hand, express higher risk aversion to the price volatility in periods of higher demand for electricity, when prices spikes and can be even 100% higher than in the off peak period.

One interesting finding was that producers are ready to cut down a portion of their profit to secure the price of produced electricity for base production, while they are more willing to gamble on the price of peak production. These patterns of power producer's behavior are in contrast to observed developed electricity market.

It would be interesting to follow observed behaviors as markets progress in their development in terms of higher liquidity of power products (both spot and derivative) and of increase in market competitions. Further research

might shed some light whether the market participant behavior at developing market converge to the behavior of participants at developed electricity markets, or every market (national or regional) has its own behavior patterns. A major reason for not being able to address this latter issue in this paper is the liquidity problem with futures contracts traded at the chosen markets. Even though, some of the observed products were traded in the markets for 3 to five years, there was no liquid trading. Therefore, the observed time series were rather short, but produced some interesting results and we were able to establish patterns of risk premium movements.

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Endnotes

- 1 Cost of carry approach uses cost of carry to explain the difference between future and spot price, where cost of carry of holding financial asset in a portfolio (or in case of commodities cost of storage) plus interest paid for holding a asset and minus the revenues collected in relation to holding a asset (such as dividend income on stocks).

Traditional mathematical formula for calculating the price of the future (forward) contract, based on the cost of carry (buy and hold strategy) for financial asset, can be written as follows:

$$F_0 = S_0 e^{d^T},$$

While, the price of a commodity futures (forward) contract can be calculated based on the following formula:

$$F_0 = S_0 e^{(c-y)T},$$

where:

F_0 is a price of the futures contract,

S_0 is a price of the underlying asset in the moment $t = 0$,

c is a cost of carry,

y is a convenience yield,

T is a days to maturity of the futures contract.

- 2 Data for PXE were obtained with the approval of Director of External Communications of PXE Mr. Jiří Kovařík. (Prague Stock Exchange, Member of the CEE Stock Exchange Group, 110 05 Praha 1, Rybná 14. Data for POLPX are available at the Exchange web site www.polpx.pl.

MARKETING

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SOCIAL MARKETING AND PUBLIC INVOLVEMENT IN ENVIRONMENTAL PROTECTION – EXAMPLE OF THE TOWN OF SPLIT

DRUŠTVENI MARKETING I UKLJUČIVANJE JAVNOSTI U ZAŠTITU OKOLIŠA – PRIMJER GRADA SPLITA

Abstract

Development of marketing conceptions led to a new way of thinking and directing marketing towards meeting the interests of society. The aim is to draw attention to the social marketing which are used by non-profit and public organizations for the purpose of eliminating social problems and increasing the welfare of society, through influence the attitudes and behaviours of citizens. Examination relevant literature we attempted to clarify its fundamental concepts and to provide relevant examples from the global practice. The study was conducted with the respondents from the town of Split by means of a questionnaire, the purpose of which was to establish the level of existing environmental awareness and engagement in eliminating the problems. We also looked into the level of familiarity of the citizens of Split with the work of the Department of Environmental Protection of the local self-government of the town of Split, and conducted an interview with some of the official representatives of the town of Split in order to determine the extent to which the officials themselves recognize and use the concept of social marketing. The results revealed an insufficient employment of the concept of social marketing, which they mainly equated with advertising. Furthermore, the citizens demonstrated a good understanding of environmental issues and willingness to change their behaviour into being socially responsible, except young age group of citizens which are least willing to change their attitude, so it is necessary to communicate environmental programs via social networks which they consider the most accessible. The local self-government should conduct studies on the citizens' satisfaction, analyse the examples of good practice,

implement concept of social marketing in the work, and collaborate with schools, faculties ...in order to raise the citizens' awareness and to encourage them to actively think and act for the purpose of preserving their environment.

Keywords: social marketing, public and non-profit sector, local self-government of the town of Split

JEL: M38

Sažetak

Marketing se kroz povijest razvijao kroz razne koncepcije i pronalazio nove načine primjene. Jedan od ciljeva ovog rada je skrenuti pozornost na marketing čije temeljno usmjerenje postoje zadovoljiti interese društva. Takav marketing nazvan je društvenim i njime se koriste raznovrsne neprofitne i javne organizacije kako bi utjecale na stavove i ponašanja pojedinaca/grupe da prihvate neko ponašanje kao poželjno ili da odbace nepoželjno ponašanje, u svrhu otklanjanja društvenih problema i povećanja dobrobiti društva. Kroz iscrpan pregled znanstvene i ostale relevantne literature na temu društvenog marketinga, pokušali su se razjasniti temeljni koncepti i dati relevantni primjeri iz svjetske prakse. Istraživanje je provedeno nad ispitanicima s područja grada Splita, putem anketnog upitnika, čime se željela utvrditi upoznatost građana Splita s problemima okoliša i njihova angažiranost pri otklanjanju istih. Istraživao se i stupanj upućenosti Splitana u rad odjela zaštite okoliša lokalne samouprave grada Splita, te je proveden intervju s predstavnicima grada Splita kako bi se utvrdilo u kojoj mjeri sami zaposlenici prepoznaju i koriste koncept društvenog marketinga. Rezultati su pokazali nedovoljno korištenje koncepta društvenog marketinga, koji se uglavnom izjednačavao s oglašavanjem. Nadalje, građani pokazuju znanje o ekološkim problemima i spremnost na promjenu vlastitog ponašanja ka društveno odgovornom, iako zabrinjavaju rezultati koji pokazuju da je mlada dobna skupina građana, najmanje spremna promijeniti svoje ponašanje za dobrobit okoliša. Kako bi se ova dobna skupina i svi ostali pridobili, potrebno je u većoj mjeri komunicirati ekološke programe putem društvenih mreža i ostalih medija. Isto tako, treba analizirati i preuzimati mnogobrojne primjere dobre prakse u svijetu. Lokalna samouprava grada Splita treba kontinuirano provoditi istraživanja zadovoljstva građana, te ostvariti suradnju s vrtićima, školama, fakultetima, udrugama, kako bi podigla svijest građana i potaknula ih na aktivno razmišljanje i djelovanje u svrhu očuvanja okoliša. Sustavno planiranje i postizanje zacrtanih ciljeva moguće je ponajprije uz implementaciju društvenog marketinga u javnom sektoru.

Ključne riječi: društveni marketing, javni i neprofitni sektor, lokalna samouprava grada Split

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1. Introduction

Marketing in the business world can be defined as an activity/skill which integrates two processes, the technical (4Ps) and the social one (habits/attitudes/values and behaviours of consumers), that are applicable exclusively in economic activities and are based on exchange for the purpose of meeting the desires and needs of consumers (Gundlach & Wilkie 2007, Vasudeva 2006). Marketing concept can be defined as planning and coordinating of all company's activities in order to meet customer needs and thus wants to create the most effective mean to achieve and maintain a competitive advantage and to accomplish company's goals over time (Walker, 1992 stated in Turner and Spencer, 1997). There are six different concepts according to which companies, organizations or institutions can carry out their marketing activities (concept of production, followed by concept of the product, sales concepts, marketing concept, concepts of consumers, and concept of social marketing (Morgan, 1996). However, when it comes to marketing concept, the emphasis is placed on the needs and preferences of consumers. The public generally equates marketing with advertising and attributes a negative image to it, although everyone consciously or unconsciously still use marketing products, which are the result of a person's marketing efforts (Kotler 1994). Such image should be overcome today because, among other, the 1980s saw the appearance of the measures in marketing that attempted to establish consumers' satisfaction, understand consumers, and adjust to their desires and needs (Dorotić 2005). Finally, the concept of Social Marketing is based on the fact that marketing management should strive for a balance between company's profit, needs and preferences of consumers and social demands. It is considered that the concept of Social Marketing relies on the basic marketing concept - customer satisfaction and profitability – along with a third element called long-term benefit of consumers (Crane & Desmond 2002). The aim of this paper is to draw attention to the social marketing which is used by non-profit and public organizations for the purpose of eliminating social problems and increasing the welfare of society. The study is conducted with the respondents from the town of Split and the purpose is to establish the level of existing environmental awareness and engagement in eliminating the problems. Also, one of the goals is to determine the extent to which the officials themselves recognize and use the concept of social marketing in town of Split but also to explore the level of familiarity of the citizens of Split with the work of the Department of Environmental Protection of the local self-government.

2. Development and implementation of marketing in non-profit sector

The development of the concept of social responsibility (that represents the concern for the functioning and prosperity of society) can be associated with the emergence and development of the non-profit sector (Bežovan 1995). The communities of the people gathered around the non-profit interests they share enable individuals to accomplish their personal goals (giving them the sense of usefulness, support, contentment, and self-fulfilment), hence leading to the accomplishment of the goals of their community as well (Alfirević et al. 2013). The development of the non-profit sector is closely associated with the crisis of both the welfare state and environmental protection, i.e. with the following movements; “*Consumerism*” (organized by citizens and government agencies in 1960s for the purpose of improving the rights and power of buyers in relation to sellers), “*Environmentalism*”, the movement that tried to protect and improve the environment we live in, and “*Corporate Environmentalism*” (Kotler & Armstrong 1994). Enterprises have recognized the sensibility of buyers to environmental protection, and now they implement the so-called *green marketing*, in accordance with which they use more energetically efficient processes and biodegradable products, and mention these actions in their marketing communications, hence earning points with ecologically-minded buyers (Kesić 2003). *The concept of sustainable development is being developed*, attempting to meet the needs of present generations without compromising the needs of future generations. According to it, it is necessary to use only as much of the resources as it is possible to substitute for, and to limit the level of pollution to the level endurable by the environment, implying the active involvement of all the concerned subjects –state, enterprises, and the public (Grbac et al. 2008). In addition to the market and state, or the private and public sector, there is a third complex of institutions known as *the third sector* (volunteer, independent, non-taxable...) that exists to ensure the overall society welfare (Salamon et al. 1997). The global perception of the non-profit sector is also in a critical state due to their placement of information about the volunteers and professionals that “do not seek” compensation for their work (although there are countless evidence they receive it), their participation in political activities, and the shortage of funds when there is a need for urgent help (Carson 2002). For example, a study on the work of non-governmental organizations conducted with 1000 respondents from 66 settlements in Croatia has shown that 75% of Croats have a positive general attitude towards the work of non-governmental organizations (Franc & Šakić 2007). Some enterprises increasingly opt for undertaking the actions of the so-

called *Cause Related Marketing* that represents the cooperation between the for-profit and non-profit sector. Enterprises thus donate their products to a charity, which directly leads to the increase in sales of the product in question (Previšić & Ozretić 2004). The public sector in developed economies often shares partnership with the non-profit sector. This leads to a better division of labour in providing public services, which proved as a good practice (Matei & Dinu 2010). When providing services, it is important to recognize the existing needs in order to satisfactorily meet them, and those who play the leading role in this are social marketers who attempt to understand people and their behaviour, and to respond to their needs (psychology takes centre stage in their work) (Hastings 2007).

3. Social marketing

Understanding people is the key factor in meeting their desires, but also in addressing social issues. Due to this, social marketing has become a powerful tool in attempting to “sell” a desirable behaviour in order to address social and communal issues (Kotler et al. 2002). Kotler and Zaltman (1971) were the first who introduced the concept of social marketing, attempting to link marketing techniques with the shaping of desirable behaviours. According to Andreasen (1994), social marketing is nothing but an adjustment of the technologies of commercial marketing. Its actions include all the subjects that are not covered by the for-profit marketing, yet participate in the process of exchange (such as, for example, charity marketing, political marketing, social marketing...) (Meler 1994). Noble and Camit (2005) believe that, to create a desirable social campaign, it is necessary to meet four key factors: (1) *segmenting and identifying the target audience*; (2) *adapting message content*; (3) *source credibility* / asking the question: what an individual has in common with the source of credibility? The public perception of the sources of credibility varies depending on their behaviour, education... therefore it is necessary to carefully choose the source of credibility; and (4) *integrating the adapted campaign with its mainstream counterpart*/this is advisable in order to influence the target audience as successfully as possible. The purpose of the public sector is to choose the objectives and activities that contribute to the general welfare in a way that not only makes contributions to the social welfare, but also to the economic and environmental welfare, collectively referred to as *the triple bottom line* or 3P (“profit”, “planet” and “people”) (Tafr-Vlahović 2009). It is difficult to illustrate to the citizens how their sacrifices today are going to influence, for example, the preservation of air tomorrow. There are several phases that influence their

engagement, and these are: *the precontemplation phase* (in which people usually refuse to acknowledge the existence of a problem and are unwilling to change their behaviour); *the contemplation phase* (in which people start considering changes); *the preparation/action phase* (in which people decide for the first time to act in a certain desirable way); and *maintenance phase* (in which people are repeating the desirable behaviour, and sometimes gain recognition for it) (Andreasen 1996). Therefore, the public sector must primarily identify the obstacles in the behaviour of the citizens (in which different focus groups and studies can help), and then choose the behaviour to promote on the basis of the information obtained. Furthermore, it is needed to *transfer the actual benefits to the present* (Mohr 2000). Archer and Pettigrew (1986) (listed in Mohr 2000) concluded that the citizen behaviour is strongly influenced by economic motives, i.e. the economic benefits that may accompany certain engagements. Moreover, it is essential to emphasize the costs of opposing behavioural patterns, to promote tangible objectives or services in order to help the general auditorium to act in accordance with the desires of marketers, to take into account the non-monetary incentives in the form of recognitions and praises, to have fun while devising the messages, to use media channels at the points where decisions are made, and to extort firm commitments and promises (Mc Kenzie listed in Kotler et al. 2007). Social marketing in the public sector is focused, thus, on promoting a desirable behaviour and on attempting to change an undesirable behaviour of the citizens. Mutual collaboration in the matter would be beneficial for everyone; the private sector might, for example, gain a good reputation in the community, the non-profit sector might get more funding, the public sector associations might get a greater visibility, corporations might gain positive reactions from the citizens, while the partnership with other public institutions might reduce the costs of distribution channels (Kotler & Lee 2007).

4. Environment – raising environmental awareness

The anthropogenic action of man and of various economic activities on the environment, population growth, and accelerated urbanization processes have led to an imbalance in the environment and to a series of local and global environmental problems (Rakitovac 2006). It is no longer enough that enterprises only meet the individual desires of consumers, but they also have to meet their common and social desires in order to maintain their businesses (Črnjar 2002). Developed countries employ different methods and policies of preserving the environment, and environmental issues are an integral part

of their economic decisions. The only possible way to enable the awakening of environmental awareness is through informing all the concerned subjects on improving and implementing sustainable development (Afrić 2002). The term *environment*, thus, refers to all the elements of the physical and biological world, as well as to the people and the interactions between them. These elements can be grouped together under a common denominator - *ecosystem*, whereby not only the *natural resources* such as flora, fauna, air and water are implied, but also the *services* arising from these resources (for example, the fruits growing from the soil), the *processes* that are essential for the sustainability and renewal of the said resources (for example, climate) and *the aesthetic and cultural benefits of the ecosystem* (for example, recreation) (Črnjar 2002). With the accession of Croatia to the EU, the permissible boundaries of the different types of loads acting on the environment have been defined, because the environment represents a public good, so state intervention is necessary, although the institutions relevant for the protection of the environment in Croatia are still undertaking only minor interventions into the environmental protection (De-Villa 2003). *The Environmental Protection Strategy* aims to achieve a *balanced development of the economy and environmental performance* by ensuring the most favourable technical, production and economic measures accordant with the process of sustaining the environment (Official Gazette: PA4-99/1-94). A stronger involvement of the citizens in the activities related to the environmental welfare would allow the local community to undertake a higher-quality care of the protection of the environment (Kordej & Papafava 2003). The strategic framework for the future environmental policy of the EU is currently in the process of adopting the seventh Environment Action Programme (7th EAP) which is going to, in the period between 2013 and 2020, encourage Croatia to a more efficient usage of resources, sustainable production and consumption, and improved protection of the natural capital and human health, with the aim of reducing costs and creating new jobs (Ministry of Foreign and European Affairs 2015). The existence of *environmental awareness* is important in allowing the elimination of the issues that occur in the environment. All the concerned subjects can contribute to the elimination of these issues with their actions (Grbac et al. 2008). There are a number of signals that point to the need of reacting and that warn us of our obligation to protect the environment for the purpose of a sustainable development of the whole country. *Reporting on the condition of the environment* is possible by means of the generally accepted DPSIR model (Drivers, Pressures, States, Impacts, Responses) that represents the

chain between the drivers of economic sectors and human activities (Voća et al. 2014). The existence of *environmental awareness* can be compared to the existence of social responsibility. Social responsibility refers to the responsibility of enterprises, local government institutions, different agencies of civil organizations, and individuals themselves (Višković 2008.). All of these need to act in order to contribute to the protection of the environment, so enterprises could accept the *corporate social responsibility* called for in the “Green Paper” issued by the European Commission in 2001 (Previšić & Ozretić 2007). Individuals would then start positively perceiving an enterprise and following its example in their own life (Višković 2008). The attitudes that adult individuals have are difficult to change, and sometimes it takes up to 10 years to change a certain attitude (Kesić 2003). A study conducted with 205 respondents engaged in education and upbringing shows that the concern for the environment and nature only falls into the third place on their priority list, following the teaching on politics and health (Borić et al. 2008). Expecting a change in the attitude of people is possible as far as they engage in the broad campaign on education, debate, and public involvement (Buzov 2008). Public involvement in the concern for the environment is also possible through the establishment and operation of *non-profit organizations*, such as *associations*. A huge role in raising environmental awareness is also played by *local self-governments*. Through their actions, local self-governments can bring closer to all the concerned subjects the insights on the actual condition of the environment, the issues that need to be addressed, and the means of achieving this (Blagonić & Prosen 2007). The consequences of neglecting the environment are not only felt by those who, by their neglect or harmful actions against the environment, contribute to this, but also by those living beyond the borders of a country, which is why it is necessary to establish a global cooperation of countries for the purpose of establishing a balance between environmental protection, social development and economic growth (Rockstörn et al. 2009). If we do not do this, the costs of adapting to the new situations will be borne by future generations (Čedo 2008). The world has a maximum of 20 years to prevent a climatic catastrophe, and should start acting upon it immediately because, if it starts introducing reductions belatedly, the employed measures will not be efficient as the point of no return will have been reached by the time (Lay et al. 2007). Scientists have studied the consequences of neglecting the environment and concluded there are nine categories that determine the level of safety on our planet. Out of these, the ones that have exceeded their boundary and are therefore at risk are:

biosphere integrity, biogeochemical processes, and the processes in the Earth's soil. The category currently in the spotlight is the category of *climate change* because it is on the border of being at risk (if we do not start acting urgently, flooding and tropical climate are anticipated to overwhelm Split). The other planetary borders are in the zone of some sort of safety, and these are: *ozone layer depletion, increase in ocean acidity, freshwater use, aerosol in the atmosphere* (different particles that directly influence human health) and *introduction of new entities* (such as nanomaterials and microplastics) (Rockstörn et al. 2009). Čizmić and Pančocha (2005) claim that environmental policies are perceived today as the public management of the environment, i.e. as the management of the common good. In choosing the policies to be used with the aim of contributing to environmental protection, it is possible to choose among several instruments: *the usage of bans, technical norms and standards, tradable permits, fees / taxes on pollution, subventions for clean substitutes and reducing consumption, the system of deposits and refunds, voluntary agreements and informing* of all the interested parties (Kordej & Papafava 2003). The main sources of funding environmental protection in Croatia are the user fees paid for the use of natural resources, environmental protection fees (Črnjar 2002). It is necessary to adopt the provisions that would prioritize the judicial procedures related to environmental pollution, define short and precise timeframes for delivering verdicts, and determine minimum attorney fees (Šago 2013). The town of Split, that has recently initiated the project of building dry berths for the cruiser ships of up to 320 m, can be taken as an example here. This is an investment that is going to allow the berthing of large cruiser ships adept of boarding 3,000 passengers (The Town of Split 2015). The overall pollution, per day of sailing, caused by one of these cruiser ships is equivalent to the pollution produced by 12,000 personal vehicles. Hence, the increased number of visitors in the field of cruise tourism is certainly going to result in negative consequences on the environment (Perić & Oršulić 2011). Pavlović (2008) claims that the public institutions can implement the concept of de-marketing in case of the need to discourage the arrival of the members of certain market segments to this tourist destination for the purpose of sustainable development. Out of 8,649,600 m² of the Croatian territory, the greatest portion is occupied by the legal landfills that make for 34%, while yet another great portion is occupied by illegal landfills. Therefore, the local self-government should establish a JIS (*Joint Information System*) that combines the multipurpose cadastre data with other relevant data (Blahonić & Prosen 2007). An example of positive practices would be the

implementation of different *campaigns*, for example, the “Pay As You Throw” campaign. Ireland was the first country that introduced a tax on plastic bags in 2002. The aim of introducing such *charges* was to encourage the citizens to use more durable and reusable bags. It is as well possible to apply *strict laws* and numerous *fin*es (Kotler & Lee 2007). There is also the possibility of encouraging the construction of the so-called green buildings (apartment buildings, houses) that allow considerable savings by means of using environmentally friendly products and energy sources (Sinha, Gupta & Kutnar 2012). In the Republic of Croatia, the deserving producers of mass consumer products are awarded a label that marks them as the friends to the environment (Grbac et al. 2008). It is also possible to assign an ISO system label. Some countries, members of the EU, refuse to reveal the studies on the impact on the environment to the public, justifying this as the protection of intellectual property. However, the implementation of the Aarhus Convention renders these arguments invalid and makes the studies on the impact on the environment available to the public (Sobotta et al. 2011). There is a pilot project conducted in the town of Sisak (“Dovesti svoju kuću u red - “Put Your House in Order”) that actively promotes the measures and programmes related to energy issues and that has resulted in the cost reductions worth 2,5 million Kunas in the overall energy budget (Čedo 2008). Croatia has also published a manual entitled “The Local Self-Government Reform Project” that describes the models of management by means of which the local self-governments can improve their position (Chmura et al. 2005). The town of Split is the second greatest town in the Republic of Croatia, and the centre of the Split-Dalmatia County. It encompasses eight settlements with the total of 178,192 inhabitants, according to the 2011 census. In order to monitor the impact on the environment, the local self-government of the town of Split collaborates with the Teaching Institute for Public Health of the Split-Dalmatia County which carries out the activities of health ecology and aims to protect human health from the negative effects caused by the harmful doings of particles on the environment.

5. Methodology and results of the study

The theoretical findings expressed in this paper are based on an analysis of the relevant scientific and technical literature by domestic and foreign authors. The collection of primary data was carried out by means of an investigative research and by using the method of group interview with the representatives of the local self-government of the town of Split for the purpose of gaining an insight into their activities and usage of social

marketing. A descriptive study was conducted as well, via a questionnaire. The said theoretical findings were used in drawing up the questionnaire, and the study was carried out with a deliberately chosen convenient sample. The study conducted in the area of the town of Split encompassed a statistical set of the citizens of Split who had current residence in the area. The study included 154 respondents, and the data were obtained via the questionnaire filled in by the respondents themselves. The obtained data were analysed by the SPSS Statistic software, and the results provided the requested answers regarding the confirmation or rejection of the hypothesis set.

The first hypothesis, *H1 – The institutions relevant for environmental protection in the town of Split underuse the concept of social marketing*, was analysed by means of the group interview with the official representatives of the town of Split, and by means of the questionnaire. The study conducted in the area of the town of Split encompassed 154 respondents, 74 of which male (48.1%) and 80 female (51.79%). The majority of the respondents belonged to the group of young and middle-aged citizens – their attitudes have the key importance in this paper considering that they are actually the citizens on whom environmental protection is going to depend in the near future. All town districts were covered by the study. According to Table 1, the citizens mostly do not notice the activities and projects of the local self-government, i.e. the little they do notice generally originates from news programs and television commercials, which are the main sources of their knowledge on the activities of the officials of the local self-government. Analogously, they believe that social networks and web sources could be an important information medium, and that the local self-government should thus shift the focus of communication from television to the Internet as it involves various social networks and web sources. These sources are undoubtedly accentuated as the most important medium of communication and information. The detailed interview also confirmed the stated claims that the representatives of the Department of Physical Planning and Environmental Protection of the local self-government of the town of Split underuse the concept of social marketing, which they generally equate with advertising, while not researching the citizens' attitudes. The Sub-Departments of Physical Planning and Environmental Protection operate successively because the spatial planning documentation is followed by the documentation from the environmental domain, so every sub-department operates individually, adhering to the procedure.

Table 1. *Explores H1-Institutions relevant for environmental protection in the city of Split insufficiently use concept of social marketing*

Responsibility for the ecological problems in the city of Split	Consumers	Local government	Companies	Other
Mean	.69	.66	.56	.06
Noting the work of local government	Efforts to increase energy efficiency by using renewable energy sources	Co-financing of energy audits	Encouraging procurement of hybridelectric vehicles	Increasing the efficiency of traffic systems
Mean	2.60	2.39	2.28	2.41
	Encouraging proper depositing	Upgrading waste collection	Procurement of mobile recycling yards	Encouraging procurement of planting material
Mean	2.49	2.33	2.44	2.48
	Encouraging changes in agricultural techniques	Encouraging suspension of fishing activities	Supplement the existing public lighting system	Preserving air quality, sea etc.
Mean	2.46	2.45	2.49	2.46
	Encouraging the use of biomass	Encouraging the use of wind power	Increase the forests	Reduction of carbon emissions
Mean	2.48	2.56	2.47	2.30
	Burning methane from landfills for energy	Tidiness of parks/roads	The effectiveness of spatial and urban planning	Preparation of expert studies
Mean	2.76	2.75	2.49	2.48
	Organizing conferences	Creating and availability study of effects on environment	Co-financing of research studies	/
Mean	2.48	2.49	2.28	/

Significance of media which informs about the work of local self-government	Social networks	Web feeds	Tv	Radio
Mean	4.13	4.01	3.86	3.48
	Posters	Openphone	Leaflets and brochures	Newspapers / Seminars and radio.
Mean	3.52	2.64	3.21	3.37 / 2.96

Average ratings of the source observations on the work of local self-government... Mean 1.75

Source: Authors' research

In making physical plans, it is necessary to consider the potential risks and to hire an economic expert who is going to put his theoretical knowledge (for example, on the increased number of tourists) into drawing up the studies / evaluations of their impact on the environment. The lack of such studies and insufficiently prepared activities only yield short-term incomes, and long-term expenditures for environmental restoration. To an extent, the Department cooperates with different associations, but they recognize the existence of some non-professional associations that do not fully employ the funds according to the plan. The lengthy procedures and notoriety of the Department reduce the employee's motivation. The general indistinctness of its mission and vision disables the citizens from better understanding the role of the Department, although they can get answers to all their questions in person or in writing. The citizens mostly express their dissatisfaction by signing different petitions, which further motivate the Department to take actions (for example, testing the cleanness of air at the town landfill). Summarized, it can be said that the employees, consciously or unconsciously, to a small, yet insufficient extent, and unsystematically use social marketing as the tool of promoting a certain behaviour. Finally, based on the analysis conducted, it can be concluded that the first hypothesis, H1 – *The institutions relevant for environmental protection in the town of Split underuse the concept of social marketing*, is confirmed.

The study conducted has confirmed in Table 2 some other theoretical findings and researches, such as the study carried out by The United Nations Development Programme, the results of which showed a greater level of concern for climate changes among the citizens of Croatia compared to the citizens of other EU member states (Čedo 2008). The citizens of Split showed their awareness of environmental issues / pollution, and of all the subjects prompting this, starting from themselves and extending to the local self-government and enterprises.

Table 2. *Investigates H2 - The citizens of Split don't have enough developed awareness of environmental problems and they don't care about environmental sustainability*

Familiarity of respondents about environmental problems and concerns about environmental sustainability	Familiarity with ecological problems in general	Familiarity with environmental problems in the city of Split	Familiarity with work of local government in Split	Familiarity with the use of renewable energy sources
Mean	3.41	3.14	2.46	2.95
	Familiarity with the sorting/ recycling waste	Involving in remove the causes of environmental pollution	Saving energy in the household	Saving water in the household / Eating healthy food
Mean	3.32	2.92	3.53	3.50 / 3.39
Consequences of environmental pollution	Loss of biodiversity	Water pollution	Soil contamination	Air pollution
Mean	.72	.89	.87	.92
	Climate change	Pollution ozone layer	Increase of ocean acidification	None of the above/all of the above
Mean	.71	.72	.62	.01 / .44
Mean scores of awareness of environmental pollution effects -				Mean 5.41

Agreement with statements on environmental issues and environmental sustainability	Climate change will increase the cost of living	Climate change will affect the respondents	Climate change will affect the future generations	Disposal of waste water in Split is well
Mean	4.14	4.47	2.81	2.56
	The entire waste management system in Split is appropriate	I support the waste incineration	Visible is a trend of using environmentally friendly energy	/
Mean	2.82	2.97	3.36	/
Awareness of environmental issues and concerns about sustainability	Using energy-efficient appliances	Owning an energy efficient house / apartment	Using biomass or biodiesel	The use of vehicles with lower consumption / CO2 emissions
Mean	2.67	1.82	2.62	4.05
	Proper waste disposal	Sorting waste	Proper disposal of e-waste	Sorting waste contributes to sustainable development
Mean	3.14	3.02	4.06	3.08
	Cultivation of organic fruit and vegetables	Planting flowers and grass	Water savings	Saving electricity
Mean	3.56	3.84	3.88	3.63

Source: Authors' research

The respondents demonstrated a raised awareness of environmental issues, but also their concern for the environment in the segments that do not require any initial substantial investments from them, i.e. they showed a tendency to mind the environment in the segments that increase their economic welfare (for example, generating different cost reductions), while ignoring the segments that initially imply greater financial investments from them (for example, investing into the energy efficiency of their house/apartment). A brighter future is in sight given that the citizens are still willing to set

aside larger sums of money to increase their concern for the environment. Therefore, it is advisable to further research the upper boundary of the financial investments they are willing to make. On the basis of the study conducted, the second hypothesis, *H2*, is rejected, and it is concluded that the citizens of Split, to a certain extent, have a raised awareness of environmental problems and that they care about environmental sustainability.

Table 3 shows a total of 23 segments of the activities of the local self-government and the associated marks assigned to each by the respondents. Out of these, and among a number of programs and projects at force, the citizens noted only a few, and only superficially. Therefore, this study has confirmed that the citizens are not sufficiently informed of the activities of the local self-government due to their usage of inadequate information channels (the citizens are mostly informed of their actions through one source only – news programs), which is why the emphasis should be shifted to informing the public via the Internet, which is cheaper and more efficient. On the basis of all the analysis conducted, the third hypothesis, *H3* – *The citizens do not notice the activities of the local self-government of the town of Split*, is confirmed. In addition to the stated, the respondents are not content with the work of the local self-government of the town of Split.

Table 3. *Investigates H3 - The citizens of Split do not recognize the work of the local government department of the city of Split*

Source observations of local government work	Official sites of the city	Ads on television	Brochures	Tidings
Mean	.29	.37	.22	.47
	Friends/relatives	Other	/	/
Mean	.32	.06	/	/
Average ratings of the source observations on the work of local self-government... Mean 1.75				
Work elements of the local government	Accessibility locations of the local government of the city of Split	Accessibility employee	Quality of work employees	The work of employees for the general good
Mean	2.63	2.56	2.59	2.52

	Respect for citizens advices	The balance of benefits and value	The ease of finding information	The image of the local government of the city of Split
Mean	2.46	2.40	2.61	2.56

Source: Authors' research

Table 4. *Investigates H4 - The citizens of Split are willing to change their behaviour towards socially responsible*

Willingness to change behaviour toward socially responsible	Usage of bike and public transport rather than cars	Using fuel efficient driving	Provide more money to buy more environmentally friendly car	Provide more money for separate waste collection
Mean	2.92	2.84	3.59	4.09
	Showering 5 minutes a day	Closure of water during brushing tooth	Shutting down the bulbs when leaving the house / apartment	Other savings
Mean	4.58	4.06	4.47	2.95

Source: Authors' research

So far, it has been confirmed that *the citizens* do not notice the work of the local self-government, but they *are* still partially *willing to change their behaviour towards being socially responsible* in terms of 5 out of 8 segments offered. Therefore, the fourth hypothesis, *H4 – The citizens of Split are willing to change their behaviour to being socially responsible – is partially confirmed*. This hypothesis has, therefore, partially refuted the theoretical findings according to which the citizens' behaviour is influenced by economic motives, i.e. the economic benefits that they might achieve in the near future, and the findings according to which the citizens are reluctant to set aside their money today for the values that will not soon be visible to them. The variables for the young population were tested by the *Kruskal–Wallis test*, and are shown in Table 4. The first step included calculating the average ranks on the basis of the grouped respondents' ages (young, middle and old age), and the second step included testing the difference in the ranks on the basis of the respondents' age. The conclusion was drawn on the basis of the empirical significance level, according to which it has been established that *the young-age citizens (including all the citizens aged less than 29 years) are not the most willing age group to change their behaviour*

to being socially responsible. The results have also shown that the young respondents are ranked highest in only one of the analysed variables, but this proved statistically insignificant.

5. Conclusion

The aim of the study conducted was to offer the local self-government a clear picture of the attitudes and behaviours of the citizens in order to provide them with the guidelines for their future work for the general wellbeing. The projects implemented by the local self-government generally remain unrecognized, which is why it is essential to make additional investments into the promotion and informing of the local population, especially the young population that demonstrated the lowest average range of willingness to change their behaviour to being socially responsible. The communication media should be adjusted to this very group, and attempts made at stimulating the changes in their attitudes and behaviours. An early involvement of the citizens (public call) would reduce the dissatisfaction they tend to express subsequently, while the reasons of their failure to engage should be further investigated. The local self-government should, thus, get to work in order to bring its projects closer to the citizens and influence the changes in their behaviour. In this process, cooperation with other self-governments, as well as with various associations and other concerned subjects, is desirable. In collaboration with the local self-government, it would be a good idea to develop an environmental program and widely promote it on social networks, in order to determine whether this yields better reactions and encourages the changes in the behaviour of the citizens belonging to the young age group that uses Internet tools more than the citizens belonging to any other age group. Stimulating the younger population is also possible through organizing educational presentations, distributing educational materials/stickers that stimulate good behaviour, advertising in local media, or organizing giveaways. For the youngest, it is possible to set up entertainment/interactive contents in the kindergartens, and the students can be provided with additional information presented in brochures, ecology classes/classes in nature/seminars/workshops/manifestations. It is desirable to present them with the information on the disposal sites of various types of waste, as well as on the savings these results in, and to encourage them to develop a project that will help protect the environment. It is necessary to reward the positive behaviour of the citizens (for example, if they collect a lesser volume of waste – they will pay a lesser amount of contributions to the town). Although they currently do not spend much money on

environmental protection, in order to reduce their costs and influence the preservation of the environment in the future, the citizens are willing to make such concessions. This contradiction might offer the guidelines for a further research of whether the economic crisis (recession) influences the reduced involvement of the public in these matters, because the conducted study has revealed that the citizens are willing to give up on their money for the sake of the future benefits they might obtain from it, but, on the other hand, it also showed that they are not willing to give up on their comfort, such as using bicycles instead of cars. For a further study, it is recommended to investigate the degree of readiness of the citizens to give up on their comfort if they immediately get rewarded for it. The reasons behind the non-utilization and non-recognition of the work of the concerned department of the local self-government of the town of Split could be sought, except in the current financial status of the citizens, in their inability to participate in some projects, in the current government, in paying more attention to other departments, in the efficiency of the implemented programs and incentives, and in bureaucracy. All of the listed could be the subject of a further study. Furthermore, applying the positive experiences from other countries and informing the employees on the projects about to enter into force would make the employees capable of providing timely and relevant information. It is necessary to continuously maintain a two-way communication between the employees (by outing and addressing the systemic problems) and the public (for example, by reducing the waiting time, which would significantly reflect on the satisfaction of the citizens). The possibility of using all the available data (both from the state and the private sector) would eliminate the need of requiring redundant information. Rationalizing the system and improving the e-business would provide an easier electronic access for the computer-educated citizens, but the citizens who do not use the Internet should not be ignored whatsoever, and relevant information could still be delivered to them via phone or brochures. For more accurate results, a greater representativeness of the sample is required, as well as a better selection of the sample units. However, from the study conducted it can be concluded that, by means of an integration of the concept of social marketing and the associated marketing tools, the local self-government can influence the change in the behaviour of their citizens, in order to both meet their desires and to achieve the desired social efficiency. Only the use of new technologies, the motivation of the entire population, and the hard work and cooperation of the local self-governments are going to bring positive results for the town, the region, and the society in general.

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MARKETING LOCATIONS IN THE FUNCTION OF ATTRACTING FOREIGN INVESTMENT IN THE FOOD SECTOR OF BOSNIA AND HERZEGOVINA

MARKETING LOKACIJE U FUNKCIJI PRIVLAČENJA STRANIH INVESTICIJA U PREHRAMBENI SEKTOR BOSNE I HERCEGOVINE

Abstract

Globalization and modern economic trends are forcing each country to compete with other locations for the influx of foreign investments. The main objective of this research is to identify marketing instruments that will make the food sector in Bosnia and Herzegovina differentiate and make attractive for foreign investments inflow. The theoretical part of the study defines the terms: marketing location, foreign investment and presented measures that country should take to increase the inflow of foreign investment. Due to geofigureical location, climatic conditions and soil workability Bosnia and Herzegovina ranks among the countries that have a high potential for the development of the food sector. Starting from this assumption, in the empirical part of the paper there are secondary and primary research. Secondary research is based on observations of the inflow of foreign investment in the food sector of Bosnia and Herzegovina in the period from 2011 to 2014. Primary research is based on observations of ten companies from the food sector, which in its owner's equity have a part or all foreign ownership.

The research confirms that Bosnia and Herzegovina has a great potential for the development of the food sector, and that it is precisely this line of business that is to be regarded as primary for further development. However, despite this fact foreign investors show their dissatisfaction with business environment, complex political structure, insufficient and inadequate incentives from the Government. Based on the results of research comes the conclusion that Bosnia and Herzegovina needs to make huge changes in many spheres of business and political environment in order to become competitive with the countries of the region and to achieve significant volume of foreign investments.

Keywords: marketing location, foreign investment, food sector

JEL: M31

Sažetak

Globalizacija i savremeni ekonomski tokovi primoravaju svaku zemlju da se takmiči sa drugim lokacijama za priliv stranih investicija. Osnovni cilj istraživanja ovog rada jeste identifikovanje instrumenata marketinga lokacije koji će prehrambeni sektor Bosne i Hercegovine diferencirati i učiniti atraktivnim za priliv stranih investicija. U teorijskom dijelu istraživanja definisani su pojmovi: marketing lokacije, strane investicije, te su predstavljene mjere koje država treba preduzeti da bi povećala priliv stranih investicija. S obzirom na geografski položaj, klimatske uslove, kao i obradivost zemljišta Bosna i Hercegovina se svrstava u red država koje imaju izuzetno visok potencijal za razvoj prehrambenog sektora. Polazeći od ove pretpostavke u empirijskom dijelu rada izvršeno je sekundarno i primarno istraživanje. Sekundarno istraživanje zasnovano je na posmatranju priliva stranih investicija u prehrambeni sektor Bosne i Hercegovine u periodu od 2011. godine do 2014. godine. Primarno istraživanje zasnovano je na posmatranju deset preduzeća iz prehrambenog sektora koja u svom kapitalu imaju udio ili cjelokupno inostrano vlasništvo. Sprovedeno istraživanje potvrđuje da Bosna i Hercegovina ima izuzetan potencijal za razvoj prehrambenog sektora, te da upravo ovu privrednu granu treba smatrati primarnom za dalji razvoj. Međutim, uprkos toj činjenici strani investitori ističu nezadovoljstvo poslovnim ambijentom, složenom političkom strukturom, nedovoljnim i neadekvatnim podsticajnim mjerama Vlade. Na osnovu dobijenih rezultata istraživanja dolazimo do zaključka da Bosna i Hercegovina treba učiniti ogromne promjene u mnogim sferama poslovnog i političkog ambijenta da bi postala konkurentna sa zemljama iz regiona i da bi ostvarila značajan obim priliva stranih investicija.

Ključne riječi: marketing lokacije, strane investicije, prehrambeni sektor

JEL: M31

1. Introduction

Today, in the modern business environment, there is a rivalry between the countries in attracting foreign investment. Rapid progress of globalization and continuous discovery of new potential markets is leading to a frequent migration of capital and increasing competition between business locations. It is this segment exactly that provides an opportunity for applying the strategy of marketing location, which should adequately provide the increasing inflow of foreign investments. By applying the strategies and activities of marketing location that are related to: the improvement of tax legislation, improving incentives and improving the education of the population, an effect on increasing the inflow of foreign investments is made.

In recent decades, a growing number of authors explored the subject of research. The reason for so much interest in this area stems from the fact that resources are limited, and many parts of the world are becoming available for investment. In this respect, in order to achieve inflow of foreign investment the country where they are necessary for the further development should make strenuous efforts in adapting to the business environment of modern business challenges. Very large contribution to this area of research was given by world-renowned marketing experts like Kotler (1993), Cavusgil (2012), but also a number of authors from the region such as Rakita (2010) and Paliaga (2010).

The subject of this work is the importance of marketing strategy site to increase the inflow of foreign investment in the food sector of Bosnia and Herzegovina. This is a very important sphere of research for Bosnia and Herzegovina where the food industry is one of the main economic sectors of development. It is important that we have a great natural potential which is unfortunately not used sufficiently.

The aim of this study was to examine the strategies and incentives that will be the most effective way to attract foreign investment in the food sector of Bosnia and Herzegovina. Although this process depends on many factors that are very difficult to influence, the focus of research has been directed to those determinants that do not require large financial and material investment but bring significant results. Also, one of the goals of the work was the presentation of the potential of the food sector, which is extremely high.

In the theoretical part the basic concepts are such are marketing locations, foreign investment are defined and introduced is the potential of the food industry of Bosnia and Herzegovina. In this way a compact of the research through the theoretical concept is created. Great deal of attention was devoted to this part of the paper because it is necessary to adequately define and explain the benefits and importance of the concept of marketing locations. A separate chapter presents research methodology and hypotheses and explains methods of primary and secondary research. Results of empirical studies represent a special chapter presenting the motives of investment in the territory of Bosnia and Herzegovina, the problems that foreign investors have when investing, as well as benefits that foreign investors will have when operating in the territory of Bosnia and Herzegovina. Separate chapter was conducted for the discussion of results of research conducted and their mutual comparison.

2. Marketing locations as a strategy for attracting foreign investments

Significance of marketing in attracting foreign investment in the last decade is very important. The fight in the market to attract foreign investors is becoming stronger and tougher. Marketing mechanisms are turned to the macroeconomic aspect and represent one of the main tools in the fight of the host country in attracting foreign investment. It is in this segment marketing sites become dominant, which through its strategy should provide an increase in the inflow of foreign investment by removing existing barriers to investment and pointing to new business opportunities.

Location marketing involves shaping the business environment to meet the needs of potential investors. This concept is successful when citizens and companies are satisfied with their community and when expectations of visitors and investors met (Rakita & Sipragic 2010, p. 216). The main objective of marketing sites is to cause positive and pleasant associations in humans at the mere mention of the name of a certain territory. American Association of Marketing defines marketing sites as a way of impact on the target groups to their representative act affirmatively to products or services originating from a specific territory. This term means also the instruments with which to improve site management and development of its core values through continued promotion of products and services, activities, people and organizations that operate in the observed territory. It is important to note that marketing site includes not only the promotion, on the contrary it is on the last place of importance. It includes first and foremost the opportunity to invest, life of the location itself and builds its vision (Kotler 1993, p. 100).

During the implementation of marketing strategies should bear in mind that each site is unique and that every marketing strategy needs to access the sites individually. Management structure locations to behave differently, depending on which factors considered most important for achieving the targets. So we can do a difference between passive location, the ones that do not do anything to provide for an increase in the inflow of foreign investment and the active waypoint ones that make strenuous efforts to ensure the scaling up their inflow (Rainisto 2003, p. 11).

When implementing the strategy of marketing the site, we can say that there are five strategic variables to attract foreign investment. They relate to: product positioning, target audience, the volume of distribution and scope of communication (Sidel 2005, p. 63). The product can be defined as a vehicle that meets the customer's specific need. Modern marketing concepts tell us

that customers choose products that bring maximum benefits and meet the needs of the largest number. Similarly, foreign investors choose the location for the best deal, and that will provide the greatest profit or the fastest developing business. Positioning or the perception of the product in the minds of consumers is one of the key elements for a successful business. This is the same case with the positioning of the site in the minds of consumers. You need to build such an image that all references to a particular country build a kind of set of positive associations to the site. The target audience is the market segment in which producers focus to achieve their goals. This can be applied to the concept of choosing a location. Many companies when investing choose those market segments where they can achieve the greatest benefit and invest in the market segment where they dominate. In marketing terminology volume of distribution represents the distribution of products and their availability to customers, and in this context, the volume of distribution would be a place and a process in which a foreign investor can register and implement their investments. The volume of communication can be represented as an advertising tool through which foreign investors introduced to the benefits of investment locations.

USAID program that helps developing countries defines twelve facts and trends that need to be fulfilled in order to increase the inflow of foreign investment. These factors and trends relating to the following (USAID 2007, p. 83):

1. Provides long-lasting development of the first locations in which investment is made, which, in addition to the accumulation of capital and an increase in the number of jobs, provides a permanent transfer of technology and knowledge, and provides new experiences to employees.
2. Foreign investors have very different motivations of business at a particular location, and the government must recognize the businesses that provide the most positive effect on the domestic economy and the overall population.
3. Small groups of large countries, led by China dominate in attracting foreign investment; more than three quarters of all investments are invested in the top twenty countries, while the other 125 countries, receive the remaining quarter investment.
4. Some foreign investments have been realized in many parts of the world, but they are not evenly distributed; China and India are the countries that provide the largest inflow of foreign investment.
5. Observed by industries, foreign investments have changed sectors in

which it is invested. In the past foreign investments were usually placed in the primary sector, which resulted in the creation of global enterprises. Today investments are increasing in the services, especially the financial and utilities. The tertiary sector remains an important opportunity for further growth and development.

6. Attributes that attracted foreign investment are well known and clear, such as market size, market growth and an increase in gross domestic product per capita, staff qualification, availability of natural resources, etc. But also they are much influenced by the quality of the investment climate, institutions and infrastructure.
7. Inflow of foreign investment makes domestic market more favorable for the development of the local economy as well, because these investments impact on macroeconomic stability and low inflation, the minimum economic distortion, improving infrastructure, including physical and social services. Also they influence the reduction of political risk in the country, because the entire government's interest to maintain the positive trend of inflow of foreign investments.
8. To become an attractive investment location, it is necessary to invest huge efforts and governments of some countries are finding less ambitious plans to provide inflow of foreign investment.
9. Governments often resort to "secondary" measures to improve the investment climate. These measures include the modernization of the administrative or fiscal and other incentives, a combination of incentives and infrastructure services, and so on.
10. Some of Investment Promotion Agencies have had remarkable success in attracting foreign investment, and their businesses in the future have a major impact on the economic development of the countries.
11. Developing countries, which are signatories of various trade agreements that, in this way make to improve the business and investment climate in the country. These contracts stabilize the investment relations between the countries, liberalized investment climate and investment flows.
12. International institutions play an important role in investment flows, primarily role is related to risk mitigation and removal of potential hazards.

3. Importance of foreign investments in the development of business destinations

Foreign investment is a long-term investment of corporate capital abroad, which acquires ownership and control over concrete business (Rakita

2010, p. 321). In the scientific literature there is the accepted definition and classification established by the International Monetary Fund (IMF) and the Organisation for Economic Cooperation and Development (OECD), and according to them, foreign investments are defined as types of international investment undertaken by a resident of one country or the country (direct investor - direct investor) in order to take a permanent stake in the company that operates in a different industry or country (company direct investment - direct investment enterprise). It is believed that there is a lasting contribution if the direct investor took at least 10% of ordinary shares (or other forms of equity) or voting rights in the company (Antevski 2008, p. 134). In accordance with the definition of foreign investment, the foreign investor is considered to be the subject of an economy that has directly or indirectly gained at least ten percent of voting rights in the company that is in other economies. A foreign investor may be an individual, a group of legal entities or individuals, corporations or individual companies, groups of related companies, as well as certain governmental body (OECD 2008, p. 40).

It was often considered that foreign investment overpower domestic ones to take a majority stake in the market. However, a recent World Bank research has proven that the foreign investments had a significant and positive impact on domestic investments (World Bank 2006, p. 143 & 159). These effects largely depend on the policies implemented by the conditions prevailing in the host country. Foreign investment contributes to capital accumulation, economic growth and international trade, but its impact also includes productivity improvements. Under the right conditions, the positive effects of foreign investments are reflected through technology transfer, improvement of business performance, as well as the development of human capital. Financial support and the positive effects of the inflow of funds through foreign investment may be channeled into various economic sectors, depending on the needs of the state. The funds are mostly invested in infrastructure, procurement of modern techniques and technology, education and training of the population, thus very often large amounts of money and the donations go to the medical sector.

Infrastructures are capital goods which are at the service of the whole industry, as well as the whole population. The funds that the state receives from foreign investments in the form of taxes and fees, the government often used for construction and reconstruction of the road network, construction of bridges, railways, ports, airports, development of telecommunications and electrical networks, etc. Foreign investors, in order to provide themselves

an adequate business environment, directly invested in the economic system and the infrastructure of the host country. This type of investment is particularly characteristic for less developed countries that possess exceptional natural potential so the foreign investors, in order too make it as efficient as possible, invest in the development of the whole community. It is important to note that the government, by investing in infrastructure make its territorial space more competitive, which has a positive impact on attracting a growing number of foreign investors.

Very often the money that comes into the country through foreign investment in the form of taxes and fees can be used to purchase and import technology from other countries. However, it rarely happens, the host country for far greater importance is the flow of technology and knowledge that bring foreign investors. This process in the literature is referred to as the transfer of technology and knowledge. Investments, such as foreign investment, can help in the mass' pressure education of the population of the host country through various educational programs. Very often investors must conduct staff training, learn to handle them with new and modern machines, to teach them to work on the computer and do business via the Internet. The health sector in many countries benefited from foreign investment, in addition to increasing the number of employees, resulting in growth of revenue from health insurance, also play an important role and donations of foreign investors that are specifically expressed in this sector. Management of the company also takes care of the health of its employees, and near local factories raise health clinics, which are available for the population overall. International business is a very important factor in the creation and establishment of relations between the countries. If there is a business cooperation between certain countries, i best interest to keep political relations on a high level due to mutual benefit.

Foreign investors decide to do business in a particular area, primarily because of the benefits of the location. Any interested destination for the scaling up the inflow of foreign investment should identify their comparative advantage relative to competitors and offer them on the market. The activities of this so-called. urban marketing should focus on three key areas that are of strategic importance for foreign investors, such as: location, competitiveness and human resources (Paliaga, Strunje 2010, p. 48). The motives which lead foreign investors in the realization of investment are different. In literature, basic motifs of investment are: the market motives (to conquer new markets, monitoring of key customers and competition with its

competitors instrumental), resource motives (access to natural resources and raw materials, the use of managerial and technological know-how, access to knowledge and property locations) and motives related to the efficiency (cost reduction of supply and production, avoiding market barriers, the use of governmental subsidies, etc.) (Cavusgil et al. 2012, p. 339).

4. The importance of the role of food industry in the economy of Bosnia and Herzegovina

In the modern economy, food production is the main pillar of the national economy. The industry employs a large number of people, who are often low-skilled labor. This sector contributes to increasing income of farmers who produce agricultural goods, but also contributes to the increase of income of employees in the food industry. Also, one should not neglect the impact of this sector on other economic activities and their development, such as higher consumption and animal feed additives plant, increasing the production of agricultural machinery, an increase in the construction of manufacturing plants, increase the volume of transport and storage of goods, etc.

Due to high demand of cultivated land and population growth on the planet Earth, agricultural and food industry has great potential. Bosnia and Herzegovina has an environment that is ideal for agriculture, and thus the food industry. The main competitive advantage of Bosnia and Herzegovina should be reflected in the production of healthy food, because we have large surface unused arable land and pastures and huge reserves of drinking and chemical safe water.

The agricultural sector in Bosnia and Herzegovina provides extremely great development potential for foreign investors, which is reflected in the following (FIPA 2011, p. 7):

- The agricultural sector is defined as a strategic industry development in Bosnia and Herzegovina;
- Abundance of agricultural land where more than 50% is considered as rough terrain;
- Large areas of unused pastures;
- Favorable climate conditions for most crops;
- Availability of skilled and cheap labor;
- Developed system of education, research and development institutions, agronomic and veterinary support;

- Bosnia and Herzegovina is a significant net importer of agricultural products, which could change with minimal effort;
- Privatization of state enterprises;
- The possibility of organic farming in most agricultural sectors;
- Competitive price of fruits and vegetables;
- The development of traditional products (indigenous);
- The existence of natural conditions for implementation of integrated projects (agriculture and tourism);
- The existence of opportunities for additional income (wild forest pastures, medicinal plants, mushrooms, etc.).

5. Methodology of research

The subject of this work is marketing the site and its impact on the inflow of foreign investment in the food industry. During the research we started from questions: “How and in what way the strategy marketing locations and incentives can improve the inflow of foreign investment in the food industry?”. In line with this are the entries on the following research hypotheses:

H1: Marketing Strategy location significantly affects the increase of foreign investments in the food industry of Bosnia and Herzegovina.

H2: Foreign investment significantly influence the development of the country in which the investment is made.

Secondary research was based on a review and study of existing data and expert literature on the research subject. First of all, researched articles that deal with the issues observed and data published by the relevant national and international institutions.

Primary research was conducted in ten companies operating in the food industry in the territory of Bosnia and Herzegovina, which in its capital have a share or total ownership of foreign investors. The research was done in writing, which is used as a means of a questionnaire. Respondents had received questionnaires via e-mail and had them in the same way back to the sender.

6. Results of empirical research

Foreign investment in Bosnia and Herzegovina are an extremely important factor of growth and development. For this reason an on-going research in this field ought to be conducted, in order to remove existing obstacles to investment and to allow an increase in the inflow of foreign investment.

The primary study observed five motives that influenced the decision of foreign investors to its manufacturing capacities installed on the territory of Bosnia and Herzegovina. These motives are available and cheap production inputs, qualified and cheap labor force, the attractiveness of the market and state incentives. Respondents had the opportunity to evaluate each factor on a scale of one to five, where the number one represented a very small importance, and the number five very great importance. Detailed research results are presented in Figure 1.

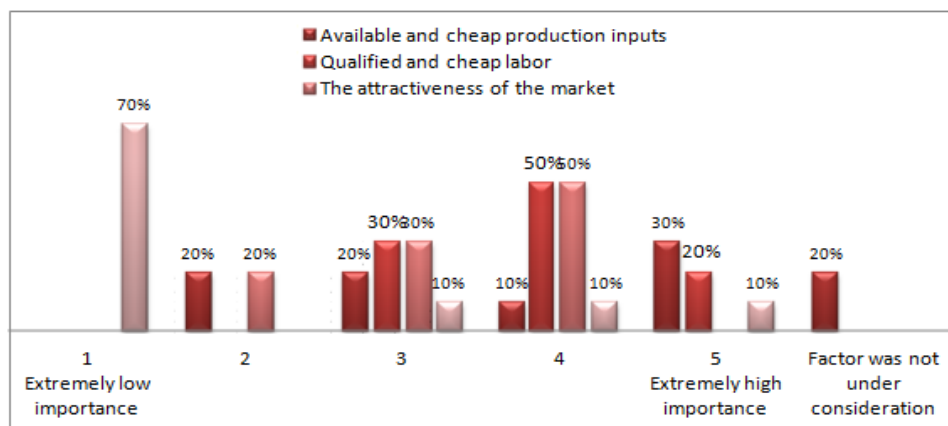


Figure 1. *Motives of foreign investments in the food sector*

Source: Author's research

When investing in the economic system of the host country, foreign investors are facing a variety of problems, which is the case with investing in Bosnia and Herzegovina as well. These problems are usually related to a long process of registering companies, complicated legislation, bereavements in obtaining construction permits, employing workers, protecting investors, tax policy, unskilled labor and the impossibility lending. Research results on the basis of the above problems are presented in Figure 2.

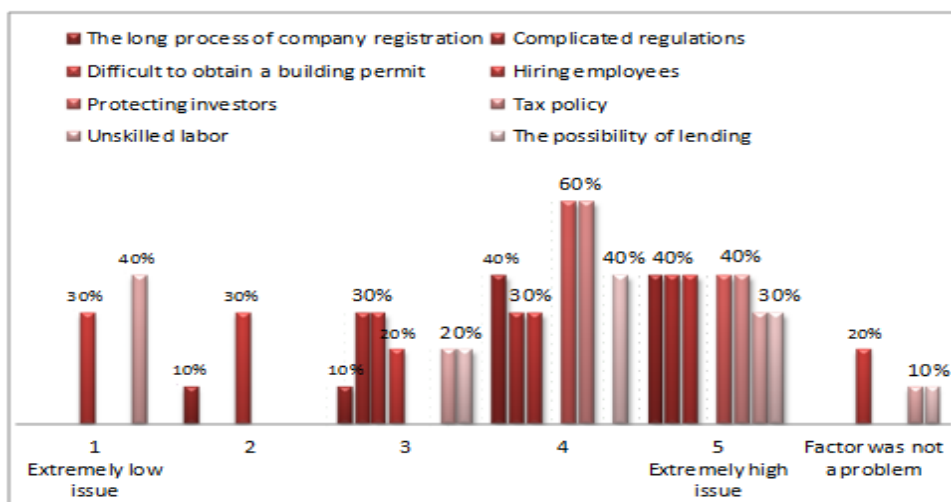


Figure 2. *The problems that investors face in Bosnia and Herzegovina*

Source: Author's research

To increase its attractiveness many states of huge funds invested in the promotion of economic destination, changing legislation and regulations, training employees, with the aim of increasing the inflow of foreign investments on its territory. Bosnia and Herzegovina also encourages foreign investors to invest in our economic system, and based on the previously presented results of research a conclusion arises - that efforts are still not sufficient.

The questions such as: would foreign investor privileges enjoyed on the basis of exemptions based on the company's profits, exemption from payment of property tax or exemption from payment of taxes and contributions on salaries of employees, brought an large percentage opinion of investors that these benefits are not realized at all. For all three criteria set even three surveyed companies have stated that these benefits are realized. On a scale of one to five, where the number one is very little significance, and number five great importance, we have gotten different values. The largest number of respondents said that these incentive measures are extremely small importance to their business. Detailed view of the results of research on this issue is presented in Figure 3.

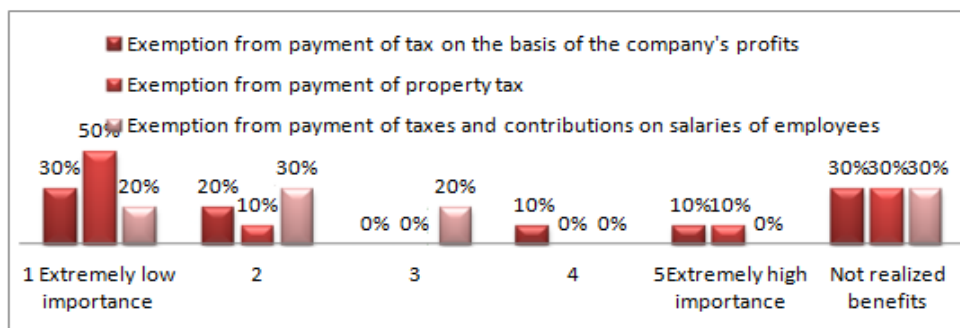


Figure 3. *Benefits arising from foreign investment*

Source: Author's research

In order to increase the inflow of foreign investment is very important to monitor the operations of existing foreign investors and consider their suggestions to create a better business environment. Based on research conducted in ten companies, factors that negatively affect the operations of the existing investors and to discourage the increasing inflow of foreign investments relate to:

- Inadequate tax and legal policy (frequent changes in income tax rates, the existence of multiple taxation);
- Inadequate production incentives;
- Inadequate export policy;
- Unstable political environment;
- Slow and inefficient state administration (long process of incorporation, untimely job, a long and expensive process of obtaining construction permits).

When asked how foreign investors would improve the existing investment climate in Bosnia and Herzegovina, mostly similar answers were received. Most of them are related to: the reduction of taxes and contributions for employees, lower inflation and a more efficient implementation of the tax and regulatory policies. Reducing the rate of taxes and contributions, which is 33% in Republica Srpska while in the Federation of Bosnia and Herzegovina it is 31% would lead to the possibility of greater reinvestment of profit, and thus would increase the manufacturing capacity of the company, which would reflect the increase in the number of employees and increase spending inputs of production. Concrete measures to reduce inflation are associated with predefined factors that discourage the inflow of foreign investment. First of all, the reason for the high rate of inflation is the excessive imports

versus exports, where a certain scale to the growing outflow of money from the state, leading to a general rise in prices, and the state apparatus financed from its high tariff quotas and the defeat of the value added tax. The government should increase the tax incentives, to provide greater benefits to companies that increase employment, stimulate exporters and to act in the common market. Taking all of these specific measures would lead to a reduction in the rate of inflation. But do not be ignore that a relatively low rate of inflation in Bosnia and Herzegovina in comparison with neighboring countries stems from the fact that the local currency is pegged to the euro. For effective implementation of legal measures and regulations necessary to the state apparatus more efficient and the existing laws and procedures respect and timely change according to the needs that arise in the market, according to developed world economy.

7. Discussion results of the empirical research

As illustrated in Figure 1 available and cheap production inputs depend on specific activities that the company is undertaking, if it comes to economic entities engaged in the processing of agricultural and livestock products, this indicator is for them was very important. While on the other hand for certain activities in the food industry, this indicator was not at all observed, because the entire production depends on imports of raw material. Qualified and cheap labor force has taken a very high position while motivating foreign investors that their investments are placed on the territory of Bosnia and Herzegovina. The market of our country has proved to be very attractive for foreign investors, the reason for this is probably due to the heavy imports versus exports of food products, which could change with minimal efforts. The slightest importance to the inflow of foreign investments had a stimulating measures of the state, on the basis of which we can conclude that the state does not stimulate sufficiently the increase of foreign investments.

Based on the presented results of the survey in Figure 2 long process of registering a company is a very large problem for foreign investors, on the basis of which we can conclude that the administration is too extensive and slow, and that the procedures of registration of new companies, both foreign and domestic should be simplified. Also, the legislation is one of the main factors of contention for foreign investors, complicated regulations and inconsistency between entities contributes to adverse business climate. Research results in ten companies, show that obtaining a building permit, on a scale of one to five, where the number one is a small problem, a

number five is a big problem, is ranged from 3 to 5, which show that this factor of observation is a major problem for foreign investors. Hiring new employees presents the observing factor that captures the smallest problems, results obtained during tests ranging from number one, which represents a very small problem to the central values of number three, you can define that a problem exists but is not significant. We have come to the conclusion that foreign investors do not feel sufficiently protected in Bosnia and Herzegovina. When asked about the protection of investors, we received devastating answers on a scale of one to five with the same parameters as in the previous cases, the obtained values ranged in scale 4 to 5, which is a very big problem for foreign investors. Tax policy records identical value as the previous indicator, as well as to foreign investors is a very big disadvantage. The problem of unskilled labor, represents a parameter of observation that captures the extreme values, for a certain number of patients is very small business problem, while the other is a very big problem. Winning results of the overseas can justify different technological processes and production processes that are used in certain companies, and require different educational profiles. The possibility of lending is also an important point for foreign investors, on a scale of one to five, where the number one is a very small problem, a number five very big problem, the obtained values are moving in the range of number three to number five, signifying it is a major problem for foreign investors.

Based on the results of the implementation and the use of incentives, which are shown in Figure 3, we can conclude that the adopted laws and regulations are not enforced as they should, or that foreign investors are not sufficiently informed about their rights and options. However, the fundamental problem is the inconsistency in the implementation of the existing legal regulations, and should not be neglected the fact that certain privileges symbolic. The efforts by the government are not enough to increase the income of foreign investment. Bosnia and Herzegovina has its business environment more attractive for foreign investors, increasing benefits, reducing income tax, reducing tax rates and contribution, and must lead a unified policy of promoting foreign investment, and above all must increase the efficiency and effectiveness of state institutions.

8. Conclusion

The international business environment is very turbulent and extremely unpredictable. The constant growth of globalization in all areas is forcing

companies to constantly move to those markets where they can achieve the best business results. In this respect, for marketing as a discipline, increase of the inflow of foreign investments is a major challenge. Many traditional marketing tools which are based on observation and operation of products have been implemented on site. In addition to the basic mechanisms that countries are taking to increase the inflow of foreign investments, such as tax incentives, financing and training of employees, it is necessary with the help of marketing skills to position location in the minds of consumers.

The influx of foreign investment, in terms of the country where the investment is done, is a factor stimulating economic growth and development. Such projects lead to increased employment and growth in the average gross wage, which automatically affects the increase in GDP and standard of living. Very often, foreign investments effect the improving of the infrastructure in country where the investment is made, and investment in education and health occurs as well.

Based on the presented data on the total inflow of foreign investments and the participation of food sector in the same, we can come to the conclusion that the potential of the food industry is not fully exploited. In the last three observed years, from 2012 to 2014, the inflow of foreign investment in the food sector was negative, and there was a withdrawal of foreign investors from the market. Also, after comparing the incentives and the real needs of investors come to the conclusion that they are not compatible. That is, that incentives do not necessarily reflect the real needs of foreign investors. Unfortunately, foreign investors overall business environment of Bosnia and Herzegovina consider insufficiently attractive for a larger inflow of foreign investment.

Taking into account the facts and relevant information which would lead to the improvement in the food sector, it is necessary to take concrete measures, such as special privileges for this sector. Also, it is necessary to activate and put into use untapped resources and emphasize comparative advantages of Bosnia and Herzegovina, which are reflected in the possibilities of growing organic produce and promoting a large number of additional activities through which companies can expand their business and generate additional revenue. What is more, it is necessary to make effective documents and regulations which should be based on policy development for agriculture, food and rural areas in Bosnia and Herzegovina.

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THE IMPACT OF THE MEDIA ON CONSUMER BEHAVIOR WITH EMPHASIS ON YOUNG PEOPLE IN BOSNIA AND HERZEGOVINA

UTJECAJ MEDIJA NA PONAŠANJE POTROŠAČA S OSVRTOM NA MLADE U BOSNI I HERCEGOVINI

Abstract

Companies are aiming to present a product/service to the consumer and to encourage them to purchase, through the creation of positive attitudes towards the same. It is a known fact that even the product with highest quality can remain unnoticed unless it is presented through appropriate media at the right time. At the same time we must take into account the cost of using each type of media, and to find the most efficient and cost-most acceptable solution. Consumers today are exposed to various forms of mass media, from traditional forms, such as television, radio and print media to modern forms such as Internet.

In today's time of globalization and technological progress, the category of young people, is an extremely important category of potential consumers and recipients of media messages. On the one hand a range of products, especially fashion and IT industry are the main interest of this part of the population, who at the same time represent the largest users of information mass media.

This work permeates theoretical research and analysis of the impact of the media, especially the youth, with reference to the case of Bosnia and Herzegovina. Our primary research project to study the impact of media on consumer behavior, especially of young people in BiH, includes combination of quantitative and qualitative research

methods including: questionnaires, interview, and conducting focus groups. The purpose of this study was to highlight the importance and contribution of individual media types to the young population in BiH, and the establishment of whether there is a direct effect of the advertisements after its broadcasting or the effect of posthumous type. Based on the above, we emphasize that the results of the research can be used in creating media strategies of different companies which are the target group of young people.

Keywords: media, advertising propaganda, consumers, youth

JEL: M37, Z13

Sažetak

Tvrtke imaju za cilj predstaviti proizvod/uslugu za potrošača i potaknuti ih na kupnju, kroz stvaranje pozitivnih stavova prema istom. Poznata je činjenica da čak i najkvalitetniji proizvod može ostati nezapažen, ukoliko nije predstavljen kroz odgovarajuće medije u pravo vrijeme. U isto vrijeme moramo uzeti u obzir troškove korištenja svake vrste medija, te pronaći najučinkovitije i troškovno najprihvatljivije rješenje. Potrošači su danas izloženi različitim oblicima masovnih medija, od tradicionalnih oblika, poput televizije, radija i štampanih medija, do savremenih oblika poput Interneta.

U današnje vrijeme globalizacije i tehnološkog napretka, mladi predstavljaju izuzetno važnu kategoriju potencijalnih potrošača i primatelja medijskih poruka. S jedne strane, širok asortiman proizvoda, naročito modne i IT industrije su glavni interes ovog dijela populacije, koji je u isto vrijeme predstavljaju najveće korisnike informacija masovnih medija.

Ovaj rad prožima teorijska istraživanja i analizu utjecaja medija, posebno mladih, s osvrtom na slučaj Bosne i Hercegovine. Naš primarni istraživački projekt proučavanja utjecaja medija na ponašanje potrošača, posebno mladih u BiH, obuhvata kombinaciju kvantitativnih i kvalitativnih metoda istraživanja, uključujući: upitnike, intervju i fokus grupe. Svrha ovog istraživanja bila je naglasiti važnost i doprinos pojedinih vrsta medija na mlade populacije u BiH, te ustanoviti da li postoji direktni učinak reklame nakon njegovog emitiranja ili je učinak posthumnog tipa. Na temelju navedenog, ističemo da su rezultati istraživanja mogu se koristiti u stvaranju medijske strategije različitih tvrtki čija su ciljana skupina mladi.

Ključne riječi: mediji, reklamna propaganda, potrošači, mladi

JEL: M37, Z13

1. Introduction

Media is “what transforms the experience of finding” something that gives “the meaning of the events of everyday life.” The media can be seen as something that is used for any mode of transmission of information, communication, and design and expression. Digital media and the Internet are changing the paradigm of mass communication and is now working towards the concept of “from many to many”, which allows direct communication between users and the decentralization of current dominant model of mass communication. So it becomes the first medium that functions as a mass medium and as a medium of communication - “The Network is the mass media with regard to the mass of messages and audiences, and it is also a communication channel because it allows users to establish communication without the intervention of the central hub” (Kukić 2013, p. 16).

Given this communication in terms of marketing can be defined as a unique tool that bidders serve to lead consumers to act the way you want (e.g. to vote, buy, make contributions, to become permanent customers). As such, it can trigger emotions that consumers may lead to the purchase, solve some of their problems or avoid negative outcomes. Also in terms of advertising it can be defined as any paid form of public information with the intention of direct or indirect impact on sales of products or services (Ognjanov 2009, p. 148). In short, communication is the bridge between suppliers and consumers, and between consumers and the socio-cultural environment.

While creating a communication plan, defining and implementing adequate media strategy is extremely essential for each company. Therefore, marketers when developing media strategies need to respond to the following questions:

- 1) What type of media to choose?
- 2) In which terms of broadcast advertising content?
- 3) How often apply a particular medium?

At the same time it must be taken into account the cost of using each type of media, and on the basis of all marketers need to find the most efficient and cost-most acceptable solution, which is not an easy task.

Selecting the media largely depends on the profile of potential customers and their fondness of certain media. These are the important factors that influence the behavior and making purchasing decisions. In addition to these individual characteristics, marketers should always bear in mind that man is a social

creature and that his behavior to a large extent be in line with the opinions and expectations of the group to which it belongs. Young population poses significant challenges when it comes to creating adequate media strategy, as we shall see below.

2. Traditional media versus social media

In terms of traditional media advertising expenditures it is most dominated by TV and press, followed by posters, radio and cinema. Each of traditional media has its own specific effects on the advertising material. For example, print media allows unlimited message length, while emitting media (radio, TV) provide a relatively fixed length of exposure to the message (Schiffman & Kanuk 2004, p. 239)

Creating desire and the effect of demand for the product is made easier through the TV, offering a combination of visual and audio elements. Marketers using this medium publish stories in public, and it has a very powerful effect on the audience. Therefore, it is extremely important to thoughtfully develop material for placement through the media, because we need to bear in mind the fact that viewers have only one chance to understand the attachment that is broadcast (Lujic 2013).

Unlike TV - and radio stations isolate the visual effect, and are only used by advertising through speech. Business in this aspect is based on learning in psychology that constantly listening to certain phenomena in our case the advertising content, the listener posthumously causes the effect of curiosity.

Press is characterized by frequency of publication and informative content, and has been optimized for urban audiences. Although in modern times, newspapers lost a battle in media war, the press has its audience and contributes to shaping public opinion. Newspaper experts say that the press draws its power from the dissemination of information and influence public opinion on important issues.(Cutlip, Center & Broom 2003, p. 306)

The communications and information system of society before the expansion of the Internet position and function of the media was best exemplified by the famous saying that radio announces, transmits television and newspapers explaining events. Although today there is some truth in this pronouncement, at least when it comes to functions, there is no doubt that their positions are fundamentally shaken. Cause "media earthquake", which puts to the test the foundations of traditional marketing patterns and channels of classical

interaction, undoubtedly the Internet. Consumers can now see products, buy them, but also book a place in the hotel, plane ticket or a sports and music event, book a car or some other product or service, all thanks to the Internet. Also, the Internet allows us to participate in a public debate, and that in a kind of virtual world, we become “netizens” who, indeed, have a global character. It is not surprising that some authors believe that the Internet is the most revolutionary new medium.

We can say that traditional marketing focuses on consumer attitude information and mass-marketing tactics, while digital, or e-marketing, efforts use information obtained from data collection methods from actual consumer purchases to provide insights into consumer behavior (Talafo & Brizek 2015, p. 5).

As for category of young people, there are numerous global research on attitudes towards the media, and their consumption behavior, especially when it comes to Millennials. According to prof. Ordun, Millennials buying decisions are more affected by social media than any other generations, so much that they may trust the ideas of their virtual friends more than their real friends (Ordun 2015). Also this generation has shown significantly greater trust in company social media as well as digital advertising. A research of Ioană and Stoica shows that 47% of the subjects who buy online products are between 25-29 years (Ioană & Stoica 2014). Also, thanks to Instagram early photo ads have generated great results, and that one client, ice cream brand Ben & Jerry's, reached 9.8 million people in the U.S. age 18 to 35 in eight days (Mancuso & Stuth 2013).

Among the significant researches done in Bosnia and Herzegovina this area may be noted study entitled “The influence of the mass media to consumers”, where it is established that, in the Herzegovina-Neretva and West Herzegovina, from all forms of mass media, as the most influential medium respondents pointed television (29%), while in second place were equal radio and Internet communication channels (21%) (Sočć Kraljević 2007, p. 305).

3. Research

Our primary research project to study the impact of media on consumer behavior, especially of young people in Bosnia and Herzegovina, includes combination of quantitative and qualitative research methods including: interviews, questionnaires, and conducting focus groups.

The interview was conducted with prof. Besim Spahić, doctor of communication and professor of the Faculty of Political Sciences in Sarajevo with the intention of obtaining a professional opinion on the effects of media on the impact of media on public opinion.

Survey study included a probabilistic sample of 115 respondents from Zenica-Doboj Canton, mainly young people, aged 16-35 years, different qualifications and marital status. The survey was carried out in two directions: first to find out obtaining information about consumer preferences to certain types of media by measuring the frequency of use of individual media, and the second to find out the effect of media influence on purchasing habits.

The focus groups were organized with twenty participants in the Student Center Zenica. Issues that are passing through the focus groups were similar to questions on the survey with certain corrections and potentiating the very advertisements of certain products which we develop discussion with members of the focus groups. Also this approach helped us get better data on the actual performance of individual types of media on consumer habits. Through those discussions we have drawn some amazing results, especially the existence of ethnocentrism, and especially if the advertising of certain products recorded on climate and by celebrities. In order to obtain a better quality of data, work with focus groups is repeated with new participants, and found a match in the opinions of the participants.

3.1. The interview

The interview was conducted on 21st of May 2015, in personal, in his office at the Faculty of Political Sciences in Sarajevo. It represented us the basis to create polls and the definition of work in focus groups. Thanks to the interview we were able to establish the key issues of work and to get a confirmation of the importance and impact of the media on the population, and a link between the media and advertising. Below are the three main questions asked Prof. Besim Spahić.

Dr. Spahic, explain to us how the media evolved throughout history and what is the prosperity of the media.

The need for advertising is the main cause of the development of the media. The first newspapers were created educational, made them a priest, a Frenchman” naive advertising “for informational purposes. Then came the development of other newspapers with greater participation of advertisements, because

without commercials media can't live. The media are an extension of general and our senses.

Due to the huge number of illiterate people, radio appears (because you can hear), initially for informational purposes only, and have since expanded commercial character.

Do you think that advertising corrupts media content or is it necessary, as each media financed by the propaganda?

Media are required to expand the range of supply. On the other hand the commercial side is stifling media objectivity. Like I said, without the media, there is no advertising, and vice versa. The media are the primary accelerators, which realize the politicians and the business world to. Advertising products modeling perception and what was not in the media it didn't happen for the people.

How to attract attention to the economic content in the media? With: erotic, humor and exotic, yet advertising has to be superbly designed to intrigue, and at the same time to be permitted by the terms of law.

How do you assess the effect of „annoying“ ads?

Annoying commercials are based on the dictum „repetition is the mother of knowledge“. This is a *Principle Inevitability Ads*—it works subconsciously even though you're not interested, you can hear the ad. But I would not recommend the business world to exclusively rely on only one medium when this is carried out.

3.2. *Survey results*

The most important goal of the first survey was to obtain certain information, especially in the context of the most usual media and frequency of use of the media to be able to give specific suggestions on how, where and when to place advertising in a particular medium. The second survey was aimed at determining the effect of individual media on the purchasing patterns of youth and how does information influence the buying behavior.

Analyzing the age structure of the respondents, we formed two classes and 16 to 25 years, which covers 60% of the respondents, and the remaining 40% belonged to the young age from 26 to 35 years. When it comes to the gender of the subject, we tried to make proportion of women - man as close as possible,

in order to avoid the impact of gender differences in the responses in the survey, and at the end we have covered about 56% of members of female and 44% of men. Finally speaking about education and marital structure, most of the respondents (52%) are young people who are at the stage of studies and young people who are not married (69%).

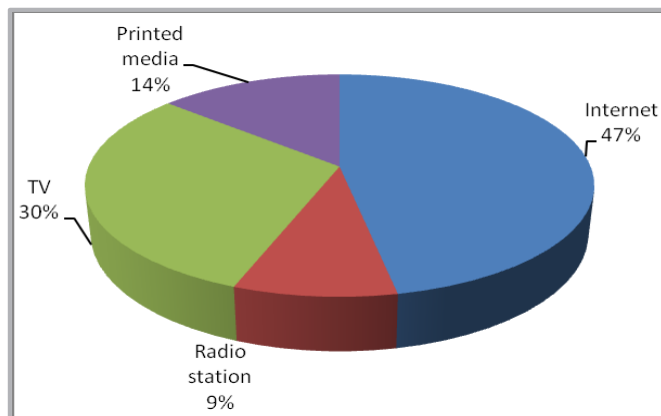


Figure 1. *What form of media information you use most often?*

Source: Authors' research

First direction survey shows that almost half of young people mostly use the Internet as a media form of information (47%). Second place is television (30%), followed by the print media and radio stations in the last place. The question was multiple choice so that respondents could choose one or more media. It is interesting that the least number of respondents used all four media types (only 10.4%) while more than half of respondents combine Internet and TV media as media. Also there has been a significant share of *Internet-users-only* (about 26%), which proves a significant influence and representation of this media on youth. Profile of these users means the young aged 16 to 25, who are studying or have just completed high school and who are single (70% of all Internet-users-only). Gender does not play a significant role.

If we do segmentation of media usage according to education, we note that young people who are at the stage of studying prefer using the Internet while using stations at least. On the other hand most balanced use of all four media forms we see in patients who have completed university education.

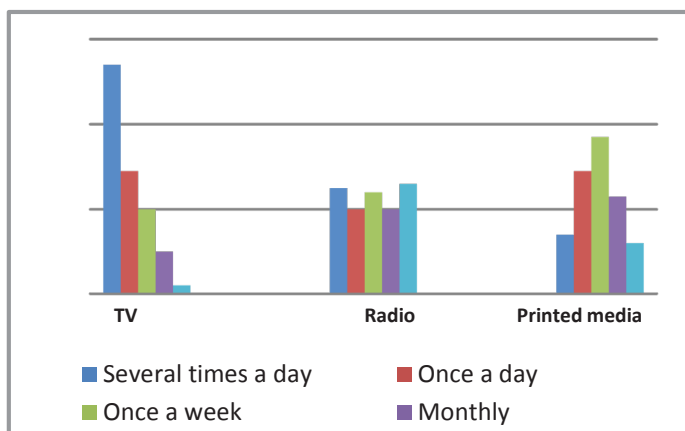


Figure 2. *How often do you use the media content?*

Source: Authors' research

Based on the survey we discovered how intensively each of traditional media have used by young population. The survey has shown that over 47% of all respondents said they've been using TV for several times a day and 25% said to been using it at least ones a day, making it one of the most intensively used traditional media source. When it comes to printed media, most of the respondents said to been using it once a week (32%), followed by those who have been using it once a day (25%). Interesting is the fact that frequent use intensity print media is equally present in female and male populations.

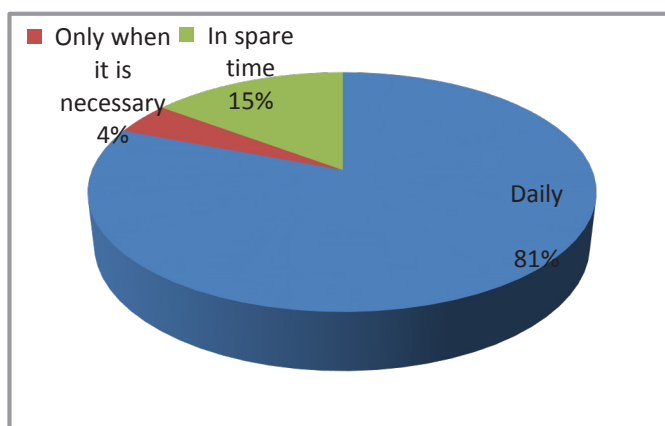


Figure 3. *How often do you use the Internet?*

Source: Authors' research

Analyzing the power and influence of the Internet on the young population, which is evident from the following figure, we found that very small

percentage (4%) used this medium only when needed, while leading the majority (81 %) expressed that it's been using it every day. Profile of everyday Internet users involves mainly young people who are studying or have finished college and are between 16 and 25 years. Marital status and gender don't play a significant role. Respondents who declared themselves to use the Internet only when necessary belong to the category from 26 to 35 years of age, who are married and have completed high school, just as those who declared to use it in spare time.

We can conclude that marketers who are focusing on advertising via Internet can perform their marketing strategy throughout the day when it comes to products intended for young people, such as cell phones, branded clothes, makeup and other products that emphasize status. But when it comes to young people focused on the family and baby products the best time to advertise would be in the afternoon and evening when they have more free time.

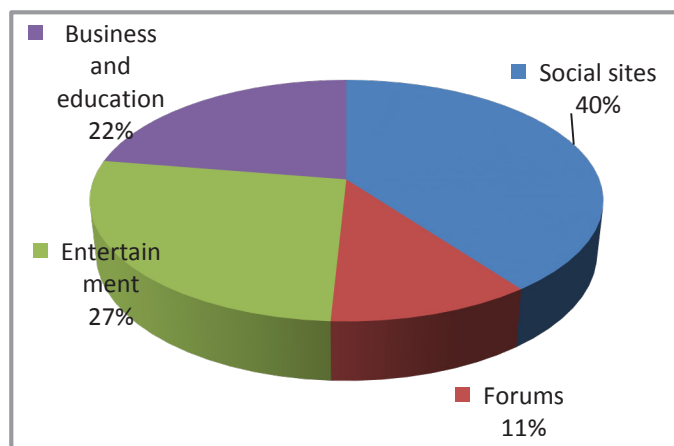


Figure 4. *For what purpose do you use Internet?*

Source: Authors' research

Marketers could ask question: On which sites should we do our advertising? Well, as we can see in Figure 4, most used sites are actually social sites, followed by entertainment and business and educational sites. Forums are the least visited by young people of first age class, but those who are age of 26+ are married and have finished high school or faculty will be more using this sites. No suprisingly is that most social sites users are from age 16 to 25 are studying or have just finished ther high school (over 89%), so this sites provide large wide of viewers for advertisement of products that emphasize status but also universities and courses, and student travel agencies.

Our first survey shows that over 96% recognize that there are „annoying“ advertisements, over 67% say that this annoying adverts make them choice other product, and 86% declared that using famous people in advertising makes it more interesting. Also we have found out that most of male sex respodents were more indifferent to „annoying“ advertising than their female colleague.

After defining profiles of potential public of marketing propaganda through each media type, we have done also a research on how advertising through these media influences the process of consumption.

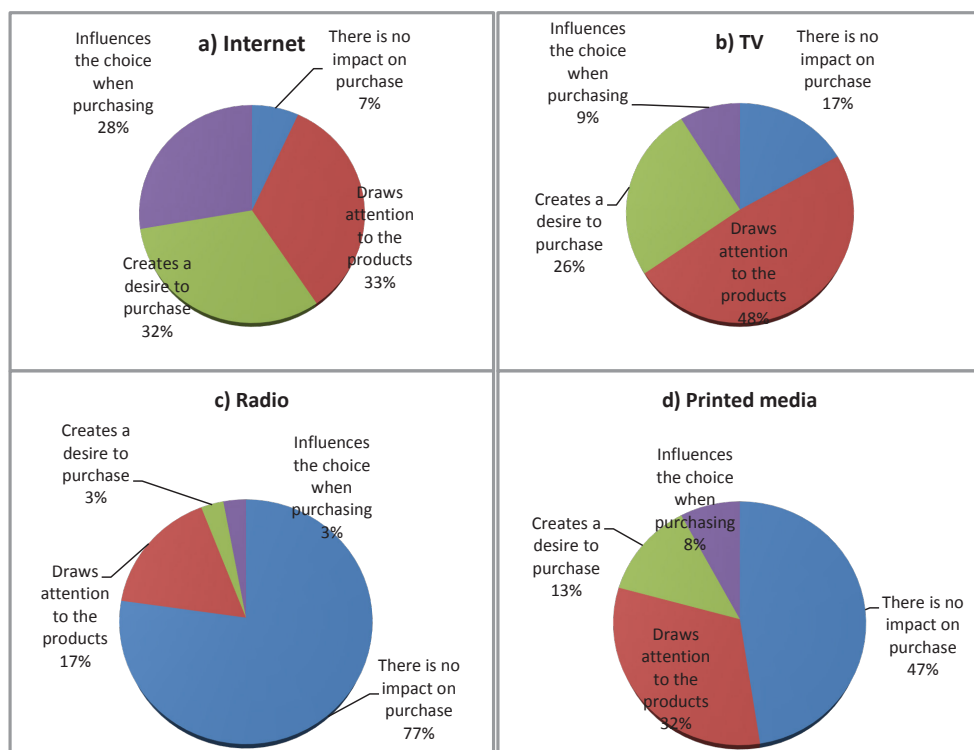


Figure 5. *How would you rate the impact of individual media on your spending habits?*
Source: Authors' research

As we can see from Figure 5, the most influential media are indeed Internet and television, while radio stations for this population has almost none impact on consumption. While both Internet and TV can have an impact on creating desire for purchasing, influencing the choice when purchasing is more likely to achieve through Internet, and drawing an attention to certain products is more quality of television. When it comes to printed media, we couldn't finde consensus, since a slim majority of respondents said that they could see some

form of impact on their spending habits, yet 47% of them said that there is no influence at all. But what we did find out is that the majority of respondents, saying they don't see any impact of printed media (about 70%), are age from 16 to 26 and are single. We can conclude that three out of four media can have impact on consumer behaviour, directly or indirectly, so marketers should focus more on these media while creating marketing strategy and focus less on advertising through radio stations.

We have expanded our research and for information on the effects of media on individual product categories, and found out that drawing attention and creating desire for purchase will be most notably in the case of food (68% in case of savory food and 72% in case of sweets and candy), yet the influence on the choice will be the smallest. Much greater response of media can be seen in case of clothing, cosmetics and IT products.

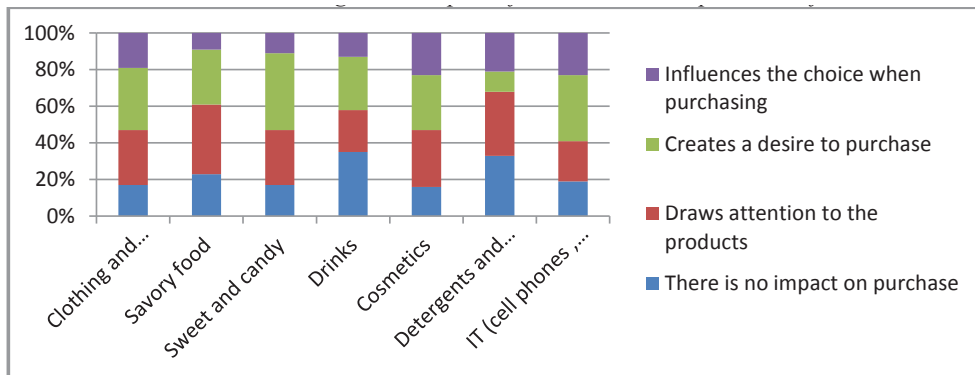


Figure 6. *Evaluate the greatest impact of the media on the purchase of items*
Source: Authors' research

An interesting fact is that the majority of respondents who said the stability of influence in the choice of buying detergents are not married ones but the singles. Also we were surprised that as much as 35 % of respondents said that media content has no effect on the purchase of drinks.

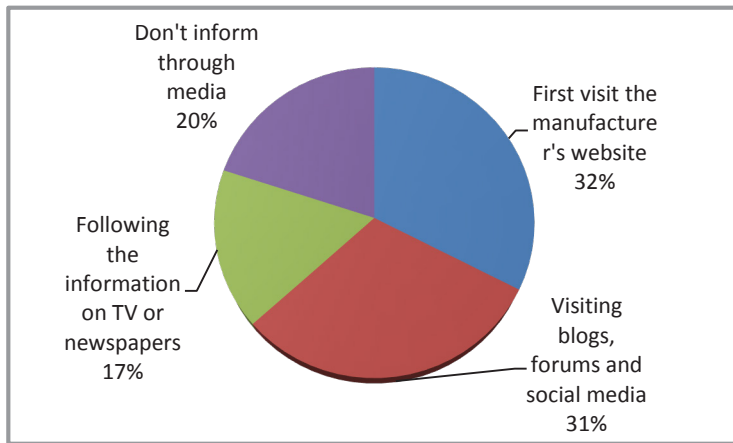


Figure 7. *Before purchasing new products do you inform about them using media?*
Source: Authors' research

When it comes to new products majority of young people rely on media information especially on manufacturer's website (32%) and blogs, forums and other social sites, while gathering information by using TV or newspapers is less present. Only 20% of all respondents said they don't inform using media. We can conclude that media has an impact also on creating perception of young people, on both existing and new products as well.

Aware that the media is not just a place to create individual advertising company, but that there is not so rare unwanted publishing of the positive or negative information about individual companies or their products, we wanted to explore whether such information had an impact on the behavior of young people or not. The results of survey show that only 10% of respondents declared not to pay attention to these kind of information, while majority would partly take into account information, or only if it's very important information (63%).

In the end, we were interested in whether young consumers pay attention to special offers in the media and found that 95 % of respondents monitor such deals, and 55% sometimes do shopping to action catalogs.

3.3. *Focus groups*

The focus groups were organized with twenty participants in the Student Center Zenica, giving us a participants from different geofigureic origins. Focus groups showed that advertising is most noticeable on TV and the

Internet. We also wanted to draw certain information about ethnocentrism and its representation in the economic propaganda. Issues that are passing through the focus groups were similar to questions on the survey with certain corrections and potentiating the very advertisements of certain products which we develop discussion with members of the focus groups.

Through working with focus groups, we have branched the following effects of propaganda in the media, namely: advertising ethnocentrism, the effect of annoying advertisements in a whole new light (irritant effect), and have done an experiment to test the effects of the continuous repetition of the subconscious advertising.

Our conclusions were these:

- 1) The advertising ethnocentrism effect was extending the preferences of the product which is produced in the region where the respondents live, but was promoted by the celebrities who publicly declared as a member of the area (over 60% of focus group participants). We can conclude that the business world needs to adjust propaganda by using domestic celebrities in order to achieve better sales results with this group of customers.
- 2) The focus group participants gave their opinion on what they mean by “annoying” ads, with most stood out: a commercial that is repeated too many times or in an unworthy manner presented in the media. They also mention the irritating effect especially pop - up advertisements during such as the World Cup or the live transmission. One participant gave an example of a pop - up advertisements of manufacturer Bramac during the live broadcast of the match. However, when we asked the audience about the most famous producer of roofing equipment, most emphasized just this company. We conclude that irritating advertising achieves the goal of the subconscious effect on the population.
- 3) Continuous repetition of advertising also showed positive course of action, the young population. We did the experiment initial exposure of the most common advertising jingles on TV, carried out by Coca Cola, Vispak and ect. Over 70 % of participants were able to complete by the end of the content of the advertisements. On the question of their attitude towards these products, more than half said that they often buy these very products. However, this continued broadcasting should be periodically refreshed with new items in a commercial for a certain period, with remark there should not be instant launching new advertising innovation. This way

companies achieve a certain tradition in the marketing of their products, and through this tradition subconscious act of purchasing products.

4. Conclusion

We can conclude that the media play an important role in the daily life of young people in BiH. The study showed that the most widely used media by young are Internet and TV, and at least used is the radio. There is a mild preference of usage of the Internet, with significant percentages of participation of young people exclusively using this medium. Since the chosen target group, especially between 16 and 25 years of age is in the process of defining its own identity, the fact that the survey results indicate that a very large impact of celebrities in advertising their consumption patterns did not surprise us. We also found that there is often a greater or lesser irritability hostility and dislike towards advertising, and that this effect was more noticeable in case of the women.

Our recommendation to all marketers and companies while creating marketing strategy targeting young people would be:

- 1) Marketing strategy should be focusing on advertising on the Internet combining with TV programs and weekly and monthly newspapers;
- 2) The focus should be on advertising on social sites, in the first place, and entertainment and business/education sites on second place;
- 3) Advertising messages should include metered dose of eroticism, humor and exotic, enough to be intriguing to the recipients. Also including domestic celebrities in advertising will achieve the greatest response in this target market segment;
- 4) If you offer a new product to the target group, be sure to take care of refreshing your own Web site with all the necessary information. It is also recommended to actively monitor the content of the information on its new products on blogs and forums;
- 5) Special offers will be observed by the young and largely taken into consideration when purchasing, and therefore it is advisable to take in into consideration better and more frequent advertising through the same.

This is a modest research, primarily intended to help creating a profile of the audience and developing a communication strategy for those companies which target group are young people in Bosnia and Herzegovina. We are extremely looking forward to all future research in this area.

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EFFECTS OF CONTROLLED AND UNCONTROLLED COMMUNICATIONS ON CREATION OF BANK IMAGES IN BOSNIA AND HERZEGOVINA

UTICAJ KONTROLISANIH I NEKONTROLISANIH KOMUNIKACIJA NA KREIRANJE IMIDŽA BANAKA U BOSNI I HERCEGOVINI

Abstract

Numerous changes in the marketing environment have affected the critical thinking of clients when evaluating the quality of a bank offer, and they have also affected the lower level of their loyalty. The consequence of that is that clients more and more often make decisions about termination of doing business with their bank if they are not satisfied with its way of doing business. In order to keep the existing and attract the new clients, banks should clearly position themselves on a market, and they may achieve this through the creation of a powerful image. A well-positioned image represents competitive advantage which is impossible to copy. Integrated marketing communications are especially important for clear positioning of image on a banking market. However, banks must not neglect the effects of uncontrolled communications on the creation of their image. Therefore, this paper researches the effects of controlled and uncontrolled communications on creation of bank images. Necessary information for this research has been gathered through a primary research on Bosnian and Herzegovinian banking market, where two random samples of 300 legal entities and 500 individuals have been formed. Also, 22 top bank managers have been surveyed. The analysis of gathered results has shown that controlled communications have more powerful impact on the creation of bank image on Bosnian and Herzegovinian market than the uncontrolled ones.

Keywords: controlled communications, uncontrolled communications, bank image

JEL: M31

Sažetak

Brojne promjene u marketing okruženju banaka utjecale su na kritičnost klijenata pri ocjenjivanju kvalitete bankarske ponude, kao i na manji nivo njihove lojalnosti. Posljedica toga je da klijenti sve češće donose odluku o prekidu saradnje sa svojom bankom ako nisu zadovoljni sa njenim načinom poslovanja. Kako bi zadržale postojeće i privukle nove klijente, banke se trebaju jasno pozicionirati na tržištu što mogu postići kreiranjem snažnog imidža. Dobro pozicioniran imidž predstavlja konkurentsku prednost koju je nemoguće kopirati. Integrisane marketinške komunikacije su od posebnog značaja za jasno pozicioniranje imidža na bankarskom tržištu. Međutim, banke ne smiju zanemariti uticaj nekontrolisanih komunikacija na kreiranje imidža. Stoga se u ovom radu istražuje uticaj kontrolisanih i nekontrolisanih komunikacija na kreiranje imidža banaka. Potrebne informacije za ovo istraživanje prikupljane su primarnim istraživanjem na bosankohercegovačkom bankarskom tržištu pri čemu su formirana dva slučajna uzorka od 300 pravnih lica i 500 fizičkih lica. Takođe su anketirana i 22 top menadžera banaka. Analiza dobivenih rezultata je pokazala da kontrolisane komunikacije imaju snažniji uticaj od nekontrolisanih komunikacija na kreiranje imidža banaka na bosankohercegovačkom tržištu.

Ključne riječi: kontrolisane komunikacije, nekontrolisane komunikacije, imidž banaka

JEL: M31

1. Introduction

Faster development of economy and society has a consequence of a greater number of information, numerous similar financial services, and increase of suspicion towards advertising. Therefore, clients need adequate guidelines in the process of making decisions about doing business with a certain bank. A good starting point in making decisions is bank image as a trust factor that offers security when making decisions. Potential clients do not have to burden themselves with great spectrum of offers of financial services. Image creates client loyalty and this leads to them noticing only a small number of information sent by the competition. Therefore, besides the objective information, it is necessary to offer emotional impulses, such as trust, continuity, reliability, and others. Bank image is not created in a short time frame. It is founded on a long term creation of associations, experiences, stories and myths. Image created in such way may ensure greater loyalty of consumers than any innovative details of a bank service. In the frame of management of bank image, a central significance is put on integrated marketing communications. Bank identity is transferred onto clients through communication instruments,

and differentiation, in relation to competition, is emphasized. Integrated marketing communications direct such information onto markets, and these will affect attitudes, knowledge and behavior of clients.

2. Theoretical frame of conducted research

When determining the concept of image, numerous literature, that considers this or similar field, begins with the Latin origins. However, the word image has gone through historical development which is described and explained in numerous cultures. Therefore, image in Latin means representation of a certain object or a person, an image, a reflection; in French, image represents a visible look, appearance of a person or a thing, picture, impression, idea; in English, image means a picture, real picture, picture in a mirror, a representation, idea; while Americans see image as a representation of a certain person or a thing, that is, a picture created by representation. Considering the key and most often applied etymological meaning of the word image, we may determine the following similarities: an image represents visible, realistic and current pictures of representations that were created in a human psyche. In a historical sense, use of the word image in economics literature may be observed since 1939, when Dichter first used the word image relating to a picture and a personality of a brand, the Ivory soap. In marketing literature, the first interpretation of the word image, similar to current understanding, may be found in 1955, when Grdener and Levy represented image as a hypothetical construction that includes knowledge, representation and attitudes of individuals about objects in their environment (Essig, Soulas de Russel & Semanakova 2003, p. 18)

Today, image is an often used term in everyday life. With that, more often than not, publications on the subject of image bring on greater confusion, instead contributing to the explanation of this term. Namely, image is often treated as a synonym of status or reputation. Therefore, it is necessary to provide an explanation of these terms and explain their differences in comparison to image. Reputation and image are closely mutually connected terms, but they are not interchangeable. Reputation is purposely directed (for example, valuation with a specific purpose), while image is a broader term and it may include various types of reputation found in various target groups (Sjekloča 2003, p. 62). Such determination of image, as a broader term than reputation, only partly explains the connection and differences of these two terms. A more detailed explanation of named terms may be seen in the following definition. By reputation, we consider the picture of a corporation in the public eye, which shows how much the desired image is achieved. Therefore, reputation

may be seen as feedback of image desired by corporations. Image, on the contrary, reflects corporation identity, and with that, the sole perception of corporation and its characteristics (Schwalbach 2001, p. 3). Therefore, image is a way in which public perceives corporate identity, and it includes many various types of reputation. Created corporation reputation represents a basis for measurement of image management success. In literature that researches image, we may find numerous definitions that differ in a way of image determination. Further, we will name only some of them.

Image is the wholeness of feelings, attitudes, experiences and opinions, that an individual or a group of individuals have, consciously or unconsciously, made about certain object (for example, product, brand, corporation). Socio-cultural and subjective moments (experiences, prejudices) affect image as it represents a simplified stereotype of objective reality (Essig, Soulas de Russel & Semanakova 2003, p. 18). Image may be defined as a cognitive picture of a corporation, product, person, process, or situation, formed by an individual on the basis of the wholeness of previous experiences, attitudes, opinions, conceptions that are more or less synchronized with their actual characteristics (Kesić 1997, p. 297). Image is a way in which public perceives a corporation or its products (Kotler 2001, p. 292). Corporate image is, ..., a picture that public, through accumulation of received messages, creates about a working organization, which believes that it communicates only when it wants to, but in real life, it communicates through everything that it does or states (Ind 1996, p. 16.). According to all previously named definitions of image, we may notice the following:

- There is no unique definition of image, various authors define it according with their goals;
- Common characteristics of image definitions are subjectively applicable, as are attitudes, feelings, opinions, experiences, etc.;
- Image does not have to be synchronized with actual characteristics of an object.

By analyzing named definitions, *bank image* may be determined as a way in which public perceives banks and their services. The broader determination of bank image would be: bank image is the wholeness of representations attitudes, experiences and opinions, created consciously or unconsciously, and formed by a certain group or individual about banks.

Image is created quickly, meaning that its stability is not constant. In the beginning stage of creation, image may be modelled dynamically with each

new piece of information that may lead to a certain psychological state. Due to starting instability, “the first impression” is extremely significant for its further creation, and extraordinary attention should be paid to it. Image requires lots of time to get strong and to achieve a stable character; however, once the image is determined as a solid system with a long term perspective, it is very hard to change it.

Integrated marketing communications of banks should ensure a reflection of certain characteristics of identity in all communication instruments in order to achieve a desired perception in the environment. In this way, banks strategically approach the creation of identity and image, and lower the effect of uncontrolled communications. There are many ways for clients to receive messages about banks and their services [adapted from: (Veljković 2006, p. 444)]:

- Planned messages (mass communication – for example, propaganda, brochures, Internet presentations, personalized letters, telephone calls);
- Messages «received» by clients when visiting banks (cleanliness, interior design, space attractiveness, atmosphere ...);
- Messages received in the servicing process (interactions in the servicing process, waiting lines, follow-up documentation, staff competency and kindness, business discretion, and such);
- Unplanned messages (verbal propaganda, recommendations, news in newspapers and other mass media, chat groups on the Internet, etc.);
- Absence of communication (banks do not react – they are silent in situations when problems arouse in the servicing process, that is, consumer dissatisfaction, absence of information about banks and their services, and such).

Through collaboration about the mentioned ways that banks communicate with their environment, we have come to certain conclusions about issues that may arise in their communication process. Namely, banks communicate with their environment through *external communication* within which they apply the traditional communication instruments, that is, advertising, improvement of sales, public relations, and direct marketing, to communicate with the targeted market, and also, through *interactive communication* that occurs due to direct contact of clients with the staff and the whole business ambiance of banks in the servicing process. Starting with the attitude that bank identity should be recognized in all instruments of communication with the environment in order to create the desired image, it is clear that

banks should create such models of internal communication so that they may ensure that all banking staff adopts founding values and operating norms. Therefore, application of integrated marketing communications enables overcoming of possible issues in the process of creation of the bank image.

3. Overview of current researches on the effects of application of integrated marketing communication on creation of image

In Ireland, O'Loughlin and Szmigin have conducted a research on role and significance of branding retail banks. According to the gather research results, they have come to a conclusion that, despite the significance that a brand has in the process of making decisions about a purchase and client behavior, many banks are still poorly applying this functional dimension. Even though, it has been determined that a brand has a stronger influence on the decision-making process, during buying than the emotional appeals, many banks, in their marketing communication, appeal on client emotions. With that, we may conclude that concurrent banking projection of complex emotional messages and values is not needed or desired. Considering the significance and relevancy of a brand for clients, it would be recommendable that banks create appeals on brands and advertising messages that will make a targeted directing towards financial needs of clients (O'Loughlin & Szmigin 2005, p. 21-22).

Zineldin has conducted a research on bank positioning in Sweden. In this research, he has begun from the attitude that banks do business in new conditions of strong competition, uncertain and unlimited possibilities. No bank may offer its services, nor be the best/leading bank for all clients. Therefore, banks should look into their strengths and possibilities, and create a competitive position on the market. With that, positioning of banks is determined as a marketing asset achieved by creation of image. A bank, that is creating an image, tries to nurture its image in the eyes and thoughts of clients (Zineldin 1996, p. 19).

Nguyen and LeBlanc, in Canada, have researched the effect of bank image on the process of making decisions about doing business with a certain bank. The research results have shown that when clients become users of a service of a certain bank, their repeated purchase is not that based on the evaluation of quality of characteristics of a bank service, but rather on their feeling of belonging to a certain community. In this situation, for a client, an image represents a cooperative nature of an organization and the fact that it is positioned to satisfy the needs of a minority ethnic group. This means

that loyalty, in this form of a cooperative organization, is a function of a corporate image and the complete satisfaction of clients. An assumed *link between corporate image and loyalty was statistically confirmed*. According to these result, we may assume that clients, that formed a positive whole impression of the image of financial institutions, have a greater preference towards a certain bank, and that they recommend it to others (Nguyen & LeBlanc 1998, p. 60-61).

Another interesting research results and analysis of bank images were conducted in the USA by Yavas and Shemwell. In the introduction of their research, the authors emphasize long known fact that image does not represent an absolute, but a relative dimension in comparison to competition. With that, in their attempts to differentiate and achieve competitive advantages, banks should determine their own image, but also the image of their competition. More importantly, banks should determine how clients position various banks in their thoughts. Equipped with this information, banks may create necessary strategies in order to use their current position in clients' thoughts or in order to reposition if necessary (Yavas & Shemwell 1996, p. 19-20).

Previous collaborations of conducted researches of bank images show us that, despite of the recognized significance for differentiation and acquiring competitive advantages in conditions of strong competition on financial markets, this phenomenon has not yet gotten enough attention in the banking practice. Having that in mind, it would be extremely significant, for the process of image management, to determine the effects of uncontrolled communications on creation of the desired bank image, which will be the subject of our considerations further in this paper.

4. Methodological basis of conducted research

During the research and the analysis of bank image, it is necessary to accept scientific discoveries about the process of image management. Bank image is a way in which an environment perceives its identity, and it occurs as a consequence of all bank communications with its environment (controlled and uncontrolled). Further, we should take into account that the structure of bank image is multidimensional, that is, it includes many components that create a unique system. This is exactly where the complexity of its research is seen, and this is crucially significant for creation and nurture of image. Therefore, we have chosen to limit our research through acceptance of the complexity of bank image. Research limitations are presented in

the following: the research will be conducted in the region of B&H; two public segments are included: internal and external public; bank managers will represent the internal public; the external public will be represented by banks business clients and individual clients. The planned research should determine the effects of controlled and uncontrolled communications on creation of bank images in the region of B&H. In accordance with the research issue, the following hypothesis has been set: Controlled communication instruments of banks have a stronger effect on creation of image than the unplanned (uncontrolled) elements of communication. The following secondary hypotheses have been set as well:

- The actual crisis on the global banking market has affected a change in client attitudes towards banks they do business with on the domestic market.
- Attitudes and opinions of referent groups, families and friends, significantly affect the perceived bank identity (image).
- The greater the number of positive grades by intermediary sources, such as media, non-government organizations, leader opinions, the greater the bank image.

As sources of information necessary for this research, we used primary data gathered through a survey. The first research target group consisted of top bank managers in B&H. Data have been gathered through a questionnaire that top managers received by e-mail. There were 22 surveyed managers, which represents 75.86% of the total number in B&H. The sample of business clients of banks consisted of 300 surveyed that were chosen by a random sampling. In this way, the sample included companies, but their characteristics, that is, their size, business field, or gender and age of the actual managers, have not been taken into account even though they were relevant for this research. Data have been gathered through a questionnaire sent by e-mail. Gathering of results has started in February of 2009, when we started naming sample units and making appointments for interviews. Field work alone lasted for four months, where, in February and March of 2009, we worked on gathering data from the surveyed from the preliminary sample. After that, in April, backup lists have been formed, with which we conducted further gathering of data during May and June. In order to conduct the survey, it was necessary to determine and use the backup lists. In this way, we achieved the total response of the surveyed, where we have received positive replies to the survey of 63% of surveyed, 27% from the first backup list, while the remaining 10% of the surveyed has been completed

from the second backup list. The random sample of individuals consisted of 500 surveyed found in telephone books of FB&H and RS. Individuals were surveyed over the telephone. Surveying of the legal entities and individuals, bank clients, was conducted by two groups of students in the fourth year of the Faculty of Economics, as part of their Market Research class, and under the supervision of the author of this paper. For the analysis of data gathered through this research, we have used the following statistical scientific methods:

- Descriptive statistical analysis of gathered data, and
- Descriptive analysis of interrelations between chosen data.

Further in the paper, results of the conducted research, on bank image on Bosnian and Herzegovinian banking market will be presented and analyzed.

In order to create a clearly recognizable identity and image, banks must apply planned communication with their environment. Only in this way, it is possible to achieve that all marketing communication instruments transmit a clear message to the internal and external public about their basic characteristics and specifics of their identities, and through that, create a strong image. Therefore, this part of the research was directed on enlightenment of the existence of a banking brand strategy.

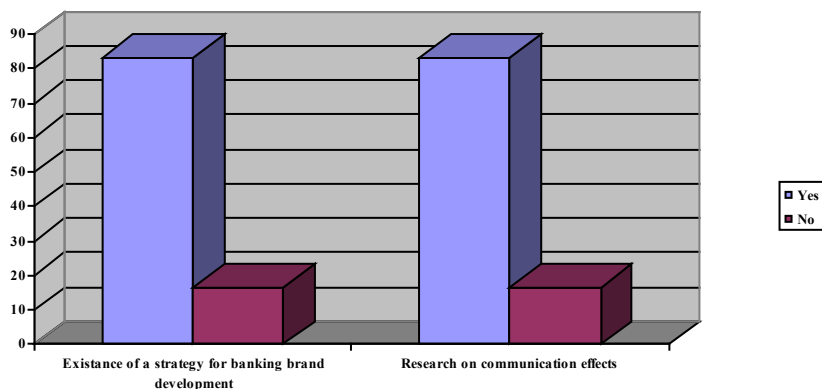


Figure 1. *Existence of a Strategy for Development of a Banking Brand*

Source: Smajlović 2010, p. 215

From the total number of surveyed bank managers, 83.33% of them stated that bank has a strategy for development of a banking brand. The same number of surveyed managers states that their bank researches effects of

communication with their environment. Banks, during the construction of their branches, pays special attention to modern design (83.33%) and synchronization of the colors of the interior and the exterior with the bank colors (83.33%). Besides that, banks try to emphasize the open approach (66.66%), and to protect the discretion while doing business (50%). From the total number of surveyed banks, 91.66% stated that they sponsor various events. Through that, banks invest the most into sporting events, social events and art, and the least in ecology and other television and other programs. Here, it is important to emphasize that, from the total number of banks that act as sponsors, 100% of them stated that sponsor art, 90.9% sponsor sport, while 72.2% banks sponsor ecology, social events, and various programs.

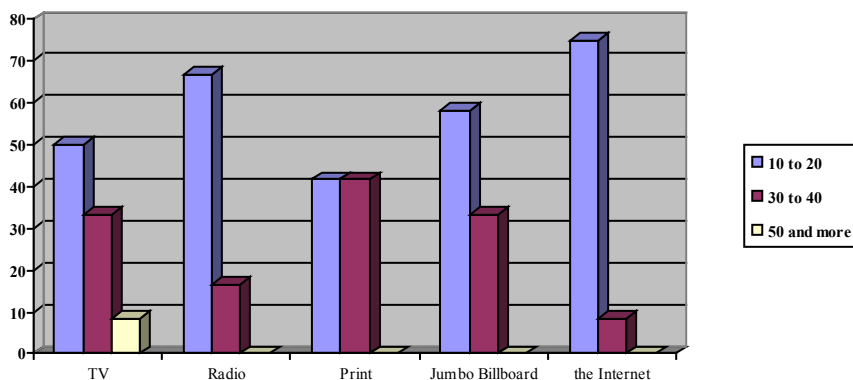


Figure 2. *Media Used by Banks to Communicate with their Environment*

Source: Smajlović 2010, p. 230

In communication with their environment, banks mostly use television as a medium, 91.6%, then printed media, 83.33%, radio, 83.33%, and the Internet, 83.33%, and jumbo billboard, 75%, are used the least. With that, relative shares, of the total significance of a certain media banks use to communicate with their environment, are allocated on television, printed media, and jumbo billboards, then radio and the Internet.

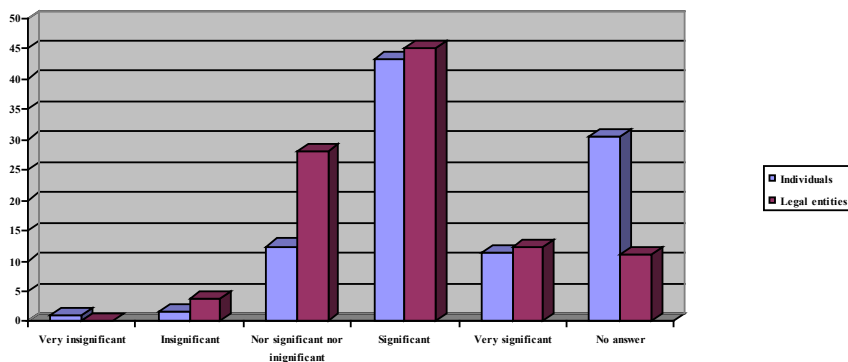


Figure 3. *The Significance of Financial Crisis on Change in Attitudes towards the Leading Bank*

Source: Smajlović 2010, p. 219

In the frame of the conducted research, we have tried to determine if the crisis on the global financial market affected the client attitudes towards their banks. The results have shown that the crisis determined a change in attitudes in 26.64% individuals, and 24.33% legal entities. From the total number of surveyed, who changed their attitude towards their bank during the crisis on the global market, 11.34% of individuals stated that the crisis very significantly affected, and 43.3% stated that it significantly affected the change in their attitudes. From the total number of legal entities, who changed their attitude towards the leading bank, 12.2% stated that the crisis very significantly affected, and 45.12% stated that it significantly affected their attitudes. The effects of the crisis on client attitudes have been tested with the χ^2 test.

Elements of the hypothesis evaluation:

➤ Level of significance	0.01
➤ Rate of freedom (2-1)(2-1)	1
➤ Tabular value of the χ^2 test	6.635
➤ Calculated value of the χ^2 test	2.260

Since the calculated value of the χ^2 test is lower than its tabular value, *the set hypothesis is not accepted* with the level of significance of 0.001, meaning that the crisis on the global banking market has not affected the change in attitudes of business clients and individuals towards banks that operate on the Bosnian and Herzegovinian market.

Through the research on bank image, we have tried to determine if the attitudes of referent groups, family and friends, affect the perception of bank identity. The potential effects were determined in an indirect way, through research of surveyed about attitudes in their referent groups towards their leading banks. It has been determined that the referent groups, family and friends, have a very positive attitude towards banks (individuals, 9.74%, legal entities, 11%), and positive attitude (individuals, 41.75%, legal entities 54%). Referent groups, family and friends, of individuals do not have a determined attitude in 33.4% cases, while this amount of in legal entities is a little lower with 29.67%.

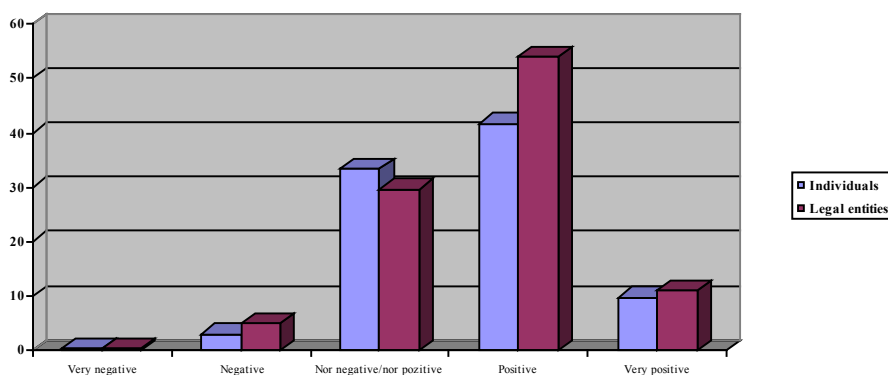


Figure 4. *Attitudes of Referent Groups, Family and Friends, towards Banks*

Source: Smajlović 2010, p. 220

Referent groups, family and friends, mostly have a positive attitude towards the leading banks of clients. Therefore, the research results have shown that 6.98% have a very positive attitude toward the UniCredit Bank, and 59.3% have a positive attitude; 12.07% have a very positive attitude towards the Raiffeisen Bank, and 52.59% have a positive attitude. While, 14.28% have a very positive attitude towards the Hypo Alpe-Adria Bank, and 48.57% have a positive attitude towards this bank. Others stated that their referent groups do not have a determined attitude towards their banks, while a venial percentage of the surveyed stated that a negative attitude towards the named banks dominates in their environment. According to the presented results, we may state that a positive attitude of referent groups towards UniCredit Bank, Raiffeisen Bank, Hypo Alpe-Adria, ProCredit Bank, Nova Bank, etc. is dominant. According to the presented results, we may take the stand that we have enough confirmations that we may *accept the set hypothesis* that

attitudes and opinions of referent groups, family and friends, significantly affect the perceived bank identity (image).

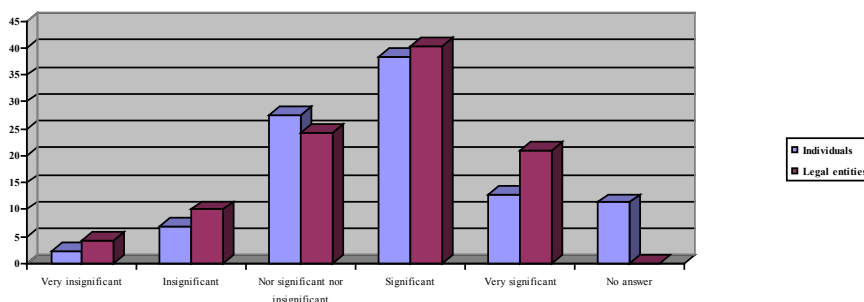


Figure 5. *Effects of Intermediary Sources on Perception of Bank Identity*

Source: Smajlović 2010, p. 220

Research on the effects of intermediary sources (media, experts, and such) has shown that they have a very significant effect on individuals (12.92%) and legal entities (21%), and a significant effects on individuals (38.7%) and legal entities (40.34%). With that, the set hypothesis, that a greater number of positive grades by the intermediary sources, such as opinions of media, non-government organizations, leaders, determine a stronger bank image, may be considered as *confirmed*.

5. Conclusion

In the process of researching ways in which banks communicate their personality to their environments, through the logotype, bank colors, slogans and architecture, we have used the primary data. Banks, during the construction of their branches, pay special attention to the modern design (83.33%) and synchronization of interior and exterior colors with bank colors (83.33%). Besides that, banks try to emphasize the open approach (66.66%), and to protect the discretion of doing business (50%). By analysis of research results, we have determined that banks have recognized the significance of sponsorship in communication of their identities. Namely, from the total number of surveyed banks, 91.66% have stated that they sponsor various events. With that, banks mostly invest into sports, social events and art, and the least in ecology and various television and other programs. With that, from the total number of banks that act as sponsors, 100% stated that they sponsor art, 90.9% sponsor sports, while 72.72% banks sponsor ecology, social events and various programs.

In communication with their environment, banks mostly use television as a medium, 91.66%, printed media, 83.33%, radio, 83.33%, and the Internet, 83.33%, and jumbo billboards are used the least with 75%. With that, relative shares are of the total significance of a certain media used by banks to communicate with their environments, allocated on television, printed media, and jumbo billboards, then radio and the Internet. It is necessary to emphasize here that banks still do not adequately use the Internet potential as a medium to communicate with their environment. Namely, bank web-sites are mostly used for advertising and various services (for example, Internet banking), little for spreading information about various events that the bank took part in, and they are not used at all for the interactive communication with their environment. According to this, we may determine that banks still use mass communication with their environment, while communication with targeted segments is much neglected.

Analysis of the effect of uncontrolled communication on bank image creation has been evaluated through the effects of the crisis on the financial market on attitudes of the surveyed, the effects of referent groups, family and friends, and intermediary sources on the perception of bank identity. It has been determined that the crisis on the global banking market has not affected change in attitudes of business clients and individuals towards banks that operated on Bosnian and Herzegovinian market. Referent groups, family and friends, mostly have a positive attitude towards the leading banks of clients. Therefore, the research results have shown that 6.98% have a very positive attitude toward the UniCredit Bank, and 59.3% have a positive attitude; 12.07% have a very positive attitude towards the Raiffeisen Bank, and 52.59% have a positive attitude. While, 14.28% have a very positive attitude towards the Hypo Alpe-Adria Bank, and 48.57% have a positive attitude towards this bank. Through the analysis of results of the conducted research on the effects of intermediary sources (media, experts, and such), it has shown that they have a very significant effects on individuals (12.92%) and legal entities (21%), and a significant effects on individuals (38.7%) and legal entities (40.34%). With that, we may accept the attitude that their public statements about image characteristics could determine how their clients perceive them.

According to the results of the conducted research on bank images in Bosnia and Herzegovina, we may conclude that the research hypothesis, that the controlled communication instruments of banks have stronger

effect on creation of image than the unplanned (uncontrolled) elements of communication, has been confirmed.

The following secondary hypotheses have been confirmed:

- Attitudes and opinions of referent groups, families and friends, significantly affect the perceived bank identity (image).
- The greater the number of positive grades by intermediary sources, such as media, non-government organizations, leader opinions, the greater the bank image.

The secondary hypothesis that, the actual crisis on the global banking market has affected a change in client attitudes towards banks they do business with on the domestic market, has not been confirmed.

Considered the gathered research results, we may present the following recommendations:

- Banks should conduct a research on their own and the competition image. In this way, banks could overcome the most significant issue in differentiation and positioning – mutual similarity.
- In order to discover new characteristics of image differentiation, banks could use non-banking institutions and other modern business organizations as benchmarks.
- It is necessary to ensure consistency in communication of characteristics of bank identity and image through all operational characteristics, and continuously use integrated marketing communications.

Keeping in mind that our research was limited with set aims, we state that we would need the following for the further analysis of bank identity and image:

- Apply other research methods and techniques, such as observation, on-line research, focus groups, etc.
- Determine positioning of banks on the market applying multi-variation methods.
- Conduct ranking of banks from the aspect of image, applying the AHP or other optimization methods.

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RESEARCH ON PERCEPTION OF VISITORS ABOUT A TOURIST OFFER IN THE ZENICA-DOBOJ CANTON

ISTRAŽIVANJE PERCEPCIJE POSJETITELJA O TURISTIČKOJ PONUDI ZENIČKO-DOBOJSKOG KANTONA

Abstract

Tourism is becoming a growingly significant branch of economy for surrounding countries that have recognized the significance of a systematic approach to their development for the increase of the gross domestic product. Even though, Bosnia and Herzegovina has determined significance and role of tourism in economic development in its strategic documents, the tourist offer on Bosnian and Herzegovinian market is still inadequately developed. This problem is especially emphasized in areas that were large industrial zones, such as the Zenica-Doboj Canton. Therefore, in this paper, we analyze the results of the primary research on the perceptions of 171 visitors to Zenica-Doboj Canton. This research was conducted in the period from April to August of 2013. The gathered results have shown a low level of familiarization of the Zenica-Doboj Canton as a tourist destination. The most occurring associations made by visitors to the mention of the Zenica-Doboj Canton were the pyramids in Visoko, 25.51%, castles and kingdom cities, 22.11%, and preserved mountain ambience and nature, 15.65%. Visitors were mostly satisfied with the natural attractions and the beauties of the landscapes, and the least with the quality of accommodation. In this paper, on the basis of the gathered results, recommendations to improve the tourist offer are provided, in order for the Zenica-Doboj Canton to clearly position on the domestic and the international market as a tourist destination.

Keywords: visitors' perception, tourist offer

JEL: M31

Sažetak

Turizam postaje sve značajnija grana privrede za zemlje u okruženju, koje su prepoznale značaj sistemskog pristupa njihovom razvoju za povećanje društvenog bruto proizvoda. Iako je Bosna i Hercegovina je u svojim strateškim dokumentima odredila značaj i ulogu turizma u ekonomskom razvoju, turistička ponuda na bosankohercegovачkom tržištu i dalje je nedovoljno razvijena. Ovaj problem je posebno izražen u područjima, koje su bile velike industrijske zone, kao što je Zeničko-dobojski kanton. Stoga se u radu analiziraju rezultati primarnog istraživanja percepcije 171 posjetitelja Zeničko-dobojskog kantona, koje je provedeno u periodu od aprila do avgusta 2013. godine. Dobiveni rezultati su pokazali nizak nivo poznatosti Zeničko-dobojskog kantona kao turističke destinacije. Najčešće asocijacije koje su posjetitelji imali uz pominjanje Zeničko-dobojskog kantona su piramide u Visokom 25,51%, tvrđave i kraljevski gradovi 22,11%, te očuvani planinski ambijent i priroda 15,65%. Posjetitelji su bili najviše zadovoljni prirodnim atrakcijama i ljepotama krajolika, a najmanje kvalitetom smještaja. U radu se na osnovu analize dobivenih rezultata daju prijedlozi za unaprjeđenje turističke ponude kako bi se Zeničko-dobojski kanton jasno pozicionirao na domaćem i međunarodnom tržištu kao turistička destinacija.

Ključne riječi: percepcija posjetitelja, turistička ponuda

JEL: M31

1. Introduction

Tourism is, without a doubt, the strongest “industry” of the world, and for many countries, it is a very significant export product, as well as, the generator for employment. It includes a wide variety of events and relations that occur during a tourist travel, and its realization, it not only probes into the economic, but also into the ecological, social, and cultural aspect of life (Dobre & Rusković 2004, p. 3).

Thanks to its natural beauties, ecological and climatic diversity, richness of the cultural and historic legacy, and its closeness to the largest international markets of Bosnia and Herzegovina, Zenica-Doboj Canton, as its part, has significant tourist potentials as well. With that in mind, development of tourism is greatly significant for the whole economy of Bosnia and Herzegovina, but also for the creation of sustainable development in undeveloped and underdeveloped regions within Bosnia and Herzegovina. Tourism in Bosnia

and Herzegovina is still at a very low level of development, because it has, as other economic branches, survived significant damages during war that are still disturbing a smooth run of this business.

The research aim in this paper is to determine all components which will be used as a basis for the formulation and creation of a desired image and brand of the Zenica-Doboj Canton tourist destination. In accordance with that, the following research objectives have been defined:

- 1) What is the current perception of the Zenica-Doboj Canton through the eyes of tourists that came for a visit?
- 2) Does the Zenica-Doboj Canton image, as a tourist destination, create a desire in tourists to come for a visit?
- 3) What should the Zenica-Doboj Canton image look like in the future and how could it be articulated?

2. Theoretical research frame

The tourist destination concept has been explicitly used, until recently, in the sense of the final travel point. The modern understanding of the destination concept is somewhat more complex and it relates to the tourist zone, locality, region, city, country or continent. In literature that examines the issue of marketing destinations, we may find different definitions of this concept. Sometimes, this concept includes countries, and sometimes cities or regions (Caldwell & Freire 2004, p. 50-61). There are numerous criteria that must be fulfilled when determining and identifying destinations (Hall 1999, p. 161):

- A destination should include a group of cultural, physical, and social significances that mutually build regional identities.
- A destination should contain adequate tourist infrastructure as a support to tourism development.
- A destination should be greater as a whole or an attraction.
- A destination should include existing attractions or have a potential for support to development of successful attractions in order to attract tourists.
- A destination should support planning and marketing of that area, meaning that it should be a leader and encouragement to future development.
- A destination should be available to a large number of visitors. Availability is enabled through ground, air, and water transportation.

In modern tourism, destination has a great significance because conditions, for development of receptive tourism and following offers as a starter for economic life, are contained in it. The importance of a certain geofigureical whole, as a tourist destination, is defined by: attractiveness of a certain space, nature/advantages of a comfortable climate, availability/access of the developed transportation infrastructure. It becomes significant because it, besides its natural factors, history and cultural historic landmarks and attractions, may offer more demanding contents, and with that, it may contribute to greater tourist activity within the destination itself (Križman Pavlović 2008, p. 59).

The competitiveness of a tourist destination is determined by the way in which tourists perceive it. Tourist perception is all inclusive perception of tourists about attractions, environment, products and services within the tourist destination (Fan, Zhong & Zhang 2012, p. 96). Therefore, it is necessary to determine the way in which tourists perceive a certain destination in order to discover new sources of competitive advantage or to improve the existing ones.

3. Overview of reasearches conducted thus far

Ružić has researched rural tourism of Istra from the aspects of its features and tourist perception. The areal scope of rural Istra has been defined by selection of municipalities and cities that do not have access to sea. In cases where they contain a part of the seashore, then, on that part, a greater community must not be built. 1500 questionnaires have been distributed in the period from 2008 to 2011. The conducted research has confirmed a high level of activity that includes natural and cultural heritage, which ensures special features to the rural tourism of Istra. Furthermore, the research determined that Istra has developed a rural tourist product that is interesting to markets, and that is founded on inclusion of elements of ecology and gastronomy, material and non-material cultural and natural heritage (Ružić 2012, p. 223-229).

Fan, Zhong and Zhang have conducted a study in China, in which they tested the structural model of equality between perceptions of a harmonious tourist environment and tourist loyalty. With that, they have set the following hypotheses:

- Natural ecosystem directly affects the whole perception of a harmonious tourist environment.

- Cultural ecosystem directly affects the whole perception of a harmonious tourist environment.
- Social system directly affects the whole perception of a harmonious tourist environment.
- The whole perception of a harmonious tourist environment directly affects tourist loyalty.

There have been 377 collected questionnaires, and the model itself has been tested through the application of factorial analysis. It has been determined that the perception of natural ecosystems is the most influential factor of the whole perception of tourist environment, social system took the second place, and cultural ecosystems took the third place. The whole perception of a harmonious tourist system significantly and directly affects the tourist loyalty (Fan, Zhong & Zhang 2012, p. 96-98).

Bertan and Altıntaş have researched how age, levels of education and income affect tourist perception that visit the Pamukkale destination. The research results show that there are significant differences in visitors' attitudes in relation to age, education, and income levels. Visitors with higher education and income levels are much more critical when evaluating tourist offers than the visitors with the lower level of education and income. Tourists differently perceive and appreciate tourist offers. Therefore, younger visitors perceive prices higher than do the older visitors (Bertan & Altıntaş 2013, p.118-130).

Rahman has researched factors that affect tourist perception when choosing Bangladesh as a tourist destination. He has also tried to identify the most significant attributes that satisfy tourist needs in order to attract new visitors. The purpose of this research was to determine the effects of tourist perception about choosing a certain destination. The research has been conducted on 250 tourists in Bangladesh. The results have shown that most tourists consider that choosing a destination greatly depends on the destination brand image, availability on the Internet, and visitor satisfaction (Rahman 2012, p. 87-94).

Ismail and Turner have conducted a research in Malaysia in order to determine the effects of a cross-cultural difference between locals and tourists, measured by their perceptions about development of tourism on small islands which represent a very important tourist attraction. The research has included two targeted groups: domestic residents and tourists (Malaysian, Chinese and English). The results of this study have shown that affiliation to a certain culture affects the perception of the domestic residents and tourists. Domestic residents mostly positively perceive the development of tourism on

their area. However, they are not completely aware that tourism also brings a series of negative effects on prices, environment, society and local culture. Chinese tourists perceive development of tourism in a similar way, where they believe that development of tourism has more positive than negative effects. The main positive effects of tourism relate to the development of infrastructure. English tourists have noticed more negative effects of development of tourism, such as the price growth, where the local domestic residents have been faced with high life expenses (Ismail & Turner 2008, p. 402-408).

The previous considerations of conducted researches of the tourist perceptions shows that natural ecosystems and cultural-historical heritage represent a significant source of competitive advantage of a certain destination. It has also been determined that the perception of a tourist destination is determined by the demographical and behavioural characteristics of the surveyed. Therefore, it is greatly significant to determine the way in which tourists perceive the Zenica-Doboj Canton, and this will be the objective of our consideration further along.

4. Methodological bases of conducted research

As sources of information needed for this research, we have used the primary data collected through a questionnaire survey. The target group of the surveyed has consisted of foreign and domestic tourists of the Zenica-Doboj Canton. The data has been collected through a questionnaire. This questionnaire contained introductory questions that relate to the socio-demographic characteristics of the surveyed, followed by the questions that relate to the perception about the Zenica-Doboj Canton, and finally to the visual identity, symbols and colours of the Canton.

The research has been conducted in the period from April of 2013 to August of 2013. The questionnaires have been distributed by the Tourist Community of the Zenica-Doboj Canton to all hotels and motels in the Canton area. Parallel to that, a mailing list has been created on the basis of lists from the protocol of the Ministry of Foreign Affairs of Bosnia and Herzegovina. The questionnaires have been e-mailed to the addresses to all diplomatic-consulate representative bodies and international organizations in Bosnia and Herzegovina. In this way, 171 questionnaires have been collected.

For the analysis of data collected through research, the following statistical methods have been used:

- Descriptive statistical analysis of collected data, and
- Descriptive analysis of interrelations between chosen data.

Following this, the analysis and interpretation of research results of the visiting tourists to Zenica-Doboj Canton will be presented.

The results have shown that, visitors included 87 women, that is 49%, and 84 men, that is 51%. The Zenica-Doboj Canton is visited by all age structures and generations. The youngest visitors, the ones under the age of 20, are represented by 12.28%. The most represented visitors are aged from 41 to 50, with 22.81%. Furthermore, generation including visitors 21 to 30 years of age is represented by 19.88%. The generation of visitors 30 to 40 years of age is represented by 16.37%, while visitors aged between 50 and 60 are represented by 19.30%, and the ones older than 60 are represented by 9.36%.

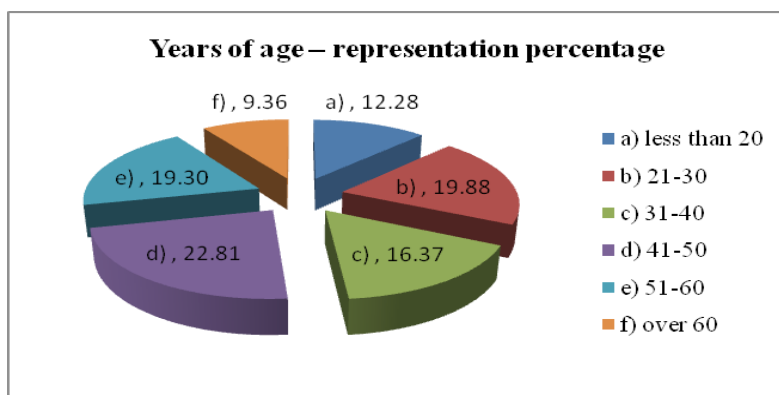


Figure 1. *Age representation*

Source: Authors' research

The most recognized are visitors from the surrounding countries and the closest European countries, and therefore, the highest number of the surveyed came from Germany (18 visitors), that is 10.52% representation, then Croatia and Slovenia (17 visitors from each), or 9.94%. The following country that contributed with a significant number of visitors is Austria (10 visitors), or 5.84%, and then Norway (9 visitors), or 5.26%. The survey has shown that present visitors had a different level of education, and all levels of education were represented, from secondary school to persons with academic scientific titles. Having that in mind, in this structure, the most visitors were the ones with the secondary education. There were 63 of them, or 36.84%. This percentage has increased in relation to higher education for the domicile surveyed visitors. 49 visitors, or 28.65%, had a university

degree, while 39 visitors, or 22.81%, had a college diploma. Persons with academic titles were also visitors within the surveyed ones, that is, 17 persons with a master's degree, or 9.94% of the sample, and 3 persons with a PhD, or 1.75% of the surveyed.

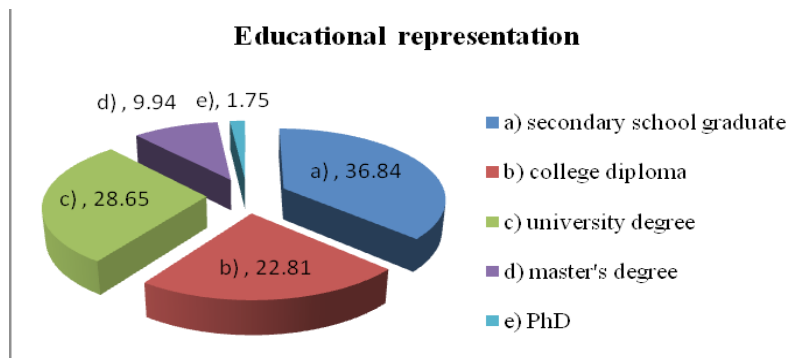


Figure 2. *Educational representation*

Source: Authors' research

The most named reason for visiting the Zenica-Doboj Canton is discovery of the new with 72 answers, or 42.11% of the sample, meaning that this destination has not been discovered yet and that the destination offer is not recognisable. A significant part make the ones that are in the Zenica-Doboj Canton due to employment, that is 39 persons, or 22.81%. Vacation, as a possible answer, was noted by 32 people surveyed, or 18.71%, while 17 people were visiting friends, that is 9.94% of the total sample. 8 people came to participate in some event, 4.68%, and answer other was chosen by 3 people, or 1.75%. It may be concluded that over 80% of the surveyed visited the Zenica-Doboj Canton for three reasons: discovering the new, employment, or vacation.

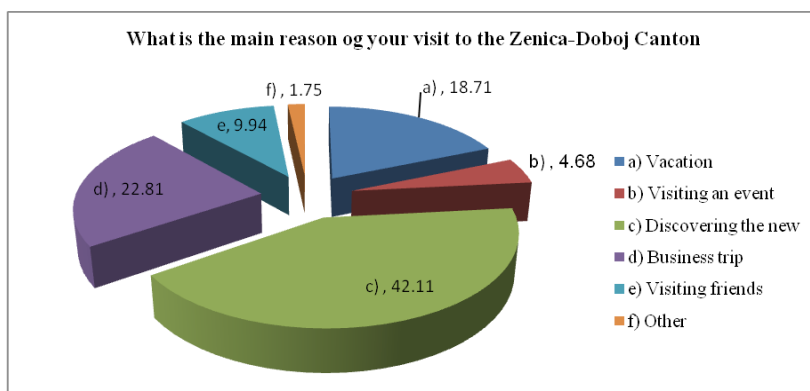


Figure 3. *Reasons for tourist visits*

Source: Authors' research

Figure 4 shows the level of recognition of the Zenica-Doboj Canton as a tourist destination. From the total number of the surveyed, 69, or 40.35%, has never heard of the Zenica-Doboj Canton as a tourist destination. From the total number of the surveyed, 92, or 53.21%, graded the recognition with a 1 or a 2, and only 27 of them, or 18.13%, made of domestic residents, gave an answer that they know the Canton very well.

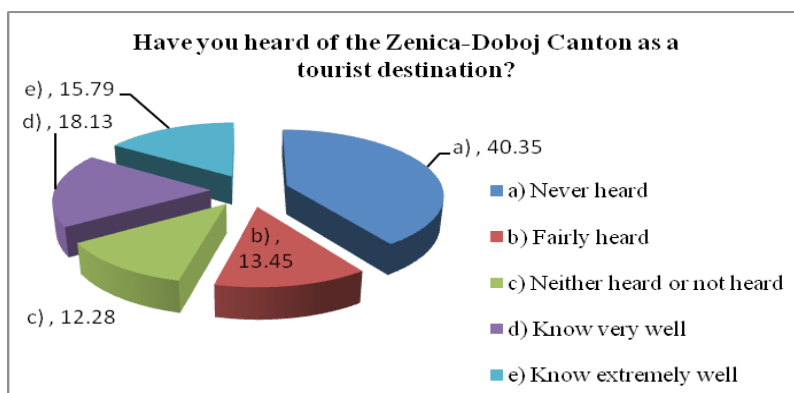


Figure 4. Level of recognition of the Zenica-Doboj Canton

Source: Authors' research

General impressions of the surveyed about the Zenica-Doboj Canton are shown in Figure 5. The impressions were to be graded by surveyed on the scale from 1 to 5, where 1 meant that that are completely dissatisfied, and 5 that they were completely satisfied. From the total number of the surveyed, 63 of them, or 36.84%, gave a grade of 4, while 48 of them, or 28.07%, gave a grade of 5, which means that impressions about the Zenica-Doboj Canton are positive.

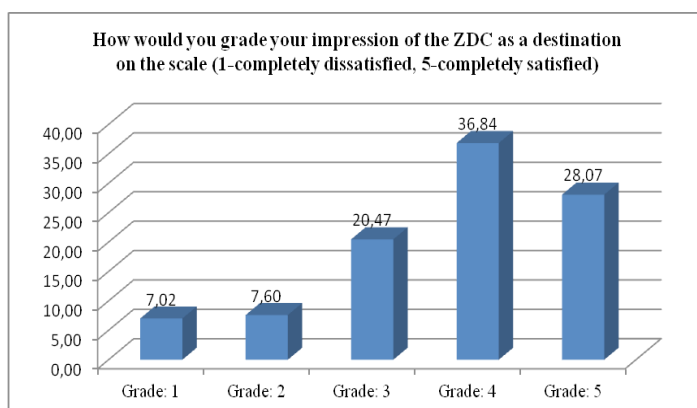


Figure 5. Impressions about the Zenica-Doboj Canton

Source: Authors' research

In Figure 6, satisfaction of the surveyed has been presented by the way they were treated by locals during their visit to the Zenica-Doboj Canton. A significant number of the surveyed, 75 or 43.85%, has answered that they are extremely satisfied, and 162 or 94.73% gave a grade of 3 and above, while only 5.26% answered with a grade of 2.

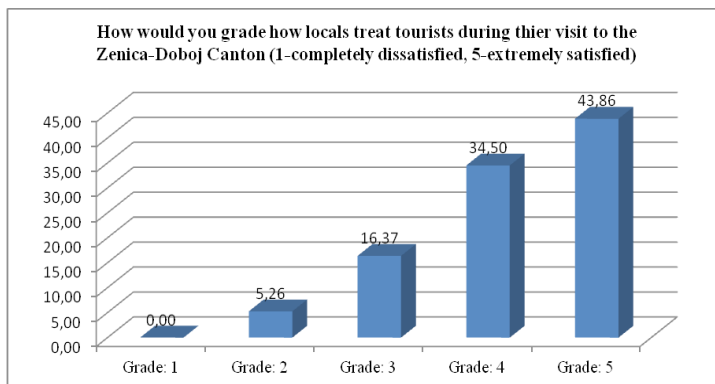


Figure 6. *How locals treat visitors*

Source: Authors' research

A significant number of the surveyed, 89 of them or 52.02%, stated that they will definitely visit the Zenica-Doboj Canton again. Only 2 of the surveyed, or 1.17%, stated that they will definitely not visit the Canton again. From the total number of the surveyed, 165 or 96.49% of them, answered with a grade of 3 and higher, which means that they expressed their desire to visit again, while 6 or 4% of the surveyed have stated that they do not desire to visit this Canton again. The answers are shown in Figure 7.

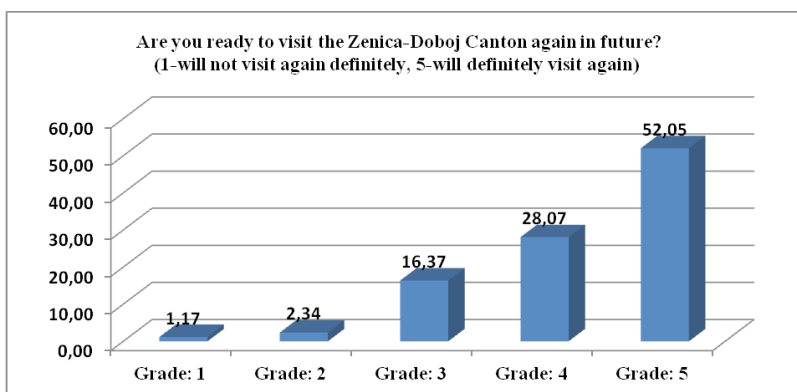


Figure 7. *Desire to visit again*

Source: Authors' research

The greatest number of the surveyed, that is 156 or 91.22% of them, would recommend visiting the Zenica-Doboj Canton to someone else, while 15 or 8.77% of them would not recommend visiting the Zenica-Doboj Canton. The surveyed also ranked sources of information they use when planning a visit to a certain destination, by priority and significance, where number 1 represented the most significant source of information, and number 5 the least significant source of information. Figure 8 presents answers of the surveyed.

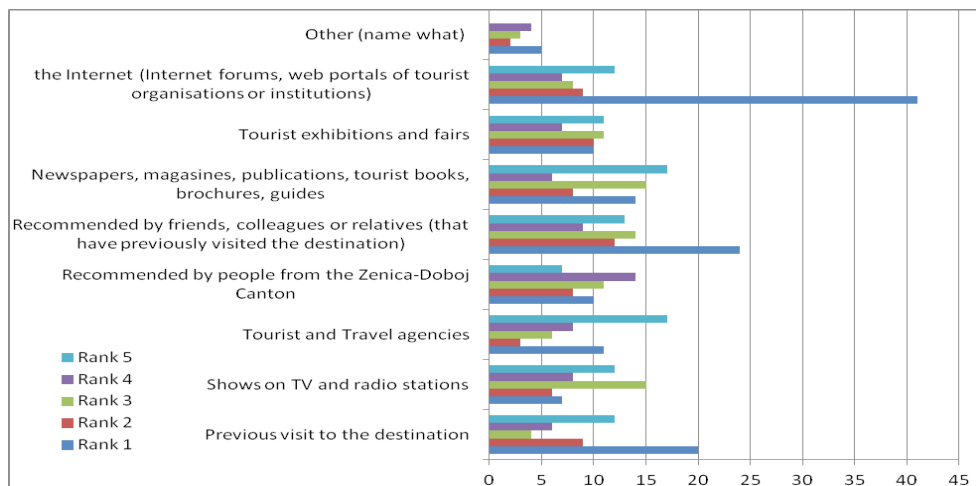


Figure 8. *Sources of information about the Zenica-Doboj Canton*

Source: Authors' research

The most significant source of information to the surveyed is the Internet. Fairs and exhibitions are less and less popular. This point to the direction that a strategy for the communication of the features of the Zenica-Doboj Canton should be created using the Internet as a medium. Through research, associations made by the surveyed when the Zenica-Doboj Canton was mentioned were tried to be discovered. The answers were presented in Figure 9.

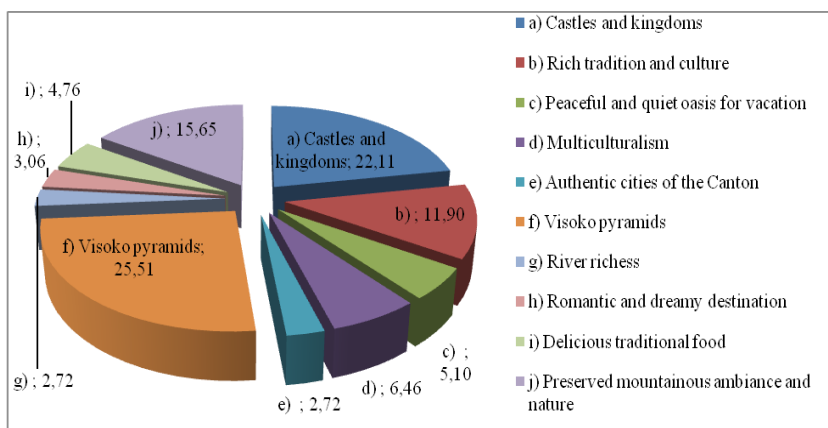


Figure 9. Associations relating the mention of the Zenica-Doboj Canton

Source: Authors' research

The total number of the surveyed that answered this question is 163, and only 8 did not provide an answer. To this question, there are 294 answers in total (that is, the surveyed have provided on average $294/163=1,8$ associations as an answer to this question). Associations to the Zenica-Doboj Canton used the most by the surveyed were the “Visoko pyramids” and “Castles and kingdoms”, “Rich tradition and culture”, etc. Satisfaction with the characteristics of the Zenica-Doboj Canton were evaluated by tourists on a Likert's scale from 1-5. With that, using the same scale, the significance of a certain destination feature has been evaluated as well.

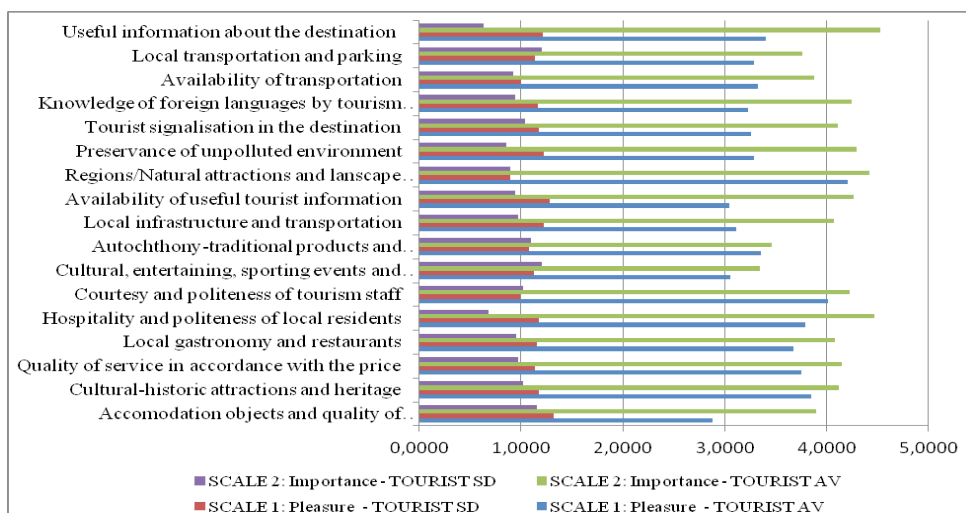


Figure 10. Characteristic features of the Zenica-Doboj Canton

Source: Authors' research

Figure 10 shows the arithmetic means and standard deviations. Therefore, the Regions/natural attractions and landscape beauty has been evaluated with the maximum average grade of 4.21, and Courtesy and politeness of tourism staff with 3.89, and hospitality of local residents with 3.79. What is potruted the most after this are the Cultural-historic attractions and heritage with 3.84. The Quality of service in accordance with the price is 3.72, and Local gastronomy and restaurants is at 3.67. The lowest average grade is given to Accomodation objects and quality of accomodation, 2.88, while Cultural and entertaining events is graded with 2.99, and Availability of useful tourist information with 2.97. It may be concluded that tourists are not completely satisfied with offered features they were to grade, but also that the Zenica-Doboj Canton has potential as a destination, and that these features may be additionally improved and built/created.

On the other hand, on the scale, tourists have used the grade 2 to express that it is most important to have useful information about a destination when they are visiting. Not one average grade is below 3.5, and most of them are above 4, meaning that these features are significant to tourists, and that they should be taken into account when creating competitive advantages of the destination. Accomodation is important to tourists with 4.08, Hospitality and politeness of local residents with 4.46, Natural attractions with 4.48, and Preservance of unpolluted environment with 4.33, Availability of useful information is very significant with 4.26, and Courtesy and politeness of tourist staff with 4.52. The lowest average grade which tourists used to express what is important to them when visiting a destination is the Cultural, entertaining, sporting events and night life with 3.54.

5. Conclusion

On the basis of the results of the conducted research, it may be concluded that visitors have a positive perception about the tourist offer of the Zenica-Doboj Canton. Regions/natural attractions and lanscape beauty was marked by tourists with an average grade of 4.21, Courtesy and politeness of tourism staff was graded with 3.89, Cultural-historic attraction and heritage with 3.84, and Politeness of local residents with 3.79. Tourists find important the following: courtesy and politeness of tourism staff 4.52, natural attractions 4.48, hospitality and politeness of local rasidents 4.46, and persefvanace of unpolluted environment 4.33. Availability of useful tourist information is very significant 4.26, as well as accomodation 4.08.

Considering the collected research results, we may emphasise the following

recommendations:

- It is necessary to improve the communication of characteristics/features of the tourist offer of the Zenica-Doboj Canton on domestic and foreign tourist market.
- It is necessary to invest into development of tourist offer, especially into quality of accomodation, as well as cultural and entertaining events.
- Availability of useful tourist information to visitors should be enabled.

Having in mind that our research was limited by the set aims, we consider that the following would be necessary in further analysis:

- Include in the research the other target groups, such as representatives of the tourist community of the Zenica-Doboj Canton and competent ministries.
- Determine the positioning of the Zenica-Doboj Canton offer on the international tourist market.
- Also apply other statistical methods when determining perception, such as: multivariational methods and multidimentional scaling.

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CITY BRANDING AS A POTENTIAL FOR ECONOMIC DEVELOPMENT

BRENDIRANJE GRADOVA KAO POTENCIJAL ZA EKONOMSKI RAZVOJ

Abstract

In globalized world, when the markets are interconnected, all strive to accomplish a more favourable position to compete for capital, profit, influence, talents, attention and glory. Similarly, cities also compete on the market. Which cities will be more successful in this market game depends on which brand strategy has been chosen. Brand enables the city to develop and promote its recognition. Paris is “illuminated city”, Milano is “city of fashion”, Las Vegas is “sin city”, while Washington represents political power. In other words, brand signifies the city DNA, its components, its uniqueness and authenticity, what is being passed from one generation to another – the bridge between the past, present and the future of the city. The main aim of this paper is to present the methodology that can help as the roadmap for successful city branding on the basis of comparative analysis. This methodology encompasses several key stages: (1) The identification of the present level of brand development; (2) The definition of strategic orientation and setting long-term brand aims; (3) The realization of brand aims, i.e. “closing up” gap between the present and the desired level; (4) The development of measure system to monitor and report about the achieved results. The implementation of this methodology requires project approach where all the interested parties are involved such as: the office for the local economic development, business leaders, touristic organizations, local authorities, media, educational institutions, cultural institutions, etc. Enriched with the theoretical and practical experience, the suggested methodology can help the cities and municipalities in the South-Eastern European region to increase their chances on the market of cities and accelerate their social development.

Keywords: city brand, brand development strategies, identity, image, city brand index

JEL: M31, M37

Sažetak

U savremenim uslovima globalizacije, kada su tržišta povezana i umrežena, sve i svako nastoji da osvoji što povoljniju poziciju u trci za kapitalom, profitom, uticajem, talentima, poštovanjem, pažnjom i slavom. Tako se i gradovi takmiče na tržištu lokacija. Koji će gradovi biti uspešniji u ovoj tržišnoj utakmici zavisi i od toga kakvu brend strategiju izaberu. Brend omogućava da grad razvije, prikaže i afirmiše svoju prepoznatljivost. Pariz je “grad svetlosti”, Milano je “grad mode”, Las Vegas je “grad greha” dok Vašington predstavlja političku moć. Drugim rečima, brend je DNK grada, ono od čega je grad sačinjen, njegova jedinstvenost i autentičnost, ono što prenosi sa jedne generacije na drugu - most između njegove prošlosti, sadašnjosti i budućnosti. Osnovni cilj ovog rada je da, na osnovu komparativne analize, predstavi metodologiju koja može da posluži kao putokaz u uspešnom brendiranju gradova. Ova metodologija obuhvata nekoliko ključnih koraka: (1) Identifikovanje postojećeg nivoa razvoja brenda; (2) Definisanje strateških opredeljenja i postavljanje dugoročnih brend ciljeva; (3) Realizacija brend ciljeva, odnosno “zatvaranje” disproporcije između postojećeg i željenog stanja; (4) Razvoj mernog sistema za praćenje i prikazivanje ostvarenih rezultata. Implementacija ove metodologije zahteva projektni način rada u koji su uključene sve zainteresovane strane kao npr. kancelarija za lokalni ekonomski razvoj, biznis lideri, turističke organizacije, predstavnici gradske vlasti, mediji, obrazovne institucije, ustanove za kulturu i nasleđe i sl. Obogaćena iskustvima iz teorije i prakse najuspešnijih gradova, predložena metodologija može da pomogne gradovima i opštinama u regionu jugoistočne Evrope da povećaju svoje izgled na tržištu lokacija i da na taj način pokrenu, odnosno ubrzaju svoj društveni razvoj.

Ključne reči: brend grada, strategija razvoja brenda, identitet, imidž, city brand index

JEL: M31, M37

1. Introduction

There is a strong need in human nature to mark something (e.g. space, objects, animals) in order to identify it more easily. In this way a man shows a particular relationship to what is marked and at the same times ends the appropriate message to others. Based on these human needs and endeavors, brands were created on a certain level of social development.

Historically, the ancient Egyptians 2,000 years BC branded livestock in order to designate it to the owner. This custom or practice was soon taken over by craftsmen who imprinted their mark or signature on their handiworks to distinguish them from other similar products. It is likely that in the beginning

their intention was to symbolically message to the others, “this is mine,” but it is certain that some of them had the desire to say “this is better.” So, the brand philosophy was born. During the following centuries, with the progress of commerce and crafts, product labeling became more frequent and more diverse. Product labels, even in this early historical period, provoked consumer associations and emotions, as well as contemporary brands. However, mass production and mass communication developed dimensions of the brand to unprecedented proportions. Some authors believe that today we live in “brendocracy” or brand-rule age. In such a society, in terms of the ruthless competition in all areas of life, even the cities are seen as brands.

The main objective of this paper is to show how the brand philosophy can be applied to the cities, as well as, to show attitude towards such thinking in Serbia and the Republic of Srpska. Examples from the world that are listed in this study clearly demonstrate the multiple benefits of a strong brand to the cities. On the other hand, examples from Serbia and the Republic of Srpska speak clearly about them missed opportunities to exploit the potential of the brand in the location market. For the truth, there are some exceptions, which raise hopes that in this area new, modern understanding of city branding will be promoted.

2. Literature overview

Opinions on the brand evolved in parallel with the growth of its influence in the market. In the beginning, the brand was just a label on the product, but as the time passed it got wider significance and far more complete meaning. Today, the brand is seen as a complex and multidimensional phenomenon, so it is almost impossible to include all its aspects and attributes into one definition. In studying this topic several scientific fields and disciplines overlap. Therefore, very different definitions can be found in the literature depending on the angle and width of the observer.

De Chernatony and McDonald's definition explicitly states that the brand is not just a product, but define it in a broader context. “A successful brand is a product, service, person or place that can be identified, it has unique selling points (USP's) that best meet customer needs. What's more, its success is that these USP's make it different from other similar products on the market.” (De Chernatony & McDonald 1998, p. 9). Scott Bedbury in the perception of the brand, equally underlines the importance of the rational (thought) and emotional (feelings). “A brand is the sum of all we think and feel about a product, company, institution, person or place. The brand is everything

that gives us a promise and that has some clearly defined and recognizable values.” (Bedbury & Fenichell 2003). The brand, by Wally Olins, reflected the product or manufacturer just at the start of its development. In modern conditions the brand has become an exponent of companies, institutions, politics, art, culture, sports, as well as an indication of the entire system of values. Charities, sports clubs, schools, hospitals, museums, galleries, political parties, cities and states use the brand philosophy to achieve their goals. In addition, customers determine themselves more concise by the purchase of brands. They also send a message about their orientation, status, lifestyle. The best brands may summarize and express subtle feelings and make them immediately accessible to other customers, exceeding in many cases, major barriers such as ethnicity, religion and language. They have a tremendous emotional content and provoke loyalty that has no rational explanation (Olins 2004, p. 19).

In recent decades, the brand of locations, or brand of cities has become a very common theme in theory and practice. This topic was studied by one of the foremost authorities in the field of marketing Philip Kotler. He along with his collaborators published a famous book “Marketing Places” which is engaged in the brand of the cities. In the introduction of this book he warns that, in the early 1990s, about 3/4 of the total of 5,000 cities in the US was faced with financial problems (Kotler, Haider & Rein 1999, p. 1). Over the years this problem was not solved, and many cities were forced to declare bankruptcy. E.g. Detroit, city of about 700.000 inhabitants, went bankrupt in 2013. Similar fate had several big US cities such as San Bernardino, which has over 200,000 inhabitants and City of Stockton, which according to the census of 2013, had about 300,000 inhabitants. Such problems also have other cities around the world. E.g. Rio de Janeiro, a city with over 6 million inhabitants, faced bankruptcy in 1988. A list of cities that have been shaken by serious financial difficulties is a very long and indicates that many cities are expected brisk and uncertain fight for the best position on the market of locations. In such conditions, cities are forced to learn the lessons of marketing or branding.

The first lessons about city branding were learned from corporations (Hankinson 2007, Saraniemi & Ahonen 2009, Kavartzis 2009). There are significant similarities between corporate brands and city brands. Corporate brand is not just focused on a single product or service, but corporate culture (values, beliefs, attitudes, behavior of corporation, its vision, mission and core objectives). Similarly, the brand of the city refers not only to an individual symbol representing the city, but creates a broader picture and shows the

city as a whole (Ashworth & Kavaratzis 2009). Simon Anholt contributed to greater understanding of the brand of cities. He, based on historical analysis, concluded that cities have always been brands. He is particularly known for having developed a special methodology for measuring the strength of these brands (Anholt 2006). This methodology includes 6 criteria and show the level of development of the brand of the city from multiple angles. It is often used in the ranking of cities according to the strength of their brand. Another methodology is brought by Hildreth (2012) who draws Saffron European City Barometer. The Barometer measures the strenght of cities' brands and assesses how well cities use branding to exploit their assets. Saffron Brand Consultants used this methodology to analyse 72 cities in Europe. All cities were scored out of 100 and ranked according to both of these two criteria (Herget, Petru & Abraham 2015, p. 122). Also, Cushman and Wakefield Company created special methodology called European Cities Monitor. This methodology comprises five factors which is essential for companies: (1) Easy access to markets; (2) Availability of qualified staff; (3) Quality of telecommunications; (4) Transport links with other cities and interantionally; (5) Adequate office space. Special methodology is presented by A.T. Kearney's Global Cities Index comprises 25 metrics divided into five dimensions: business activity, human capital, information exchange, cultural experience and political engagement. Business activity is measured by headquarters of major global corporations, the value of a city's capital markets, the number of international conferences and the flow of goods through ports and airports (weighting: 30%). Human capital evaluates a city's abilities to attract talent. It is measured by the size of the foreign-born population, quality of universities, number of international schools, the international student population and number of residents with university education (weighting: 30%). Information exchange includes accessibility to major TV news channels, Internet presence, level of censorship and broadband subscription rate (weighting; 15%). Cultural experience measures diverse attractions including number of major sporting events in the city, number of museums, performing-arts venues and diverse culinary establishments, number of international travelers and numer of brother/sister city relationships (wighting 15%). Finally, political engagement reviews how a city influences global policy dialogue as measured by number of embassies and consulates, major think tanks, international organizations and local institutions with international reputation that reside in the city (weighting: 10%).

Some of the famous lessons about city branding were presented in a book by authors Sako Musterd and Alan Murie who particularly emphasized the

importance of having knowledge, entrepreneurship and creativity to have a competitive advantage of a city. In this context, cities with policy of attracting talents, young and highly-educated professionals were analyzed (Musterd & Murie 2010, pp. 137-143). By analyzing case studies, authors Moilanen and Rainisto noticed a difference in the approaches of making brand cities. This distinction was illustrated by the example of Copenhagen in Denmark and Chicago in the United States (Moilanen & Rainisto 2009, pp. 77-109). Different experience of city branding were analyzed also in the book prepared by Keith Dinnie "City Branding: Theory and Cases" (Dinnie 2010).

The topic of city branding recently became interested to authors of Southeast Europe, but most of them deal with this issue in the course of studying of a city as a tourist destination (Čomić & Vicić 2013). Some of them primarily analyze the image or the impression of a city in public, which is only one element of the brand (Franjić & Paliaga 2006, Đorđević 2013). On the other hand, some authors are more focused on identity (Vasiljević 2009, Bursać 2000) as a basis to create the image of the city. Irrespective of the increasing number of such research, there is still a gap in knowledge of city branding in this area.

3. About project "City branding"

The Center of Project Development of Modern Business School defined the project "City as a brand" in 2013. This project is based on the theory and practice applied in the case of many cities in the world, but is adapted to the specifics of the development of brands in Serbian cities. This project includes several phases that are consistent with universal management functions (analysis- planning -implementation - control): (1) analysis of the current level of brand development and research on brand potential of the city; (2) defining strategic brand orientation and setting up long-term brand objectives; (3) implementation of brand strategy; (4) construction of the measuring and reporting system.

Before the project starts it is necessary to announce or initiate change. This is achieved through the implementation of special training programs on the brand. This training program is intended for all stakeholders: city administration, particularly employees in the office for local economic development, then the tourist organizations, companies and the media. Thanks to this two-day training program the level of brand knowledge is raised and city benefits highlighted. This way, the municipality initiates changes in way of thinking and creates the energy which is necessary to make the project

successful. The preparation of the project involves: the project team, to do list, task duration, budget and so on.

The first phase of the project (analysis) involves several rounds of research. It starts with a survey, in which residents state to what extent they are satisfied with the functioning of the city which they live in. At the same time, they should indicate to things they are not satisfied with. The questionnaire also encompasses the question of city characteristics that make it different from competitors. The identification of these specific features creates the basis for building a brand. This research should be repeated with visitors of the city. So, a view of the city from a different angle comes out. If the results are not clear, they should be checked and supplemented by using other research methods (e.g. In-depth interviews with historians of the region) and thus determine the course of brand development. In case the city is known for its many characteristics, it is necessary to explore the potential of existing brands and their interconnections to create a synergistic effect.

In the second phase, according to the survey results, it is necessary to define the brand strategy of the city. This strategy should focus on change - from the current to the desired state. It includes the following basic elements: (1) Brand missions; (2) Brand vision; (3) The promise that the brand contains; (4) The identity of the brand; (5) The projection of the brand position. Each of these elements is extremely significant for the development of the city.

The third phase of the project is related to the city brand strategy implementation. This requires that strategy of the brand to be known, understandable and acceptable to all stakeholders. In addition, it is essential that this strategy is concretized in activity plans. Each goal should be precisely described, quantified, synchronized with the other goals, with specific deadlines and resources.

In the fourth phase of the project, it is necessary to build a measurement system needed for monitoring of goals and adjustment of necessary activities. In practice, the most commonly used methodology of "City Brand Index" (Anholt, 2006). It includes the total of 6 dimensions: (1) Presence; (2) Place; (3) People; (4) Pre-requisites; (5) Pulse; (6) Potential. These six dimensions in the literature are usually displayed in the form of a hexagon (Figure 1).

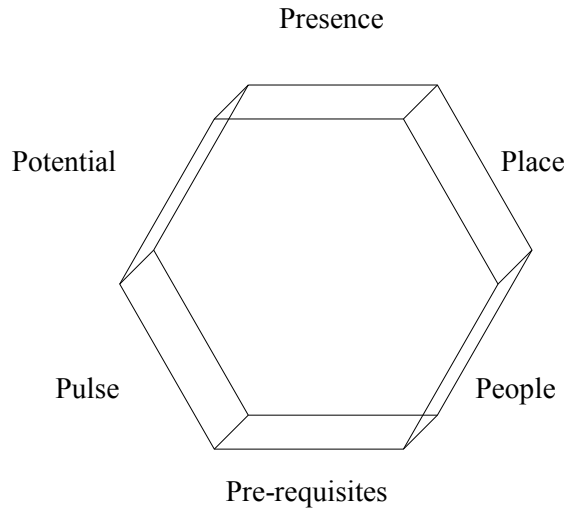


Figure 1. *City Brand Index Hexagon*

Source: Anholt 2003

Presence is a dimension measuring city brand strength that shows how the city is known or recognizable in the minds of a wider audience. Also, this dimension reflects the status of the city, its traffic, the contribution of science and culture, and the like (Popescu & Gajić 2009). Place is also a very important factor for the brand of the city. It refers primarily to the geofigureical aspects such as relief, climate, hydrofigurey (e.g. if the city is situated on the banks of rivers, lakes or sea). The third point of the hexagon is people. The impression that people leave on visitors is often crucial when assessing a city. Friendly and warm attitude of people and their hospitality positively impact the brand strength. On the other hand, restrained, cold, unfriendly and hostile attitude diminish the attractiveness of the city and reduce its brand rating. In addition, the city must also meet the other pre-requisites to develop its brand. These include the level of development of city infrastructure – state of public transportation, parking facilities, the number and quality of parks, sports facilities, hospitals, schools, kindergartens, hotels, etc. The next important dimension of brand is pulse of the city. This dimension refers to the way people live and spend their free time in the city, what happens on the streets and squares, theaters and restaurants. There are cities that never “sleep”, which are “noisy and cheerful,” that have been holding various cultural and entertainment events. The brand of these cities is a dynamic and interesting. On the other hand, there are cities that are “peaceful and quiet” that causes the character of their brand to be such.

Finally, the sixth point of the hexagon is the city's potential that reflects the economic opportunities of the city.

4. Research methodology

The project, which is described in the previous chapter was presented in the Republic of Serbia and the Republic of Srpska through direct talks with the heads of cities.

During the period December 2013 – June 2014, the project team presented the project in 11 cities in Serbia and in 2 cities in The Republic of Srpska. In most cases, these talks were attended by mayors, their deputies and heads of local economic development. Talks were prepared according to the model of semi-structured interviews. Such methodology means there are no strictly defined questionnaire. Researchers have only guide lines for conversation. In fact, a semi-structured interview is a qualitative method of inquiry that combines a pre-determined set of open questions that prompt discussion. In our research, we asked representatives of cities several questions about city symbols, city pulse, brand potentials, new ideas for city development etc.

Semi-structured interviewing is best used in preliminary research, because this methodology is not very reliable. Depends on the skill of the interviewer and interviewer may give out unconscious signals/cue that guide respondent to give expected answer. Samples tend to be small. Also, depth of qualitative information may be difficult to analyse (for example, research subjectively deciding what is and is not relevant). Finally, personal nature of interview may make findings difficult to generalise. So, results gained from semi structured interviews have to be checked again using some other valid and more reliable scientific methodology.

5. Results

Based on analysis of semi-structured interview it can be concluded that in most cases there is a low level of understanding of the importance of the brand for the city or municipality. The low level of understanding about the importance and role of the brand is mainly caused by the low level of knowledge on this topic. No city or municipality in the sample had a defined brand strategy. Moreover, when preparing for an interview, we reviewed all development documents that are publicly available on the website of the municipality. In none of these documents viewed there is no word "brand". In addition, the city leaders see brand very simplified - as a symbol, as

advertising, or as a form of public relations. For many of them brand is quite abstract. A sentence like “We need something concrete!” was often represented in their assessments of how powerful the brand contributes to the development of the city/municipality. On the list of their priorities there are “tangible” activities such as: paving, street lighting, losses in companies in the city/municipality, low salaries, problems in the budget, high unemployment rates, political issues, etc. However, they feel that brand management cannot help in solving the above problems and achieving goals. Most respondents state that they need investors, creditors, tourists, adequate human resources, media attention and political support, but cannot see how it is related to city brand. When the examples from international practices on brand strength were presented, a replica followed “This is something else! These are rich cities!”.

The lack of understanding of the essence of the brand in the surveyed cities can be recognized in the fact that these cities are neglecting their specifics. Instead of looking for and highlighting the particularities of their city and thus create the basis for brand development, they look to other cities by copying some solutions. Brand management is the management and communication of relevant differences. It is obvious that the city authorities do not want to take the risk of creating “different” city, finding unique development direction, finding original solutions. It is much easier to go “safe” way, some other city passed. In some cases, the city leaders did not even know what were the most prominent symbols of their city, what were its special features and how to use them in stimulating local development. In the given sample, no entity has realized research aimed to find answers to these important questions.

During the presentation of the offer for this project, it is evident that the city leaderships are interested primarily in projects that reach results in the short term. Brand development is not such a project. A strong brand requires a long term dedication and consistency. Visible results can be expected in 3 to 5 years. There is not enough patience for such projects in cities that are included in this sample. This is considerably affected by the political cycle. The mandate of city management lasts for 4 years and therefore they favor short-term results that make political “points”. Development of a strong brand, according to an implicit attitude of our interlocutors, is not an effective way of gaining political merit.

Project “City as a brand,” faces another important obstacle in talks with city management. A typical response to the offer was that “the city does not have enough money to fund such projects, and that it is not planned in the budget.” Such a remark makes no differences between cause and effect. Lack of money is not the cause but the consequence. If there were more fresh and attractive ideas, competitive and profitable projects, the city would have more opportunities to attract capital. The project, which awakens the energy of people and mobilizes it in the direction of brand development represents an investment, not an expense. After all, it was shown by numerous examples of cities that are able to generate their own progress, but also the development of the wider community. For example 50% of the world’s wealth is concentrated in just 25 cities. Among them three megalopolis dominate: New York, London and Tokyo. The fact that the New York area in 2014 created a gross domestic product of about 1.330 billion dollars is fascinating. It is almost 35 times higher than domestic product of Serbia. This city was visited by 50.9 million tourists, in 2012, who spent a total of 34.5 billion dollars. By comparison, the Serbian tourism annual income is only about a billion dollars. These results would not have been possible if not for decades, New York City has not invested in the development of its brand. Big cities are not just the only example of success. There are many cities and towns which, thanks to its magnetism and the strength of its brand, achieve remarkable results. For example, Medjugorje is a small town of a few thousand inhabitants in the municipality of Čitluk, Bosnia and Herzegovina, which has become world famous thanks to religious tourism. Since 1981, over one million pilgrims visit this place every year. Revenues from this type of tourism have built economy of this region. Guča, a small village in the municipality of Lučani, Serbia, is also an example of successful branding. Guča Festival of Trumpeters attracts hundreds of thousands of visitors every year.

Special impression that we gained during the interview about the project “City as a brand,” is lack of will (apathy) that was shown by most of the city or municipal officials. This is the result of failed expectations and loss of confidence. In such conditions a special atmosphere that is not conducive to new ideas and change is created. Any new proposal is viewed with suspicion and condemned in advance to failure. This way, creativity and entrepreneurship is discouraged, without which it is impossible to expand the development perspective. Very ambitious projects spring at the local level every day around the world, which forms the basis of competition

among cities. No city in the world has become famous for it's a pathy, but for projects which it managed to realize.

6. Dicussions

The project "City as a brand", was accepted by only one municipality in Serbia, and just its first phase - special educationaland training program about city branding. In this sense, it can be concluded that this topic is not interesting for most of the cities in Serbia and the Republic of Srpska. However, this estimate is questionable. For the truth, the project has not met wide acceptance, but it can not be said that the need for such projects does not exist. Moreover, analysis of data of each city or municipality clearly shows how necessary and important it is to promote brand management at the local level. For example, one border municipality in Serbia has about 34,000 inhabitants, and every year the number of inhabitants in this area is reduced by 7%. Practically, this municipality disappears. If nothing is done, in ten years it will be abandoned landscape. There are many similar examples in Serbia and the region. Brand philosophy can change these unfavorable trends. A city with developed brand is a city that is visited. A city with no brand is a city which is abandoned.

Competition in the location market is constantly increasing. The importance of this issue, as experts estimate, will be even greater in the future. According to most forecasts, in the next ten years, there will be a new wave of urbanization. For example, National Intelligence Council estimates that by 2030, migrations village-citywill be intensified and that 60% of the population will live in cities. Almost identical forecasts has a famous consulting company "Frost & Sullivan," which estimates that the number of cities with more than 8 million inhabitants will soon dramatically increase (megacities). There will also be an increased number of densely populated areas with more than 25 million people (mega regions). Among them there will be communication lines (Mega corridors), which will ensure travel of large number of people and enormous quantities of goods. This new wave of urbanization will be monitored by using modern technology that will enable optimal use of limited resources (ie, smart cities). In this context, it is reasonable to raise the issue for discussion - how will the cities in the region respond to these challenges? Without a change in thinking, without acquiring new knowledge, without new ideas and projects, most of the cities in the region can expect grim prospects.

7. Conclusions

The project “City as a brand,” of Modern Business School is presented in a total of 13 cities in Serbia and the Republic of Srpska through direct talks with the leaders of cities. These interviews were prepared based on the model of semi-structured interviews and served as a basis for this research. The results of this research can be summarized in the following conclusions:

- none of the cities included in the sample has no brand strategy;
- the lack of brand knowledge about its role and importance in the development of the city/municipality is noticed;
- specifics of the city are neglected and thus its brand potential diminished;
- long-term projects are ignored, and short-term projects favoured that bring political “points”;
- problems in the city budget are seen as a cause, and not as a result of problems;
- lack of will to implement the brand philosophy in the city;
- there is resistance to new ideas and changes they bring, which is mainly due to the bureaucratic organizational culture.

There is a need to use the brand of the city as its potential, but this need is not yet fully articulated. It can be expected, in the future, that an increasing competition in the location market will affect, an increasing number of cities (of this study area) to apply the brand business philosophy.

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**DIGITAL ECONOMY /
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SELECTION OF CRM APPLICATIONS

SELEKCIJA CRM APLIKACIJA

Abstract

In terms of efficient management of customer relationships contemporary management should develop all rounds, accurate and adequate sight in order to establish and keep productive and relevant dialogue with every single customer. From point of view of sustainable business development, CRM is a truly way to improve customer satisfaction and increase the scale of business. Selecting an enterprise CRM (Customer Relationship Management) software solution is a significant undertaking that requires careful planning and managed execution. As reported by earlier works, the success rate of CRM implementation projects is up to today still not satisfactory. Reasons for failing the expectations of involved parties are diverse, but can be summarized under the three dimensions: people, process and technology. When it comes to the technology, most influencing factors are as following: missing integration or functionality, acceptance testing and system performances. Purpose of the paper is to indicate complexity of the process of selection of CRM application and to show features of that process seen by managers in B&H enterprises. Therefore, in this paper it will be given description for selecting the CRM application from leading vendors, and attitude of managers of B&H companies regarding evaluation of properties of CRM applications. The survey was conducted by interviewing 25 managers in B&H enterprises. Authors indicate in the paper that most appreciated properties are Ease of Use and Price properties of CRM application while least appreciated property is Help and Support.

Keywords: CRM applications, CRM software, selection

JEL: D83

Sažetak

Sa ciljem efikasnog upravljanja odnosima sa potrošačima, menadžeri u savremenom poslovanju trebaju imati širok, tačan i adekvatan pristup, kako bi razvili i zadržali produktivan i relevantan dijalog sa svakim pojedinim potrošačem. Sa tačke gledišta održivog poslovanja, CRM (Customer Relationship Management) predstavlja način da se unaprijedi zadovoljstvo potrošača i proširi obim poslovanja. Selektiranje organizacijskog CRM softvera je vrlo značajna aktivnost koja zahtjeva pažljivo planiranje. Kao što brojna istraživanja pokazuju, stopa uspjeha implementacije CRM projekata još uvijek nije zadovoljavajuća. Razlozi za neuspjeh su brojni, ali se mogu sumirati u tri dimenzije, a to su: ljudi, procesi i tehnologija. Kada je u pitanju tehnologija, najuticajniji faktori su: nedostatak poslovne integracije, nedostatak funkcionalnosti, nedostatan testiranje, te performance sistema. Svrha ovoga rada jeste da se ukaže na kompleksnost procesa izbora CRM aplikacija i da se ukaže na stav menadžera u BiH preduzeima u pogledu izbora aplikacija. Stoga u ovom radu će biti predstavljeno selektiranje CRM aplikacija vodećih vendora, kao i stav menadžera BiH preduzeća u pogledu evaluacije karakteristika CRM aplikacija. Istraživanje je provedeno metodom anketiranja 25 menadžera. Autori indiciraju da su najvažnije karakteristike CRM aplikacija lakoća upotrebe i cijena, dok najmanji značaj ima postprodajna podrška vendora.

Ključne riječi: CRM aplikacije, CRM softver, odabir

JEL: D83

1. Introduction

Customer relationship management – CRM from the point of view of sustainable development is an extremely important factor of business. What is CRM? It is a set of processes and technologies for management of potential and existing customers and business partners within the department of marketing, sales and services using all communication channels. Successful customer management relationships demands all-round approach to every single relation within entire organization (Greenberg 2010, p. 16). In the broadest meaning, CRM simply means managing interactions with customers. Practically, this means usage of information about customers and potential customers with aim to reach more effective interaction with them in all sages of communication. Mentioned stages refer to the stages of customers' lifecycle (Edelstein 2009, p. 3) and basically there are three stages: acquisition of customers, increasing the value of customers and retaining of customers. Management of these stages of customers' lifecycle,

along with other business activities, is very important in long term survival on the market.

CRM applications can provide an easy way to manage customer information, track sales, and create effective outreach programs to established customer database. Salespeople can boost their individual productivity and exceed their sales goals with the information held in the CRM applications database. Managers can track employee sales and manage necessary tasks within CRM applications to make everyday operations run more efficiently. Owners and corporate executives can access reports and information to create business plans and analyze product effectiveness and development, using the information recorded in the CRM applications software.

For majority of companies mentioned goals are nothing new because these are goals of all companies which want to be successful. The way of conduction CRM goals can alter in manner that companies could not be focused enough on their clients. On one hand, CRM is client-focused through different communication channels and tend to be interactive in relation company-to-client. On the other hand, within the company CRM should integrate processes such as marketing, sales, services and production. Basically, CRM should integrate all business processes within the company and in its surrounding.

Day by day, more and more companies are starting to truly understand real value and power of their client data. By understanding a selected set of client data that can be processes, stored and analyzed, companies can reach much better understanding of their client and higher level of profitability. Client can communicate with company through a sales assistant, telephone or a company's web site.

Such interaction allows different points of touch between client and company. Business processes within the company should support all communication channels in order to get a consistent view of every single client as well as to allow a client having a view through the company. In order to reach this, it is necessary to share identical client information through all business processes.

A single view of a client begins with recognition of him through the usage of following data:

- Unique names and addresses;
- Data about relationship through transactions accounts;

- Demographical data;
- Client interaction – who, what, when, where;
- Marketing programs – offers, segmentation;
- Risk data – through transaction data;
- Profitability of a client;
- External data – marketing information, references, credibility.

Channel of collection of information can be established through sales assistants, retail agents, mail, call center, e-mail or web applications. It is important, regardless of the communication channel to collect personal data that can be assigned by transaction information, product or service demand, or some other client information. Collected information must be accurate in order to be used by CRM applications. This so called 360 degree view of the client should be reached by integrating and synchronizing client data in all business processes which have touch with CRM application. Implementation of individual and consistent view of a client has a key importance in transformation of a traditional company in Client-centric Company. Such a transformation is not an easy task.

When CRM applications are being considered it can be noticed that there are wide range of applications with different properties. But web and e-mail based applications have the widest usage because of global reach and low price. Most important property of such applications is personalization information about customers. Mentioned property is crucial in identification of customers' demands, their experience and satisfaction.

CRM offers a range of functionalities with aim to reach more effective and efficient customer management. Ovum has identified key CRM functionalities as following (Bali 2014):

- Interoperability and integration – the ease and extent to which a technology offering can exist, interface, combine, and work with products, services, and solutions from other vendors, and its ability to integrate across multiple data sources, operating platforms, and applications, both native and third party.
- Offering maturity – the extent to which an offering is complete and provides end-to-end CRM solutions. CRM vendors generally offer a range of discrete products, so it is important to consider the maturity of the whole as well as the individual CRM parts.
- Deployment options – covers the capability of the solution to be deployed rapidly and maintained, and the various deployment options such as on-

premise or cloud-based.

- 360-degree customer view – the ability to offer an end-to-end and contextual view of data and interactions across all channels.
- Information delivery – the ability to create sophisticated and user-friendly dashboards and figures, and how well the solution supports the notion of “information at your fingertips”.
- Advanced analytics – range and depth of predictive and advanced analytics functions integrated in the core CRM platform.
- Integrated billing – the solution must ensure that Telco’s representatives are well equipped with billing data and do not have to juggle multiple business systems to extract the relevant subscriber information. Integrated systems ensure that CRM representatives can access all billing data in one location to answer queries promptly, enhancing customer experience.

2. CRM activities

Goals of a company based on penetration, acquisition, retention and relevant analysis of customer data, provide possibility of tracking customers’ lifecycle from new to mature customer. This requires day-to-day work of marketing, sales and service departments within following activities (Foss & Stone 2001, p. 7):

- Targeting of acquisition and retention activity;
- Handling of enquiries;
- Supporting for new and upgrading customers;
- Getting to know customers and how they want to be managed;
- Account management (service, billing, technical support, ...);
- Identifying and managing dissatisfaction;
- Winning back lost customers.

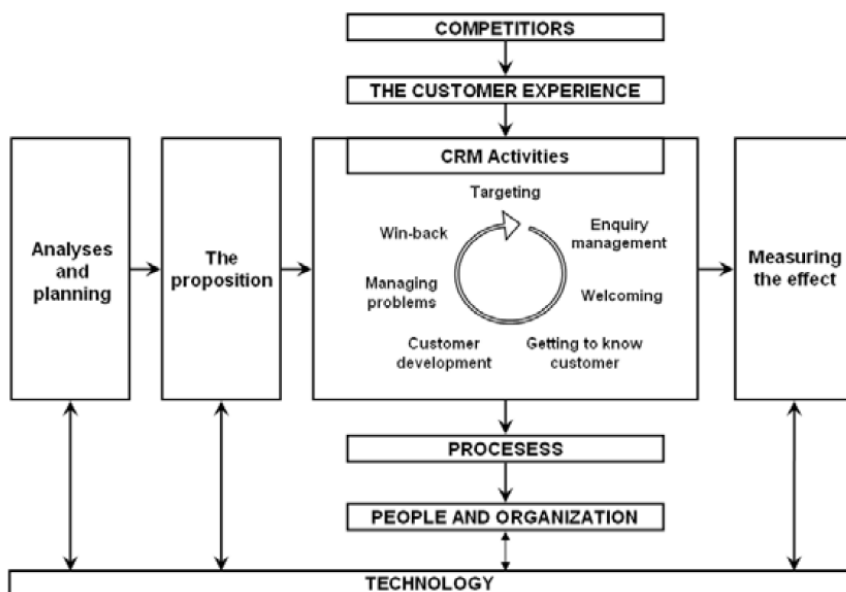


Figure 1. CRM Activities in CMAT model

Source: Foss & Stone 2001, p. 7.

In Figure 1 there are illustrated CRM activities within the company in CMAT (Customer Management Assessment Tool) model. CMAT is a set of tools and methodologies which provide detailed and objective assessment of company capacities in terms of effective management of customers (Kirby 2015).

Through all process of customer management the key importance is on understanding customer experience. Also, it is important to understand from customers' answers to questions like: How well are we doing?, What can we improve?, What do competitors do better than us? and so on.

It is noticeable that CRM gives view on customers through all business activities within company. Depended on level of segmentation, there have to be available information about all specific groups of customers. On the other hand, using the CRM, customer has to have insight in all business activities within the company as a unique subject on which the company is focused in a certain moment. So far the implementation of CRM has had influence on a range of businesses, with particular success in tourism, aviation, banking, insurance, automotive industry, and even in retailing where customers use customer cards, or some other means of identification.

3. Selection of CRM applications

As there are great number of CRM applications, implementation of CRM is rather complex task which managers have to fulfil successfully. In a process of selection of CRM applications there are many factors that need to be considered, as following: maturity, scalability, way of execution of instructions, standards usage, sale automation, integration, service to customers, customers' analytics, interaction with customers, etc.

Although the process of selection of CRM applications is a highly professional and complex process, from strategic aspect the selection is even more complex process. Before the selection itself, there needs to be considered several significant aspects in order to get the best possible result. The following needs to be considered (Quinn 2014):

- Is a CRM the best solution for you?
- What constituents are you trying to support?
- What processes do you use to support these constituents?
- What customization will you need to support these constituents and processes?
- Can you create the reports you want?
- How easy is it to integrate with website forms?
- Can you access the system on-the-go?
- Can you create the communications you need?
- Can your staff use the system?
- Who will support the package?

After getting insight in all mentioned aspects of a CRM application, process of selection of the application becomes simpler which can be based on fewer properties. It can be noticed, from technology point of view, that most significant properties of selection on CRM applications are in regard to system integration, functionality and performances, as well as knowledge of how to use a system and testing.

First of all, it has to be emphasized, according to an independent research done by Top CRM for 2014, global the most represented CRM applications on market are Salesforce.com CRM, Microsoft Dynamics CRM, Oracle CRM on Demand, SAP Business ByDesign CRM and Sage CRM Deep Dive (Top CRM). Identical indicators for 2014 were published by CRM Search in its' annual report about globally most represented CRM applications (CRM Search).

Anyhow, in order to make a correct CRM application selection a methodology of selection needs to be known as well as results of usage of the application. One of the most used methodologies for comparison and selection of CRM application is Grid Scoring methodology. It is based on the fact that CRM applications are being valued and ranked by the users' community directly, by e-mail or via social networks, and using algorithms for calculation of customers' satisfaction in real time (G2 Crowd). According to G2 score, five best ranked applications are as following (G2 Crowd): Salesforce CRM, Nimble, HubSpot CRM, Zoho CRM iPipelineDeals¹. According to G2 score "representation on market", five best ranked applications are (G2 Crowd): Salesforce CRM, Microsoft Dynamics CRM, Zoho CRM, NetSuite CRM iOracle Siebel CRM. According to G2 score "number of tests form users", five best ranked applications are (G2 Crowd): Salesforce CRM, Nimble CRM, PipelineDeals, Workbooks CRM iAvidian CRM.

CRM Software Review methodology is based on comparison of following properties: contact management, sales and marketing, employee tracking, ease of use and service and support, as well as calculation of overall score of all above mentioned properties (CRM Software Review). In Table 1 there are illustrated five best ranked CRM applications according to CRM Software Review methodology.

Table 1. *Ranking of CRM Applications According to CRM Software Review Methodology*

Name of CRM Application	Contact Management	Sales and Management	Employee Tracking	Ease of Use	Help and Support	TOTAL
Salesforce	10	10	10	10	10	10
NetSuite	10	10	9.38	9.38	9.38	9.73
OnContact	9.38	9.38	8.75	9.38	10	9.32
Act	9	8.75	9.38	8.13	9.38	8.92
SalesNexus	8.75	9.38	8.75	7.88	10	8.9

Source: Authors' research

It can be noticed that five best ranked CRM applications areas following: Salesforce, NetSuite, OnContact, Act iSalesNexus. Figureical illustration is given in Figure 2.

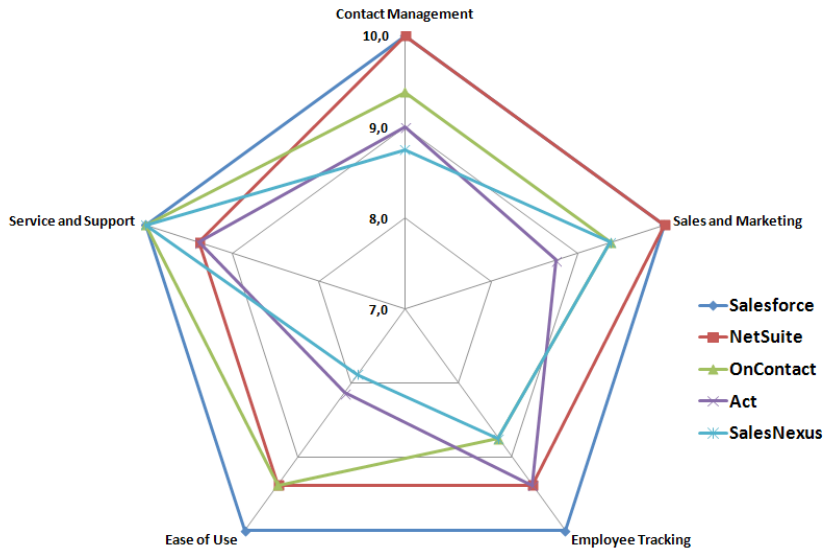


Figure 2. *Ranking of CRM Applications According to CRM Software Review Methodology*
Source: Authors' research

According to CRM Software Review best ranked is Salesforce with highest grade of 10 in all categories of valuation. NetSuite is ranked highest in categories of contact management and sales and marketing. OnContact and SalesNexus are ranked highest in category of service and support.

The price of CRM application is a factor that makes very significant influence on process of selection of CRM application. Buying price and usage price can be formed in different ways, first of all according to number of users of CRM application, as well as on the fact that CRM application can be OnSite solution or SaaS solution. In all mentioned cases, the price can be calculated rather simple way. Some certain vendors of CRM applications calculate the price according to level of access for every single user of the application. This methodology makes it harder to precisely calculate the price in advance. In Table 2 it is illustrated the price of usage of CRM application for 10 users per month.

Table 2. *Price of use of CRM applications in USD for 10 users per month*

Name CRM application²	Price in USD
Salesforce CRM	1.250
Base CRM	750
MicrosoftDynamics	650
Sugar CRM	650
Hatchbuck	300
Zoho CRM	200
Nimble	150
Insihgtly	120

Source: CRM Switch

It can be noticed that prices of usage of highly ranked applications that are based on individual or group usage are rather high. This indicates that these applications are not suitable for implementation in small enterprises. In any case it is possible to access OnSite implementation or at least Open source version of CRM applications.

4. Methodology and presentation of results

The study was conducted within the sample of 25 enterprises in Tuzla Canton, during the period from December 2014 to February 2015. Sample was taken for Register of Enterprises of Federation of B&H, at the web page <http://bizreg.pravosudje.ba/>. Register consists from 500 enterprises. This means that research sample has taken 5% of registered enterprises. Aimed examinees were managers of enterprises. Research method was questionnaire with six questions about properties of CRM applications, as following: Contact Management, Sales and Marketing, Employee Tracking, Ease of Use, Help and Support, and Price (CRM Software Review methodology). All properties were measured by Likert Scale in terms of significance of the property. Properties were valued from 1 to 5, as 1 for not significant to 5 as very significant property.

Table 3. *Results of research among managers*

Contact Management	Sales and Marketing	Employee Tracking	Ease of Use	Help and Support	Price
4.35	4.67	4.26	4.87	3.71	4.79

Source: Authors' research

Results of the research were given in Table 3. There can be seen that Ease of Use and Price are valued as most significant properties of CRM application,

whereas Help and Support is valued as least significant property. This means that in terms of Ease of Use the most suitable CRM application for questioned managers is Salesforce, while in terms of Price the most suitable is MicrosoftDynamics and lower ranked allocations as given in Table 2.

5. Conclusion

Selection of CRM application is a very significant and complex process. It has great influence on overall business activities in a company. There are number of properties which need to be considered before making a selection decision. Also, there are many different selection methodologies that can be applied.

One of the most used selection methodologies is CRM Software Review methodology. It takes in consideration following properties of CRM application: Contact Management, Sales and Management, Employee Tracking, Ease of Use, Help and Support. According to this methodology best ranked CRM applications are: Salesforce, NetSuite, OnContact, Act and SalesNexus. Price of CRM application as a significant factor in selection of CRM application can be calculated in different way. First of all, price can be calculated according to number of users of CRM application as well whether it is SaaS solution or OnSite solution. According to this property best ranked CRM applications are: Salesforce CRM, Base CRM, MicrosoftDynamics, Sugar CRM, Hatchbuck, Zoho CRM, Nimble and Insihgtly. Research conducted among managers in 25 enterprises in Bosnia and Herzegovina shows that they mostly appreciate Ease of Use and Price properties of CRM application while least appreciated property is Help and Support. It shows that Salesforce and MicrosoftDynamics CRM applications should be considered as most suitable application for questioned managers. In order to reach a deeper knowledge in the field of usage of CRM applications in Bosnia and Herzegovina there needs to be conducted further researches. First of all, research needs to be conducted regarding the knowledge of managers in CRM application usage, further on regarding the influence of CRM applications on overall business activities and finally regarding the effectiveness and efficiency of management of customers.

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Endnotes

- 1 According to G2 scor SAP CRM is ranked on 28th place.
- 2 SAP doesn't offer stand-alone CRM systems. SAP prices are being formed according to level of access for every single user of the system. For getting the price there is needed to contact directly the vendor SAP.

**ACCOUNTING AND AUDIT /
RAČUNOVODSTVO I REVIZIJA**

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ACTIVE ROLE OF ACCOUNTING PROFESSION IN THE ONGOING ECONOMIC CRISIS

AKTIVNA ULOGA RAČUNOVODSTVENE PROFESIJE U TEKUĆOJ EKONOMSKOJ KRIZI

Abstract

In the process of the EU integration, the accounting system should be declared the issue of primary importance, first of all as our companies, with inadequate corporate governance and low corporate culture (that is typical for the countries in transition), are exposed to use of the financial statements of very poor quality. The aforementioned resulted in numerous financial scandals expressed by: large tax evasions, accounting frauds, deprivation of creditors, longtime nonpayment of salaries to employees etc. The primary exit from the aforementioned situation would be the return to the original accounting requirements defined in the first French commercial law (Ordonnance de commerce), according to which the business records need to enable clear insight into the status of property and the overall business, or accountability for operations, in order to protect the interest of numerous users outside of the company. However, in order to provide constant insight into the real economic and financial picture about the overall financial situation (business and monetary success of a company and its parts, along with all its business impacts), in the first place it is necessary to be relieved from the virtual economy, "the invention" of ardent advocates of economic neoliberalism and market fundamentalism, that opened a wide area for creative accounting and fraudulent financial reporting. Contrary to that, we will insist on economy of more real values, supported by arguments, or we will suggest to our accounting profession to implement the conditional accounting conservatism to include the uncertainty and risk in the financial statements in the corresponding manner. Continued ignoring of the obvious positive effect of the accounting conservatism would have immense consequences in the form of continuation of new, even more devastating economic crisis.

Keywords: neoliberal orthodoxy, virtual economy, creative accounting, economy of real values, conditional accounting conservatism.

JEL: M41

Sažetak

U procesu približavanja EU računovodstveni sistem treba proglasiti problematikom od prvorazrednog značaja, u prvom redu zato što su naša preduzeća, sa neodgovarajućim korporativnim upravljanjem i niskom korporativnom kulturom (inače tipičnom za zemlje u tranziciji), izložena korišćenju finansijskih izvještaja vrlo niskog nivoa kvaliteta. Navedeno je razultiralo vrlo brojnim finansijskim aferama koje su se ispoljavale u: velikim utajama poreza, računovodstvenim prevarama, prikraćivanju povjerilaca, dugogodišnjem neisplaćivanju zarada zaposlenima, i sl. Izlaz iz pomenute situacije je, u prvom redu, u povratku izvornim zahtjevima od računovodstva definisanim još u prvom francuskom trgovačkom zakonu (Ordonnance de commerce), prema kome poslovne knjige moraju omogućiti jasan uvid u stanje imovine i čitavo poslovanje, odnosno, polaganje računa o radu, s ciljem zaštite interesa čitavog niza korisnika izvan preduzeća. Da bi se, međutim, obezbijedio stalni uvid u stvarnu ekonomsko-finansijsku sliku o cjelokupnoj finansijskoj situaciji (poslovnom i novčanom uspjehu preduzeća i njegovih dijelova, kao i svih njegovih poslovnih učinaka), neophodno je primarno se osloboditi virtuelne ekonomije, "izuma" vatrenih zagovornika ekonomskog neoliberalizma i tržišnog fundamentalizma, koja je otvorila širok prostor kreativnom računovodstvu i prevarnom finansijskom izvještavanju. Nasuprot tome, argumentovano ćemo insistirati na ekonomiji realnih vrijednosti, odnosno, našoj računovodstvenoj profesiji sugerisati implementaciju uslovnog računovodstvenog konzervativizma da bi se neizvjesnost i rizik na odgovarajući način obuhvatili u finansijskim izvještajima. Nastavljanje ignorisanja očiglednih pozitivnih efekata od računovodstvenog konzervativizma imalo bi nesagledive posljedice u vidu nastavka nove, još pogubnije ekonomske krize.

Ključne riječi: neoliberalna ortodoksija, virtuelna ekonomija, kreativno računovodstvo, ekonomija realnih vrijednosti, uslovni računovodstveni konzervativizam.

JEL: M41

1. Introduction

The recent World Economic Forum has clearly indicated that Europe is not on the road to economic recovery. In spite of obvious failure of austerity measures, the same creators (global oligarchy led by IMF), implementers (political and economic quasi elite in power) and persuaders (economist present in media all the time, first of all the advisors to the political establishment), insist that neoliberal austerity program has no alternative, although something completely opposite was shown in practice. The active accomplice in economic ruin of countries in transition is the IMF that pushed for and fiercely supported the wrong economic policy. However,

the issues does not lie with IMF (that is primarily protecting the interest of global oligarchy and large capital it represents), but with incompetent and servile ruling elite, as well as submissive discourse that dominates domestic academic and public media scene. So far, there has not been a single case of the country in which IMF had been the main decision-maker regarding economic policy that found the IMF assistance actually helpful.

Therefore, the syllogistic conclusion could be drawn that no one is interested in establishing the real status and the result of operating of certain impoverished companies through accounting profession. Only the things that the state leadership presents to general public through “free media” are imposed as the truth. Naturally, in those circumstances, not even the accounting profession may be expected to provide true and honest status and result of operating, and particularly not from the government, privileged companies and banks.

The contemporary accounting profession, which is under the influence of neoliberal economic model (implemented, almost exclusively, in the interest of global oligarchy and large capital), is not able to serve the realization of business objectives in an appropriate manner. In accordance with the rate, scope and character of changes (both in business environment and modern corporations), it is necessary to reestablish the trust in the accounting profession, as condition sine qua non for creating the contemporary financial reporting.

2. Neoliberalism – the last laissez faire incarnation

Lately, there have been a lot of fallacies and myths about the present global economic crisis, which are very cunningly placed and maintained through media, and then widely reproduced (Dušanić 2014, p. 55). We cannot but be under the impression that people actually do not know the right meaning of the term “crisis”, whereas when lexicons or dictionaries describe crisis as the state of instability, or a turning point, a defining moment, they do not help ordinary people understand it. The definition describing crisis as the state in which the old is dead, and the new does not have the strength to be born is, in our opinion, the closest to the core of the problem. In our society, which is in a deep crisis, everything a regulated community is founded on (basic values, from family relations, to functioning of justice) is dead.

None of the mechanisms that used to make the world turn till recently are functioning. Not a single pillar of former stable society is standing upright

anymore. On the other hand, new views of the basic values of life do not have the strength to be born. The decision to jump into a new river we are unfamiliar with is not easily made, but if we want to get to the other shore, we need to swim. We are facing a key decision: are we going to accept the new, or live on the ruins of the old one? Why are we still in crisis? Because the critical mass of the ones wishing to start a new life has not been made yet (Vidaković 2012, p. 605). In order to undertake corresponding measures for a definite interruption and elimination of the present global economic crisis, it is necessary to understand the essence and the basic causes that led to it.¹ Claiming that the present economic crisis is only a modern version of the crises from almost a hundred years ago indicates that many economists compare the present global economic crisis to the crisis of 1930s.

Economic policies that led to both large global economic crises are founded on belief in the absolute efficiency of the invisible arm of the market, or the ideas of the free market (*laissez-faire*). The last *laissez-faire* incarnation, neoliberalism, has led to the present global crisis, although it seemed that the crises of the 1930s had definitely broken the illusion of liberal capitalism on functioning of the invisible arm of the market. As a result of aspirations to undermine and limit the influence of church, or relativize and repress the religious view of the world, liberal ideology appeared worldwide in the 17th century, and it may be marked with a kind of secular pseudo-religion (Dušanić 2013, p. 241). Ideology of liberalism, i.e. the neoliberalism (that, at least in theory, ruled the global economy during the last two turns of the century, between 19th and 20th, and 20th and 21st), was more inclined to principles of the free market, formulated by the economists neoclassicists (A. Marshall and L. Walras)², in the second half of the 19th century (Dušanić 2013, p. 241).

Respecting the idea of Adam Smith that self-regulating *laissez-faire* market puts everything into its place and makes every individual, through taking care of his/her own interests, simultaneously contribute to the well-being of all the others, the (neo)liberals have developed an abstract theory of the market balance that has almost no connection with the real economy and processes taking place in it. Not only have they stated in the last three to four decades that the optimal economic organization of the society has been discovered with liberal democracy, and that the market became omnipotent, taking over the role of great powers, but they also used the neoliberal mainstream economic science for defining the desired economic policy.

The ideology implemented in the interest of increase of material wealth of the rich and powerful ones at the expense of a huge mass of impoverished population (classical liberal ideology)³ marked the end of 19th and the first quarter of the 20th century in economy. From the position giving him the sense of self-respect, security and social status, a man was ruthlessly and brutally moved to the status of injustice that prevails in the world, as well as personal rejection and humiliation, drastic reduction of living standard, sense economic vulnerability. By degrading human work to merchandise, or by treating workforce the same as other production inputs, the liberal capitalism (in which profit, capital and market are objectives in itself) is, according to serious authors in the world, directly responsible for the occurrence of fascism (Dušanić 2013, p. 244).⁴

Modern liberals have many things in common with classical liberals (end of 19th, beginning of 20th century), but their greatest differences are the relation between morals and economy. Considering the fact that the liberalism used to be the ideology of national bourgeoisie, and that it has partly been founded on its own population, it could not be completely indifferent to its social position. Functioning of the economic system largely depends on the relation between economy and morals. The old ascetic national bourgeoisie (characterized by exceptional diligence, individual morality and social responsibility), used to be the main driver of development of capitalism till World War I. In order to save as much as possible and invest in business, the ascetic national bourgeoisie denied itself many joys of life, as an example to others, and therefore expected others to show tendency toward frugality, on one hand, and that is how they had a realistic chance to be understood and respected by the whole society, on the other hand. As the alienation from the community would logically mean the ending of their business career, the guarantee of morality and professionalism of the national bourgeoisie was represented by the fact that it was founded in the society in which it was living and working (Vidaković 2012, p. 607).

Several factors⁵ contributed to the fact that in 1970s, the most powerful economy – USA (after a relatively long period of dynamic growth⁶ of the world economy after World War II), has shown signs of weakness. In order to prove incompetence of the state to manage the economy, the neoliberals (new ideologists of the free market), led by Milton Friedman, turned to ideas of the free market, in order to terminate the negative trend in the USA economy. It has been a new call to the rich ones to renounce the moral responsibilities to the rest of the society, with the new general antipathy for

the role of state that through releasing of a huge hidden greed, only made situation worse, ruining the system. USA has been struggling with that till present.

Promoters of governing neoliberal economic doctrine (guided by the policy of double standards), did not want the “invisible arm of the market” to establish general balance and “clean the market” from corporations with large financial issues, neither in the EU nor in the USA. The aforementioned corporations, supported in logistic terms by IMF, WB and ECB, have (after covering extensive overdrafts from unconditional grants of their governments) requested other countries hit by crisis, to show unquestioning discipline and keep on implementing the neoliberal economic model, detrimental to them, as the primary ideology of transnational bourgeoisie.

Instead of faith and conscience, the new capitalism relies on laws, interests and profit. Formal compliance of legislation (that is frequently not in accordance with morals) and bare logic of (selfish personal) interest and profit prevailed over morals, faith and conscience, that are now almost expelled to some kind of religious reservation (who wants morals may go to church). Neoliberalism, a more radical and less humane modern incarnation of liberal capitalism is, to a great extent, responsible for the present economic crisis the end of which is not near, and the consequences of which may still not be considered. In other words, in collision with reality, the modern neoliberalism has undergone a breakdown, and the same thing happened to liberalism in 1930s.⁷

3. Esoteric accounting (voodoo accounting) – in the function of neoliberal oligarchy

Symptoms of crisis have left their mark on the accounting as well, but it should be noted that the inappropriately managed accounting is frequently the cause for late detection of crisis. In order to manage economic policy and promote values in the interest of global oligarchy and large capital in public (in the form of ruthless accumulation of material wealth), they needed support of the accounting profession, or its submission to realization of the main drivers of the system (greed and fear). Global business environment included the support in the field of internationally comparable accounting, that in the end resulted in internationalization of accounting, most appropriately expressed in harmonization and standardization of accounting – the international accounting rules.

In our “transitional” region, standardization of accounting and auditing has certainly promoted theory and practice of the accounting and auditing. However, the initial enthusiasm for the International Accounting Standards, International Auditing Standards and International Standards of Financial Reporting quickly disappeared, as the relevant empirical surveys indicated that the implementation of these solutions has created certain issues and opened numerous questions as well. Creators of the international standards have made both the International Accounting Standards and the International Standards of Financial Reporting flexible for use, which proved to be a great shortcoming, particularly when focusing on territorial comparability of financial statements of business entity within one activity, industry or economy (Dmitrović & Milutinović 2010, p. 87).

Apart from the fact that they have been the source of differences, the flexible standards also created a favorable ground for occurrence of accounting frauds of broad range. Because of an option to use various and procedures when drafting financial statements, the same balance positions have been treated differently with different business entities, making balance positions incomparable. That is why the financial statements of one business entity could not be compared to balance positions, or financial statements of business entities using other alternatives.

Some of the possible alternatives that International Accounting Standards and the International Standards of Financial Reporting allow, point to some of the most frequent reasons that make financial statements of business entities incomparable because of the following (Dmitrović & Milutinović 2010, p. 88-89):

- Arbitrary defining of the materiality threshold;
- Selection between various method of calculating the consumption of inventories of materials when using the actual purchase price;
- Selection between various method of calculating depreciation;
- Arbitrary classification (assessment) of service life of fixed assets and the level of depreciation rate;
- Permitted alternatives in the initial measuring and additional measuring after the initial recognition of assets;
- Arbitrary determining of write off of bad debts;
- Various permitted methods of establishing prices of transactions among the related parties, etc.

In the fall of 2008, under the slogan “stopping the panic and further expansion of crisis”, the global oligarchy only legalized the already established practice of arbitrary and retroactive “beautification” of financial results, named “the new accounting practice” in professional literature, and its consequence was the additional deterioration of the quality of financial statements, or degradation of the accounting profession credibility. In other words, promoters of the ruling and still dominant neoliberal economic ideology applied the double standard policy for the accounting of fair values, thus banks and other financial institutions were permitted to disrespect the concept of the accounting of fair values, meaning that they did not have to express permanent losses verified on the market, and they could keep “rotten” securities, also called the “financial junk” in portfolio.

Affirmation of neutrality, that occurred through revision of the Conceptual Framework for Financial Reporting in 2010 (as an integral part of efforts undertaken by International Accounting Standards Board - IASB and Financial Accounting Standards Board - FASB), led to abandoning of the principle of prudence, with negative implications for the quality of financial statements. The propagandists of the accounting submitted to realization of economic policy that suits the global oligarchy and large capital, insist on neutrality of the accounting information, explaining that the goal of contemporary financial reporting (primarily focusing on future) is to support investors and other providers of capital in decision making (Savić 2014, p. 34). This kind of approach has significantly downgraded the quality of financial statements in present terms of doing business, so there are numerous opinions of not only theoreticians and practitioners from the field of financial reporting, and international and national bodies in charge of financial reporting, but the European Commission itself, that the accounting principle of prudence should be integrated into the Conceptual Framework for Financial Reporting again.

Considering the fact that a part of the accounting public has observed conservatism as an obstacle to realization of the financial reporting objectives, the neoliberal economists have introduced the concept of fair values into practice, with the alleged purpose of reducing bias in the accounting reporting. It influenced the overestimation of assets and revenues, underestimation of liabilities and expenditures and, as a consequence, resulted in overestimating the business success, meaning that it provided legitimacy to excessive (unjustified) business optimism of management.

In the last decade, the important (essential) change of form and content of the financial statements on the financial status and success of business operations was caused by significant changes of rules for recognizing and valuating of assets, liabilities, expenditures and incomes. In other words, introduction of the concept of fair values has changed the normative base of financial reporting that had been used for decades, and that was primary founded on rules of recognizing and valuing derived from the concept of historical expense, so that the International Standards of Financial reporting are based on the mix of the aforementioned two concepts today⁸ (Vidaković 2015, p. 205). Creators of the International Accounting Standards have therefore shifted the focus of the standards from the concept of historical expense (key determinant of the conservative financial reporting) to the concept of fair values.

Numerous users of financial statements may face the potential effects of adoption of concept of fair values, particularly in case of opportunistic management (seriously questioning the validity of withdrawal of conservatism in favor of fair value). However, the evaluated fair value compared to the historical expense does not enable objective verification in most of the cases, as the opponents of the concept of fair value reasonably point out. The presence of unrealized incomes and losses in the result and in the own equity leads not only to change in the level of classical success indicators, but on the other hand, its leads to changing of their significance, as well as to imposing the need to create corresponding success indicators for the mixed base (Škarić 2012, p. 21). Unrealized gains are not as closely related to cash inflows as realized gains, and the consequence of their equating is making the wrong business decisions, that may ultimately threaten the survival of a company (Vidaković 2015, p. 36).

Therefore, the ground for discretionary shaping of results and manipulations in financial statements exists in conditions in which fair value requires a wider use of judgment. Recognizing gains from change of value, that have actually not been realized, is in contradiction with a traditionally prudent approach (particularly because of frequent objections on procyclicality of fair value), as their possible reallocation would be extremely risky, since it simultaneously threatens the ability of a company to settle its short term liabilities, on one hand, as well as continuous operations of the company on the other hand (Vidaković 2015, p. 36).

The fact that accountants, as prevailing part of managerial structures, make decisions according to manipulated financial statements composed and revised by the representatives of that same accounting profession, may be marked as a paradox of its own.⁹ (Gulin 2014, p. 121). Trust of investors and the (overall) accounting public in financial statements was seriously shaken by a grave corporatization of the accounting profession that resulted in a more difficult differentiation of financial statements of high quality from those of low quality, true from manipulated ones, correctly revised from the incorrect ones; as well as an increasing gap between the accounting results and monetary earnings, and a gap between profitability and (un)employment (Vidaković, Banda & Petrović 2014, p. 12).

Numerous examples from business practice indicate that today it is unrealistic to expect that the management of a legal entity will always act in the best interest of shareholders. Through inert relation (or even resistance) to undertaking regular business risks, the management may put its company in a situation of being less profitable than it should actually be. With a prejudice that they will gain the reputation of good managers, and make their company more attractive for potential creditors, investors and buyers of shares, the company managers frequently have a motive and desire to “fabricate” financial statements. The concept of creative financial statements is mostly the result of unstable economic conditions creating high pressure on the company management, and the management often turns to arbitrary shaping of financial statements, in order to express increasing or stable profit year after year, and ensure payment of salaries and bonuses for themselves.

Amounts of revenues and value of company assets are influenced by a highly complex business environment, in times of financial crisis.¹⁰ In a turbulent business environment, some companies are thus relying on more conservative (prudent)¹¹ (Savić 2012, p. 123) assessments, others prefer the aggressive¹² assessments, a few rely on neutral¹³ accounting choice, and an more and more of them are using the fraudulent financial reporting in order to avoid to inform the users with their worsened asset, financial and profitability position.

By interpreting certain rules in a manner that suits management at the moment (as well as by ignoring certain rules), financial and accounting information is transformed from realistic into the status that corresponds to wishes of creators of financial statements (Vidaković 2001, p. 36). In other words, financial statements obtain esoteric dimension (voodoo accounting).

Procedures related to revenues (the first indicator of a company success, and, as such, representing an important instrument for shaping of results) are also getting beyond the limits of the permitted accounting flexibility and information perspective of shaping of financial information, and those procedures account for 38% of the total accounting frauds (Savić 2012, p. 125). Consequences of the new professional accounting practice (almost exclusively in function of support to the global oligarchy and large capital) have, therefore, created a large space for accounting manipulations and fraudulent financial reporting. The attention of the general public and its reactions to this phenomenon primarily depend on the seriousness of detected frauds or devastating consequences for users of financial statements (Vidaković 2015, p. 210).

The following facts may be observed by comparing two great crises – the one from the 20th century (1929 to 1933) and the ongoing financial crisis of the first decade of the 21st century (Gulin 2014, p. 121):

1. During the first crisis, the accounting profession did not have such an active role as it does in the ongoing financial crisis, it has not changed the basic accounting principles and it did not become corporatized through constant changes of standards and entering into managerial structures;
2. Prior to current financial crisis, the role of accounting profession in corporate governance had become more active (it had changed the most important accounting principles, introduced fair values thus implementing evaluation of assets and liabilities into financial statements, revised financial statements based on evaluation according to fair value);
3. In the ongoing financial crisis, the accounting profession has become corporatized by entering into managerial structures in which it plays the role of defining and achieving objectives of business entities, and
4. Accounting and accounting profession have not directly created the financial crisis, but the independence of the accounting profession, necessary for the right therapy against the financial crisis, is becoming more and more questionable.

4. Conclusion

The inevitable exit from a large economic crisis, whose devastating consequences we feel in full effect today, is the rehabilitation of the economy of real values (to be achieved only by deflating of the oversized balloon of virtual economy). Disabling of the new inflating of the balloon of virtual economy (i.e. writing off the complete bad assets and elimination from the

aggregate balance value) and definite replacement of virtual economy by the economy of real values will not be feasible without great resistance by the supporters of neoliberal economic doctrine.

One of the available and quite acceptable solutions from the arsenal of economy of real values is definitely the reaffirmation of the accounting conservatism. The systematic adoption of a cautious view of economic transactions represents the essence of conservatism, one of the oldest and most controversial accounting principles. In order to avoid artificial augmentation of net assets and net profit (when their exact amounts are not certain), accountants resort to creativism, thus influencing the defining of the accounting policies, on the basis of which it is established whether effects of certain business transactions and events should be recognized, and in which amounts they should be presented in financial statements.

By respecting the principle of lower value (for elements of assets) and the principle of higher value (when considering elements of liabilities), the accountants have (in conditions of uncertainty and alternative values for assets and liabilities) carefully selected amounts when balancing, in order to minimize the possibility for overvaluation of assets and net profit. In order to present the result that is actually available for distribution (therefore preventing the occurrence of hidden losses in financial statements, distribution of fictional profit and overflowing of the company substance into the result), the accounting prudence additionally included the principle of imparity, instructing accountants to use stricter criteria for recognizing revenues, whereas loss is recognized when the first symptoms of its occurrence appear, meaning that it is anticipated.

“Return to the scene” of the accounting conservatism, one of the most dominant principles of the conventional accounting, is, at the same time, an important step towards regaining the trust in the accounting profession. The European Commission (providing almost a third of funds for projects of the International Accounting Standards Board – IASB) defended its attitude on re-integration of the accounting principle of prudence in the Conceptual Framework for Financial Reporting by fear that leaving of the aforementioned concept could initiate the new financial and economic crisis, on one hand, conditioning it by continuation of funding the IASB projects on the other hand. Further ignoring of the obvious benefits of the accounting conservatism (today only in the interest of the neoliberals who, since the 1980s, have established the capitalism of “bloody teeth and

claws”, as qualified by Carl Marx in his own time) would have unimaginable consequences in the form of occurrence of the new, even more devastating economic crisis. Creative accounting and fraudulent financial reporting suits the neoliberal capitalism, which is socially irresponsible, morally insensible and economically inefficient.

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Endnotes

- 1 Otherwise, we will be facing new waves and forms of crisis, which would then last for a long time, with more devastating consequences.
- 2 The aforementioned ideology was founded on the papers of the economists from the 18th and 19th centuries, i.e. A. Smith (1723-1790), D. Ricardo (1772-1823), J. S. Mill (1806-1873).
- 3 Core values of liberalism are: individual freedom, rule of law and private property and radical limiting of the role of state in economy, or reducing its role to provision of law and order, including protection of private property.
- 4 For example, Carl Polanyi in his “Great Transformation” believes that masses (which in chronic fear of uncertainty started looking for a leader to instill faith that he may provide them with a safer state and guarantee greater righteousness in the society), have been directly pushed in the arms of fascism. Neoliberal capitalism, unlike the previous forms of totalitarianism (fascism, Nazism, Stalinism) has a planetary reach, and its key factors are: neoliberal capitalism, extra modern technologies and planetary violence, both military and civil.
- 5 This refers to the following factors: inflationary, monetary and fiscal policy implemented during culmination of the war in Vietnam (first half of 1970s); destabilization of the world economy because of unilateral withdrawal of USA (15 August 1971) from convertibility of USD into gold; multiple increase in oil prices (1973 and 1979), etc.
- 6 The need for active role of state in economy, which acted simultaneously with the private market economy, was prominent in economic theory and practice.
- 7 However, the problem is that our economists seem to be the last to learn about the final downfall of neoliberal ideology, meaning that they will keep on repeating the well-known neoliberal mantra, by saying what the government wants to hear (regardless of who is in power), even though it is obvious that they are refuted by the reality every step of the way.
- 8 Creating the “mixed” base for financial reporting (as a consequence of mandatory application of fair value), resulted in recognizing of unrealized gains, that led to change of contents of both the result expressed in the Income Statement, and equity in the Statement of Financial Position. That is why profit/loss of the current period now includes the difference between unrealized gains and losses, that occurred due to change of fair value of assets and liabilities, which are (in accordance with the International Accounting Standards and the International Standards of Financial Reporting) valued by fair value through profit/loss, not the result verified in market transactions, corrected by unrealized losses (as in the concept of historical expense).
- 9 The last surveys of the London Stock Exchange indicate that accounting professionals are the most wanted members of managerial structures. The surveys, according to which 81% of quoted companies among FTSE 100 have an accountant as a member of management, out of which in 57% of them accountants are CEOs or CFOs, also indicated that the accounting profession has been trying to become the part of the system of power.
- 10 The amount of income is drastically reduced by difficult business terms, and when the

financial assets and the immanent fair value are considered, it becomes clear that the value of assets is being reduced on a daily basis.

- 11 Conservative accounting choices (shorter period of write off of equipment, forming the higher amount of reserving, removal from inventory of costs that could be capitalized, if there is an option of selection, etc.) are focused on more prudent presenting of the financial situation.
- 12 Aggressive accounting choices (longer depreciation period, capitalization of expenditures, objectification of latent reserves, etc.) are based on the choice of allowable options when using accounting discretion (or flexibility), focused on presenting a more favorable image of the company. However, the aforementioned flexibility enables an easy turn to manipulations and accounting frauds.
- 13 Accounting choices presenting the financial status of a company in a largest possible degree of reality are considered neutral.

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THE ROLE OF RELEVANT ACCOUNTING INFORMATION IN THE SELECTION AND IMPLEMENTATION OF OUTSOURCING STRATEGY

ULOGA RELEVANTNIH RAČUNOVODSTVENIH INFORMACIJA U IZBORU I IMPLEMENTACIJI STRATEGIJE OUTSOURCING-A

Abstract

In the period when business environment is characterized by the crisis and when rapid development of information technology and globalization generate the need for new ways and sources for building and keeping competitive advantage on the global market, companies more frequently opt for the implementation of outsourcing strategy. The research presented in the paper investigates presence of outsourcing in business practice and effects of its implementation and analyzes the relevant accounting information and financial data used by company's management while making decisions on the selection and implementation of the outsourcing strategy. As a matter of fact, by using the relevant accounting information and analyzing potential advantages and disadvantages of outsourcing implementation from the accounting aspect, it is possible to create the model for making decisions on outsourcing and to set the assumptions for its implementation. The paper aims at defining the needs of modern companies for the outsourcing strategy and specifying the relevant accounting information and defining the ways for their proper usage, so that managers would be able to make the right decisions on the implementation of the outsourcing strategy which would then lead to desired results. The empirical research and its results presented in the paper included 34 Bosnian and Herzegovinian (BiH) companies. The questionnaire was used as a data collection instrument and it was filled in by managers. The research results indicate that 65% of the companies

surveyed use outsourcing for one or more business activities, while 35% of them do not use this strategy. The activities that are mainly subject to outsourcing are the segments related to transport and distribution, marketing services, export/import, and legal services. The research results also show that the subjects believe the key advantage of outsourcing is the reduction and better control of costs, focus on company's core activities and increased flexibility.

Keywords: outsourcing, relevant accounting information, Bosnian and Herzegovinian (BiH) companies

JEL: M4, L1, L2

Sažetak

U periodu kada je vanjsko okruženje obilježeno krizom i u periodu kada ubrzani razvoj informacione tehnologije i globalizacije generiše potrebu za traženjem novih načina i izvora za izgradnju i očuvanje konkurentske prednosti na globalnom tržištu, preduzeća se sve češće odlučuju za implementaciju strategije outsourcing-a. Predmet istraživanja, čiji su rezultati prezentirani u ovom radu, jeste zastupljenost outsourcing-a u poslovnoj praksi, efekti njegove primjene, te analiza relevantnih računovodstvenih informacija i finansijskih podataka koje menadžment preduzeća korисти u procesu donošenja odluka o izboru i implementaciji strategije outsourcing-a. Naime, uz pomoć relevantnih računovodstvenih informacija i analiziranjem mogućih prednosti i nedostataka implementacije outsourcing-a s računovodstvenog aspekta, moguće je kreirati model za donošenja odluka o outsourcing-u, kao i ustanoviti pretpostavke za njegovu primjenu. Cilj ovoga rada je utvrđivanje potrebe savremenih preduzeća za primjenom strategije outsourcing-a, te ustanovljavanje relevantnih računovodstvenih informacija i identifikiranje načina za njihovu pravilnu upotrebu kako bi menadžeri donijeli ispravnu odluku u vezi sa primjenom strategije outsourcing-a, te kako bi njena implementacija polučila željenim rezultatima. Empirijskim istraživanjem, čiji su rezultati prezentirani u ovom radu, obuhvaćeno je 34 bosanskohercegovačka preduzeća, pri čemu je korišten anketni upitnik kao instrument za prikupljanje podataka, a popunjavali su ga menadžeri. Rezultati istraživanja pokazuju da 65% preduzeća koristi outsourcing za jednu ili više poslovnih aktivnosti, dok njih 35% ne koristi ovu strategiju. Aktivnosti koji su pretežno predmet outsourcing-a su poslovi vezani za transport i distribuciju, marketinške usluge, usluga uvoza/izvoza i usluge na polju pravnih poslova. Rezultati istraživanja također pokazuju da je ključna prednost outsourcinga, prema mišljenju ispitanika, prednost smanjenja i bolje kontrole troškova, te fokusiranje na ključne aktivnosti preduzeća i povećavanje fleksibilnosti.

Ključne riječi: outsourcing, relevantne računovodstvene informacije, bosanskohercegovačka preduzeća

JEL: M4, L1, L2

1. Introduction

In the 1950s and 1960s, in order to protect their profit, companies started looking for ways to expand their scope of work and use economy of scales. This resulted in the appearance of diversification as a popular strategy. For most of them, this included the creation of a large integrated company, able to “own, manage, and directly control” its assets (Handfield 2013). At the time, such companies were the model of business success and organizational skills.

However, as early as in the 1970s and 1980s, corporations perceived, while trying to position globally, that they are handicapped, since they became so called “slow giants” with too large and inflexible management structure which has difficulties in adapting to new conditions and ever-changing market. In order to increase their flexibility and productivity, many large corporations developed a new strategy of focusing on their core business activities, which required the identification of such activities and their differentiation from the non-core activities, along with the decision on which of these subsidiary activities might be outsourced (Handfield 2013). The survival and permanent success of companies under modern conditions requires that they focus on several activities only or those they do best – their core activities. This period was also marked by the real beginning of development of outsourcing as a concept as it is known today. More and more companies took this concept as a solution to survive or strengthen their position in the market. Company’s size was no longer the symbol of power and success. Their value reflected in its ability to act promptly to market demands, which was not possible with the previous business model.

Prior to company’s decision to implement the outsourcing strategy, one must establish all the relevant accounting information that affects making decision on outsourcing. The relevant accounting information is obtained by the analysis of accounting data or the data from the basic financial statements, including balance sheet, income statement, statement of cash flows, statement of changes in equity, and notes to financial statements, mainly used for obtaining the information on costs caused and income made by certain activities.

2. Previous research

2.1. *Outsourcing as a term*

Outsourcing as a term is an artificial creation and is actually the abbreviated expression of *Outside resource using* (Johann 2002). Therefore, this term is mainly related to the situations in which company's management faces a dilemma when making decision whether to make or buy (outsource) some of company's activities. While some believe that this is the strategy by which their company stays competitive, others think it is a good opportunity for economic advancement and the means to fight the modern challenge called globalization, and finally there are those who think that it is just another bogey.

Outsourcing is defined as contracting or transferring activities partially or completely to other companies so that they take over the responsibility and task of the parent company within a certain scope, function or process. Outsourcing provides the expertise which the current employees do not have and enables such employees to work on other, more important issues. This means higher efficiency, rationalization and allocation of the existing resources, while simply transferring the burden of certain activities to a company where such activities are basic (Brdarević & Omerhodžić 2009, p. 168).

When talking about outsourcing, Boone and Kurtz (2012, p. 22) mention company's ability to use outer suppliers, to take over a part of production or do services and functions previously done within a company. At very best, outsourcing enables company to reduce costs and concentrate its resources on what it does best, namely core activities, while getting access to competence otherwise not available within the company. Outsourcing is a critical process of questioning organization's supply chain, understanding its basic or core activities and making strategic decisions, to assure that only the sides, i.e. non-core activities, are separated (Adeyemi & Salami 2008, p. 97).

Bergkvist and Fredriksson (in Alexandrova 2012, p. 32) see outsourcing as a logical consequence of globalization and partnership between the parties, with the key value for the total efficiency of business activities and company's competitiveness. Good examples might be seen in large and world-known global companies such as Dell and HP, which actually manufacture a rather small number of components for their computers.

Instead of manufacturing these components, including computer chips (Intel), operative systems (Microsoft), etc., they transfer manufacture to outer companies, meaning they outsource it.

2.2. The role of relevant accounting information in making decisions on outsourcing

By analyzing the total cost structure, company's management tries to find the way to reduce costs while at the same time not affecting the final outcome/product or service/ (Patel & Aran 2005, p. 126). Therefore, they must often decide on whether the company should make on their own or buy from other companies, i.e. outsource certain activities.

Besides considering relevant accounting information, during decision making regarding the implementation of the outsourcing strategy, other determinants are also discussed, such as management expectations, risk level as well as the characteristics of environment in which the company is active.

In order to consider outsourcing certain activities of a company, one must first make a clear distinction between the core and non-core activities. The very fact that some activity is the core one implies that it is the basic activity of a company or the thing that distinguishes it from others. It is precisely these activities that win the recognition for the company when compared to the other ones. These are all the reasons why the key activities are not outsourced, since it would be rather risky. In such cases there is a high probability that the company completely loses control or its competitive advantage. Key activities provide long-term competitive advantages one should invest into, control and carefully manage (Ordoobadi 2013). Only after it is known whether a certain activity is core or non-core for a company, decisions can be made regarding this activity.

As the outsourcing concept developed, many tried to define certain stages of this process. Among the first was the attempt of professional adviser Maurice Greaver in 1999. One of the basic characteristics of his model is his premise that the teams in charge of the project should make the effort either to justify management's decision to outsource or to question it with strong arguments (Perunović 2006, p. 421). Greaver (1999, p. 15) suggested that the outsourcing process should be conducted in seven steps as follows:

- *Planning initiatives* – establishing expert teams for exploring this idea or initiative;

- *Exploring strategic implications* – examining whether this idea is good in the long run and what the reflection of this idea would be on company's position and its employees;
- *Analyzing cost and performance* – cost analysis is made by considering the relevant costs only;
- *Selecting providers* – the goal is to find and assess the offer by sufficient number of contractors that are qualified, professional and cost efficient;
- *Negotiation terms* – business relations are defined between the user and outsourcing supplier;
- *Transitioning resources* – implies the implementation of the decision and the effects of its application;
- *Managing the relationship* – monitoring success and evaluation of results is important, while trust-based relations are crucial for solving current issues.

Several years later some other authors shared their different views about this issue. Some like Momme (2002), Cullen and Willcocks (2003) observed what happens after the contract is terminated. The effects that emerge are analyzed after the outsourcing introduction and compared to the goals and plans previously set. Franceschini et al. (2003) recommend the outsourcing process to be made by the principle of the Total quality management and their approach is supported by precise analyses (Perunović 2006., p. 422). There have been various approaches to this issue since the stages of the process are not universal for every single company but rather need to be adapted regarding the specific situation of each company. However, they can be grouped into five generally accepted stages as follows (Pavić 2009, p. 46):

1. Activation stage (preparation) – includes thorough planning and analyzing the possibilities and consequences implied by the implementation of this process;
2. Outsource selection – company needs to specify which qualification potential contractor should have in order to fulfill the goals set and what the assessment criteria are;
3. Negotiation and contracting – the process starts with defining the topics subject to negotiations, management and control, price defining, including changes in business activities, scope and quantity, as well as contract abrogation provisions;
4. Implementation (transition stage) – the transition period in which the

- internal unit of a company is transferred to the outsourcer and the company is oriented towards a new way of work;
5. Managing the relationship – the implementation of outsourcing creates a complex and long-term business relation in which the company becomes increasingly dependent.

2.3. Arguments about pros and cons of outsourcing

When company's management considers outsourcing as a potential solution or the way to improve the situation at the company, it is important for them to have all the relevant accounting and other information available. These are precisely the reasons why the first stage of the process is crucial for making the decision on outsourcing. The perception of advantages and disadvantages of this process and the arguments "for and against" this decision is only a part of this stage. There are many reasons "for" outsourcing, emphasizing its advantages. Some of these advantages are (Brdarević & Omerhodžić 2012, p. 170): lower costs and their control; turning fixed into variable costs; fewer employees; focusing on company's core activities; improved performances; allocation of internal resources for other purposes etc. The disadvantages of outsourcing implementation are (Brdarević & Omerhodžić 2012, p. 170): lack of quality control and difficult supervision of contract fulfillment; long contracting process; difficult contract abrogation and change of supplier; uncertainty (regarding the nature of outsourcing, existence of quality outsourcers and their credibility, etc.); outsourcing supplier's reference list and promises given are often not realistic; loss of certain competencies, knowledge and business relations gained with effort; real possibility for revealing business secrets by outsourcing suppliers; unsatisfied employees and partial loss of employees; etc.

Many of these disadvantages may be avoided or reduced if the stage of preparation and selection of appropriate outsourcing supplier is performed properly. Also, it is very important to keep constantly good relations with the other contracting party, stay in contact and exchange information.

3. Research methodology

The empirical research on the implementation of outsourcing in Bosnian and Herzegovinian (BiH) companies was conducted by means of a questionnaire as the basic instrument for data collection. The research covered the companies from Bosnia and Herzegovina that have implemented or thought about the implementation of outsourcing, whereby an expert sample

was formed. The questionnaires were filled in by top managers of these companies. The questions were divided into two groups: general data on the company and the questions related to defining the level of implementation of the outsourcing strategy in the business practice of BiH companies. The questionnaires were distributed to potential subjects by e-mail or directly in person. The research included 80 companies in Bosnia and Herzegovina. The expert sample was formed in such way that the companies in different industries were covered as well as the companies whose seats were distributed on the territory of the entire Bosnia and Herzegovina. Thirty-four companies showed their interest and were prepared to participate in this research, making 42.5% of the expert sample. The analysis of the obtained data was made by the application of statistical methods and tools.

Table 1 shows the structure of the companies in the research sample. It is evident that the companies from the manufacturing industry had the highest participation share in the research with 35.29%.

Table 1. *Types of branches** for the companies surveyed*

	The type of branches	No. of the companies	%
1.	agriculture, hunting and forestry	0	0.00
2.	mining	1	2.94
3.	manufacturing industry	12	35.29
4.	production and supply of electric power, gas, steam and air conditioning	1	2.94
5.	water supply, sewage treatment, environment restoration	1	2.94
6.	civil engineering	6	17.65
7.	wholesale and retail sale	5	14.72
8.	transport and storage	0	0.00
9.	hotel industry and catering	0	0.00
10.	information and communications	1	2.94
11.	finance and insurance	1	2.94
12.	real estate business	0	0.00
13.	professional, scientific and technical services	0	0.00
14.	other services	3	8.82
15.	other	3	8.82
	Σ	34	100

Source: Authors' analysis

The sample structure by the ownership type is the following: 91.18% of the companies surveyed are in private ownership, 2.94% of them are state-owned, while 5.88% of the companies have mixed ownership. The number of full time employees in the surveyed companies is mainly between 50 and 249 for 41.18% of the companies. In 38.24% of the companies the number of employees is lower than 50. A number between 250 and 499 and over 1000 employees was registered in 8.82% of the companies, while 2.94% of the companies have 500 to 999 employees.

4. Discussion and interpretation of the results of the empirical research

The following part of the paper brings the results of the research regarding the fact on the number of companies that have so far used outsourcing in their past practice. The research showed that 19 companies surveyed (55.88%) used outsourcing for several activities and 3 companies or 8.83% used it for one activity. Twelve companies (35.29%) never used outsourcing. The reasons for not implementing outsourcing are presented in Table 2.

Table 2. *Reasons for not implementing outsourcing*

	Reasons for not implementing outsourcing	Number of companies	%
1.	we believe that it is best to do all the activities within one's own company	2	16.67
2.	fear of losing control	1	8.33
3.	concerns for keeping the jobs for one's own staff	3	25.00
4.	lack of potential experts/suppliers in the market	0	0.00
5.	we have not considered using outsourcing at all	6	50.00
	Σ	12	100

Source: Authors' analysis

The largest number of managers for the companies surveyed (50%) stated that the reason for not implementing outsourcing was the fact that they never discussed the implementation of this strategy as a possible business option. Some (25%) mentioned their concerns for keeping jobs as the main reason why they refrained from implementing the outsourcing strategy. In 16.67% of the companies the belief was that it would be best for all activities to be done within the company while in 8.33% of the companies fear of losing control was given as the reason for not implementing outsourcing. The surveyed managers did not mention the lack of potential experts/suppliers as the reason why the outsourcing strategy was not implemented. The results of

the answers to the question related to the identification of the activities to be outsourced (when managers had the possibility to select three out of thirteen answers) are given in Figure 1.

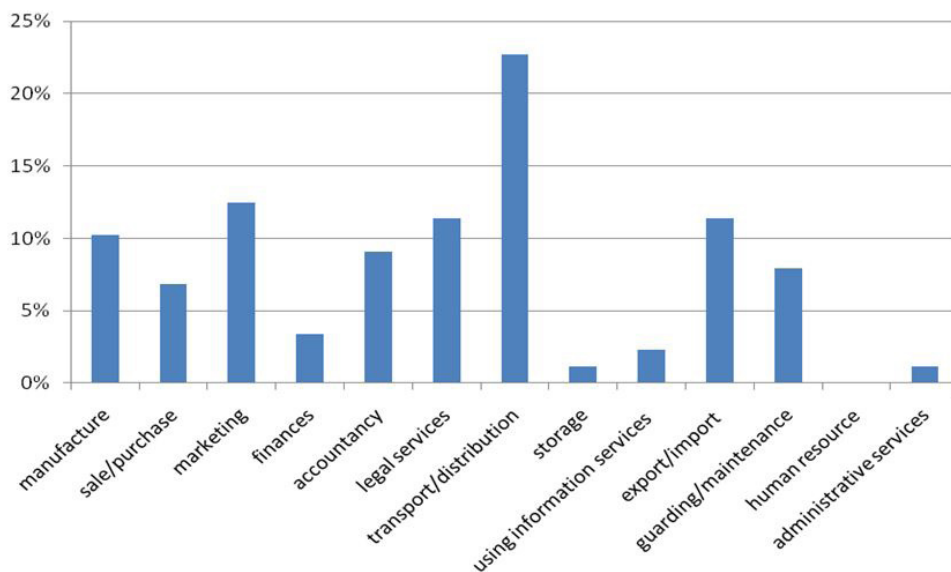


Figure 1. *Activities that are subject to outsourcing in BiH companies*

Source: Authors' analysis

The results of the empirical research indicate that outsourcing mainly included the services of transport and distribution (22.73%) while marketing services cover 12.50% and activities related to legal matters and export/import services cover 11.36%. The main reasons why the companies opted or would opt for outsourcing are given in Table 3. The companies were allowed to choose several answers offered.

Table 3. *Main reasons to implement outsourcing in practice*

	Reasons to implement outsourcing	Number of the companies	%
1.	cost reduction and control	26	29.22
2.	focusing on company's core activities	15	16.85
3.	improving performances by networking with world class partners	4	4.49
4.	allocation of internal resources for other purposes	9	10.11

5.	function (activity) difficult to manage - dissatisfaction with the internal performance	4	4.49
6.	sharing the risk with the outsourcing supplier	2	2.26
7.	increased flexibility	13	14.61
8.	access to new markets and business opportunities by means of suppliers' business networks	9	10.11
9.	growth of credibility and image caused by cooperation with superior supplier	3	3.37
10.	growth of production capacities/sale in periods when such results would not be possible	4	4.49
	Σ	89	100

Source: Authors' analysis

Some 29.22% of the companies stated that the main reason for the implementation of outsourcing was reduction and control of costs, 16.85% of the companies identified the need for focusing on core activities to be the main reason and 14.61% see the reason in the wish to increase company's flexibility. Outsourcing is seen as the way for achieving easier access to new markets and new business opportunities by 10.11% of the companies and the same percentage of them see the main advantage of outsourcing in allocation of internal resources for other purposes.

The following table shows the attitudes of managers regarding decision making on the activities to be outsourced, measured by the Likert scale.

Table 4. *Making decision on outsourcing activities*

	Making decision on implementing outsourcing	1	2	3	4	5	
1.	Activity outsourced is not related to the core activity	5	2	10	5	12	3.50
2.	Selection and number of suppliers for the outsourced activity in the external market is high	2	13	8	8	3	2.91
3.	Company's competence for the given activity is low with regard to supplier	1	9	12	5	7	3.24

4.	Outsourcing costs for the given activity are lower than the costs of the internal unit that performed the activity within company	1	1	5	8	19	4.26
5.	Outsourcing supplier's output quality with regard to the internal unit is higher	1	2	9	10	12	3.88
6.	Outsourcing supplier's expertise with regard to the internal unit is higher	1	2	6	14	11	3.94
7.	Outsourcing supplier has a bigger and easier access to the resources required for the activity when compared to the internal unit	1	3	3	10	17	4.15
8.	Appropriate selection of activities outsourced has a decisive influence on the final results of outsourcing, measured by company's business performance	0	1	11	12	10	3.91
9.	There was strong external pressure to make a decision on the selection of outsourcing supplier	20	6	3	5	0	1.79
10.	Satisfying political and personal interests is more important than the competitive ability and other market criteria while selecting outsourcing supplier	21	3	5	2	3	1.91
11.	Legal regulations within company's scope of activities is defined and clear	1	1	6	5	21	4.29
12.	Implementation of legal regulations is consistent in business practice	2	2	4	8	18	4.12

Source: Authors' analysis

Since the answers are on a scale, the last column of the table shows the average rating that all the subjects attributed to the statements offered. Figure 2 indicates that the subjects mostly agreed to the statements: *costs of the outsourced activity are lower than the costs for the same activity within a company* and *outsourcing supplier has a bigger and easier access to the resources needed for the activities*. The subjects highly agree with the statement related to the legal regulations. The lowest agreement was registered for the statement related to the existence of the external pressure to make a decision on outsourcing.

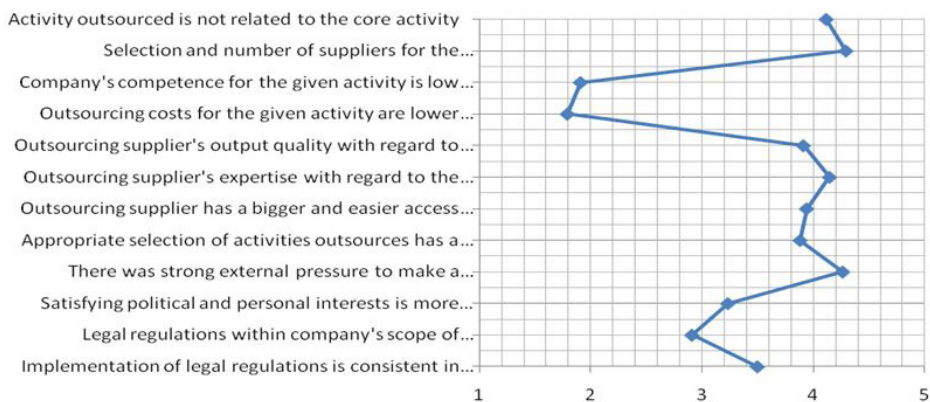


Figure 2. Evaluation of statements related to making decision on outsourcing by means of Likert's scale

Source: Authors' analysis

In order to determine company's relationship with the outsourcing supplier, the subjects were also able to express their view on the Likert's scale (Figure 3). The subjects mostly agreed with the following statements: *top management and company's management were actively involved in outsourcing process; the company is very satisfied with the achieved results of outsourcing; the outsourcing goals were accomplished, the benefits created by outsourcing led to the improvement of competitive advantage.* The managers agreed at least upon the statements: *employees showed strong resistance to decision on outsourcing and the so called "backsourcing" was done after outsourcing implementation.*

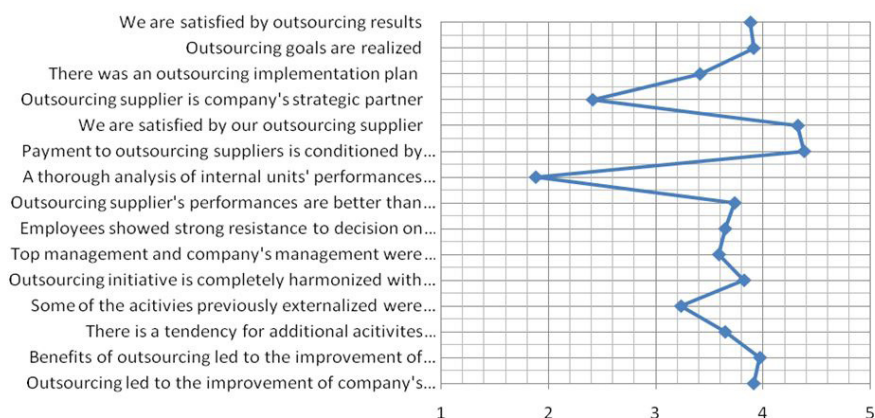


Figure 3. Evaluating the relationship with outsourcing supplier

Source: Authors' analysis

The benefits of outsourcing, as reported by the subjects by means of Likert type measurement of attitudes), are given in Table 5.

Table 5. *Benefits of outsourcing for BiH companies*

	Benefits of outsourcing	1	2	3	4	5	
1.	Level of focusing on core activities	1	1	12	11	9	3.76
2.	Level of increased business flexibility	1	2	10	15	6	3.68
3.	Level of focusing on internal improvement of business activities	1	2	11	12	8	3.71
4.	Level of improvement of strategic positioning	2	9	4	12	7	3.38
5.	Level of solving problematic activities and functions	2	4	10	11	7	3.50
6.	Level of providing access to the latest technologies	8	6	3	7	10	3.15
7.	Level of innovations	11	6	3	10	4	2.71
8.	Level of reducing organization risks	2	11	6	7	8	3.24
9.	Level of improvement of operations in terms of technology	9	4	8	5	8	2.97

Source: Authors' analysis

The results of the research show that the subjects mainly agree with most of the statements related to the benefits of outsourcing. The subjects answered the question regarding the existing or future changes in company's performances presented by financial indicators, which is seen in Figure 4.

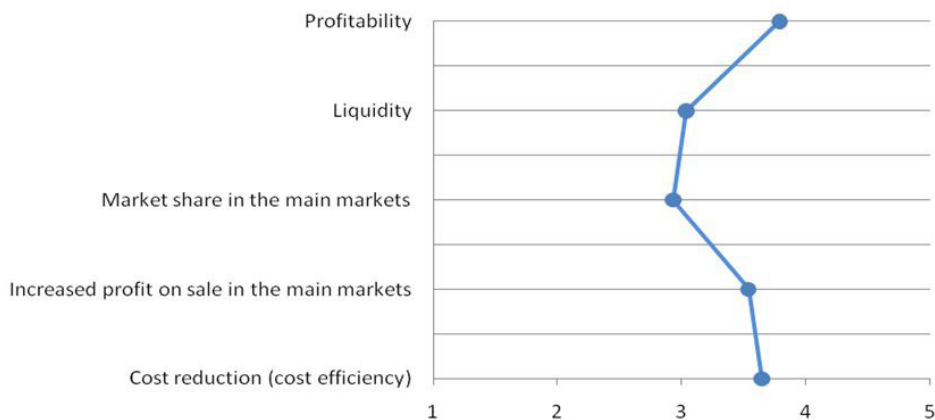


Figure 4. *Changes in company's performances when using outsourcing*

Source: Authors' analysis

The subjects believe that outsourcing leads to reduced costs and increased profitability, while the influence of the strategy implementation is not significant in the segment of increasing the market share in the major markets.

5. Conclusion

The goal of outsourcing is to focus on core activities and redirect the “released resources” (staff, space, money) into these activities. This also increases company’s flexibility, which enables better usage of internal resources, faster response to clients’ needs and reduces financial risks by means of capital investment. The most frequent reason why companies decide to implement outsourcing is to focus on core activities so as to achieve competitive advantage and fulfill bigger demands of their companies, but also to reduce and control costs in a better way. Consequently, the relevant accounting information, obtained by a set of financial statements/reports among which the most important are costs and profit as well as information on liquidity and profitability, have an important role in selecting and implementing the outsourcing strategy.

The results of the empirical research show that 65% of 34 BiH companies (included in the research) use outsourcing for one of more business activities, while 35% of them do not use outsourcing, primarily because they did not consider it as a possibility. The research results indicate that activities related to transport and distribution, marketing services, export/import services and legal affairs are most frequently outsourced in BiH companies. The most important advantages achieved by using outsourcing in these companies are reduction and better control of costs, focus on company’s core activities and increased flexibility. The results of the empirical research lead to the conclusion that the subjects share a positive attitude regarding the implementation of outsourcing in business activities, since the results of outsourcing are rather satisfying (realization of goals, improvement of business performances and increased competitive advantage of a company). Based on the analysis of the data obtained, it can be concluded that the positive attitude regarding the implementation of the outsourcing strategy is dominant in BiH companies but they are still not sufficiently prepared for its implementation. That is why this field may be very significant for future research.

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IMPLEMENTATION OF INTERNAL CONTROL IN ORDER TO ENSURE LONG-TERM FINANCIAL SUSTAINABILITY OF NGOs

IMPLEMENTACIJA INTERNIH KONTROLA U CILJU OSIGURANJA DUGOROČNE FINANSIJSKE ODRŽIVOSTI NEVLADINIH ORGANIZACIJA

Abstract

Modern economic and of society as a whole development of every country includes, besides private and public sector, successfully developed so – called non – governmental sector. Basic weaknesses of the non – governmental sector on the territory of B&H are internal problems which can be reduced to shortage of financial resources and insufficient level of competence and training of the leaders and the activists of the non – governmental sector. The aim of this work is to point to significance and need for system implementation of the internal controls in non – governmental organizations in order to insure long – term financial sustainability and to increase transparency. Internal controls should be built in all activities of the non – governmental organizations with aim to secure reliability of the financial reports, operational efficiency, compliance with laws and regulations and to protect assets from unauthorized use and alienation. Established systems of the internal controls give additional certainty to donors and the community – the resources of the non – governmental organization are spent efficiently and that the non – governmental organization is transparent in its action. The research will include the sample about 200 non – governmental organizations on the territory of B&H. On the basis of attitude of donor organizations, the effect of system implementation of the internal controls should show that system implementation of the internal controls, in order of increase transparency of actions, can affect the increase donations, i.e. securing long – term financial sustainability of the non – governmental organizations.

Keywords: internal control, non-governmental organizations, donors, long-term financial sustainability

JEL: M41, M42

Sažetak

Savremeni ekonomski i općedruštveni razvoj svake zemlje uključuje, pored razvijenog privatnog i javnog sektora, uspješno razvijen i tzv. treći sektor ili nevladin sektor. Osnovne slabosti nevladinih organizacija na području BiH su unutrašnji problemi koji se mogu svesti na nedostatak finansijskih sredstava i nedovoljan stepen stručnosti i osposobljenosti njihovih lidera i aktivista. Cilj rada je ukazati na značaj i potrebu za implementacijom sistema internih kontrola u nevladinim organizacijama u svrhu osiguranja dugoročne finansijske održivosti i povećanja transparentnosti. Interne kontrole bi trebale biti ugrađene u sve aktivnosti nevladinih organizacija sa ciljem da obezbijede pouzdanost finansijskih izvještaja, operativnu efektivnost i efikasnost, usklađenost sa zakonima i propisima te pruže zaštitu imovine od neovlaštenog korištenja i otuđenja. Uspostavljeni sistemi internih kontrola daju dodatnu sigurnost donatorima i zajednici da se resursi nevladine organizacije efikasno koriste i da je nevladina organizacija transparentna u svom djelovanju. Istraživanje će obuhvatiti uzorak od oko 200 nevladinih organizacija sa područja BiH. Na osnovu stavova donatorskih organizacija analizirat će se uticaj implementacije sistema internih kontrola na osiguranje dugoročne finansijske održivosti. Analiza rezultata istraživanja stavova donatorskih organizacija bi trebala pokazati da implementacija sistema internih kontrola, u svrhu povećanja transparentnosti u djelovanju, može uticati na povećanje donacija od strane donatora, odnosno obezbjeđenje dugoročne finansijske održivosti nevladinih organizacija.

Ključne riječi: interna kontrola, nevladine organizacije, donatori, dugoročna finansijska održivost

JEL: M41, M42

1. Introduction

Non-governmental organisations (NGOs) are legal entities, residents of Bosnia and Herzegovina, and/or of the Federation of Bosnia and Herzegovina or the Serb Republic, depending on where they are registered. The most prevalent forms of NGOs in B&H are *associations* and *foundations* and charitable/humanitarian organisations and funds. The primary role of NGOs in a democratic society is to be the bearer of change and to help the transition process in order to improve living conditions. In addition, it has a positive impact on the process of involvement of BiH into European integrations as it contributes to faster development of human rights and solving other problems in society. Development and formation support of citizens associations is provided by the Dayton Agreement from 1995, and thereby promoted and guaranteed by the Constitution of Bosnia and Herzegovina. The importance of the development of the NGO sector in

BiH, can be viewed from the aspect of capital that comes into B&H through NGOs. Total income of the NGO sector in B&H represent 4.50% of GDP or more than one-fifth share of industry in GDP (18%). It is estimated that in the NGO sector 26,668 persons is employed on a full-time, i.e. 2.30% of the total active labor force. If to that number we add the number of volunteers who work full time, and it is estimated that there are 63.129 of them, i.e. 5.36% of population of working age, then we can notice that 7.66% of the active labor force works in the NGO sector either as workers who receive a salary for their work or as volunteers.

Considering that NGOs generally receive their funds from other people, for this reason their transparent operation in a society is essential in order to provide funding in the future and preserve donors and citizens trust, i.e. of people who established them. There has been an expansion of development of NGOs in B&H in the last twenty years. However, in last several years more and more of these organisations is closing due to the lower number of domestic and foreign donors to finance their work. One of possible reasons for reducing the number of NGOs in B&H is because the state, due to lack of financial resources, can not support their work. On the other hand, there are internal problems in the NGOs themselves where there is not enough knowledge of the organisation management, and lot of frauds has been recorded in the past, due to which a long time donors gave up financing.

Therefore, the basic aim of this paper is to examine the importance of the application of internal controls system in the operation of the NGOa, i.e. their role in ensuring the future financial sustainability. The study examined stability and implementation of internal controls system in NGOs in the territory of B&H. In order to analyze the impact of the application of internal controls system on the longterm financial sustainability ensurance of NGOs, organization's donor view points about impact of internal control on decision making in financing were examined. The intent of the study was to highlight the importance of the application of internal controls on the activities of NGOs, which also ultimately affects the success of obtaining the financial resources, i.e. donations in purpose of ensuring the long term financial sustainability.

2. Results of previous studies on the application of internal controls in non-governmental organisations

When new trends in work financing of NGOs are taken into a consideration, to which NGOs from territory B&H also strive, and which include work

financing from civil and company income, and financing from the state fund, the need for initiation of more rigorous management methods is perceived, as well as improved internal control in the work of NGOs. In 1996, Hungary adopted the Direct Tax Law, which allows the taxpayers for 1% of the amount of tax they pay to the state, to be paid to NGOs, which they determine. In addition, in the US (United States of America) there are many examples where governments through donations funded the work of NGOs. Such organisations are required to, at the end of each fiscal year, undertake the audit of financial statements. As part of the audit of financial statements, the revision of the established systems of internal control is also performed, and the report on the same is submitted to the regulatory body since 1990.

In the period from 1999 to 2007 a survey was conducted which is engaged in finding the causes and consequences present in the absence of internal controls in the NGO sector, using a sample of 27.495 NGOs. As part of this research it was first noted that the probability of detection of a internal controls problem is more present in NGOs that are in a worse financial position, that are just starting to develop, and that are smaller or more complexly organised. In addition, it is proven within the research that there is a reduced contribution of government grants, if NGOs in a number of consecutive years, within the internal control audit statements, report problems in functioning of internal controls (Petrovits, Shakespeare & Shih 2011, p.1).

In other words, internal control deficiencies could result in a reduced number of donations in coming periods, which was proven by the aforementioned research. Currently in B&H, there are no empirical studies on work and on level of development of NGO sector. Insufficiency of dedicated attention to this issue, the lack of adequate regulation and small number of conducted studies in our region makes this research particularly important and interesting for operation of NGOs in B&H in the future.

3. Internal control systems in non-governmental organisations

Among many definitions of internal control that can be found in the literature, most complete and most widely accepted definition is given by the Committee of Sponsoring Organisations of the Treadway Commission – COSO: „Internal control is a process, effected by an entity’s board of directors, management and other personnel, designed to provide “reasonable assurance” regarding the achievement of objectives in the following categories: effectiveness and efficiency of operations, reliability of financial

reporting, compliance with applicable laws and regulations, and protection of assets from unauthorized acquisition, use or disposition“(COSO 1992, p. 9). Adequate internal control system contributes to the non-governmental organisation in the sense that it: realises their objectives through continuous monitoring of activities carried out by non-governmental organisation; they support management in a way they allow access to timely and relevant information about unplanned activities that may indicate on deviations from the set goals; they secure real and reliable financial reporting; protect assets; reveal fraud and errors; and reduce risk in NGOs operation by affecting on minimizing the possibilities of unexpected/unwanted events(CPA 2011, p.4).

Internal control systems are applied not only to the accounting records and financial statements, they nevertheless include internal and external communication processes with management staff and errors that occur in the process (Agami 2006, p. 22-23).

According to the COSO Report, internal control consists of five components or parts that make the concept of internal control, and these are: control environment, risk assessment, control activities, information and communication and monitoring. This model of internal control is applicable to all organisations, but it is possible to make adequate adjustments based on, for example, the size of the organisation (small and medium), activities engaged in, territorial dispersion, etc. (Tysiac 2012).

Control environment largely depends on the manner in which the board of directors or management refers to the established system of internal controls, “tons on top”(Ethics and Professionalism for NGOs 2014). If the board of directors or management is favorable and requires from employees to comply with the rules defined by the internal control system then in that case established system of internal controls will achieve its purpose.

Risk assessment involves the identification and analysis of potential risks which in the foreseeable future could jeopardize the operation of the organisation „Organisation risk management is a key responsibility of management”(Stanisic 2010, p. 71).

Risk assessment in the work of NGOs is a good starting point for an overview of the overall goals of the organisation. It is usually documented in the organisation’s statutes, defined by the mission or strategic plan. The second step would be to define the risks associated with achievement of objectives. This step is very important in the work of NGOs, because due

to limited resources, most organisations are not able to manage all the risks. After that, it is necessary to define the risks that are most likely to occur and how it will affect the operation of NGOs in the future.

Control activities include the adopted policies and procedures that are performed in identification and preventive action on the risks occurrence, which could jeopardize the realization of the organisation's objectives.

The successful functioning of the internal control systems contributes to the efficiency of information transmission and developed system of communication within the organisation. For successful implementation of the established policies and procedures it is of great importance for employees, volunteers and other members to be duly informed about certain changes within the organisation, to enable them to undisturbedly perform their activities.

Monitoring represents tracking and evaluation of the systems of internal control in order to eliminate the weaknesses that may occur. Monitoring activities are carried out as permanent activities, through separate evaluations or by combination of these, that is "an established system of internal controls needs to be continually monitored and adjusted to the growing needs of society" (Spremić 2014). Monitoring of internal controls will ensure that the control activities within the organisation are in line with changes in the organisation's strategic plan.

4. Funding resources of non-governmental organisations

Although NGOs have status of a non-profit organisation whose primary purpose is not money oriented, money is still a necessary resource for funding of most of the activities of these organisations. Providing sources of funding ensures financial sustainability of NGOs in the future.

Ensuring sustainability is one of the most significant problems that NGOs face. It is a fact that the number of international organisations and projects for the support of NGOs in BiH is reduced, that is why NGOs need to find other ways of funding and develop self-financing plans. Hereafter, overview of funding resources of NGOs is presented in Table 1.

Table 1. *Overview of funding resources and its purposes*

Funding resources		Way and purpose
1	Foundations (local and international)	For institutional support <ul style="list-style-type: none"> ▪ programs ▪ micro loans
2	Local authority	Project donations and payment of regular expenses <ul style="list-style-type: none"> ▪ purchase of NGOs services ▪ support in kind (eg. free facility)
3	Ministries and public funds	Project donations that are consistent with strategies and plans of financiers <ul style="list-style-type: none"> ▪ funds of the European Union (EU) prior to EU accession
4	Firms/companies	Sponsorship <ul style="list-style-type: none"> ▪ gifts ▪ payments on the marketing grounds
5	Public-individual	Gift <ul style="list-style-type: none"> ▪ lottery ▪ auction
6	Income from own activities	Sale of services and products <ul style="list-style-type: none"> ▪ copyrights ▪ personal property rental (facility, equipment)
7	Fellow citizens who live in diaspora	<ul style="list-style-type: none"> ▪ financially, with their knowledge, contacts, information.

Source: Drakul & Jovanović 2010, p. 40

According to the Law on Associations and Foundations of Bosnia and Herzegovina, in Article 46, the income of NGOs is defined: “Associations and foundations incomes may include the following:

- ✓ Fee when it comes to association;
- ✓ Voluntary contributions and gifts from public institutions, individuals and legal entities, both foreign and domestic, in cash, services or property of any kind;
- ✓ State subsidies or contract with the state, public institutions, individuals and legal entities, both domestic and foreign;
- ✓ Income from interest, dividends, capital gains, rents, honorariums and similar sources of passive income;
- ✓ The income from the realisation of goals and activities of the association and foundation, as defined by statute” (The Law on Associations and Foundations of Bosnia and Herzegovina, Art. 46).

NGOs in B&H so far are mainly funded by means of foreign international organisations and institutions. In the past twenty years this support has been very useful and it had a crucial impact on the promotion of the work of the NGO sector in B&H. The advantage of donations is that they have helped NGOs to subsist and develop, as well as donors and the public recognised that NGOs can contribute to the development of B&H. Our country, unfortunately, does not sufficiently support the work of NGOs. By observing the process of establishment and functioning of NGOs in B&H, we can conclude that “the biggest obstacles for a successful development of the nonprofit sector in transition and developing countries (i.e in B&H and its entities) are on the value plan and they are connected with insufficiently accepted norms of civil behavior, public awareness and culture of mutual trust and solidarity... The biggest problems in the present development can be ascribed to government’s noncomprehension, complicated administrative procedure for donors of humanitarian aid, inadequate and uncertain regulations, as well as to a disincentive legal tax regulations” (Slijepčević & Ivanić 2010, p. 238).

It is very important that in the future NGOs work on work promotion and on the value of the NGO sector. Given the world trend, public funding of activities of NGOs will become increasingly important source of its income and constitute the main element of relations with the government sector. Examples of the neighboring countries can serve as good. Public funding of NGOs by the government, either by central or local budgets, has become common throughout the region and it represents an important source of funds of the NGOs incomes. For example, in Romania 45% of total incomes of this sector stems from the basis of public funding. In other countries, the funding by the government makes a smaller part of the third sector income, but this income also represents a significant item. For example, in 1997, the associations in Bulgaria received about 23% of their income from government sources. In Hungary, funds from the public sector accounted for about 27% of the income from this sector in 1999. Similar situation is in other countries that are in the transition process (Drakul & Jovanović 2006, p.40). Sources of public funding are of great importance for ensuring a long-term financial sustainability of NGOs in the future. There are many changes that should be introduced in the activity of NGOs in B&H, in order to provide funding from the government. These changes are primarily related to strengthening of the professional capacity of NGOs, standardisation of service delivery, as well as the introduction of internal controls in operation.

5. Empirical research results on the impact of internal controls on insurance of long term financial sustainability of non-governmental organisations in BiH

Within empirical research the stability and application of the internal control system in the NGOs in B&H was examined. In order to analyze the impact of the application of the system of internal controls on the security of a long-term financial sustainability of NGOs, the attitudes of donor organisations on the importance of the application of internal control for the development of NGOs, as well as the donors viewpoint on the impact of internal control in the decision on financing, were examined. A sample on which the research was conducted includes 203 NGOs from B&H.

Statistical analysis in this paper was conducted by IBM SPSS Statistics v.21 and MS Excel tools. Out of descriptive statistical parameters absolute and percentage frequencies were calculated, while the hypothesis testing was conducted by nonparametric statistical methods, and: by chi-square test in tables 2x2 with Yates continuity correction, by Mann-Whitney U test, and by the decision tree algorithm (CHAID method) as a multivariate method. By Chi-square test potential association (correlation) between the different attributes in the research was analyzed, such as the persistence of internal control mechanisms depending on the realisation of the amount of income in NGOs, the consistency of internal control mechanisms depending on the number of employees, etc. Chi-square test was applied during the analysis of attributes that were expressed in nominal scales, and from the parameters of the chi-square test realised values of chi-square (X^2), level of freedom (df) and probability of rejecting the null hypothesis (p-value) were carried. When were located in the tables with cells 2x2, then instead of Pearson chi-square, *Yates* correction of continuity was calculated, with the aim of correcting the chi-square results due to a possibility of overestimating its value. All statistical hypotheses were tested on the alpha level of reliability of 95%. or 5% of the risk (0.05). Therefore, if the p-value was below 0.05 of the probability, then result was considered statistically significant, and vice versa. Realised results of the study are presented in tables and figures.

When analyzing the presence of the application of the internal controls system in the NGOs in B&H, the collected data show that from the total of 203 NGOs 115 or 56.65% of NGOs have no internal control mechanisms, while 62 or 30.54% of NGOs have a complete internal control, and in 26 NGOs or 12.81% exists only control of certain segments of the organisation.

Research results showed that NGOs that have implemented internal control mechanisms (or that are implemented only in some segments), that are statistically significant ($X^2 = 88.154$, $p < 0.000$) in higher percentage (96.50% of NGOs) achieve annual incomes above 50.000.00 KM, in relation to NGOs which do not have established internal control mechanisms and the rate of such organisations is much lower (3.50%), as shown in Table 2.

Tabela 2. *Realised incomes of the organisation depending on the implementation of the internal control mechanisms*

Persistence of internal control mechanisms in the NGO	Realised incomes annually				Total	
	< 50.000,00/god		≥ 50.000,00/god			
	n	%	n	%	n	%
Mechanisms exist or exist only in certain segments	33	22,6	55	96,5	88	43,3
There are no mechanisms	113	77,4	2	3,5	115	56,7
Total	146	100	57	100	203	100

Chi-Square Test ($\chi^2=88,154$, $df=1$, $p<0,000$)

NGOs that implement or do not implement internal controls mechanisms can be classified according to the number of employees in the organization. Most of the NGOs that do not apply any internal control mechanisms, (95.70%) of them has 4 or less employees, while only 4.30% of the same organisations had more than 4 employees. The differences between the types of organisations regarding the application of internal control mechanisms in relation to a number of employees in the organisation are statistically significant ($\chi^2 = 52.280$, $p < 0.000$). Results are presented in Table 3.

Table 3. *Number of employees in relation to the persistence of internal control mechanisms in NGOs*

Number of Employees	Persistence of internal control mechanisms in the organisation				Total	
	Mechanisms exist or exist only in certain segments		There are no mechanisms			
	n	%	n	%	n	%
≤ 4 employees	45	51,1	110	95,7	155	76,4
>4 employees	43	48,9	5	4,3	48	23,6
Total	88	100	115	100	203	100

Chi-Square Test ($\chi^2=52,280$, $df=1$, $p<0,000$)

Below, research results are presented on the subject: to which extent do donors/financiers appreciate the application of the internal controls system (for the NGOs applicants) in making funding decisions. The total number of surveyed donor organisations that fund the work of other NGOs is 44. Donor organisations have declared themselves to the following question: "What impact, in terms of you as a donor, an effective system of internal control has on the activity of non-governmental organisations?" Out of the 44 surveyed donor organisations 26 or 59.09% answered that it has *aexceptionally large influence* and 14 or 31.82% of respondents said that the *influence is significant*.

On the question of whether (in terms of donors) established system of internal control may increase the credibility of NGOs in donors, the results showed that a total number of surveyed donor organisations 97.73% answered affirmatively, i.e. that there is an impact, and only 2.27% answered that the effect does not exist. Based on the expressed donor viewpoints it can be concluded that there is a significant influence of implementation of internal controls on credibility increase of NGOs in donors.

Analysis of donors viewpoints to the question: „Do you think (in terms of donors) the implementation of the internal controls system may increase donations by donors?“, showed that the total number of surveyed donor organisations 90.91% answered that the application of the internal controls system in NGOs may influence the increase of donations from donors, and only 9.09% answered that the influence does not exist. According to the results, it can be established that donors during decision making on funding consider the application of internal control in NGOs as very important.

In the continuation, with the use of decision tree algorithm (CHAID method) organisations are classified according to the persistence of internal control mechanisms and on the basis of *realised annual incomes* and on the *number of employees* as the characteristics of organisations, they make statistically significant contribution to classification of the organisations that apply and that do not apply internal control mechanisms. The feature that makes a contribution to the classification is the annual income of the non-governmental organisation (chi-square = 91.137, $p < 0.000$). Based on the results presented in the nodes of the tree, following three rules can be identified:

Node 1

IF the realised annual income is $\geq 50.000,00$ KM/year.

THEN IS ASSUMED = Mechanisms exist or exist only in certain segments (probability = 0,965)

Node 2

IF the realised annual income $< 50.000,00$ KM/year and number of employees > 4 employee

THEN IS ASSUMED = Mechanisms exist or exist only in certain segments (probability = 0,733)

Node 3

IF the realised annual income is $< 50.000,00$ KM/year and number of employees ≤ 4 employee

THEN IS ASSUMED = There are no mechanisms (Probability = 0,832)

The resulting rules:

If an NGO generates annual income $\geq 50.000.00$ KM the probability that in such organisation exist internal control mechanisms is 96.50%. Secondly, if an NGO has annual incomes $< 50,000.00$ KM, provided that it has > 4 employee, the probability that such organisation has implemented internal control mechanism is 73.30%. Finally, if the organisation realises annual income $< 50.000.00$ KM, and if there is ≤ 4 employee, then it belongs, along with the probability of 83.20%, to an organisation in which there are no internal control mechanisms. Classification results realised by the decision tree are shown in Figure 1.

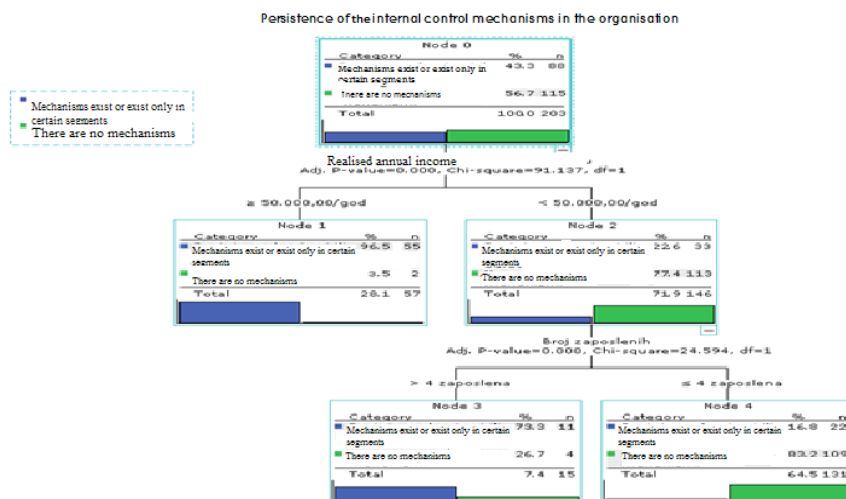


Figure 1. Resulting rules obtained by decision tree

Source: Authors' research

The resulting rate of accuracy of a classification model is 86.20% and the classification risk 13.80%.

6. Conclusion

Securing long-term financial sustainability of NGOs is a very complex process that brings risks and uncertainties. When we observe the method of obtaining of financial resources by NGOs, it is noted that in this process many factors are included, the most important is, of course, the existence of donor organisations that are very supportive of the work and the existence of a certain non-government organisation.

In order for NGOs to ensure its long-term financial sustainability there is a need for professionalisation of development of NGOs, i.e that through transparency of work in the community try to provide support of as many members and donors possible. One of the mechanisms that could contribute to the professional development of NGOs by increasing the quality of action and providing transparent financial reporting is an effective mechanism of internal control system. Effective mechanisms of internal control system will create a responsibility of all actors in the non-governmental organisation, from volunteers to the member of the assembly, all of that will influence the position of NGO in the society, including the donors, who will make a decision on the funding of the work of the NGO.

According to the research on the application of internal control in the NGOs obtained informations show that there are 30.54% of NGOs in B&H that have fully implemented internal control mechanisms, 12.81% have partial and 56.65% do not have any established internal control mechanisms. The results show that significant percentage of NGOs in B&H do not apply internal control in their work.

Analysis of the research results on the donor organisations viewpoints in B&H on the implementation of internal control in the NGOs in order to provide better quality of action has shown that of the total number of the donor organisations in B&H 59.09% think that there is a *large influence*, and 31.82% consider that the *influence is significant*. In addition, they consider that an internal control system may increase the credibility of NGOs in donors where, out of the total number of donor organisations surveyed, 97.73% answered affirmatively, i.e that there is an influence, and only 2.27% answered that influence does not exist. Based on the presented research results, it can be concluded that donor organisations believe that internal

control in the NGOs can greatly increase the credibility of NGOs in donors, and with the public, which ultimately supports the assurance of long-term financial sustainability. Analysis of the results showed that the introduction of the internal control system can increase donations from donors, where from the total number of donor organisations 90.91% responded that the application of the internal controls system in the NGOs may increase donations from donors, and only 9.09% answered that the effect does not exist.

According to the presented research results it can be concluded that the application of internal control in terms of donors reinforces the credibility of NGO in donors because it contributes to increasing of work quality and in reliability of financial and narrative reports and to have a profound influence in the decision making on financing of NGOs or providing long-term financial sustainability.

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RESEARCH ROLE OF INTERNAL OVERSIGHT IN DETECTING AND PREVENTING FRAUD AND FAULT IN BUSINESS COMPANIES

ISTRAŽIVANJE ULOGE INTERNOG NADZORA U OTKRIVANJU I SPREČAVANJU PREVARA I GREŠAKA U POSLOVANJU PREDUZEĆA

Abstract

Internal audit is being conducted under the different conditions and surroundings. The purpose of the internal auditing is creating an extra value and promoting the business enterprises. Internal audit is an important form of the control as an aspect of internal monitoring. The appropriate implementation of the internal control systems has a preventive effect of lowering the motivation for frauds. The aim of the paper is to deepen the knowledge about the measures for increasing the efficiency of the internal monitoring in discovering frauds and errors in business enterprises. The research will include the sample of about 80 companies from B&H, where the responsibility of the internal monitoring for discovering fraud and errors will be analyzed, as well as the real possibility of the internal control and internal auditing to discover and prevent frauds and errors. Besides the primary research, the paper will also include a detailed secondary research about conceptual features of frauds and errors, identifying kinds of frauds and errors, systematization of fraud occurrence causes, identification of possible fraud committers and its victims, as well as the relevant statistics in the area mentioned above. The analysis of research results should demonstrate that internal monitoring, e.g. accounting, administrative and internal control, as well as the internal audit, represent an efficient measure for preventing and discovering frauds and errors in business enterprises.

Keywords: internal control, internal audit, internal monitoring, frauds and errors, business enterprises

JEL: M41, M42

Sažetak

Interna revizija se obavlja u različitim uslovima i okruženju. Cilj interne revizije je kreiranje dodatne vrijednosti i unapređenje poslovanja preduzeća. Važan oblik kontrole kao oblika internog nadzora predstavlja i interna kontrola. Adekvatna implementacija sistema internih kontrola preventivno djeluje na smanjenje motivisanosti za prevare. Cilj rada je produbljivanje spoznaja o mjerama za povećanje efikasnosti internog nadzora u otkrivanju prevara i grešaka u poslovanju preduzeća. Istraživanje će obuhvatiti uzorak od oko 80 preduzeća sa područja BiH, u okviru koga će se razmatrati odgovornost internog nadzora za otkrivanje prevara i grešaka, kao i stvarne mogućnosti interne kontrole i interne revizije da otkriju i spriječe prevare i greške. Rad će pored primarnog istraživanja, obuhvatiti i detaljno sekundarno istraživanje u vezi pojmovnog određenja prevara i grešaka, identifikovanje vrsta prevara i grešaka, sistematizacije uzroka nastanka prevara, identifikacije mogućih počinioca i žrtava prevara, te relevantne statistike u tom području. Analiza rezultata istraživanja bi trebala pokazati da interni nadzor, odnosno računovodstvena, administrativna i interna kontrola, kao i interna revizija, predstavljaju efikasnu mjeru kod sprečavanja i otkrivanja prevara i grešaka u poslovanju preduzeća.

Ključne riječi: interna kontrola, interna revizija, interni nadzor, prevare i greške, poslovanje preduzeća

JEL: M41, M42

1. Introduction

When speaking of monitoring, it is often being compared to control, sometimes in some cases even equalized. Still, it is important to point out that the sense of monitoring function is to allow certain goals to be achieved, by following certain regulations. Potential discrepancies from the determined criteria and norms are processed in the form of information, which allow making corrective decisions in time. On the other hand, control is a monitoring function, which organizes and expertly examines business in all segments, by testing, examining and comparing chosen parameters and periods of time. Monitoring is a general notion for examining regularities and removing of irregularities in business processes. According to the entity which conducts the monitoring, there are: internal and external monitoring. Internal monitoring encloses internal accounting controls, administrative controls and internal audit, while external monitoring encloses external audit, control and inspection. Overall internal monitoring system can be accomplished with the help of internal controls built in in the business

processes. The function of monitoring is the most important function for the efficient prevention and suppressing the fraud. Monitoring can be found in various forms and can be conducted from many persons from in or out of the organization, under the overall management of the Supervisory board. In order to insure an efficient program for fraud risk management, it is important to understand roles and responsibilities of the staff on all levels of organization. Policies, job description, figureers, delegating the authority, they all have to define roles and responsibilities connected to the fraud risk management. It is especially important to point out who is responsible for managing the monitoring of fraud control. Supervisory board, Auditing committee, Administration, staff and the internal audit, all of them have a significant role in the program for fraud risk management.

2. Internal business monitoring

2.1. System of the internal monitoring

Monitoring is a general notion for examining of regularities and removing of irregularities in business processes. Internal monitoring encloses internal accounting controls, internal non-accounting (administrative) controls and internal audit. It is being developed as a function of the management and it is often regarded as its extension. Accounting controls control the accounting system, its formal, important and accounting validity of documents, while the administrative controls are being conducted there where the accounting controls were not efficient enough. A group of authors defines the monitoring as the task of management, which should supervise whether the results of the business activities are concerted to the plan, are the organizational guidelines efficient and to what extent are they obeyed. Internal monitoring can also be defined as a tool of management in conducting control in the process of administration (Tokić 2011, p. 48; Bahtijarević-Šiber & Sikavica 2001, p. 330). There are various types of monitoring depending on the criteria of differentiation. The basic types of monitoring are: administrative control, accounting control, internal control and internal audit.

Administrative control refers to the control of the technological/production process and the technological/service working process (production and the service), as well as the control of the supplying departments, production and sales departments. According to this, the primary jurisdiction of administrative control refers to the following areas: supply control, financial business control, production control, sales control, and control of the permanent finances and the inventory of assets (Vujević 2003, p.

32). Considering the work that is being done in the accounting department, accounting control as a part of the accounting process, consists of : accounting planning, bookkeeping, accounting analysis accounting informing. From the timing point of view, accounting refers to the static and dynamic observation of business events emerged from the category of state and business success in the period of one year time (Svete & Ramljak 2012, p. 143).

Internal accounting controls, due to the nature of accounting activities, are built in the accounting-informational system in the shape of various controls, which refer to: verification of accounting documents (incoming documents), control in the frame of accounting evidencing of all business changes and control of the outgoing documents. Internal control, as a form of internal monitoring, has its role in controlling of all segments of business in a company. There are various types of internal control and it consists of five components: conditions under which the control is being conducted, risk assessment, control activities, informing and reporting and supervision.

“The assessment of the risk control and the work of the internal control are important part of every audit of financial report, because the audit plan structure, as well as its nature and time-plan, depend on understanding the internal control. There are different opinions concerning the significance and goal of the internal control. The simplest definition of internal control implies the following: internal control is being conducted for preventive suppressing of errors in running a business because of resource misappropriation and errors in financial reports” (Kapić 2000, p. 49).

Internal control over financial reporting implies policies and procedure inside the company, whose effect should be creating a reasonable convincing, i.e. a high level of belief in reliability of companies' financial reports, and preparation processes and fair representing of financial reports, according to the general accounting principles or other specific criteria (Soltani 2009, p. 21). Here is first of all referred to policies and procedure which are related to the maintaining of accounting documents, authorizing the notes of receipt and delivery notes, and the protection of property.

Internal audit has its rules defined by standards and guidelines for expertly conduction of the internal audit. Its focus can be any business process, organizational part, and every part of business and management. According to Pickett, definition of internal audit is: “internal audit is a continual and extensive research apparently good organization whose goal is to have

an insight in the real state or the position of the organization and of its surroundings, in order to have a better control over the future business” (Spencer Pickett 1997, p. 7). The basic characteristics of internal audit are: internal audit is conducted by the company’ employees; it is an independent function of examination, judging and evaluating, without limiting the evaluation mark of the internal auditor; internal audit conducts auditing of the entire company; and the internal audit is being organized as a support and help to the management and the organization as a whole, so it serves as an advisory function of the company (Hodžić, Gregović & Lazović 2011, p. 143; Tušek 1998, p. 59).

Evaluation of the quality and efficiency of the internal audit is necessary in practice, having in mind that internal auditors cover a wide scope of tasks, and all of them do not refer to the area of accounting, for which the internal auditors are especially interested in. The work of internal audit, which refers to the functional efficiency of internal control systems, can be grouped in four types of which are mutually related: advisory, executive, reporting and routine testing (Woolf 1997, p. 78).

Internal audit has a significant role in evaluating the control systems efficiency and contributes to the improvement of profitability of business enterprises, which is basis for the supervision of the entire business and its operating and financial improvement. For this purpose, internal audit provides analysis, evaluations, and recommendations, advises and delivers information related to the business (Agić 2003, p. 27).

Internal audit and internal control do not have the same function. Even though there are many differences, the primary difference is in the process itself, because internal control has a preventive role and its focus are procedure which are to be planned, in order to effect the risk and prevent irregularities in the future business, while internal audit is a subsequent revision of business events which happened earlier. Internal control is the control which is conducted permanently and constantly by the employees of the company which is a subject to the control, by examining the current state and business. Basic characteristics of internal control are: it I a part of technical and economical mechanism of the company, i.e. economical subjects; it is conducted in a constant and parallel way with the business process; current state and business are permanently examined, and this control has a preventive role.

Unlike the internal control, internal audit represents a critical and subsequent examining of past events in business process, and this examining, unlike the external revision, is conducted by the control organs of the economical subject, which is the subject of auditing. The most often reasons which are pro-organizing the internal audit, are: size of the company, obstructions in organization, unreliability of internal control and lack of surveillance in the form of external audit.

Differences between the organs which conduct internal control and internal audit is not like the difference between internal and external audit. Internal control organs are a part of the organizational system, whose work is being monitored. Unlike them, internal audit organs are outside of this system, where the business process is, i.e. internal audit is a special organizational part in the frames of economic entity (Milojević 2006, p. 394).

3. The concept of frauds and errors in business enterprises

Forms of fraud are classified by the different criteria. For example, *Association of Certified Fraud Examiners* in USA classifies frauds in three categories: deceptive financial reporting, illegal appropriation of property and corruption. Auditing company *Ernst & Young* for the research necessities classifies fraud in internal fraud, fraud in collusion with third parties, bribe and corruption, deceptive financial reporting and illegal appropriation of property. From the auditing of financial reports view, the most significant forms of fraud are deceptive financial reporting and illegal appropriation of property, and therefore, International Standards on Auditing classify fraud in the above mentioned two groups (Sever 2008, p. 216).

If the wrong presentation or any other act is made on purpose, then it is the act of fraud. In the accounting and auditing literature there are usually three type of fraud: (1) deceptive financial reporting, (2) abuse of property, and (3) corruption.

Deceptive financial reporting implies intentional wrong presentations, including omission of amounts or proclamations in financial reports, all in order to mislead the financial report users. This can be achieved in the following way (ISA 240., point A3): (a) by manipulation (including forgery) or by exchanging the accounting files or the substantiating documents, from which the financial reports are made, (b) by wrong presentations, or deliberate oversights, in financial reporting about events, transactions or other significant information, and (c) by deliberate wrong use of accounting

principles related to amounts, classification, ways of presentation or announcement. Deceptive financial reporting can be committed by: overrating of incomes, underrating of costs, overrating of assets, underrating of liability, inappropriate use accounting principles, false presenting or information leaking.

The abuse of assets includes stealing the subjects' property, and it can be done in many ways, like (ISA 240, point A5):

- Directed false incomes (for example, the abuse of financial claims collection or directing receipts as written off accounts to personal accounts in banks);
- stealing of property or intellectual property (for example, stealing supplies for personal needs or sale, stealing expendable goods in order to resale it, conspiracy with competition in a way that technological data are being published in exchange for payment);
- A way that causes subject to pay for goods and services he did not get (for example, paying to the inexistent suppliers, bribing the subject's sales agents by the suppliers in exchange for high prices, paying the inexistent employees);
- Using the subject's property for personal needs (for example, using the subject's property as collateral for personal credit or a credit to a related person).

Corruption includes plans of the people, who use their status in the company to gain benefit for themselves or for a third party, and by doing this they break their commitments to their employer. Examples of corruption include bribery, extortion and conflict of interest.

“Errors in the accounting business can be observed from various perspectives and with a different degree of stringency. If we define accounting as a system focused on covering all the business events in the company by following certain methodology and procedure, in order to offer the management other users a quality information in function of making adequate decisions, then every component which affects negatively on the quality of business information could be defined as an error. There are various types of errors in accounting. All of them can be further classified in errors which are made before entering in the process of accounting process, those which are made during this process and the errors which are made in the phase of presentation” (Stanišić 2008, p. 215).

If the company's rule of management and ethics is in line with the control system, the system will be designed to prevent and detect any attempt to avoid these controls, an according to this to extort the consent. Vice versa, unethical behavior of the Executive board or lack of rules and leadership can directly affect the financial reporting, operational efficiency and effectiveness or legal consent. As such, cultural elements can indirectly affect the opportunistic point of fraud triangle: when the "damaged" or weak ethical culture of organization exists, the bigger is the possibility that the internal control system will be deficient, and the bigger is the potential for existence of larger number of illusionary controls (Atwood, Raiborn & Butler 2012, p. 34).

4. Role of the internal monitoring in discovering and preventing frauds and errors in business enterprises

4.1. Methods for examination and research of frauds and errors in accounting

In literature, methods for examination and research of errors in accounting are being analyzed, and among them there are: straight-line method and the method of isolation, which are based on the principle of rationality (Sović 2000, p. 182). Straight-line method suggests that when looking for an error, we should start from the smaller business and go to the bigger. If the sum of the trial balance of accounts does not match the sum of the book of original entries, the control of the sum of trial balance of the accounts will be conducted, and then the control of summing up the main book accounts, and after that, comparison of the main book and the book of original entries is done. This sequence of controls is chosen because less time is needed to sum up the trial balance of accounts, main book and the journal, than for balance settlement and checking the regularity of every entry itself. Method of isolation implies removal of all the areas of possible errors, where we can conclude with certainty that there is no error. Narrowing the field of errors can be done according to the time, books, subject, character and operations.

4.2. Measures for preventing frauds and errors

Set of measures, controls and actions conducted in order to prevent the dishonest behavior employees and management, which represents harm to a company, can be defined as fraud prevention. Efficient measures for

prevention of fraud are next: creating the code of ethics for employees, establishing the anonymous tips system, conducting the audit by the internal audit, making the employees aware of the ways how to report the fraud, setting rewards for whistleblowers, checking the employees' background, and educating employees about frauds. Illegal appropriation of property, as a form of fraud, can be prevented in one of the following ways: division of employees' responsibilities, monitoring of employees, control of documentation, regular control of checks, rotation of employees on key positions, and insuring the physical safety of property (ACFE 2010).

5. Results of empirical research about the role of internal monitoring in discovering and prevention of fraud and errors in business enterprises

The focus of research in this paper is deepening and generating of scientific perceptions about measures for increasing the internal monitoring efficiency in discovering frauds and errors in business enterprises. The subject of the research was the analysis of internal monitoring appliance in production companies.

Primary research was conducted by using a survey questionnaire. Survey questionnaire was sent to addresses of 80 production companies, which were taken randomly from the active companies, which have submitted the annual business result statement for the year 2013, and 58 of them has returned the filled out questionnaire. Considering that there were 3,500 companies in the register of active companies, it can be said that the ample taken was acceptable for the above mentioned research.

The following text contains results of research which refer to forms of internal monitoring represented in the companies from the survey. In this process it has been investigate how the adequate and complete implementation of internal monitoring contributes to the insuring of reliability of financial reports. Out of totally 58 examinees, significantly larger number 46 out of 59 (79.3%) considers that efficient internal monitoring system provides reliable financial reports, while only one examinee considers that such system does not provide reliable financial reports. Eleven out of 58 examinees (19%) are not sure in this assumption. On the grounds of these results it can be concluded that examinees consider that a good internal monitoring system can contribute to the reliability of financial reports.

Table 1. *The most frequent opportunities for deceptive financial reporting*

The most frequent opportunities for deceptive financial reporting		Frequency	Percent (%)	Average rank
The existence of transactions which are not subject of external audit	Rank 1	27	46.6	
	Rank 2	2	3.4	2.03
	Rank 3	29	50.0	
Nonexistence of internal control	Total	58	100	
	Rank 1	21	36.2	
	Rank 2	29	50.0	1.78
	Rank 3	8	13.8	
Nonexistence of internal audit	Total	58	100	
	Rank 1	10	17.2	
	Rank 2	27	46.6	2.19
	Rank 3	21	36.2	
	Total	58	100	

Source: Author's research

Table 1 shows the results gained in the research about the most frequent opportunities for deceptive financial reporting. First rank, according to the examinee' opinion, represents the most frequent opportunity for deceptive financial reporting, rank 2 represents less frequent opportunity for deceptive financial reporting, while rank 3 represent the least frequent opportunity for this. On the survey question what are the most frequent opportunities for deceptive financial reporting, out of three offered statement, the examinees have put the nonexistence of internal control on the first place, where the average rank was 1.78, while on the second place there was the existence of transactions which are not the subject of external audit, where the average rank was 2, 03. Nonexistence of internal audit, as an opportunity for deceptive financial reporting, was put on the third place, where the average rank was 2.19. In the following text, various forms of fraud in companies are analyzed.

Table 2. *Forms of fraud considering the risks of occurrence of a single form of fraud in a company*

Forms of fraud considering the risks of occurrence of a single form of fraud in a company		Frequency	Percent (%)	Average rank
Illegal appropriation of property	Rank 1	14	36.8	
	Rank 2	15	39.5	1.87
	Rank 3	9	23.7	
	Total	38	100	
Corruption	Rank 1	16	42.1	
	Rank 2	17	44.7	1.71
	Rank 3	5	13.2	
	Total	38	100	
Deceptive financial reporting	Rank 1	8	21.1	
	Rank 2	6	15.8	2.42
	Rank 3	24	63.2	
	Total	38	100	

Source: Author's research

In the process of ranking the forms of fraud considering the risk of occurrence of a single form of fraud in their company, the results gathered are shown in the Table 2, in the first place was the corruption, with the average rank of 1.71, then illegal appropriation of property, with average rank of 1.87, while on the highest rank was the illegal financial reporting (2.42). Here, the questions were asked in the scale in the rank form, from the first to the third rank, where the rank 1 is the most frequent form of fraud, rank 2 less frequent form and the rank 3 the least frequent form of fraud. From the results of research it can be concluded that the corruption is the most frequent form of fraud.

When questioned which are the most frequent fraud and errors in the company, examinees could rank the given answers in the scale from 1 to 10. The first rank presented the most frequent errors and frauds, while the tenth rank presented the least frequent errors and frauds. According to the examinees, the most frequent errors and frauds in the company are the errors in evidencing received/sent material, where the average rank was 4.37, then giving the material from the warehouse without signed papers, with average rank of 4.63, and irregular evidencing of spare part which get the status of an asset, and which were not retroactively amortized, with the average rank

of 4.87, as well as not taking-over in time with the final investments, which cause overrating the incomes and underrating the outcomes, with average rank 4.95. The least important thing, when errors and fraud are concerned, examinees consider irregular calculation of interests in foreign credits, where the average rank was 7.50, but also the untimely transfer of regular financial claims to suspicious and disputable, where the average rank was 7.24. After gathering and analyzing the results, it can be concluded that the most frequent errors and frauds in companies are in evidencing the received/sent material from the warehouse.

Table 3. *The most frequent causes of frauds and errors occurrence*

The most frequent causes of frauds and errors occurrence	n	Average rank
Inconsistent appliance of accounting regulations and procedures	58	3.33
Inefficient employees surveillance	58	2.78
Pety theft tolerating	58	3.41
Changes in behavior which imply the abuse of property	58	3.48
Existence of complicated and unstable organizational structure	58	2.97
Other	56	4.96

Source: Author's research

According to the gathered research results, the most frequent causes of occurrence of frauds and errors in companies occur because surveillance of employees is not efficient (average rank=2.78), but it also occurs because there are complicated and unstable organizational structures (average rank=2.97). The results are presented in the Table 3.

Table 4. *The most efficient measures for preventing frauds and errors in company*

The most efficient measures for preventing frauds and errors in company	Answers(fi)	Answers(%)
To act according to the Accounting regulations and International Standards on Auditing	41	30.6
Improve the cooperation between the Supervisory board and the Executive board	16	11.9
Create a Manual on operating the important parts and equipment	5	3.7

Consistent implementation of Instruction on determination, monitoring and running a suspicious financial claims	11	8.2
Regularly remove the assets from the balance sheet according to decisions of the Supervisory board	8	6.0
Evident all the removed assets from the balance sheet in the off balance sheet evidence until it is liquidated	8	6.0
Efficient internal controls in the company	43	32.1
Other	2	1.5

Source: Author's research

On this question, examinees had the possibility to choose one or more answers, where they had the possibility to give advantage to one measure they consider more efficient in comparison to others, when preventing errors and frauds concerned. According to the research results, the most efficient measures for prevention of errors and frauds in companies are efficient internal controls in company, where the frequency of answers was most common (43 answers or 32.1%), then measures which act according to the Accounting regulations and International Standards on Auditing, with the frequency of answers of 41 or 30.6%. As the least important measures preventing errors and frauds in company, according to the examinees, were claims: "Create a Manual on operating the important parts and equipment" (5 answers or 3.7%), "Regularly remove the assets from the balance sheet according to decisions of the Supervisory board" (8 or 6.0% answers) and the claim "Evident all the removed assets from the balance sheet in the off balance sheet evidence until it is liquidated", also with 8 or 6.0% answers, as it was mentioned in the Table 4.

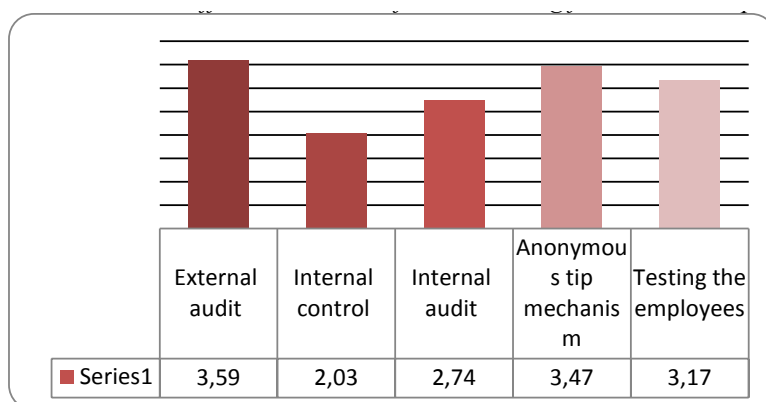


Figure 1. *The most efficient measures for discovering frauds in a company*

Source: Author's research

The results of research show the following: the most efficient measure for discovering frauds in a company, where the least average rank is, is internal control (2.03), then internal audit (2.74), then anonymous tip mechanism (3.47), but there are also testing the employees, with the average rank of 3.17, and the highest average rank, as the least efficient measure, belongs to the external audit (3.59), as it is shown in the Figure 1.

Table 5. *The most advantageous method for discovering errors in accounting*

The most advantageous method for discovering errors in accounting	Frequency	Percent (%)
Straight-line method	17	29.3
The method of isolation	39	67.2
Other	2	3.4
Total	58	100.0

Source: Author's research

Based on the conducted research it can be concluded that the most favorable method for discovering errors in accounting is the method of isolation. Namely, out of 58 examined employees, 39 of them (67.2%) considers that the most advantageous method for discovering errors in accounting is the method of isolation, while 17 of them from the total of 58 (29.3) considers that the most advantageous is the straight-line method, which is shown in the Table 5.

Out of 58 surveyed employees, significantly larger number of them, 53 examinees (91.4%) claims that internal monitoring, seen through the accounting and administrative control, internal control and internal audit, has a significant role in preventing and discovering frauds and errors, while only 5 out of 58 totally surveyed employees (8.6%) are not sure in this claim. It can be concluded from the research that internal audit, accounting and administrative control, internal control and internal audit, have a significant role in discovering and preventing frauds and errors in company.

6. Conclusion

Problems and challenges of the modern society are the terms of frauds, thefts, forgery, bribery and corruption. Thought by the numerous scandals which caused large companies to disappear, regulator and investors demand that proactive programs for prevention of fraud are conducted. This is the

reason why the internal auditors must be educated in order to recognize certain business events, which create conditions for fraud occurrence. For internal auditors, activities for fraud prevention are much more complex than the fraud research. In the modern business conditions the fraud research becomes more and more complex area, because individuals and groups who make the fraud make sure that all the traces of fraud are removed. When we talk about the fraud, in literature are mostly mentioned three forms of fraud: deceptive financial reporting, abuse of property and corruption.

Internal control is the most efficient in discovering but not in preventing frauds and errors in business enterprises. Internal audit is, according to the research results, second most significant measure in discovering frauds and errors in business enterprises. Empirical research has confirmed the thesis that internal monitoring, accounting, administrative and internal control, as the internal audit is, is an effective measure for discovering and preventing frauds and errors.

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MANAGEMENT ACCOUNTING FOR SUSTAINABLE DEVELOPMENT AS A NEW DIMENSION IN ACCOUNTING DEVELOPMENT OF COMPANIES

UPRAVLJAČKO RAČUNOVODSTVO ODRŽIVOG RAZVOJA KAO NOVA DIMENZIJA RAZVOJA RAČUNOVODSTVA PREDUZEĆA

Abstract

The fact that the financial responsibility and short-term financial performance reporting are no longer sufficient to make adequate business decisions by the user, resulted in a shift of the boundaries and scope accounting information system reporting. The concept of integrated financial reporting as a new accounting concept slowly creates its importance and popularity, intending to make companies being more responsible to environmental, social and societal issues. Integrated reporting is a challenge for modern companies that, in addition to financial reporting of their business operations, they report about their business strategies in short, medium and long term, as well as about models of creating and preserving companies' value. The conducted pilot projects of analyzing the possibilities for the application of integrated financial reporting to its formal adoption, showed that the application of the concept required some additional accounting tools, among which the most significant is a well designed and developed concept of management accounting. Given the topicality of the issues and the fact that Montenegro in 1991 became an ecological state, as well as taking into account the current process of negotiations of Montenegro for access to the EU, which requires the fulfillment of certain criteria related to sustainable development, the authors will work through survey research target group in Montenegro in order to draw conclusions about the possibility of applying environmental accounting, as a segment of the process of integrated reporting. Integrated reporting as a function of creating value for the company and

stakeholders should in turn led to a higher degree of implementation and improvement of environmental standards in Montenegro.

Keywords: integrated financial reporting, management accounting, sustainable development, stakeholders, Montenegro

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Sažetak

Činjenica da finansijska odgovornost preduzeća i izvještavanje o kratkoročnim finansijskim performansama nisu više dovoljni za donošenje adekvatnih poslovnih odluka od strane korisnika imala je za posljedicu pomjeranje granica i dometa izvještavanja računovodstvenog informacionog sistema. Danas se sve više govori o konceptu integrisanog finansijskog izvještavanja, a koje teži da se preduzeće mnogo odgovornije odnosi prema ekološkim, socijalnim i društvenim pitanjima koja su od značaja za sve stejkholdere. Integrisano izvještavanje predstavlja izazov za savremena preduzeća da pored finansijskog poslovanja izvještavaju i o strategiji poslovanja u kratkom, srednjem i dugom roku, kao i o modelima kreiranja i očuvanja vrijednosti. Pilot projekti analize mogućnosti primjene koncepta integrisanog izvještavanja prije njegovog formalnog usvajanja pokazali su da su za primjenu koncepta neophodni određeni pomoćni računovodstveni alati, među kojim poseban značaj ima dobro osmišljen i razvijen koncept upravljačkog računovodstva.

Sobzirom na aktuelnost teme, ali i činjenice da je Crna Gora 1991. godine proglašena ekološkom državom, a uzimajući u obzir i trenutni proces pregovara Crne Gore za pristup u članstvo EU koji zahtijeva ispunjenje određenih kriterijuma iz oblasti održivog razvoja, autori rada će putem ankentnog istraživanja ciljne grupe u Crnoj Gori nastojati da donesu zaključke o mogućnosti primjene ekološkog računovodstva (kao segmenta procesa integrisanog izvještavanja) u funkcijikreiranja vrijednosti za preduzeća i stejkholdere, koje bi posledično dovelo i do većeg stepenaprimjene i unaprijeđenja ekoloških standarda u Crnoj Gori.

Ključne riječi: integrisano izvještavanje, upravljačko računovodstvo, računovodstvo održivog razvoja, stejkholderi, Crna Gora

JEL: M41

1. Introduction

Operating a business in a socially responsible manner is imperative to its survival in the modern business environment. The value of the company based solely on short-term financial success is not a guarantee of its growth and development, thus in the process of creating the total value of the company a balance between economic and social goals must be established,

while special attention is directed to the achievement of environmental objectives. Socially responsible behavior of the company is a concept that, in the conditions of competition, but also in terms of raising human awareness of the importance of natural conditions in which he lives, must be integrated into the business philosophy of the company, and in its long-term business strategy.

Montenegro, in 1991, declared itself an ecological state on the basis of *the Declaration on Montenegro as an Ecological State*, while the Montenegrin Constitution defines it as a “*democratic, social and ecological state*”, which creates an additional responsibility for the whole society, but also for the economy of Montenegro, which by operating its business should contribute not only to the protection, but also the improvement of the environment.

The results of the process of company's value creation, but also its protection over time, can be traced through the corporate reporting process. Financial reporting, as the dominant segment of the corporate reporting process that quantifies the effects of business operations is not sufficient for understanding the overall value of the company. The social and environmental impact on business, as an essential contribution to maintaining the values, exceeds the domain of financial reporting, as it can be measured by certain non-financial indicators. Therefore, the concept of *integrated corporate reporting* is increasingly mentioned nowadays, which in addition to traditional financial reporting and legal liabilities of the company in this regard, also provides information about the overall business strategy, risk management, but also the social and environmental business effects.

The management accounting has a key role in the process of integrated financial reporting as a necessary tool for investments' identification and inclusion in sustainable development, and for measuring the effects of these investments in terms of increasing the company's values. Therefore, the aim of this paper is to highlight the importance of management accounting as an instrument that will allow companies to optimally meet the management and stakeholders' needs for information on the company's operations in accordance with environmental standards and requirements of sustainable development.

Due to the actualization of the integrated financial reporting process and management accounting function in the field of environmental objectives' realization in recent years, the authors of the paper through survey research want to assess whether the Montenegrin companies are familiar with

this concept, whether some of them are already using the management accounting tool for that purposes, whether they intend to do so in the future, and in general, whether they have developed awareness about the necessity of the implementation of this corporate reporting model. On the basis of the research results, certain conclusions and recommendations will be carried out in this segment.

2. Corporate social responsibility

Corporate social responsibility (CSR) represents a framework of regular business, in which balance is maintained with all interested parties (stakeholders) in terms of wider economic and social aspects of the business. In terms of CSR, the company has to take responsibility for different types of its influence exercised to the environment in which operates, and especially to take responsibility for those decisions that have a significant economic, social and environmental impact on consumers, employees and the local community in general. CSR must be based on transparency of all relevant activities with impact on the environment and society.

CSR, as one of the safest ways of doing business and creating a positive image in the modern business environment is becoming increasingly important. As a concept, it is very important for transition economies, which are facing with the problem of redefining the relationship between owners and managers, so that the application of the CSR concept is one of the ways in which company can even access to responsible restructuring. In addition, CSR is seen as a significant potential for development of the of the company's competitive positioning and the knowledge-based economy in general, as well as for social cohesion and sustainable development.

It is a concept which is by its structure very heterogeneous because it consists of five dimensions: environmental, social, economic, voluntary and dimension of stakeholders (Introduction to CSR and corporate philanthropy 2011, p. 9). There are many reasons why companies are focusing their attention and activities in a socially responsible manner. Direct motive for the company is the achievement of certain financial benefit and more efficient business operation, when, for example, the additional company's values may be created by recycling and using waste materials in an environmentally reasonable manner and thus directly affect to the profit level. The Dow Jones Group Sustainability Index (DJGSI) is one of the indicators which proves that companies operating in a socially responsible way, in terms of financial indicators, surpass those companies that do not operate in the same way. In

addition to the direct motive, companies are also opting for the corporate social responsibility due to creation of more innovative and productive atmosphere and greater motivation of employees, reputation improvement and company's brand creation, and due to strengthening relations with various stakeholders, greater credibility that the company entails, and more.

Corporate social responsibility of the company must be based on transparent activities, as well as transparent and comprehensive reporting on the operations and strategies to be implemented. Therefore, the greater company's commitment to corporate in a socially responsible manner was one of the reasons for financial transformation process, and for corporate reporting at the end of the last and the beginning of this century, which will be discussed later in this paper.

3. Modern business reporting

Financial reporting is the process of reporting based on information of financial nature. The process itself is supported by legislation, and therefore it has no voluntary but obligatory character. Companies often, besides mandatory financial statements and financial statements' notes, also publish some additional information about their operations due to easier financing and greater credibility of the business. Corporate reporting is a broader concept of financial reporting, as it contains the non-financial and qualitative information and it is linked to the joint stock companies whose securities are traded on financial markets. However, the core of the process of corporate reporting and corporate management is financial reporting.

In modern business conditions, the model of financial reporting has undergone many amendments. While previously the focus was on the accounting information, today information about the company's market value is increasingly gaining in importance. The accounting model which was dominantly based on tangible assets nowadays has been replaced by a model that focusing a lot of attention on the intangible forms of property as key generators of the company's value. The globalization process, opening borders for the movement of people, goods and capital, as well as the ongoing development of information technology required a review of the classical financial reporting model, thus there is a lot of talk nowadays about the comprehensive reporting paradigm, which as a result would have a modern business report for internal and external users. Business reporting, emerged as a result of the current corporate reporting transformation, where the additional set of information is offered to a wider group of users,

represents a modern business model in company reporting (Gazdar 2007, p. 23).¹ Opposite of traditional model, where the focus was on the financial information that has historical and obligatory character, directed to investors, the modern business model focuses on all stakeholders, while the focus is not just mandatory financial, but also voluntary non-financial information concerning future company's operations. The modern business model of company reporting can be seen in many forms depending on the information nature that company wants to put the emphasis on, as well as on the users of such information. If the emphasis is on providing information about the social performances of the company, and the end users are not only present and future investors but wider group of users, then we talk about the model of value added reporting (Malinić & Savić 2011, p. 81). The primary users of these reports are the employees. On the other hand, if the focus are investors to whom, in addition to financial, the company wants to offer a wide range of non-financial information, then we can talk about the Report on the key success factors (Reporting Value). This model of business reporting has emerged as a response to the growing information needs of investors due to development of capital market, intellectual property and other (Savić 2013, p. 81).

In addition to the above, the certain models of reporting want to actualize in its focus the social responsibility of the company and its relationship to the broader issues of economic, social and environmental nature. Those models represent the stage of integrated corporate reporting.

Integrated financial reporting is one of the last evolutionary stages in the development of corporate financial reporting.² It has emerged as a result of different understanding of business responsibility, or as a result of the necessity of more proactive and responsible position of the company's management towards interested balance addressees, primarily stakeholders. Essentially, the idea of integrated financial reporting lies in understanding of the synergy effect creation necessity on all relevant information about strategies, risk management, process management, environmental and social implications with financial aspect of business. The report resulting from this process should transparently display the company's efforts to create and sustain the value for their stakeholders (Savić 2013, p. 3).

The concept of integrated reporting includes not only the company's financially responsible position towards information users, but also environmentally, economically and socially responsible position. This

concept combines both financial and non-financial information, which can be best seen through the figure below:

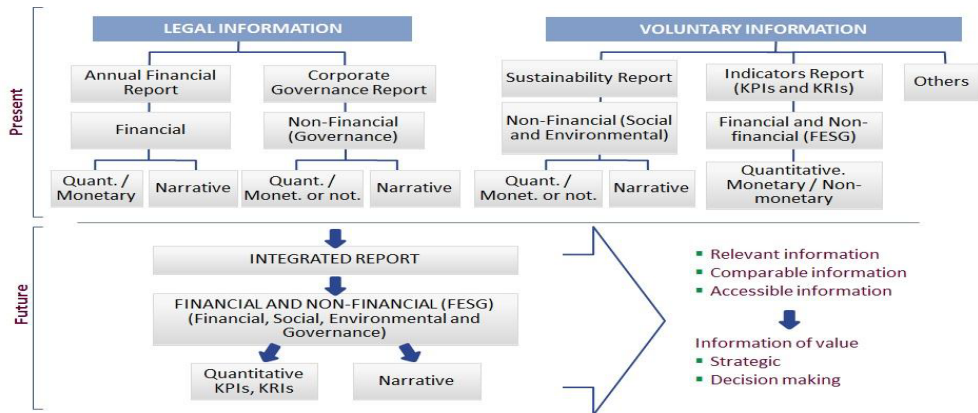


Figure 1. *Current and future trends in the development of company reporting*
Source: Lizcano Flores Mora Rejón 2013

The business environment and investors have even through the informal integrated reporting recognized its contribution to business decision-making. Therefore, in order to formalize currently the final stage of the corporate reporting process, the International Integrated Reporting Council (IIRC) was established in August 2010, consists of the world's regulatory accounting bodies, investors, companies, creators of accounting standards, accounting profession generally, and non-governmental organizations. The Council considers that reporting on how to create the company's value will be the next stage of the corporate reporting transformation process. Their mission is to create an adequate framework of an integrated corporate reporting, which by the formal application process should improve the quality of business reports, primarily making sure that the company explain its strategy and thus point to its full potential, not only to the legally required elements of the business reports. In late 2013, the International Integrated Reporting Council was created The International Integrated Reporting Framework (IIRC 2013), which should display the guidelines for companies to create the integrated business report. The created framework has been tested on more than 80 companies that participated in the pilot project and it has proven to be very successful, realizing the objectives in terms of preserving financial stability and sustainability of the company. The regulatory bodies in the pilot project have also realized the importance of the integrated reporting in terms of greater transparency and raising the harmonization level of the financial reporting process with the current legislation. Following the successful pilot

project, the International Council created the Strategy for the next step, namely the adoption of the Framework and its full implementation by the end of 2017 (Strategy: The Breakthrough Phase 2014-2017).

Taking into account the possibility that the process of integrated corporate reporting will soon be obligatory, but also that companies tend to create their own value operating a business on the previously defined socially responsible manner, the reporting with respect to the objectives' realization of environmental nature and environmental protection will also be necessary. The experience of the companies that participated in the pilot project has shown that there is a need for additional tool for the possibility of the integrated report creation which would contain information about the implementation of the company's environmental objectives, and that auxiliary tool is exactly the ecological management accounting or environmental accounting.

4. Environmental management accounting

The increasing actualization of environmental problems such as climate changes, the irrational use of water, deforestation and land drainage, disposal of large amounts of hazardous waste and other, creates a challenge for companies to pay much attention to the environmental management. Environmental management or eco-management represents management activities towards knowledge acquisition and skills for the environmental protection and solving problems of ecological nature. The very process of the environmental management and decision-making also requires specific informational support in terms of records of all investments in environmental protection, but also the effects of these investments for the company, which connects the process of environmental protection with the process of the integrated reporting.

Deciding on investments in environmental protection is the process of alternative decision-making, where someone should opt for the one of several variants. The decision process is based on a model of cost/benefit analysis, but it implies the possibility of measuring both investment and benefits. Therefore, in the process of identifying the costs of environmental protection, their accounting coverage should be provided, thus these costs are reported through the process of ecological (green) accounting.

The environmental accounting in general, as well as the instrument for managing environmental costs, are gaining in importance in many

companies in the world today³. The environmental reporting is seen as one of the important components that can improve corporate behavior and performances of the company. In this sense, one of the special accounting segments, seen from this perspective, concerning the environmental management accounting, as a unique concept which includes elements of traditional management accounting, financial accounting and information system oriented towards the environment. That fusion is very important because we need to ensure the information flow from financial accounting, cost accounting and cash flow of materials in order to increase the business efficiency, reduce the impact on the environment, and thus the environmental costs and associated risks (Jasch 2003, p. 668). The environmental management accounting in practice is primarily engaged by providing accounting information to support business and financial management related to environmental protection, including material and energy flow accounting (Environmental Management Accounting 2008).

Therefore, in order to obtain precise information on the environmental costs and revenues, which would be occurred as a result of the company's impact on environment, the environmental management accounting can be seen from the financial and non-financial aspects. The financial aspect of management accounting is mostly based on the concept of traditional management accounting, with the expansion of the spectrum of interest to environmental instruments of corporate responsibility. In contrast to the above, the non-financial aspects of management accounting aims to contribute to the management efficiency of the environmental spectrum of business trying to examine, by insight into the material and energy flows, the short-term product impact on the environment, assess the damage of natural resources, then through the budgeting of physical material and energy flow identify potential energy savings, and thus the possibility of cost reduction (Savić 2013, p. 223). Finally, according to the researchers estimations, about 20% of the costs that are hidden in part of the general costs (administration costs, management costs, etc.) are identified which, with the intention of achieving and maintaining sustainable business, aims to control and monitor the environmental management accounting .

To create an information base in the field of environmental accounting, it is primarily necessary to book cover all natural types of the environmental (ecological) costs, ie. green costs, which are the subject of financial accounting. Environmental management accounting takes primary green costs from financial accounting which are then directed toward the respective

centers of responsibilities, where the costs have been occurred as a result of their activities which are focused on improving the environment. Natural types of costs depend on the nature of the activities which the company deals with and the choice of the technological process and the equipment used for the realization of the environmental protection objectives. In order to create accounting information for decision making on the environmental protection, it is essential to identify, quantify and book cover the costs relating to the environmental responsibility of the company. The instruments of financial and management accounting are used for the accounting inclusion of the costs (figure of accounts, financial records, accounting documentation, information software, etc.). The adequate accounting inclusion of the costs and their effects requires the knowledge of business processes and activities of the company and the associated inputs (raw materials, energy, water, external services) and outputs (products, services, waste). Separation of output to useful and harmful is the first step in protecting the environment, and on the basis of accounting reports the eco-management can make the appropriate decisions.

In order to evaluate the situation, scope and perspectives of global trends development of financial reporting in Montenegro, we have used a questionnaire. The aim of the mentioned questionnaire was to, due to the fact that Montenegro is an ecological state, examine knowledge and awareness of respondents in terms of modern tendencies of companies' accounting development, with particular emphasis on ecological management accounting, as well as their attitude toward the above.

5. Modern tendencies in management accounting - ecological management accounting with reference to Montenegro

With the intention to elaborate the justified theoretical overview of this subject matter from a practical point of view in the case of Montenegro, the primary objective of the authors of this paper was conducting a survey research that was designed from the questions that follow the structure of the paper. For certain reasons⁴, we did not succeed to realize the survey in a way that provides a relevant sample which would be adequate for performing certain conclusions. As a potential cause of the above, we see a lack of information among potential surveyed on an issue which was the subject of the survey, and hence unwillingness to respond to questions posed to them. That is probably the case, confirmed by the fact that for questions: Are you aware of the existence of: (a) Environmental accounting; (b)

Environmental management accounting; (c) Social management accounting; only 33% of respondents gave an answer, while 8,33% said they are familiar with the concept of environmental accounting, 16.67% with the concept of environmental management accounting, and 8.33% with the concept of social management accounting. Although the sample is very small to be able to present the conclusions, however, the fact is that, especially in practice, there is no, or there is very little awareness in terms of modern tendencies of the information system accounting development.

It is interesting to note that for the question: Do you believe that the incentive for environmental management is based on the pressures on stakeholders, such as regulators, investors, the community, employees, environmental groups?, the answer was given by all respondents, while 75% gave a positive answer, and the rest of the 25% gave a negative answer. We believe that above response structure is due to the fact that the financial reporting (external) is imperatively prescribed by statutory accounting regulations, and that exactly this kind of answer is the result of the impression of such a situation. In order to overcome this perception, we believe that in the coming period more attention should be paid to the education of persons involved in the accounting process, as well to the understanding that certain activities that are being introduced and implemented in the accounting framework should not be seen as a matter of “coercion”, but as a well-intentioned approach, which is in function of advancement and improvement of business operations and ambient of certain economy.

The positive approach of the respondents in terms of innovation in the field of management accounting is reflected in the answering the question: Do you consider that the environmental management accounting is only one trend in the development of management accounting, which does not contribute to the success of the company's business?, where 83.33% of respondents gave a negative answer, and the rest answered positively. It is obvious that despite the significant lack of knowledge about the new trends of management accounting development among the respondents, and generally among public accounting, there is a positive approach to the acceptance of the innovations, as well as the effects that may occur as a result of their application, and which can significantly contribute to the improvement of the company's performances and its sustainable business.

Finally, for the question: Since Montenegro is an ecological state, do you consider that it is necessary to apply the ecological management accounting?,

opinions were divided so that 58.33% gave a positive response, and the rest (41.67%) respond negatively. We believe that this response structure is due to the circumstance that the idea of ecological state of Montenegro that is promoted for almost 25 years is almost vanished, which is confirmed by the fact of the absence of sufficiently developed awareness among Montenegrin population about the importance and generally the implementation of this very important idea.

Finally, although the survey sample was not relevant to the performance of adequate scientific conclusions or making recommendations on that basis, however, to us as authors, the obtained results have served as an indicator to look at a situation and to establish the appropriate opinion. What is somewhat encouraging, is the fact that people in academia in recent years have begun talking about the existence and importance of modern tendencies of companies' accounting development. The worrying fact is that, as Montenegro is still a country that is followed by the effects of the transition process, the country where it is thought that, external financial reporting is solely a matter of legal obligation, as well as the country in which, in the field of normative accounting framework there are some gaps, especially in the implementation. All this together creates the link that does not allow a sufficient and significant development of accounting profession in Montenegro in such a way to follow and implement modern trends of accounting development. On the other hand, the fact that Montenegro has expressed its readiness to join the EU, and the fact that in the field of accounting Chapter 6, which regulates the issue of accounting and commercial law has been opened, indicates in a direct way the willingness of the competent authorities for even greater regulation of this important element to achieve sustainable economic growth and development.

6. Conclusion

Given the current status of the world economy in general, but also still present economic crisis, the general attitude is that it is necessary to control and reduce the risk of investment in the business, and thus provide a complete set of information (financial and nonfinancial), in order to make relevant business decisions. In the past decade, there was almost no discussion about societal, and especially social and environmental responsibility of the company. However, business trends and the situation in the world economy are shifting boundaries. Although the situation regarding trend of movement and development of financial reporting goes in stakeholders' favor, however,

we still believe that it is a selective approach, since all economies are not aware of the importance of the benefits that the final evolutionary stage in the development of financial reporting entails. By studying the problem which has been the subject of discussion, we have concluded that:

- *Integrated reporting has become a global phenomenon and a trend that has grown on the basis of the lack of traditional financial reporting framework. It is based on the idea of a more transparent business operations of the company, but also more responsible attitude to environmental, social and societal sphere;*
- *In Montenegro, unfortunately, due to a transition process but also due to the effects of the global economic crisis, financial reporting is still within the limits of the traditional;*
- *Through a conducted survey research we have not had the opportunity to present argumented and scientific views on the management accounting of sustainable development in Montenegro, but our generally view is that a little, or almost nothing is known about the innovations that are happening in the field of accounting system. The reason for this situation is seen in the fact that Montenegro is still a transitional economy, and also a country that has not yet been built particularly institutional frameworks that would be able to support that.*

Based on the foregoing, we have concluded that modern trends and innovations in the field of financial reporting represent a significant step forward, which from a new perspective gives a different and more comprehensive view on the survival and sustainable development of the company. In that part, we consider that adequate education on innovations in the context of the accounting process should start from academia, which represent a key lever and a link in the whole process.

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Endnotes

- 1 By analyzing the available literature in this field, it can be seen that the authors do not have a unified position on the issue of what additional information is required to disclose. It is believed that this should be: (a) information about market share, innovations, quality and satisfaction of consumers; (b) information on innovations, technology and human resources; (c) information on the emission of carbon dioxide, the standard of employees, quality of management, as well as the information on the efforts of companies in the fight against corruption.
- 2 About the revolution of integrated financial reporting we can talk as of 2010, and especially since 2012, when academic or scientific community began to be intensely involved in this issue.
- 3 The first global report on corporate environmental responsibility published by well-known auditing company KPMG in 1993. Following the example of the above-mentioned company as well as realizing the relevance of this report, for years afterwards the number of companies that published it began to grow.
- 4 The conducted survey was available on several occasions to persons in Montenegrin companies who are directly involved in the process of financial reporting, or cover any of the functions within the accounting sector.

**MANAGEMENT AND ENTREPRENEURSHIP /
MENADŽMENT I PODUZETNIŠTVO**

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CHALLENGES OF EVALUATION OF THE INFLUENCE OF ENTREPRENEURSHIP EDUCATION

IZAZOVI U MJERENJU UČINAKA PODUZETNIČKOG OBRAZOVANJA

Abstract

The need for entrepreneurial behaviour and activity in all aspects of life is becoming more pronounced, and education has a decisive role in the creation of an entrepreneurial society and entrepreneurial culture. The number of educational programmes in entrepreneurship at all levels of education is steadily increasing worldwide. It is often said that entrepreneurship education is one of the most important development and economic mechanisms. Organizational structure, content, methodology and pedagogy differ from programme to programme, but all of them are created because of similar motives: to stimulate economic development of the environment in which they operate. Entrepreneurship education has a positive influence on the development of entrepreneurial spirit of young people, their intentions towards starting their own business, their employability and, ultimately, their role in society and economy. Although the importance of entrepreneurship education is almost universally accepted, there are numerous problems in measuring the impact of such education. In the case of entrepreneurship education, the traditional tools for assessing the knowledge acquired are not applicable. The objective of the paper is to present the different approaches in evaluation of impact of entrepreneurship education and to introduce a tool for assessing the impact of entrepreneurship education, developed within the European project ASTEE¹. The aim of the ASTEE project was to develop a joint European tool for measuring the effects of education

for development of entrepreneurial competences at all educational levels (primary, secondary and tertiary education). The paper will also present the results of research conducted within the project in Croatia.

Keywords: entrepreneurship, entrepreneurship education, impact of entrepreneurship education

JEL: I29, L26

Sažetak

Potreba za poduzetničkim ponašanjem i djelovanjem u svim aspektima života postaje sve naglašenija, a presudnu ulogu u stvaranju poduzetničkog društva i poduzetničke kulture ima obrazovanje. Broj obrazovnih programa iz poduzetništva na svim razinama obrazovanja, širom svijeta u stalnom je porastu. Često se navodi kako je poduzetničko obrazovanje jedan od najvažnijih razvojno-ekonomskih mehanizama. Način organizacije, sadržaj, metodologija i pedagogija se od programa do programa razlikuju, ali svi oni nastaju iz sličnih pobuda: potaknuti ekonomski razvoj sredine u kojoj djeluju. Poduzetničko obrazovanje ima pozitivan utjecaj na razvijanje poduzetnog duha mladih ljudi, njihove namjere prema otvaranju vlastitog poduzeća, njihovu zapošljivost i u konačnici na njihovu ulogu u društvu i gospodarstvu. Iako je značaj poduzetničkog obrazovanja gotovo opće prihvaćen postoje brojni problemi u mjerenju učinaka takvog obrazovanja. U slučaju poduzetničkog obrazovanja, tradicionalni alati za procjenu stečenog znanja, nisu primjenjivi. Cilj rada je prikazati različite pristupe u evaluaciji učinaka poduzetničkog obrazovanja te predstaviti alat za mjerenje učinaka poduzetničkog obrazovanja, razvijen u okviru europskog projekta ASTEE². Cilj projekta ASTEE bio je razviti zajednički europski alat za mjerenje učinka obrazovanja za razvoj poduzetničkih kompetencija na svim obrazovnim razinama (osnovnoškolsko, srednjoškolsko i visoko obrazovanje). U radu će se prezentirati i rezultati istraživanja napravljenog u okviru projekta u Hrvatskoj.

Ključne riječi: poduzetništvo, poduzetničko obrazovanje, učinci poduzetničkog obrazovanja

JEL: I29, L26

1. Introduction

The need for entrepreneurial activity and behaviour in all aspects of society is becoming more and more pronounced where education is crucial for the creation of an entrepreneurial society and entrepreneurial culture (Jack & Anderson 1999, Singh & Magee 2001, Kirby 2004, Gibb 2002a, Henry et al. 2005, Galloway et al. 2005, Oberman Peterka 2008). Entrepreneurship

education is increasingly being talked about, but authors mean different things by the term *entrepreneurship education*. Entrepreneurship education is often defined as education closely related to small business, its launch and development (Kourilsky 1995, cited in Jones & English 1999, p. 417, Alberti 1999, cited in Holmgren & From 2005, p. 385), while other authors have a broader view of entrepreneurship education, not giving it exclusively and solely economic relevance. Entrepreneurship education is linked to the development of creativity and innovation, as well as the development of other entrepreneurial skills, attributes and behaviours, which can be applied in different contexts and situations, not only business (Hannon 2005, p. 3, Holmgren & From 2005, p. 385, Gibb 2002a). The number of educational programmes in entrepreneurship at all levels of education is steadily increasing worldwide. Although these programmes differ by organizational structure, content, methodology and pedagogy, all of them are created because of similar motives: to stimulate economic development of the environment in which they operate (Holmgren & From 2005, Jack & Anderson 1999, Kirby 2004), and they are often considered the most important development and economic mechanism. Lack of a unified concept of entrepreneurship education has led to different understandings on what should be the goal of such education, how should entrepreneurship education programmes be organized, which pedagogy and methodology should be used, who should be involved in the execution of these programmes, and how should they be evaluated.

2. Previous research

Entrepreneurship is a subject of growing interest at universities and business schools throughout the world. The primary reason for this are global changes that are felt all around us; in business and private worlds, new technologies, as well as new emerging global markets (Henry et al. 2005, p. 100). In light of these changes, it is shown that entrepreneurial skills, attribute and behaviours, at all levels of society, are crucial for coping and managing in a complex and uncertain environment (Gibb & Cotton 1998, Gibb 2002b, Henry et al. 2005). Emergence of an increasing number of entrepreneurship programmes has brought a great number of questions and problems. One of them is certainly how to assess and how to evaluate entrepreneurship programmes.

Evaluation of entrepreneurship education is ambiguous and it refers to the assessment of the effectiveness of programmes, and the ways of evaluating

students involved in entrepreneurship programmes (Oberman Peterka 2008). The field of student evaluation is a recognized weakness of entrepreneurship programmes throughout the world, and pressures for a change in the way and the form of assessment of educational programmes are occurring (Gibb 2002a). If it is expected from programme assessment to estimate and evaluate the extent to which students' entrepreneurial behaviours, characteristics and skills have developed, then many agree that this is a very difficult task due to the ever-present subjectivity (Gibb & Cotton 1998, Gibb 2002b, Vesper & Gartner 1997). Some believe that a business plan can be a good measure (Solomon et al 2002), while others disagree, stating that someone can be very enterprising in writing a business plan, but the business plan itself can be a result of a very formal and uninspiring process. Others believe that starting and running a venture (not necessarily a for-profit company) is also a good measure, but the estimate of the degree of entrepreneurial behaviour involved in this process, and achieved personal development are susceptible to strong subjectivity (Gibb & Cotton 1998, cited in Oberman Peterka 2008). Some universities are introducing evaluation of students by the students themselves ("peer evaluation"), and thus the focus of the programme shifts from lecturer to student. Students are fully qualified for the assessment of their colleagues since they are familiar with the task, they bring student perspective to the evaluation process and are aware of the performance of each member of their group, as well as the performance of other groups (Jones & English 2004).

Some authors (Solomon et al. 2002) think that entrepreneurship programmes should combine traditional (test, essays, etc.) and contemporary – entrepreneurial methods of evaluation (evaluation of students by other students, use of "live" case studies).

In any case, evaluation of all educational programmes, including entrepreneurship programmes, should be built on a system of criteria which will answer the question whether or not a student has mastered the material, and consider the extent to which the student will benefit from that course. The criteria should be linked to group dynamics, participation in virtual ventures, creativity and innovation in the execution of tasks. Each of these criteria should carry an appropriate percentage of the overall student grade.

Measuring the effects of entrepreneurship education programmes is also vital for the development of this area; measured by the number, types and growing rate of newly created companies, through measuring the

contribution to the development of the economy, and through employment and the degree of satisfaction with career and students' career development (Solomon et al. 2002, McMullan & Long 1987). In an attempt to evaluate 50 entrepreneurship programmes, it is stated that it is very difficult to measure the effectiveness of entrepreneurship programmes for several reasons (Hytti and O'Gorman 2004):

- It is very difficult to link the intention and methods of the programme with the result of the programme, since there is a time lag between the entry into the educational process and the corresponding results of that educational process;
- It is unclear how to measure the result of entrepreneurship education: whether through the number of newly started companies, entrepreneurial activity during one's career, evaluation of company performance or job satisfaction;
- It is difficult to compare results of different entrepreneurship programmes, because they have different objectives and apply different teaching methods.

However, despite these difficulties, Hytti and O'Gorman (2004) believe that it is possible to identify the key success factors that can be applied in different contexts, where the aims and the applied methods are sufficiently similar. They relate these key factors to three core issues:

1. Aim and objective of entrepreneurship programme
2. Possibility of improvement of the methods applied in entrepreneurship programmes, and
3. Issue of training the trainers in entrepreneurship programmes, since it has been shown that this issue is the critical obstacle to effective entrepreneurship programmes.

Jack and Anderson (1998, cited in Henry et al. 2005) have developed a framework for evaluation of entrepreneurship programmes, which highlights the need to measure the impact of individual programme elements over time. Other authors also (Wyckham 1989, Fleming 1996, Clark et al. 1984, cited in Henry et al. 2005) emphasize the lack of longitudinal research in the field of entrepreneurship education and measurement of the effects of these programmes. Garavan and O'Cinneide (1994, cited in Henry et al. 2005) suggest that in addition to longitudinal research, which is essential for getting answers about the effects of entrepreneurship education, control groups should also be used, for the purpose of comparison of the development of

students who haven't attended entrepreneurship programmes with those that have.

Evaluation of entrepreneurship programmes is one of the most intriguing topics of research, given the diversity of programmes, their definition, goals, processes, activities and results. There is a lack of research on this subject in literature, but the full acceptance and accreditation of entrepreneurship programmes will depend exactly on solving this problem (Gibb & Cotton 1998).

3. ASTEE project

The problem of measuring impact of entrepreneurial education is widely recognized and is therefore in the focus of numerous researches. The ASTEE project (Assessment Tools and Indicators for Entrepreneurial Education) was created with the main objective of developing a set of common European tools for measuring the impact of entrepreneurship education on students' entrepreneurial competences across all education levels. The project lasted 18 months, from December 2012 till June 2014 and it was co-financed by the Competitiveness and Innovation Framework Programme (CIP) of European Community. The project partners were: Foundation for Entrepreneurship Young Enterprise (Denmark), EMLYON Business School (France), PEEP – Platform for Entrepreneurship Education (Portugal), University of Applied Sciences Munich (Germany), Dublin Institute for Technology (Ireland), Junior Achievement – Young Enterprise Europe (Belgium) and J. J. Strossmayer University of Osijek, Faculty of Economics (Croatia).

The members representing these countries worked on the development process of assessment tools for measuring the impact of entrepreneurship education, while the testing was also carried out in additional six countries: Sweden, United Kingdom, Austria, Italy, Romania and Spain. Looking beyond the scope of the ASTEE project, the prospects for the use of the tools are to measure entrepreneurship competences in the short and in the long run – similar to PISA; to give insight at all three levels – in contrast to PISA; to allow for measurement, not only at the three educational levels, but also at the individual, institutional and national levels and to allow for comparisons between institutions and nations thus indicating to policy makers which public strategies to pursue (ASTEE 2014).

3.1 Description of ASTEE assessment tool

The EU definition of entrepreneurship as a key competence for lifelong learning and knowledge was the basis for identifying relevant indicators for survey in this project, complemented with previous research and empirical studies. As a result of the project, a set of common tools has been developed, in the form of a self-assessment questionnaire, with a total of 48 questions at primary level, 64 questions at secondary level and 57 at tertiary level. It is used for assessing entrepreneurial skills, mindset, knowledge, connectedness to education and connectedness to future career, as shown below (Figure 1). The decision was made about the target age of students at primary, secondary and tertiary levels of education. At the primary level questionnaire was made to target students aged 10-11, students aged 16-17 at the secondary level, while students aged 20+ were targeted at the tertiary level.

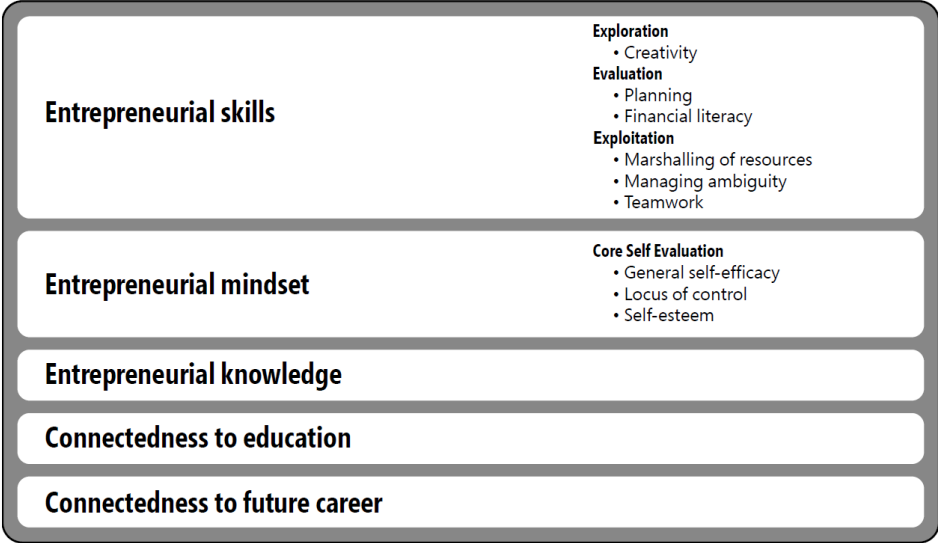


Figure 1 The dimensions and constructs included in the questionnaires

Source: ASTEE 2014a

Entrepreneurial skills

The ASTEE project defined skills as “the combination of the knowledge, the knowhow and the experiences that have been acquired and that are necessary/useful in order to carry out an activity in a professional way” (ASTEE 2014a). Entrepreneurial activities require many different types of skills and abilities, both cognitively-oriented skills and skills of a more non-

cognitive character (Kuratko & Hodgetts, 2004, Rosendahl-Huber, Sloof & Van Praag, 2012, cited in ASTEE 2014a).

There are different views on which types of skills entrepreneurship education should focus on, and European Union has identified a large number of skills that are important for entrepreneurial activities. Skills have been grouped in six categories within the ASTEE project: creativity, planning, financial literacy, resource marshalling, managing uncertainty, and teamwork. A different set of skills is needed in different phases of entrepreneurial process.

Entrepreneurial mindset

“Entrepreneurial mindset is focused on actions and responsibilities, since it is important for pupils and students to understand their role as active agents and creators of their own future” (ASTEE 2014a). In the ASTEE project various attitudes are measured by Core Self Evaluation (CSE), developed by Judge, Eres, Bono and Thoresen (Judge et al. 2003 cited in ASTEE 2014a), and it measures individuals’ general self-efficacy, locus of control, and self-esteem.

Entrepreneurial knowledge

Educational system is constantly assessing knowledge and it has a long tradition of assessing it so this was the main reason for incorporating this dimension in the assessment tool. European Union through its DG Enterprise and Industry has identified areas of important knowledge, such as: knowledge about how to identify opportunities, the bigger picture regarding the context in which people live and work, how the economy functions, as well as ethical positions of enterprises. Since these are areas that are difficult to measure, ASTEE focused on “assessing pupils and students perception of their knowledge, as it relates to their perception of their skills and abilities” (ASTEE 2014a).

Connectedness to education

“Relationships with classmates and teachers play an important role here, as well as to what extent the pupils find their education purposeful and useful” (ASTEE 2014a). The main focus within the ASTEE project was on student-teacher relationship since this has been demonstrated to be a good proxy for other dimensions as well. The main goal and focus of this measure is to assess

to which extent teachers encourage pupils and students to act proactively and to engage in innovative and entrepreneurial activities.

Connectedness to future career

It is very important for the pupils and students to be able to connect their learning process with the real job assignments in their future work life. Job descriptions as well as knowledge intensity are constantly changing and as the result of that educational requirements are becoming higher.

When measuring this dimension, ASTEE project “focused on the pupils’ and students’ enterprising activities in the present and not only included questions about their work experience, but also questions about whether they have started or led any activities outside school, whether they engage in volunteer work, and their experience with self-employment” (ASTEE 2014a).

Tools are intended to be applicable in all disciplines and areas of education. After the pilot study, the data were analyzed to assure validity of the questionnaire. Using Structural Equation Modelling and analysis, such as confirmatory factor analysis, factorial invariance and known group analysis it has been shown “that measures are reliable, that the questions provide a good reflection of their intended dimensions and that they are understood in the same way by the respondents regardless of their background and that they are valid measures of entrepreneurial behavior” (ASTEE 2014a).

3.2 Results of the research project in Croatia

During the ASTEE project research has been carried out in 13 countries, questioning a total of 6,488 students across all education levels. Since J. J. Strossmayer University of Osijek was the project partner in Croatia, pilot study within the project was carried out in primary and secondary schools and faculties in the city of Osijek. A total of 644 pupils and students were surveyed.

The study included 181 pupils from three elementary schools aged 10 to 11 years, 222 pupils from 4 secondary schools aged 16 to 17 years (two gymnasiums and two vocational schools) and 241 students aged 20 and over, from 5 faculties and departments of the J. J. Strossmayer University of Osijek (Faculty of Economics, Faculty of Civil Engineering, Faculty of Law, Faculty of Food Technology and Department of Culturology).

Special attention in the analysis of data is focused on the comparison of responses of pupils of primary and secondary schools, and students, and the analysis of the differences between them. One to two questions have been isolated, which relate to individual dimensions of the tool, but which by themselves can also be a source of certain conclusions and a basis for discussion.

Analysis of the responses to the questions about self-assessment (part of the dimension Entrepreneurial mindset; *I am confident I will succeed in life* and *Overall, I am satisfied with myself*), show high self-confidence of elementary school pupils in relation to the two other groups of examinees (Figure 2); almost 57% of primary school pupils “strongly agree” compared to 23% of students and 21% of secondary school pupils. Likewise, 56% of primary school pupils have shown “high” satisfaction with themselves, while only 17.4% students and 14% of secondary school pupils gave the same answer to the question (Figure 3).

What had happened in the meantime: was the sense and belief in oneself lost between the elementary school and faculty? Can (and should) the development of this personality trait be the goal of education? Self-confidence is important regardless of what an individual is going to do in life, while one can hardly be successful in anything without it.

Although these are not large differences in responses, it is interesting to comment that secondary school pupils have shown the least belief in themselves, which may lead us to the conclusion that secondary education must take more account of the development of these personality traits of pupils, especially since this is a very sensitive period in the development of every person.

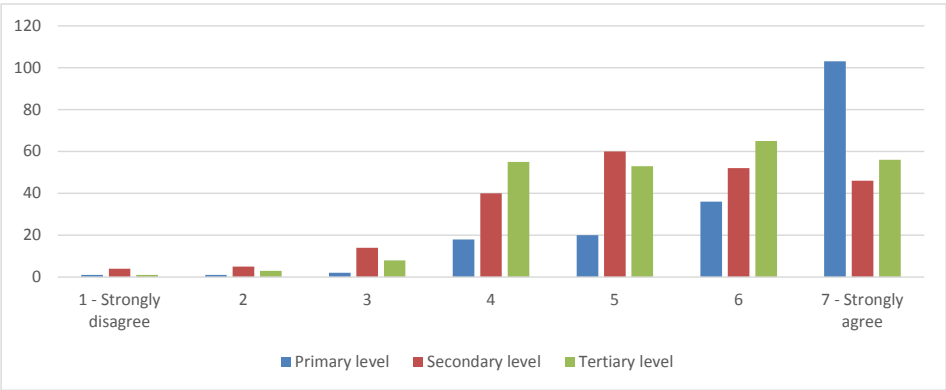


Figure 2. *I am confident I will succeed in life*

Source: Research data

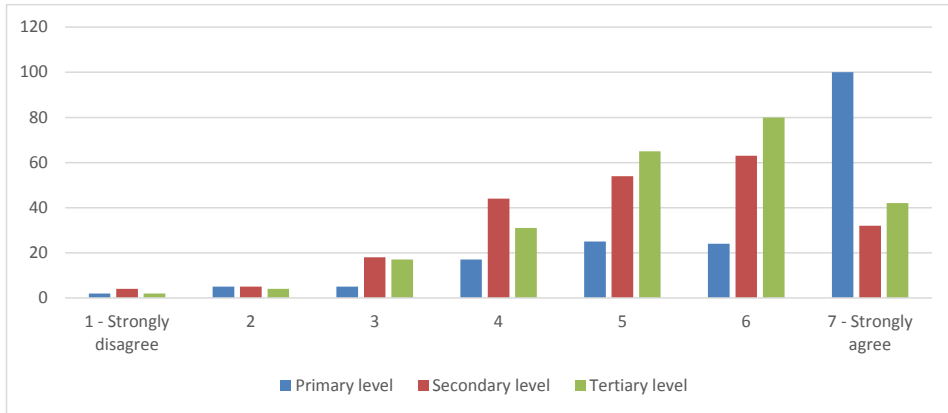


Figure 3. *Overall, I am satisfied with myself*

Source: Research data

Responses to several questions deal with methods of teaching in primary and secondary schools (*teaching methods*)³: *In school, I have been thought how to think creatively, In school, I have been thought how to come up with ideas, In school, I have been thought how to translate ideas into action.*

Almost 50% of primary school pupils believe that school has taught them creativity as opposed to only 6% of secondary school pupils; 44% primary school pupils and only 6% of secondary school pupils think that they have learned how to come up with ideas in school, and only 28% of primary school pupils and 5% of secondary school pupils believe that they have learned how to translate ideas into action (Figure 4, 5 and 6).

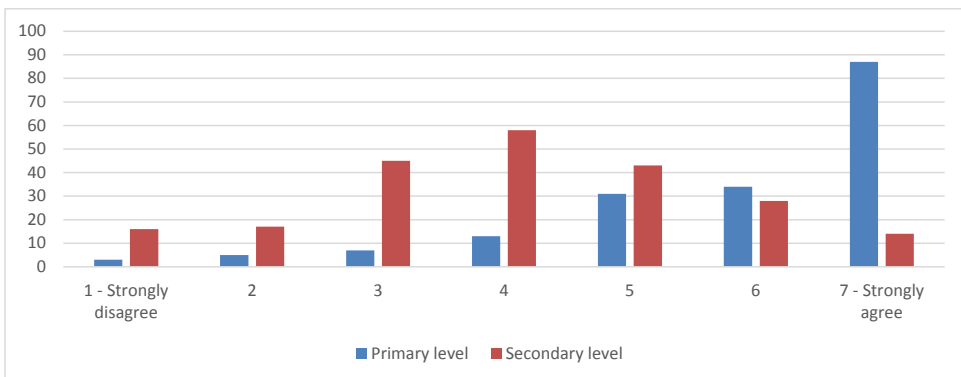


Figure 4. *In school I have been thought how to think creatively*

Source: Research data

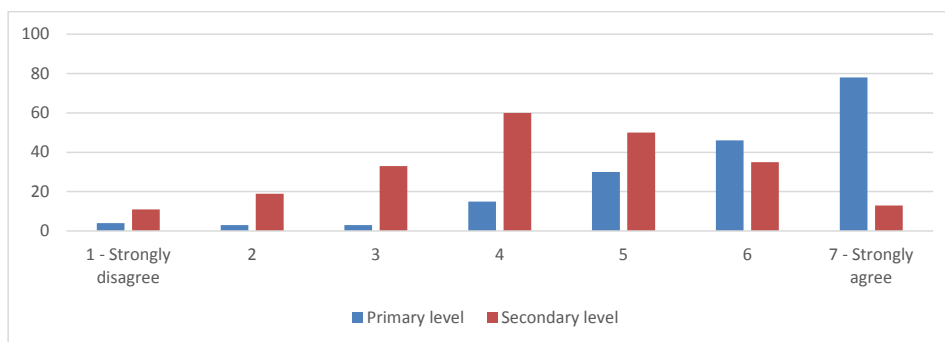


Figure 5. *In schools I have been thought how to come up with ideas*

Source: Research data

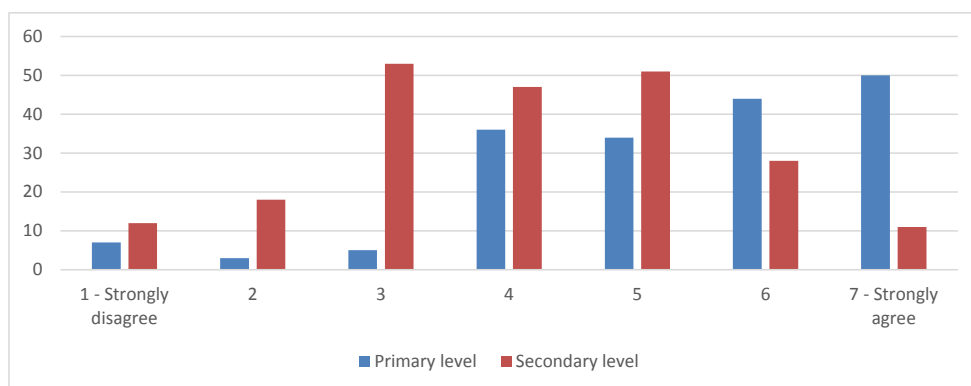


Figure 6. *In school, I have been thought how to translate ideas into action*

Source: Research data

Likewise, research shows that primary school pupils believe that they have more enterprising than secondary school pupils (Table 1). About 50% of primary school pupils feel that teachers encourage them to additional activities (*I feel that teachers encourage me to participate in extra activities*), as opposed to only 8% of secondary school pupils. Only 3% of secondary school pupils feel that teachers listen to their ideas (*I feel that teachers listen to my ideas*), as opposed to 31% of primary school pupils, and a small number of pupils of both primary and secondary schools feel that teachers believe it is all right to make mistakes (*I feel that teachers say it is all right to make mistakes*).

Table 1. *Entrepreneurial teachers*

	<i>I feel that teachers encourage me to participate in extra activities</i>		<i>I feel that teachers listen to my ideas</i>		<i>I feel that teachers say it is all right to make mistakes</i>	
	Primary level (%)	Secondary level (%)	Primary level (%)	Secondary level (%)	Primary level (%)	Secondary level (%)
1 - Strongly disagree	9.44	12.73	8.33	15.84	18.99	12.67
2	3.89	13.64	4.44	18.10	6.70	9.05
3	5.00	17.73	7.22	20.81	7.26	15.38
4	6.11	20.00	17.78	21.72	16.20	24.89
5	9.44	16.82	14.44	14.93	13.97	18.55
6	16.67	11.36	17.22	5.88	7.26	12.22
7 - Strongly agree	49.44	7.73	30.56	2.71	29.61	7.24

Source: Research data

As a result of more entrepreneurial teaching methods and more entrepreneurial teachers, we've got more creative primary school pupils than other two groups of students (Figure 7).

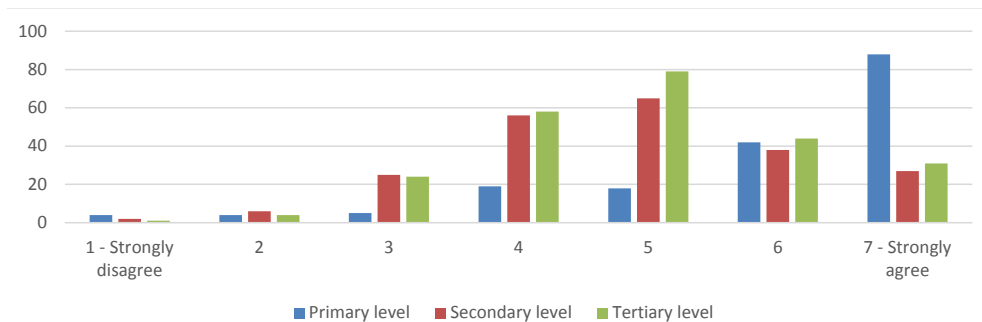


Figure 7. I am able to come up with new ideas

Source: Research data

When we analyse entrepreneurial intentions of pupils and students (*My goal is to become my own boss/an entrepreneur*), we observe that most secondary school pupils do not see themselves as their own bossess, while (again) the highest number of primary school pupils see themselves in this role (Figure 8).

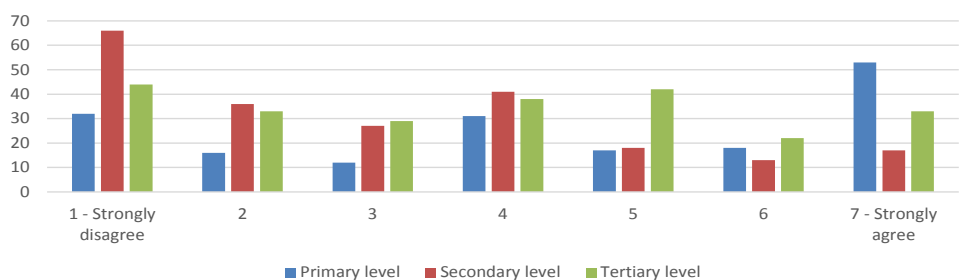


Figure 8. My goal is to become my own boss/an entrepreneur

Source: Research data

Although, more than 80% of each group of students said that they would like (answers 5, 6 and 7 on the scale) to have a job that allows them to work on their own ideas (Figure 9).

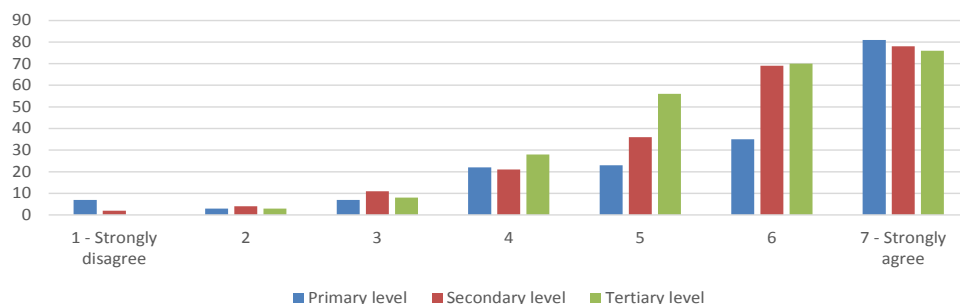


Figure 9. I would like to have a job that allows me to work on my own ideas

Source: Research data

However, the majority of the respondents (51.07%) believe that starting a company is positive, while only 9% of all respondents consider it negative (Table 2).

Table 2. *In general, starting a business is...*

	Primary level %	Secondary level %	Tertiary level %	(All respondents) %
1 - Negative	11.95	7.01	8.90	9.03
2	3.14	3.27	6.36	4.43
3	4.40	5.14	5.93	5.25
4	14.47	21.03	15.68	17.24
5	10.69	14.02	13.56	12.97
6	14.47	20.56	22.88	19.87
7 - Positive	40.88	28.97	26.69	31.20

Source: Research data

4. Conclusion and suggestions for further research

The need for entrepreneurial activity and behaviour in all aspects of society is becoming more and more pronounced where education is crucial for the creation of an entrepreneurial society and entrepreneurial culture. Entrepreneurship education has a positive influence on the development of entrepreneurial spirit of young people, their intentions towards starting their own business, their employability and, ultimately, their role in society and economy. Although the importance of entrepreneurship education is almost universally accepted, there are numerous problems in measuring the impact of such education. The ASTEE project (Assessment Tools and Indicators for Entrepreneurial Education) was created with the main objective of developing a set of common European tools for measuring the impact of entrepreneurship education on students' entrepreneurial competences across all education levels (primary, secondary and tertiary). Research has been carried out in 13 countries, questioning a total of 6,488 students across all education levels. As a result of ASTEE project the tools were developed and it has been shown that measures are reliable and that they are the valid measures of entrepreneurial behavior of students' at all three educational levels. Pilot study in Croatia (within the project) was carried out in primary and secondary schools and faculties in the city of Osijek (since the J. J. Strossmayer University of Osijek was the partner in the project). A total of 644 pupils and students from all three educational levels were surveyed.

Results of research on this convenience sample have shown that education does not stimulate development of entrepreneurial mindset, nor entrepreneurial skills, especially at the secondary level, and that teaching methods that develop these skills and encourage entrepreneurial thinking in pupils are not used. This study confirms the well-known statement that formal education stifles creativity in children, and that it (creativity) is greatly reduced as education progresses. Although this is a convenience sample on a very narrow geofigureical area, which cannot be used as the basis for making general conclusions, this study has nevertheless indicated some interesting facts, and it encourages further thinking, discussion and research. It would be interesting to see whether responses and attitudes of primary and secondary school pupils and students from other parts of Croatia differ, and which schools in Croatia educate "the most enterprising" pupils. How much and in what ways are we different in relation to European education? Likewise, the study confirms that the role of teachers in developing enterprising persons is crucial and that it is also important to invest into education of teachers,

because it cannot be expected that they are going to implement new teaching methods and techniques on their own. Creating enterprising individuals and enterprising society cannot be left to individual initiative of teachers or pupils; it must be built into educational strategies and policies of every society. Only in that way we can get from education what we expect from it – creation of self-confident individuals, who are able to contribute to the development of the society in which they live and work.

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Endnotes

- 1 ASTEE project (2012-2014) was implemented by partners from Denmark, France, Portugal, Germany, Ireland, Germany, Croatia and Belgium, and co-financed by the European Union through the Competitiveness and Innovation Framework Programme (CIP).
- 2 ASTEE projekt (2012-2014) su proveli partneri iz Danske, Francuske, Portugala, Njemačke, Irske, Hrvatske i Belgije te je sufinanciran od strane Europske unije, kroz Okvirni program za konkurentnost i inovacije (CIP).
- 3 This question is included in the questionnaire for students.

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STUDENTS' PERCEPTION OF ENTREPRENEURSHIP AND ITS SOCIAL ACCEPTANCE: IMPLICATIONS FOR HIGHER EDUCATION

STUDENTSKA PERCEPCIJA PODUZETNIŠTVA I NJEGOVE DRUŠTVENE PRIHVATLJIVOSTI: IMPLIKACIJE ZA VISOKO OBRAZOVANJE

Abstract

This study focuses on the student perception of entrepreneurship and its social acceptance, as related to the perceived role of entrepreneurs in addressing the problem of unemployment, their contribution to the community and the general social status of the entrepreneurs. Different factors are explored, as to identify the sources of such perceptions and their implications for the management and marketing of institutions of higher education (HE). Results of empirical research, on the topic of student perception of entrepreneurship and its potential sources, conducted in different Croatian HE institutions, are presented and discussed in the context of the entrepreneurial university concept.

Key words: entrepreneurial university, entrepreneurship, social acceptance, higher education

JEL: I21, L26

Sažetak

Ovaj se rad bavi problemom studentske percepcije poduzetništva i njegove društvene prihvatljivosti, koja se odnosi na percipiranu ulogu poduzetnika u rješavanju problema nezaposlenosti, njihov doprinos zajednici, kao i opći društveni status poduzetnika. Istražuju se različiti čimbenici, kako bi se utvrdili izvori navedenih percepcija i njihove implikacije za menadžment i marketing institucija visokog obrazovanja. Prezentiraju se rezultati empirijskog istraživanja studentskih percepcija poduzetništva i njihovih potencijalnih izvora, provedenih u hrvatskim institucijama visokog obrazovanja te ih se razmatra u kontekstu koncepta poduzetničkog sveučilišta.

Ključne riječi: poduzetničko sveučilište, poduzetništvo, društvena prihvatljivost, visoko obrazovanje

JEL: I21, L26

1. Students' perceptions of entrepreneurship: theoretical determinants

The issue of entrepreneurs' underlying psychological characteristics has been one of the focal issues of entrepreneurial research for several decades. One of the most popular and widely cited literature reviews, authored by Brockhaus and Horwitz (1986), touches the well-known characteristics of an entrepreneurial personality. A higher internal locus of control, a moderate level of risk-taking preferences (i.e. risk propensity), as well as an innovative approach to problem-solving and other features of professional life, are believed to represent the cornerstones of a psychological profile, associated to becoming an entrepreneur. The other personal traits, associated with entrepreneurship, identified in prior research, include: reinforcing personal experiences, self-confidence, a sense of personal urgency and competence to address the future challenges, being non-conformist, etc. In another classical study (de Vries 1977), other psychological traits are added as relevant for entrepreneurship: these are the inner orientation, which does not concentrate on interpersonal relationships, as well as (depending on the leadership profile), to a certain degree, the power motivation. Entrepreneurs are, in general, more optimistic, compared to what could be expected on the basis of the competitors' historical performance (Cooper, Woo & Dunkelberg 1988). This leads to the self-perception of an entrepreneur as an extraordinary person, willing and ready to meet the challenges from the environment. This seems to be the significant feature of the entrepreneurs, which might be much more important than the often emphasized risk propensity. The risk propensity itself of entrepreneurs was empirically evaluated as similar to

the one exhibited by managers and, even, the rest of the general population (Brockhaus 1980).

The psychological and social traits approach goes back to the 1940s, when A. H. Cole structured the first publicly funded programs on entrepreneurial personality research at Harvard (Hornaday & Bunker 1970), which was followed by the publishing of the first major research journal, focused on entrepreneurship and published by Harvard Business School (*Explorations in entrepreneurial history*). At this early time of entrepreneurship research, along with the psychological characteristics, the equal attention was paid to the awareness and the perception of the entrepreneurial environment, as a significant factor for understanding of entrepreneurship. The environment factor brings into the play the social elements, influencing the entrepreneurial perception. The initial research questions in this field were related to the adaptive vs. rigid organizational contexts, emanating from the craftsman and opportunistic entrepreneurs (Smith, 1967), continuing into the role of education for technology entrepreneurship (Schrage 1965) and the resulting power and social relationships in the entrepreneur's own firm (de Vries 1977).

Although, during the last few decades, the psychological/personal trait research has been considered as empirically 'worn out', Rauch and Frese (2007) proved that it is still relevant, by matching the personal traits to the activities, found in the entrepreneurial work/process and, thus, continuing the tradition of linking the entrepreneurial characteristics to both process and performance of small business venturing (see, e.g. Begley & Boyd 1987).

Of many different psychological dimensions, this study focuses on the perceptions of the environmental aspects, relevant for nascent entrepreneurs. Those dimensions have been already studied in the university setting by Rae and Woodier (2006), who recognized the following factors as the principal environmental barriers to entrepreneurship: limited know-how, lack of confidence and discouragement from friends and family, inadequate work experience and career advice, lack of awareness and creativity, financial uncertainties related to opening a new business. According to the same study, the most important enablers were: entrepreneurial subjects/content, taught at a university, support from mentors and role models, appropriate university facilities, the entrepreneurial mood at a university, relevant work experience and entrepreneurial family background. In addition to psychological and sociological factors, mixed cultural attitudes toward entrepreneurship

and earning money might be (but are not always) relevant for nascent graduate entrepreneurs (Smith & Beasley 2011). The prior research clearly shows that a range of personal and social factors, especially those related to the perceived barriers and enablers from the environment, prove to be invaluable in assessing the young graduates' perceptions and attitudes toward entrepreneurship. This was the motivation and the rationale to pursue this study.

2. Research methodology: aim, hypothesis, measures and research sample

This empirical project is a part of a larger empirical research, related to the relevant issues in student entrepreneurship, which is to be implemented in the wider South-East European (SEE) region. In the initial stage of the project, a questionnaire has been developed, as to cover the multiple dimensions of student entrepreneurship. In this paper, we report on the first results, related to the students' perception of entrepreneurship. The *aim of the paper is to examine the potential sources of students' perceptions of entrepreneurship and its social acceptance*, as previously formulated by Umihanić et al. (2013 pp. 36-37). In accordance with the previous theoretical discussion, the sources examined include *selected students' personal characteristics*, as well as the *perception(s) of environmental barriers/enablers* (formulated partly according to Schwarz et al. 2009). Those barriers/enablers are classified as belonging to: the students' closer social environment, the 'entrepreneurially oriented' university (i.e. the university environment) and the national entrepreneurial infrastructure (i.e. the general business environment). The resulting *research model*, consisting of the previously described variables, is depicted by Figure 1.

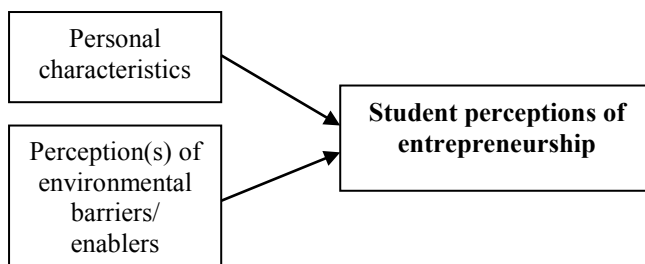


Figure 1. *Research model*

Source: *Authors' research*

Working hypotheses, derived from the previously presented conceptual model are as follows:

- *Hypothesis 1*: There is a significant statistical association among students' personal characteristics and their perceptions of entrepreneurship.
- *Hypothesis 2*: There is a significant statistical association among perceived environmental barriers/enablers and students' perceptions of entrepreneurship.

The *perceptions of entrepreneurship and its social acceptance* have been measured by several items, including two 'interlocking' items related to the social acceptability of an entrepreneurial career (after finishing the studies), with one being positively worded, and another negatively (with the result being recoded accordingly). The direct assessment of the entrepreneurs' status in the society was included into the study, following Langer et al. (2014), but the respondents were also asked for their perception on the contribution of small enterprises and entrepreneurs to the local community (in terms of creating new jobs/solving the unemployment problems and contributing to the community in general).

A range of *personal characteristics* (mainly of psychological traits), have been identified as relevant for the creation of positive perceptions of entrepreneurship and the entrepreneurial intent itself. Those include the internal locus of control, innovativeness, tolerance/propensity toward risk/ambiguity, the need for achievement, etc. (Altinay et al. 2012). Since this paper is not oriented toward the association of personal traits to different aspects of entrepreneurship, only three general, personality-related measures were selected. They are related to the entrepreneurship as a personal challenge (following an item introduced by Bhandari 2006), as well as risk propensity and the tendency to achieve independence, as well-established personal motives for entrepreneurship. All items were measured by using the standard, five-point Likert scales, which is applicable to all the measured described in this section of the paper.

Barriers/enablers of entrepreneurship from the own, close social environment have been measured, according to previous research (Schwarz et al. 2009, Langer et al. 2014). It has demonstrated the advantage of analyzing the impact of several social groups from the students' closer social environment, whose influence can shape the attitudes and perceptions of entrepreneurship. We have opted for three items, describing the influence of the entire closer social environment, as well as the peer group (friends) and

family. As to provide additional controls against the potential tendency of some respondents to choose the extreme values, or concentrate their choices on the central measures, some items were formulated in negative terms (and the empirical results appropriately recoded).

Measurement of *barriers/enablers of entrepreneurship from the university environment* includes the three general items that were adapted from Souitaris et al. (2007). They developed a number of measures, related to the learning outcomes of the entrepreneurial programs, (entrepreneurial) inspiration developed and the utilization of relevant university resources. We have developed three general items, related to each of those three categories. A similar methodological approach, based on a small number of general measures, to developing the dimension of ‘university environment’ has been also used by Schwarz et al. (2009).

Measures of the *barriers/enablers of entrepreneurship from the general (economic) environment* (availability of venture/bank capital, support obtained by public administration, educational and specialized institutions for entrepreneurial support), i.e. environmental support/barriers, rely on items, previously used by Schwarz et al. (2009), as well as Giacomini et al. (2011). The previously described items, related to *environmental barriers/enablers* have been used to create three scales, by using the means of individual items.

The questionnaire has been initially administered at the two Croatian institutions – Faculty of Economics Split and the Karlovac polytechnics (University of applied sciences), to which two of the authors are affiliated. Restricted data collection can be considered as adequate, since, in this stage of the project, the research results are expected to validate the concept and the research instrument (questionnaire), before committing to a wider data collection effort in the region. In addition, first empirical insights are considered as useful – both for finalizing the further research design, as well as for introducing some particular policies, aimed at stimulating student entrepreneurship at the two educational institutions. The entire student population at the two institutions was considered, with the stratified sample of 300 students at the Faculty of Economics Split and 100 students at the Karlovac polytechnics (due to the difference in size of the institutions). The students were randomly chosen among the populations of both institutions and invited to fill in the online questionnaire. After two rounds of data collection (May and June 2015), the total of 162 valid responses have been

received. This leads to the response rate of 40.5%, which can be considered as adequate for an initial study (as compared to, e.g. the convenience sample of 205 students at an UK university, analyzed by Giacomini et al. or to a convenience sample of 100 students in India, analyzed by Bhandary 2006, etc.). The planned ratio of students from the two institutions has been adequately reflected in the final sample, with 74.7% of respondents studying at the Faculty of Economics Split and 25.3% at the Karlovac polytechnics. The further research is planned after publishing these first empirical results, especially at higher education institutions of other countries in South-East Europe (Western Balkans), as to foster the international comparison of the obtained results.

3. Empirical research results

The general characteristics of the sample are as follows: the total amount of female students, represented in our sample, equals 68.3%, while the remaining 31.7% are male students (only valid percentages are reported, i.e. excluding the non-respondents). Therefore, there is a slight gender disproportion, which should be corrected in the following waves of data collection. The age of respondents varies from 20 to 34, with the mean of 22.2 years. This is reflected from the fact that only 1.9% of the respondents are students of the first year, while the majority of the sample belongs to the second (49.1%) and the third year (37.1%) of the undergraduate program (at the Faculty of Economics Split), or the first cycle of the professional studies (at Karlovac polytechnics). The remaining 11.9% of respondents are studying the fourth and the fifth year of the academic (or professional) graduate programs. Therefore, the study results are relevant for the undergraduate students, who have at least some previous work experiences (65.6%), but have had no meaningful exposure to practical entrepreneurship (83.3%).

Regarding the *personal characteristics*, as much as 71.5% of responding students either agrees, or completely agrees with the psychological positioning of entrepreneurship in terms of a personal challenges, with only 18% with a neutral opinion, as well as 10.6% with a negative opinion. The high level of risk propensity can be found with the amount of 15.6% of respondents, while the partial acceptance of risk is found with the 35.6% of responding students. A little less than a third (31.3%) have expressed a neutral opinion and another 17.6% negative attitude toward risk acceptance. The tendency to achieve independence has been found with 32.1% of

respondents, who agree with this motive to a high degree, as well as with the 49.4% of students, who agree partially with this motive. Only 13.6% had a neutral attitude toward the independence motive.

Regarding the perceived *barriers/enablers of entrepreneurship*, the most relevant seem to be the own social environment, consisting of the reference groups, such as friends and family. They exert a social influence of medium strength to the students – potential entrepreneurs. It is interesting that the impact of social influence is somewhat lower, while the lowest social impact to forming the perceptions and attitudes of students (as regards entrepreneurship) comes from the general environment and the institutions, supposed to support the nascent enterprises (see Table 1).

Table 1. *Descriptive statistics of perceived barriers/enablers of entrepreneurship*

		N	Minimum	Maximum	Mean	Std. dev.
Barriers/enablers of entrepreneurshipfrom the university environment	162	1.00	5.00	2.8050	.97001
	...from the own social environment	162	1.00	5.00	3.4136	1.00142
	...from the general environment	162	1.00	4.00	2.4327	.59512

Source: *Authors' calculations*

Descriptive statistics for dependent variables, presented in Table 2, demonstrate that the students' perception of entrepreneurship may not be completely clear. As much as 71% agree, or completely agree, with a positively stated item, related to the social acceptability of an entrepreneurial career, while the (recoded) negatively worded item leads to a higher level of disagreement (19.2% disagree, or completely disagree with the item, as compared to 12.4% for the positively worded one), as well as a lower level of agreement (55.7%, as compared to 71%). Although the negative has been introduced to remove the potential acquiescent and extreme response biases, the result is somewhat problematic. This has been already noticed in previous research (Weijters, Baumgartner & Schillewaert 2013) and will be addressed in the next stage of research, before rolling out the survey on the regional level.

The social status of entrepreneurs is considered to be positive (with 52.4% of positive, 13.6% of negative and 37% of neutral evaluations), as well as the

contribution of entrepreneurship to the community (once again, with 49% of positive, 28.6% of negative and 24.8% of neutral evaluations).

Table 2. *Descriptive statistics of the perception of entrepreneurship and its social acceptance*

Valid percentages	General attitude toward entrepreneurship (positively worded item)	General attitude toward entrepreneurship (negatively worded item)	Social status of entrepreneurs	Contribution of small enterprises and entrepreneurs to community
Do not agree at all	1.9	2.5	2.5	7.5
Do not agree	10.5	16.7	11.1	21.1
Neutral	16.7	25.3	34.0	22.4
Agree	40.1	20.4	37.0	24.8
Agree completely	30.9	35.2	15.4	24.2
Total	100,0	100,0	100,0	100,0

Source: *Authors' calculations*

As to explore the hypothesized relationships, depicted by Figure 2.1, the bivariate correlations were calculated. Previous check for potential violations of statistical assumptions demonstrated that the empirical distributions significantly depart from the theoretical normal distribution.

This finding, confirmed by both the Kolmogorov-Smirnov and Shapiro-Wilks test, is probably due to a relatively small sample, which involves only two academic institutions. Therefore, all further statistical analyses were performed by using the nonparametric methods, primarily based on processing of ranks.

Bivariate correlations were, thus, calculated by using the Spearman coefficient. Correlations among the students' personal characteristics and their perceptions of entrepreneurship are demonstrated by Table 3. The results show that both items (positive and negative), measuring the general attitude toward entrepreneurship, were created in a methodologically correct way, as there is no difference of the pattern of their relationships with the potential independent variables.

Table 3. *Correlations among the personal characteristics and perceptions of entrepreneurship*

Spearman correlations		General attitude toward entrepreneurship (positively worded item)	General attitude toward entrepreneurship (negatively worded item)	Contribution of small enterprises and entrepreneurs to community	Social status of entrepreneurs
Personal characteristics related to...	...risk propensity	.265**	.277**	.126	.210**
	...entrepreneurship as a personal challenge	.372**	.438**	.053	.203**
	...independence	.181*	.387**	.138	.175*

*Significant at 5% level. **Significant at 1% level.

Source: *Authors' calculations*

The *students' personal characteristics* contribute both to the general perception of entrepreneurship and the perception of entrepreneurs' social status. It is interesting that none of the classical personal traits, associated with entrepreneurship, has no influence whatsoever to the perception of entrepreneurs' contribution to the community (see Table 3).

This is especially interesting (or, even, worrying) results, since it may indicate that students do not even perceive the social responsibility as an integral component of entrepreneurship. Although the strength of the observed associations is rather low, the majority of correlations is highly significant (at 1% level).

The previous findings can be confirmed by the existence of statistically significant differences in students' perceptions of entrepreneurship among the groups, defined in terms of personal characteristics. Table 4 presents the results of Kruskal-Wallis (K-W) nonparametric tests for the described variables.

Table 4. *Differences in perceptions of entrepreneurship (Kruskal-Wallis test)*

K-W test	General attitude toward entrepreneurship (positively worded item)	General attitude toward entrepreneurship (negatively worded item)	Contribution of small enterprises and entrepreneurs to community	Social status of entrepreneurs
Grouping variable: Risk propensity				
Chi-Square	13.557	17.067	6.725	14.371
df	4	4	4	4
Asymp. Sig.	.009**	.002**	.151	.006**
Grouping variable: Entrepreneurship as a personal challenge				
Chi-Square	27.040	32.267	4.887	8.229
df	4	4	4	4
Asymp. Sig.	.000**	.000**	.299	.084
Grouping variable: Independence				
Chi-Square	7.878	24.916	3.938	6.806
df	3	3	3	3
Asymp. Sig.	.049*	.000**	.268	.078

*Significant at 5% level. **Significant at 1% level.

Source: *Authors' calculations*

When perceived barriers/enablers from different parts of students' environment are considered (see Table 5), even more interesting results are obtained.

The *general environment*, including the institutions of national entrepreneurial infrastructure, seem to be *held completely irrelevant* by the responding students: they are not associated with any of the analyzed dimensions of the student perception.

University environment, with all the aspects of the 'entrepreneurially oriented' university, seems irrelevant, as well, with the exception that it actually *decreases the students' perception of the entrepreneurial social responsibility*.

The *own social environment (family and friends)* are the major driver for the respondents' perception of entrepreneurship, with the social responsibility proving to be irrelevant one more time.

Table 5. *Correlations among the environmental barriers/enablers and perceptions of entrepreneurship*

Spearman correlations		General attitude toward entrepreneurship (positively worded item)	General attitude toward entrepreneurship (negatively worded item)	Contribution of small enterprises and entrepreneurs to community	Social status of entrepreneurs
Barriers/support from the...	...university environment	.139	-.077	-.215**	.082
	...own close social environment	.162*	.307**	.133	.215**
	...general (economic) environment	.142	.049	-.084	.099

*Significant at 5% level. **Significant at 1% level.

Source: Authors' calculations

4. Implications for the higher education institutions (HEIs)

This study indicates that the *students' personal characteristics are significantly associated with the perception of entrepreneurship, except for the social responsibility*, which is not recognized as a trigger for entrepreneurship. It is generally business-wise to run activities at minimal costs, complying with the fulfillment of the 'legal minimum'. Unfortunately, this is exactly what happens, when the actors in the educational and social system do not direct their efforts into the development of students' social responsibility. Furthermore, the university and institutional environment were also recognized as irrelevant, while only the *close social environment counts as a potential source of perceptions, relevant for students' entrepreneurial careers*. In a formal way, this leads to the *partial acceptance of hypothesis H1 and the rejection of the hypothesis H2*.

The implications for the HEIs, as well as for the development of the national entrepreneurial infrastructure might still be significant, if the observed trends are confirmed by the future research. Firstly, the proposition that the system might *not work* could be highly disappointing, but extremely important, for academic professionals, involved into the academic/youth entrepreneurship development programs. The same applies to the public administration and

the staff of entrepreneurial development institutions. Although the work done by these two groups of professionals might be of outstanding quality, these preliminary results demonstrate that it is not perceived as relevant by the target groups. It is useful to point at the empirical results of Langer et al (2014), who have concluded that the similar student population does not hold the general ‘anti-entrepreneurial’ attitudes, but suggested that the practical exposure to entrepreneurship creates awareness of practical problems/obstacles and lowers the students’ motivation for entrepreneurial careers. Once again, it could be proposed that, in Croatia, *students own personal (psychological) drivers and the experiences from the close social environment still seem to be the most important factors in forming their perception of entrepreneurship*. Confirmation of this finding by future research would require rethinking of many aspects of the entrepreneurship support and development programs, currently considered as successful. Another worrying aspect of the obtained results is *a very low level of social responsibility acceptance*, demonstrated by the participating students. This is especially applicable to the negative association between the functioning of the university environment and the perception of the need for the social responsibility of the small business.

At the other hand, in more developed EU countries, the entrepreneurial education does seem to be working, as indicated by empirical results. E.g., it is implied by Schwarz et al. (2009), for the case of Austrian universities, that entrepreneurial attitudes may be influenced by educators and practitioners, as well. Souitaris et al. (2007), following the theory of the planned behavior, confirmed the significant influence to graduates’ planned behavior by analyzing the cases of two universities in UK and France (London and Grenoble). The results obtained, therefore, signal the need for a system-wide analysis of the existing programs for student entrepreneurship in Croatia.

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STUDENT DEMOGRAPHICS, FAMILY/SOCIAL SUPPORT AND ENTREPRENEURIAL INTENT: INITIAL RESULTS OF EMPIRICAL RESEARCH

DEMOGRAFSKA OBILJEŽJA STUDENATA, OBITELJSKA/DRUŠTVENA PODRŠKA I PODUZETNIČKA NAMJERA: INICIJALNI REZULTATI EMPIRIJSKOG ISTRAŽIVANJA

Abstract

Authors analyse the potential relationship among the demographic and personal characteristics, as well as support from family and friends, to the entrepreneurial intent of selected student populations in Bosnia and Herzegovina and Croatia. The study is conducted at the University of Tuzla (BiH) and the University of Split (Croatia), which are comparable along several dimensions. Results of the study are discussed in the context of introducing the entrepreneurial education into the traditional university environment, as well as in the context of stimulating the entrepreneurial solutions to the problem of youth unemployment. Recommendations for future research are also formulated.

Keywords: Bosnia and Herzegovina, Croatia, student entrepreneurship, entrepreneurial intent

JEL: L26, A22

Sažetak

Autori analiziraju potencijalnu vezu između demografskih i ličnih karakteristika, kao i podrške obitelji i prijatelja sa poduzetničkom namjerom studentske populacije u Bosni i Hercegovini i Hrvatskoj. Istraživanje je provedeno na Univerzitetu u Tuzli (BiH) i Univerzitetu u Splitu (HR), koji su po više kriterija uporedive institucije. Rezultati provedenog istraživanja su prezentirani u kontekstu uvođenja poduzetničkog obrazovanja u tradicionalno univerzitetsko okruženje, te u kontekstu stimuliranja poduzetničkih rješenja za problem nezaposlenosti mladih. Na temelju prezentiranih rezultata autori iznose i prijedloge za buduća istraživanja.

Ključne riječi: Bosna i Hercegovina, Hrvatska, studentsko poduzetništvo, poduzetnička namjera

JEL: L26, A22

1. Introduction

Entrepreneurship is often mentioned in public and education policies as a potential solution to numerous problems including employment (Bolarić Škare 2012) and youth unemployment (Umihanić et al. 2013). Thereby, specific characteristics of local environments in which institutional solutions do not enable (or even hinder) entrepreneurial resolvment of social and economic problems are not taken into consideration. In this context, it is valuable to analyse personal determinants of propensity towards entrepreneurship as well as the support of family and friends during implementation of entrepreneurial intent as a fundamental type of social support, which is present even in case of unfavourable institutional environment. This research is a first step towards realization of written research intent and represents an initial empirical attempt which should provide guidelines for future research in wider region of South-East Europe.

2. Theoretical and practical determinants of research of entrepreneurial intent of youth

According to latest GEM research results for BiH (2012) evolvment of youth in entrepreneurial activity according to their age indicate that in 2012 the level of entrepreneurial activity of young people between 18 and 24 (7.48%) and 25 to 34 years of age (8.72%) was lower compared to the 8.57% of young people in the age of 18 to 24 and 15.21% 25 to 34 years of age in Croatia. Comparison of results for BiH and Croatia and results in Europe indicates that youth in these two regions has a higher level of entrepreneurial

activity in the age group 18 to 24 compared to European countries (6.62%), whilst the results for the age group 25 to 34 indicate a significantly lower level of entrepreneurial activity in B&H compared to Croatia and Europe. The reasons for such regional differences regarding involvement of the population in entrepreneurship can be found in high unemployment rates of youth in both countries and the lack of opportunities to acquire permanent employment after acquisition of higher education qualification. In case of BiH the lack of support and incentives in entrepreneurship education programmes which are focused on self-employment represents an additional problem.

Entrepreneurship education, and development of competencies through formal and informal education and its influence on creating entrepreneurial intent has been in focus of interest of many authors. A research, which particularly stands out is the *Global University Entrepreneurial Spirit Students' Survey-GUESS 2013* (Sieger, Flueglstaller & Zellweger 2014, Krneta et al. 2014). These results indicate the relationship between academic education and prior gained experience and entrepreneurial intent of self-employment especially among the group of respondents which intend to launch an independent business in 5 years after completion of formal academic education. However, even though it is established that entrepreneurially oriented higher education affects entrepreneurial intent, at least for those who acquired it, the question still remains to what extent did personal characteristics, experience and support of closer social environment affect the entrepreneurial intent.

Apart from entrepreneurial education and acquired practical business experience, important factors in creation of intent of self-employment which have been analysed are support of family and friends as well as acquaintance with successful entrepreneurs who succeeded in their business intention as a motivation factor. In a research conducted by Živoder and Kolega (2014) on a sample of four higher education institutions in Zagreb the results indicated the presence of traditional gender stereo-types in recognition of characteristics of successful entrepreneurs. On the other hand, Miljković Krečar (2010) points out that children who grow up in entrepreneurial environment mostly have a parent entrepreneur as a role model, which in a way determines their career choice and entrepreneurial orientation, which is also pointed out by Srhoj et al. (2014). The influence of family environment and the presence of parents-entrepreneurs as role models represents a significant variable for creation of entrepreneurial

intent of youth. A significant number of prior conducted studies have also confirmed that differences in fundamental demographic characteristics (gender has been mentioned earlier) affect entrepreneurial engagement. In prior research studies in the field of entrepreneurship a lot of attention was paid to gender, age, level of education, entrepreneurial and work experience etc., but a general model which would connect these characteristics with entrepreneurial intent could not be introduced (Shok, Priem & McGee 2003). As opposed to that, it has been determined that personal characteristics, as well as personal (especially family) experiences and support influence entrepreneurial intent indirectly through impact on attitudes, values and psychological characteristics of potential entrepreneurs. However, in an environment with a poor institutional framework as it is in countries of South-East Europe or Western Balkans, these characteristics might be more important in comparison with countries with developed market economies. The before mentioned presumption represents the motivation for this paper which is aiming to determine and provide preliminary empirical evidence whether this direction of research is justified. Therefore, in this paper we will analyse the influence of demographic and other personal characteristics, particularly acquaintance with entrepreneurship and perception of family and friends' support on entrepreneurial intent based on a random sample of students on two public higher education institutions (Faculty of Economics Split and Faculty of Economics Tuzla). A conceptual research model was created based on these assumptions as shown in Figure 1.

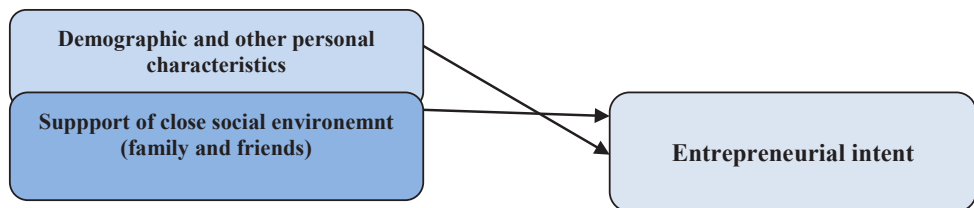


Figure 1. *Research model*

Source: *Authors' research*

3. Methodology of the research

Empirical research was conducted on two public higher education institutions in Croatia and Bosnia and Herzegovina: Faculty of Economics in Split and Faculty of Economics in Tuzla. An on-line survey questionnaire was used in the research which covered: a) demographical characteristics and other personal experiences regarding entrepreneurship (prior work and

entrepreneurial experience, personal acquaintance with entrepreneurship and entrepreneurs etc.) which have been selected based on literature review of Shook, Priem and McGee (2003); b) the evaluation of support from closer social environment-family and friends as fundamental influencing social groups (Falck, Heblich & Luedemann 2012); c) evaluation of entrepreneurial intent through three time dimensions (after finishing academic education, in period of next 5 years, and in an unidentified moment in the future as recommended by Finsterra de Paco et al. (2011).

Likert 5-level scale was used in the questionnaire (from „I strongly disagree“ to „I strongly agree“). An e-mail with an invitation to participate in the research was sent to respondents with remarks to the internet address of the questionnaire, whilst complete anonymity and privacy of the personal information was guaranteed although no personal information which could lead to identification of respondents was collected from them. A total of 500 students was randomly selected, 250 students from each institution. A total of 210 questionnaires were filled out which is 42% of the targeted population which is considered to be adequate for this study.

Out of the total number of questionnaires 57.3% of respondents were from the Faculty of Economics in Split and 42.7% from the Faculty of Economics in Tuzla. In regards to cycles of study, respondents were mostly from the first cycle/undergraduate studies (75.8%), 21.8% from second cycle/graduate studies and only 2.4% from third cycle study programmes/doctoral studies. The majority of respondents are students of second (56.9%) and third (24.6%) year of study, and relatively low percentage are students from fourth (2.8%) and fifth (0.5%) year of study. Average age of respondents is 22.11 years (± 2.708), and there is twice as much female respondents (62.6%) than male (36%) respondents which represents a limitation to this study. Regarding the subject of study it is important to emphasize that the majority of respondents (50.2%) has a prior work experience, whilst a small percentage of respondents (12%) has prior entrepreneurial experience.

4. Results of the empirical research

Support of family and friends was measured based on perceptions of respondents, whilst *acquaintance with entrepreneurship* was measured with personal acquaintance with entrepreneurs, which succeeded in their business incentive. Items related to the perception of support of family and friends were expressed negatively and they had to be recorded and the average value for support of family and friends is 3.46. For acquaintance

with entrepreneurship a value under average 2.67 was determined, which is shown in Table 1.

Table 1. *Evaluation of support of family and friends and acquaintance with entrepreneurship*

	N	Minimum	Maximum	Mean	Std. Deviation
Support of family and friends for launching one's own business	207	1	5	3.46	1.253
Personal acquaintance with entrepreneurs and their work	206	1	5	2.67	1.301

Source: Research results

Regarding *entrepreneurial intent* it can be proven that it is low to moderate for the time period after finishing higher education (2.60) and it increases with time (in 5 years of completion of education and in an indefinite moment in the future) which is shown in Table 2.

Table 2. *Entrepreneurial intent in time dimensions*

	N	Minimum	Maximum	Mean	Std. Deviation
I will start my own business after completion of education	208	1	5	2.60	1.155
I will start my own business no later than 5 years after completion of education	210	1	5	3.22	1.085
I will definitely start my own business one day	210	1	5	3.85	1.052

Source: Research results

In order to determine possible relationship between observed variables we used linear correlation (Table 3) which indicates statistically significant relations between all variables (at significance level 1%). Strength of the relation which is measured with Pearson correlation coefficient is of moderate strength (values between 0.3 and 0.4).

Table 3. *Coefficients of linear (Pearson) correlation between support of family and friends, acquaintance with entrepreneurship and entrepreneurial intent*

		Support of family and friends	Acquaintance with entrepreneurship
I will start my own business after completion of education	Pearson Correlation	.386**	.382**
	Sig. (2-tailed)	.000	.000
	N	205	204
I will start my own business no later than 5 years after completion of education	Pearson Correlation	.430**	.364**
	Sig. (2-tailed)	.000	.000
	N	207	206
I will definitely start my own business one day	Pearson Correlation	.359**	.316**
	Sig. (2-tailed)	.000	.000
	N	207	206

**Coefficient of correlation significant at level 1%

Source: Research results

Prior researches have indicated higher level of entrepreneurial intent with men, which has been confirmed during this research and which can be related to stereotypes about weak involvement of women in entrepreneurship which is dominated by men.

Table 4. *Evaluation of entrepreneurial intent by gender*

	Gender	N	Mean
I will start my own business after completion of education	Male	75	2.85
	Female	129	2.45
I will start my own business no later than 5 years after completion of education	Male	76	3.43
	Female	130	3.10
I will definitely start my own business one day	Male	76	4.09
	Female	130	3.73

Source: Research results

The absolute values presented in Table 4. on entrepreneurial intent among male and female respondents do not indicate their statistical significance and therefore statistical testing of significance of means with t-testing was conducted. Prior to determination of t-test the equality of the variances with Levene's test was conducted (Levene's test is significant if >0.05). As can be seen in Table 5. We can conclude that there are statistically significant

differences of means in creating entrepreneurial intent between groups regarding gender (male and female) for all of the three time dimensions of creating entrepreneurial intent.

Table 5. *Differences in scores on entrepreneurial intent between respondents by gender*

F		Levene's Test for Equality of Variances		t-test for Equality of Means			
		Sig.	T	Df	Sig. (2-tailed)	Mean Difference	
I will start my own business after completion of education	Equal variances assumed	1.760	.186	2.417	202	.017	.404
	Equal variances not assumed			2.430	157.418	.016	.404
I will start my own business no later than 5 years after completion of education	Equal variances assumed	.300	.585	2.132	204	.034	.334
	Equal variances not assumed			2.172	166.151	.031	.334
I will definitely start my own business one day	Equal variances assumed	1.995	.159	2.399	204	.017	.361
	Equal variances not assumed			2.471	171.570	.014	.361

Source: Research results

Differences in entrepreneurial intent among genders regarding the level of formal education of parents (father and/or mother) were conducted further on.

These results are presented in Table 6. Presented results indicate that respondents whose father and/or mother have completed higher education show relatively high entrepreneurial intent (scores for father 4.06 and mother 4.08 only for self-employment in indefinite future).

Table 6. *Scores for entrepreneurial intent by formal education of father and/or mother*

	Formal education of father/mother	Father		Mother	
		N	Mean	N	Mean
I will start my own business after completion of education	Primary or secondary education	128	2.52	150	2.61
	Higher education	67	2.76	50	2.50
I will start my own business no later than 5 years after completion of education	Primary or secondary education	130	3.09	152	3.16
	Higher education	67	3.48	50	3.36
I will definitely start my own business one day	Primary or secondary education	130	3.78	152	3.78
	Higher education	67	4.06	50	4.08

Source: Research results

The same test was conducted to determine significant differences between groups of respondents regarding formal education of father/mother. Based on results we can conclude that there are significant differences between groups of respondents regarding the level of formal education of father (significance of 5%) only for self-employment intent in a period of 5 years (Table 7). Level of formal education of the mother, on the other hand, does not affect entrepreneurial intent at all.

Table 7. *Differences in scores for entrepreneurial intent between groups of respondents regarding formal education of father and mother*

F		Levene's Test for Equality of Variances		t-test for Equality of Means			
		Sig.	t	df	Sig. (2-tailed)	Mean Difference	
I will start my own business after completion of education	Formal education of father (Equal variances assumed)	.271	.603	-1.408	193	.161	-.246
	Formal education of father Equal variances not assumed			-1.365	123.003	.175	-.246
	Formal education of mother (Equal variances assumed)	.686	.409	.606	198	.545	.113
	Formal education of mother Equal variances not assumed			.587	79.863	.559	.113

I will start my own business no later than 5 years after completion of education	Formal education of father (Equal variances assumed)	12.139	,001	-2.341	195	.020	-.385
	Formal education of father Equal variances not assumed			-2.164	108.42	<u>.033</u>	-.385
	Formal education of mother (Equal variances assumed)	11.237	,001	-1.137	200	.257	-.202
	Formal education of mother Equal variances not assumed			-.92	68.584	<u>.325</u>	-.202
I will definitely start my own business one day	Formal education of father (Equal variances assumed)	.232	.631	-1.785	195	<u>.076</u>	-.283
	Formal education of father Equal variances not assumed			-1.794	135.206	.075	-.283
	Formal education of mother (Equal variances assumed)	1.135	.288	-1.768	200	<u>.079</u>	-.304
	Formal education of mother Equal variances not assumed			-1.822	88.101	.072	-.304

Source: Research results

In continuation of the research we investigated the influence of prior work experience on entrepreneurial intent (Table 8.).

Research results indicate that prior work experience does not represent significant factor of entrepreneurial intent but not for respondents with work experience and intent to launch their own business in one moment in indefinite future (score 4.03).

Table 8. *Scores for entrepreneurial intent in regards to work experience*

	Did you work before studying or do you currently work?	N	Mean
I will start my own business after completion of education	No	101	2.52
	Yes	104	2.64
I will start my own business no later than 5 years after completion of education	No	101	3.12
	Yes	106	3.30
I will definitely start my own business one day	No	101	3.64
	Yes	106	4.03

Source: Research results

Further, we wanted to determine whether there is a significant difference between the two mentioned variables using t-test. Based on the results in Table 9. it can be concluded that there are significant differences among respondents with and without work experience at significance level 1% but only for the ones intending to start their own business in an indefinite moment in the future which indicates a larger number of limitations which lead to a delay of (desirable) entrepreneurial career.

Table 9. *Differences in scores for entrepreneurial intent among respondents according to work experience*

F		Levene's Test for Equality of Variances		t-test for Equality of Means			
		Sig.	T	df	Sig. (2-tailed)	Mean Difference	
I will start my own business immediately after completion of education.	Equal variances assumed	.735	.392	-.737	203	<u>.462</u>	-.119
	Equal variances not assumed			-.738	202.418	.461	-.119
I will start my own business no later than 5 years after completion of education.	Equal variances assumed	1.562	.213	-1.210	205	<u>.228</u>	-.183
	Equal variances not assumed			-1.211	205.000	.227	-.183
I will definitely start my own business one day.	Equal variances assumed	1.988	.160	-2.670	205	<u>.008</u>	-.385
	Equal variances not assumed			-2.666	202.123	.008	-.385

Source: Research results

An analysis of prior entrepreneurial experiences indicate that entrepreneurial experience represents a significant factor influencing self-employment intent as well as for a period of 5 years after completion of education and for indefinite time in the future (Table 10.)

Table 10. *Scores for entrepreneurial intent in accordance with entrepreneurial experience*

	Are you currently or have you ever been self-employed (part time, single owner or partner in business, employee in such a business)?	Mean
I will start my own business immediately after completion of education.	No	2.48
	Yes	3.27
I will start my own business no later than 5 years after completion of education	No	3.10
	Yes	4.00
I will definitely start my own business one day	No	3.74
	Yes	4.58

Source: Research results

The T-test analysis indicates once more that there is a statistically significant difference between respondents with and those without entrepreneurial experience at significance level 1% for all three time dimensions of entrepreneurial intent (Table 11.). This implies that prior personal familiarity with entrepreneurship is crucial for entrepreneurial career orientation, however this is significantly limited among students of last years of study due to insufficient entrepreneurship education programmes as well as opportunities for entrepreneurial behaviour within the education system. The results which have been presented also emphasise importance of entrepreneurship education in encouraging young people to create new businesses.

On the other hand, due to insufficient educational and institutional support key factors for entrepreneurship of youth should be their perception of support from family and friends as primary social groups. As has been determined by correlation analysis, the correlation of entrepreneurial intent with the described variables of support as well as familiarity with entrepreneurship we can now speak of relevance of personal and family factors on creating entrepreneurial intent among students in countries where the research was conducted.

Table 11. *Differences in scores of entrepreneurial intent among respondents according to entrepreneurial experience*

F		Levene's Test for Equality of Variances		t-test for Equality of Means			
		Sig.	t	df	Sig. (2-tailed)	Mean Difference	
I will start my own business immediately after completion of education.	Equal variances assumed	.002	.967	-3.343	204	.001	-.786
	Equal variances not assumed			-3.185	31.678	.003	-.786
I will start my own business no later than 5 years after completion of education	Equal variances assumed	.286	.594	-4.120	206	.000	-.901
	Equal variances not assumed			-4.069	32.307	.000	-.901
I will definitely start my own business one day	Equal variances assumed	6.948	.009	-3.916	206	.000	-,35
	Equal variances not assumed			-5.621	47.113	.000	-.835

Source: Research results

Further analysis determined differences among respondents with negative perceptions of support and those with neutral or positive perception of support for all three time dimensions. The majority of respondents perceives the support of family and friends in their intent to start their own business as relatively high (score 3.99) and that they know a successful entrepreneur in their environment (4.16) which can be a motivation factor in their intent to start their own business.

Table 12. *Entrepreneurial intent among groups with different levels of support from family and friends and personal familiarity with entrepreneurship*

	Group	Support of family and friends for startin one's own business	Personal acquaintance with entrepreneurs (familiarity with entrepreneurship)
		Mean	Mean
I will start my own business immediately after completion of education	Positive	2.71	2.96
	Negative	2.14	2.19
I will start my own business no later than 5 years after completion of education	Positive	3.40	3.57
	Negative	2.55	2.83
I will definitely start my own business one day	Positive	3.99	4.16
	Negative	3.34	3.50

Source: Research results

It is definitely interesting to determine whether there are statistically significant differences among means of variables for the two groups of respondents.

As can be seen in Table 13 there are significant differences among groups of respondents at significance level 1% for all three time dimensions.

The results once more confirm the relevance of personal factors on entrepreneurial intent of youth which should definitely be taken into consideration for further region of the problem in the region.

Table 13. *Differences in entrepreneurial intent among respondents in regards to support of family and friends and familiarity with entrepreneurship (acquaintance with entrepreneurs)*

F		Levene's Test for Equality of Variances		t-test for Equality of Means			
		Sig.	t	df	Sig. (2-tailed)	Mean Difference	
I will start my own business immediately after completion of education	Support of family and friends (Equal variances assumed)	1.636	.202	2.990	203	.003	.578
	Support of family and friends Equal variances not assumed			2.817	63.354	.006	.578
	Familiarity with entrepreneurship (Equal variances assumed)	1.344	.248	5.072	202	.000	.770
	Familiarity with entrepreneurship (Equal variances not assumed)			5.079	201.977	.000	.770
I will start my own business no later than 5 years after completion of education	Support of family and friends (Equal variances assumed)	3.435	.065	4.904	205	.000	.859
	Support of family and friends Equal variances not assumed			4.458	60.670	.000	.859
	Familiarity with entrepreneurship (Equal variances assumed)	.063	.802	5.208	204	.000	.740
	Familiarity with entrepreneurship (Equal variances not assumed)			5.195	198.055	.000	.740

I will definitely start my own business one day	Support of family and friends (Equal variances assumed)	2.639	.106	3.754	205	.000	.653
	Support of family and friends Equal variances not assumed			3.416	60.727	.001	.653
	Familiarity with entrepreneurship (Equal variances assumed)	5.389	.021	4.767	204	.000	.667
	Familiarity with entrepreneurship (Equal variances not assumed)			4.747	191.421	.000	.667

Source: Research results

5. Conclusion

In this paper we analysed a limited number of demographic and personal factors as potential factors which influence intent of young people to start their own business. Since the research was conducted in B&H and Croatia as countries from the same region which are characterized by a low level of institutional entrepreneurial support we assumed that factors such as personal characteristics, personal experiences and closer social environment would be more influential factors on entrepreneurial intent.

This assumption was proved right based on the fact that determined statistically significant values of linear correlation, as well as differences in scores for entrepreneurial intent in groups of respondents in accordance to their characteristics.

Thereby, it was determined that the gender of respondents is still a significant factor due to the fact that younger women have a lower entrepreneurial intent than men, which is probably a reflection of a conservative society which still does not enable women to equally enter the world of entrepreneurship. Further on, prior work experience makes entrepreneurship much more attractive (compared to students which never had a prior engagement), but only for an unidentified moment in the future. Significant factors for entrepreneurial intent in all of the three time dimensions (now-in 5 years

after completion of education-in an indefinite moment in the future) is perception of support from the family and friends and familiarity with entrepreneurship regardless of the origin of that familiarity (personal entrepreneurial experience or acquaintance with entrepreneurs or successful entrepreneurs).

Even though the results of this research are only preliminary they definitely imply a need for including personal characteristics and experiences in entrepreneurial research of young population in the region which is highly related to the lack of institutional support for potential young entrepreneurs which affects their perception and directs them to interpret entrepreneurship entirely based on personal experience and experience from closer social environment.

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**THE INFLUENCE OF THE MISSION ENTERPRISE
IN DESIGNING ORGANIZATIONAL CULTURE
THAT DEVELOPS ENTREPRENEURIAL BEHAVIOR
OF EMPLOYEES IN LARGE ENTERPRISES IN
FEDERATION OF BOSNIA AND HERZEGOVINA**

**UTICAJ MISIJE PREDUZEĆA NA OBLIKOVANJE
ORGANIZACIJSKE KULTURE KOJA RAZVIJA
PODUZETNIČKO PONAŠANJE ZAPOSLENIKA U
VELIKIM PREDUZEĆIMA FEDERACIJE BOSNE I
HERCEGOVINE**

Abstract

The large enterprises in Federation of Bosnia and Herzegovina do their business activities in conditions of a complex business environment characterized by globalization of the market, which leads to the emergence of increasingly aggressive competition. In the global market are occurring daily business changes that entail great risks on the one hand but also great opportunities on the other. The large enterprises in Federation of Bosnia and Herzegovina can obviously reduce the risks and take advantage of opportunities of business changes, if they develop entrepreneurial behaviour of their employees. The theme of research in this paper is the influence of the mission enterprise in designing organizational culture that develops the factors of entrepreneurial behaviour of employees (creativity, autonomy, free flow of information and management support) in the large enterprises in Federation of Bosnia and Herzegovina. The aim of this paper is affirming the way in which the mission of enterprise designing organizational culture that will influence on the entrepreneurial behaviour of employees. The

method of canonical correlation analysis will be implemented in the paper. This method is confirmed significant connection between the mission of enterprise, organizational culture and the entrepreneurial behaviour of employees, therefore the mission of enterprise designing organizational culture that influences on the development of entrepreneurial behaviour of employees.

Keywords: the mission of enterprise, organizational culture, entrepreneurial behaviour, large enterprises, Federation of Bosnia and Herzegovina

JEL: 034

Sažetak

Velika preduzeća FBiH svoje poslovne aktivnosti obavljaju u uslovima složenog poslovnog okruženja koga karakteriše globalizacija tržišta koja dovodi do pojave sve agresivnije konkurencije. Na globalnom tržištu se svakodnevno dešavaju poslovne promjene koje za sobom povlače velike rizike s jedne strane ali i sjajne mogućnosti s druge strane. Velika preduzeća FBiH mogu smanjiti rizike i iskoristiti mogućnosti koje im pružaju poslovne promjene ukoliko razviju poduzetničko ponašanje svojih zaposlenika. Predmet istraživanja u ovom radu je uticaj misije preduzeća na oblikovanje organizacijske kulture koja razvija faktore poduzetničkog ponašanja zaposlenika (kreativnost, autonomnost, slobodan protok informacija i podrška menadžmenta) u velikim preduzećima FBiH. Cilj ovog rada je utvrditi način na koji misija preduzeća oblikuje organizacijsku kulturu koja će uticati na poduzetničko ponašanje zaposlenika. U radu će biti primijenjena metoda kanoničke korelacijske analize. Ovom metodom je utvrđena značajna povezanost između misije preduzeća, organizacijske kulture i poduzetničkog ponašanja zaposlenika, tako da misija preduzeća oblikuje organizacijsku kulturu koja utiče na razvoj poduzetničkog ponašanja zaposlenika.

Ključne riječi: misija preduzeća, organizacijska kultura, poduzetničko ponašanje, velika preduzeća, Federacija Bosne i Hercegovine

JEL: 034

1. Introduction

Complex business environment in which operates large enterprises Federation of Bosnia and Herzegovina is characterized by globalization of the market, which led to the emergence of increasingly aggressive competition. Large enterprises in Federation of Bosnia and Herzegovina operating at a steady, static principles and standards are quite difficult to cope with business changes that are taking place every day in the global market and which entail great risks on the one hand, but also great

opportunities on the other. In such circumstances, large enterprises in Federation of Bosnia and Herzegovina could soon disappear from the business scene, if their business does not adapt to the needs of the global market. If they changed their business, they would change the behaviour of their employees. Entrepreneurial behaviour of employees can help large enterprises in Federation of Bosnia and Herzegovina to respond easier on all demands of the global market. The development entrepreneurial behaviour, employees of large companies in Federation of Bosnia and Herzegovina can easier accept business changes and create innovations that are in accordance with the requirements of business changes and that in this way can reduce the risk of competition on the one hand, and take advantage of the great opportunities on the other. The large enterprises in Federation of Bosnia and Herzegovina can develop entrepreneurial behaviour of their employees if they use appropriate organizational culture that creates unity between the company and employees. If large enterprises would make unit as the basis of organizational culture that encourages the development of the factors of entrepreneurial behaviour of employees, it is necessary to develop a sense of identity, belonging and loyalty to employees of the company and make the structuring of employees in order to creating cooperation between employees. All this can be achieved only by company mission and joint missions of departments to derive from company mission.

2. Theoretical framework of the research

2.1 The impact of globalization on changes in the business environment

The term of globalization means an increasing international trade in the markets of assets, services and market certain factors of production, including growth and development of the institutions that span national boundaries of enterprises, governments, international institutions and non-governmental organizations (Deardorff & Stern 2002, p. 404). Globalization is not just a phenomenon or passing trend, it is the international system, which covers and forms domestic policy and international relations in almost all countries (Jovančević 2005, p. 1). The determining component of globalization is technological development which determines most the development of information technology. The development of information technology in all countries of the world creating a global community and the global economy. In a global economy the factors of production, natural resources, capital, technology, labour, information and assets and services are moving freely in the world. All this lead to the emergence of a global market that is

reflected in increased competition, constant changes which the enterprises are exposed. Such a global, open market imposes high standards of quality, efficiency, development ability, affinity of enterprises and competencies of managers (Zdrilić, Puvaca & Rosso 2010, p. 504). If enterprises would satisfy more demanding customers, enterprises are forced to constantly redefining and redesigning existing products and services in order to achieve competitive advantage. The business environment in Federation of Bosnia and Herzegovina was changed by this thing and it transformed slowly from static into a turbulent and complex business environment. If the enterprises want to adapt such business environment, they should be prepared that they affront with huge competition and to adapt their business to challenges of this environment. They can be achieved this, if they develop entrepreneurial behaviour of their employees.

2.2 Defining the factors affecting on entrepreneurial behaviour of employees

The entrepreneurial behaviour of employees involves taking individual entrepreneurial initiatives for the development innovations that will help enterprises to adapt to the changing business environment. Ten factors of entrepreneurial behaviour was found in study by Hashimoto and Nassif (2014). Between that factor, we abstract four key factors (creativity, autonomy, the flow of information and support managers), that influence the entrepreneurial behaviour of employees in large enterprises.

Creativity means finding a variety of solutions by employees to the current problems and needs that may be present in the form of new products and/or services, relating to the innovation of employees. The lack of creativity leads to stagnation innovative power of employees, and it means the loss of competitiveness of enterprises (Hashimoto & Nassif 2014, p. 400).

Autonomy is another key factor of entrepreneurial behaviour that encourages employees to take individual entrepreneurial initiatives that are directed towards the development of innovation. The employees, who have autonomy can easily set your goals, decide about using thing and choose the strategy of action. The lack of autonomy can reduce the creativity of employees because the employees feel insufficiently ready to be independent and take entrepreneurial initiatives for the development of innovation.

The flow of information helps employees, that they collect easy the necessary skills and information (Kanter 1983, 1989, Pincho 1985, Van de

Ven 1986 taken by Hashimoto & Nassif 2014 p. 392). Formal or informal flow of information should be open to all levels, so that the question of any kind can demand from any employee at any level of the organization department (Marvel, Griffin, Hebdo & Soldier 2007 taken by Hashimoto & Nassif 2014, p 392). The free flow of information helps employees to identify opportunities and generate innovations that can be implemented.

The support of management implies the willingness of top management to promote entrepreneurial initiatives between their employees. Covin and Lumpkin (2011) point out that although, there are organizational practices that encourage entrepreneurial behaviour of employees, if there is no support of top management in all of this, such kind of behaviour will never develop. Based on the above, we can conclude that support of management is the most important key factor in the development of entrepreneurial behaviour of employees. However, this does not reduce the impact of the previous three key factors that managers should consider, if they want to develop entrepreneurial behaviour of employees.

2.3 The impact of the company mission in designing the organizational culture that develops the factors of entrepreneurial behaviour of employees

The above key factors of entrepreneurial behaviour of employees can be developed in large enterprises only with the help of an organizational culture that creates unity between the enterprises and employees. If large enterprises would make unity as the basis of organizational culture that encourages the development of the factors of entrepreneurial behaviour of employees, it is necessary to develop a sense of identity, belonging and loyalty at employees of the company and make the structuring of employees. It can be achieved only by mission companies and joint missions of departments to derive from the mission of the enterprises.

The mission of the enterprises shows its commitment to the various stakeholders: customers, employees, shareholders, the local community etc. As such, it develops a sense of identity, belonging and loyalty at employees of the company because the employees using the mission know what they do and why they do it, it gives a direction to employees what they should do, how they should behave and what activities should be undertaken to see implemented. When managers realise the mission of the enterprise, they should wake a sense of urgency at employees. The urgency leads to action, the effort and focused decision, usually results from the beliefs that

something is worth to be done. If it would results achieve all this, the mission of the enterprise must pervade demanding and realistic goals that are in a perpetual state of high levels of urgency.

Structuring of employees in the enterprises shall be conducted with the help of the joint mission of departments to derive from the mission of the enterprises. The main function of the joint mission is a systematic arrangement of the enterprise mission and its introduction into the daily habits of employees at individual workplaces and functions in the company. It involves conducting missions across various departments and levels of the organization.

The joint mission helps in carrying out the mission of higher level and also the general mission of the company. If a joint mission of operating and support functions should be defined, it should examine how the area or department assisted in the execution of the mission of the enterprise. But it is not enough to define a joint mission of departments, also it is necessary to determine how departments should cooperate with each other in order to fulfil the general mission of the enterprise. For this purpose, Cardona and Rey (2009) used an interdependency matrix that determines the relations of cooperation between departments. It helps employees to clarify the reasons for cooperation, suggesting them to cooperate from the sense of mission that is much better than the cooperation of other reasons (financial reward or other benefits).

Based on the foregoing, we conclude that a joint mission and an interdependency matrix encourage employees to cooperate in a structured and systematic manner, thus determining the role and function of each employee contributing to the realization of joint mission of departments and the mission of the company. In this way, it creates a stable business environment that build unity as the basis of the organizational culture.

3. Methodology and results of the empirical research

3.1 The case, hypotheses and research objectives

The theme of research in this paper is the influence of the mission enterprise in designing organizational culture that develops the factors of entrepreneurial behaviour of employees (creativity, autonomy, free flow of information and management support) in large enterprises in Federation of Bosnia and Herzegovina. The main research hypothesis is: Organizational

culture is designed by the mission companies affects positively on the development of the factors of entrepreneurial behaviour of employees. In this paper, the working hypothesis are defined:

- H_1 : The mission of the company developing a sense of identity, belonging and loyalty of employees has effect positive on the development of creativity and autonomy of the employees with the support of management.
- H_2 : The joint missions of departments structuring employees have impact positive on the development of the key factors of entrepreneurial behaviour of employees (creativity, autonomy, free flow of information and management support) which are directed towards the development of innovation.

The general objective of the research is to determine the impact of organizational culture designed by the mission companies to develop entrepreneurial behaviour of employees in large enterprises in Federation of Bosnia and Herzegovina. The achievement of the general research objective requires implementation of the following operational research objectives:

- To examine the influence of organizational culture designed by the mission on development entrepreneurial behaviour of employees in large enterprises in Federation of Bosnia and Herzegovina by empirical research on a sample.
- To interpret the results of research in relation to the hypotheses.

The research was conducted through questionnaire and statistical processing of the obtained answers in Microsoft's program SPSS 20th, to examine the extent to which the company mission designing organizational culture that influences the development of entrepreneurial behaviour of employees in large enterprises in Federation of Bosnia and Herzegovina.

3.2 The sample and research methods

Primary data was collected through field research and using interview as a method. The research areas are ten cantons in Federation of Bosnia and Herzegovina (Canton Sarajevo, Canton Tuzla, Zenica-Doboj Canton, Central Bosnia Canton, Herzegovina-Neretva Canton, West Herzegovina Canton, Una-Sana Canton, Bosnia-Podrinje Canton, Western Bosnia Canton and Posavina Canton). Before beginning the research, potential companies was analysed and they were chosen in the sample. The survey included 54 subjects, from that 28 respondents were male and 26 female. According

to their current position in the enterprise, 22 (40.74%) respondents are to the middle management level, 14 (25.93%) respondents are to the highest level of management, 9 (16.67%) respondents are from other positions, 6 (11.11%) respondents are from a lower level of management and 3 (5.56%) respondents are the leaders of business processes. When analyzing the results of research was used the method of canonical correlation analysis that attempted to determine the relationship between organizational culture designed by mission of the enterprises and entrepreneurial behaviour of employees.

3.3 Analysis, evaluation and interpretation of research results

The canonical correlation analysis is applied by this study that sought to determine a significant relationship between organizational culture designed by the mission of the enterprise as a system of independent variables and entrepreneurial behaviour which is characterized by the key factors (creativity, autonomy, free flow of information and management support) as a system of dependent variables.

3.3.1 Correlation between the influence of the mission of the enterprise to development a sense of identity, belonging and loyalty of the employees to enterprise and factors of entrepreneurial behaviour

The canonical correlation analysis was used to determine a significant correlation between the influence of company mission to development a sense of identity, belonging and loyalty of employees to enterprises as a system of independent variables and factors of entrepreneurial behaviour as a system of dependent variables. The above analysis, which is presented in the table below, ten canonical dimensions (pair of significant factors) were obtained, two of ten canonical dimensions are statistically significant ($P < 0.05$) at the level of significance ($P = 0.0000$) and ($P = 0.0057$). The first obtained function is at the level of significance ($P = 0.0000$) and it explains the very high correlation of two sets of analyzed variables with a coefficient of correlation ($R = 0.9167$), it indicates that this function was explained with the 84.03% ($R^2 = 0.8403$) of the total covariation of these two sets of variables. Another obtained canonical function is at the level of significance ($P = 0.0057$), but there is some less values, which means that less explains the connection between the two sets of analyzed variables with a coefficient of correlation ($R = 0.8420$) compared to the first obtained canonical function, other obtained canonical function was explained with the 70.90% ($R^2 = 0.7090$) of the total covariation of these two sets of variables.

Table 1. *Canonical correlation analysis about the influence of the mission enterprise to development a sense of identity, belonging and loyalty of employees to the enterprise and factors of entrepreneurial behaviour of employees*

Canonical dimensions	R	R ²	P
1	0.9167	0.8403	0.0000
2	0.8420	0.7090	0.0057
3	0.7895	0.6233	0.2571
4	0.6357	0.4041	0.9227
5	0.4682	0.2192	0.9951
6	0.4244	0.1801	0.9972
7	0.3325	0.1106	0.9991
8	0.2433	0.0592	0.9994
9	0.1049	0.0110	0.9997
10	0.0650	0.0042	0.9813

Source: Authors' research

The coefficients for calculating of the canonical results were showed in table 2 and table 3. The structure of canonical factors in the independent and dependent system of variables was obtained in these tables.

Table 2. *Canonical coefficients about the influence mission enterprise to development a sense of identity, belonging and loyalty of employees to the enterprise as a system of independent variables with separated canonical pair*

Variable	Correlation	
	1	2
D-I-I-1	0.6363	0.5177
D-I-I-2	0.0376	0.3661
D-I-I-3	0.2268	0.8257
D-I-I-4	0.3070	0.7924
D-I-I-5	0.5330	0.7331
D-I-I-6	0.4216	0.7214
D-I-I-7	0.7796	0.4111
D-I-I-8	0.6727	0.4252
D-I-I-9	0.6619	0.5619
D-I-I-10	0.4962	0.5461

Source: Authors' research

According to the results from the first obtained function that were showed in the previous table, the influence of the mission enterprise to development a sense of identity, belonging and loyalty of employees to enterprises is defined variables that are related to the following views of respondents: *The employees accept the mission enterprise because they understand the*

meaning and purpose of the mission and they have confidence in managers (D-I-I-7=0.7796). Employees can easily adapt to changes that bring the mission enterprise (D-I-I-8=0.6727). Employees with the mission enterprise feel connected to the enterprise as their own (D-I-I-9=0.6619). Management in cooperation with the employees determine the mission enterprise (D-I-I-1=0.6363). Managers accept the role of trainer and daily communicate with employees about the mission enterprise (D-I-I-5=0.5330). The first obtained canonical factor of independent variables can be defined as a factor of development a sense of identity, belonging and loyalty of employees to the enterprise with the assistance of the mission enterprise.

The results from the second obtained function were showed in table 2. They can be defined on the same way as the first obtained function, so there is no point in defining this function.

Table 3. Canonical coefficients from the factor of entrepreneurial behaviour of employees as a system of dependent variables with a separated canonical pair

Variable	Correlation	
	1	2
C-I-1	0.5215	0.6180
C-I-2	0.3847	0.8076
C-I-3	0.2316	0.7471
C-I-4	0.2540	0.6697
C-I-5	0.2852	0.5713
C-I-6	0.8741	0.2752
C-I-7	0.4696	0.5954
C-I-8	0.5286	0.5112
C-I-9	0.5408	0.6186
C-I-10	-0.2144	-0.2007
C-I-11	0.0274	0.2337
C-I-12	0.3722	0.4301

Source: Authors' research

According to the results from the first obtained function, that were showed in the previous table, the factors of entrepreneurial behaviour of employees are defined with variables that are related to the following views of respondents: Management offers free time to employees to develop their own innovation (C-I-6=0.8741). Managers organize regular meetings with employees to make a decision on acceptance of creative and innovative solutions (C-I-9=0.5408). Employees develop independently innovations that are forwarded to managers for approval (C-I-8=0.5286). Management of the company focuses meaning of the research, development, technological leadership and

innovation in the enterprise (C-I-I=0.5215). The first obtained canonical factor of independent variables can be defined as a factor of *developing the creativity and autonomy of the employee with the support of management.*

The results from the second obtained function were showed in table 3. They can be defined on the same way as the first obtained function, so there is no point in defining this function. The analysis of corresponding canonical function suggests on facts that the development of a sense of identity, belonging and loyalty of the employees to the enterprises with the assistance of the mission enterprise influences positively on the development creativity and autonomy of the employees with the support of management. This proves the first working hypothesis.

3.3.2 The coherence structuring of employees through the joint missions of departments and the factors of entrepreneurial behaviour of employees

The canonical correlation analysis was used to determine a significant correlation between structuring of employees through the joint missions of departments as a system of independent variables and factors of entrepreneurial behaviour of employees as a system of dependent variables. The above analysis, which was presented in the table below, nine canonical dimensions (pair of significant factors) were obtained, the first three of nine canonical dimensions are statistically significant ($p < 0.05$) at the level of significance ($P = 0.0000$), ($P = 0.0003$) and ($P = 0.0293$). The first obtained function is at the level of significance ($P = 0.0000$) and it explains the very high correlation of two sets of analyzed variables with a coefficient of correlation ($R = 0.9257$), it means that this function was explained with the 85.69% ($R^2 = 0.8569$) of the total covariation of these two sets of variables.

Another obtained canonical function is at the level of significance ($P = 0.0003$), but it has some less values, which means that it explains less the connection between the two sets of analyzed variables with a coefficient of correlation ($R = 0.8254$) compared to the first obtained canonical function, the other obtained canonical function was explained with the 68.13% ($R^2 = 0.6813$) of the total covariation of these two sets of variables.

Third obtained canonical function is at the level of significance ($P = 0.0293$) and it has a less values, which means that it explains less the connection between the two sets of analyzed variables with a coefficient of correlation ($R = 0.6971$) compared to the first and second obtained canonical function,

and the third obtained canonical function was explained with 48.59% ($R^2=0.4859$) of the total covariation of these two sets of variables.

Table 4. *Canonical correlation analysis between structuring of employees through the joint missions of departments and factors of entrepreneurial behaviour of employees*

Canonical dimensions	R	R ²	P
1	0.9257	0.8569	0.0000
2	0.8254	0.6813	0.0003
3	0.6971	0.4859	0.0293
4	0.6823	0.4655	0.1192
5	0.5945	0.3534	0.4542
6	0.4972	0.2472	0.7744
7	0.3909	0.1528	0.9229
8	0.2591	0.0671	0.9731
9	0.0969	0.0094	0.9828

Source: Authors' research

The coefficients for calculating of the canonical results were showed in table 5 and tables 6. The structure of canonical factors in the independent and dependent the system of variables was obtained in these tables.

Table 5. *Canonical coefficients from structuring of employee through the joint mission a of departments as a system of independent variables with separated canonical pair*

Variable	Correlation		
	1	2	3
D-I-II-1	0.6159	0.1885	0.3359
D-I-II-2	0.7041	-0.0101	0.4314
D-I-II-3	0.5133	0.2984	0.5053
D-I-II-4	0.6824	0.3222	0.2144
D-I-II-5	0.6466	0.2980	0.4692
D-I-II-6	0.7521	0.3283	-0.2076
D-I-II-7	0.8026	-0.0978	-0.1326
D-I-II-8	0.5449	0.2216	-0.1794
D-I-II-9	0.7029	-0.2819	0.0139

Source: Authors' research

According to the results from the first obtained function that were showed in the previous table, the structuring of the employees through the joint missions of departments was defined variables that are related to the following views of respondents: *The communication between employees is established easily without on their status or position (D-I-II-7=0.8026). The conflicts between departments are rare or non-existent (D-I-II-6=0.7521).*

Sharing the missions of departments and explaining the requirements of departments to other departments is the basis of cooperation between employees (D-I-II-2=0.7041). The employees provide advice to each other when it is necessary (D-I-II-9=0.7029). The Employees from different departments feel that their goals were balanced between themselves (D-I-II-4=0.6824). The managers from different departments meet frequently because they want to harmonize their activities (D-I-II-5=0.6466). The joint missions of departments or regions were harmonized with the missions of higher level and approved them owners of the mission of higher levels (D-I-II-1=0.6159). There are many opportunities for informal discussion between employees of different departments in the enterprise (D-I-II-8=0.5449). The employees from different departments cooperate with each other well (D-I-II-3=0.5133).

The first obtained canonical factor of independent variables can be defined as a factor of *structuring of employees through the joint missions of departments*. The results from the second and third obtained function were showed in table 5. These results are not point to define, because they are a weaker projections variables with components from this set of variables.

Table 6. *Canonical coefficients of factors of entrepreneurial behaviour of employees as a system of dependent variables with a separated canonical pair*

Variable	Correlation		
	1	2	3
C-I-1	0.7330	0.0881	0.3300
C-I-2	0.7098	-0.2697	0.3985
C-I-3	0.5211	0.2007	0.4422
C-I-4	0.7016	-0.2883	0.1427
C-I-5	0.5005	0.2307	0.6527
C-I-6	0.7120	0.1226	0.3053
C-I-7	0.7825	0.0401	0.1536
C-I-8	0.8264	0.3198	0.2259
C-I-9	0.8746	0.256	-0.0677
C-I-10	-0.2138	0.1358	-0.4348
C-I-11	0.2628	-0.0406	-0.1797
C-I-12	0.4031	-0.1908	0.0041

Source: Authors' research

According to the results from first obtained function that were showed in the previous table, the factors of entrepreneurial behaviour of employees were defined with variables that are related to the following views of respondents: *The managers held regular meetings with employees to make a*

decision on acceptance of creative and innovative solutions (C-I-9=0.8746). The employees develop independently innovations that are forwarded to managers for approval (C-I-8=0.8264). The Employees observe various opportunities for the development innovation when they perform their daily tasks and duties (C-I-7=0.7825). The management of the enterprises focuses on meaning of the research, development, technological leadership and innovation in the enterprise (C-I-1=0.7330). The management offers free time to employees for development their own innovation (C-I-6=0.7120). The management is interested in the production and/or the provision of new products and/or services (C-I-2=0.7098). The management in cooperation with the employees carries out changes in working methods and production seeking new and more effective solutions in enterprise (C-I-4=0.7016). The management encourages employees to think and act in an original and new way (C-I-3=0.5211). The management accepts the ideas and suggestions of employees (C-I-5=0.5005).

The first obtained canonical factor of dependent variables can be defined as a factor of *developing key factors of entrepreneurial behaviour of employees (creativity, autonomy, free flow of information and management support)*.

The results from the second and third obtained function were showed in table 6. These results are not point to define because they are a weaker projections of variables with components from this set of variables.

The analysis of corresponding canonical function suggests on facts that the structuring of employees through the joint missions of departments influences positively on the development the key factors of entrepreneurial behaviour of employees (creativity, autonomy, free flow of information and management support) that are directed to the development innovations. The second working hypothesis is proved by previous analysis.

4. Conclusion

The mission of the enterprise designs an organizational culture that develops the factors of entrepreneurial behaviour of employees and creating unity between the enterprise and employees that is the essence of the organizational culture. Based on the results of empirical research, the main conclusions that have been reached will be presented.

Examining the canonical correlation analysis connection between the influence of the mission of the enterprise to create a sense of identity,

belonging and loyalty employees to the enterprise and factors of entrepreneurial behaviour, it was concluded that the development a sense of identity, belonging and loyalty of the employees to the enterprise with influence positively to the development of creativity and autonomy of employees with support of management. This proves the first working hypothesis, which asserts that the mission of the enterprise by developing a sense of identity, belonging and loyalty of employees to the company influences positively to the development creativity and autonomy of the employees with the support of management. Examining canonical correlation analysis connection between the structuring of employees using the joint missions of departments and factors of entrepreneurial behaviour, it was concluded that the structuring of the employees through joint missions of departments influences positively to the development of the key factors of entrepreneurial behaviour of employees (creativity, autonomy, free flow of information and management support), that were aimed to the development of innovation. This proves the second working hypothesis which asserts, that the joint missions of departments structuring employees have a positive impact on the development of the key factors of entrepreneurial behaviour (creativity, autonomy, free flow of information and management support), which were directed towards to the development of innovation.

All this suggests that the mission of the enterprise through the joint missions of departments creates a sense of identity, belonging and loyalty of employees to the enterprise and performs structuring of employees. The mission of the enterprise creates unity as the essence of the organizational culture that influences to the development of the key factors of entrepreneurial behaviour of employees (creativity, autonomy, free flow of information and management support). Accordingly, we have proved the central research hypothesis which asserts that organizational culture was designed by the mission of the enterprise has the positively affects to the development of the factors of entrepreneurial behaviour of employees.

The implemented research in this paper is the basis for further researching in which is necessary to examine the interest of employees in large enterprises in Federation of Bosnia and Herzegovina for the acquisition of new knowledge in the field of entrepreneurship, because the knowledge of employees is the key factor for progress and development of the enterprise. Additionally, it is necessary to examine the influence of organizational structure on the development of entrepreneurial activity of employees. This further researches can contribute to a more comprehensive perception and

therefore a better understanding the meaning of entrepreneurship in large enterprises in Federation of Bosnia and Herzegovina.

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THE IMPLEMENTATION OF MODELS FOR MEASURING THE INNOVATION POTENTIAL IN COMPANIES IN BOSNIA AND HERZEGOVINA

ZASTUPLJENOST PRIMJENE MODELA ZA MJERENJE INOVACIJSKOG POTENCIJALA U BOSANSKOHERCEGOVAČKIM KOMPAIJAMA

Abstract

With respect to the importance of innovation for achieving the competitive advantage of the company and its link to the business excellence, the paper focuses primarily on theoretical overview of five most represented models for measuring the innovation potential (MMIPs), and afterwards on the empirical research about awareness and implementation of MMIPs as the tool for strengthening the innovation capabilities of the company. Starting from the assumption that there is a positive relationship between the implementation of contemporary MMIPs and successful business results, the paper describes the method and the results of the research undertaken on the large sample of large manufacturing companies from five different industries in Federation of Bosnia and Herzegovina. By using the appropriate statistical methods (regression analysis and variance analysis), the authors have proven the existence of positive correlation between Croatian Coefficient of Innovativeness, as the chosen representative of the contemporary MMIPS, and the business success measured by the Business Excellence Index, as well as the adequacy of the regression model. The research evidence of the positive impact of the implementation of chosen MMIP on achieving the business excellence, based on the applied research methodology, has

both scientific and practical value. The scientific value is based on the initiation of further research on the interconnection between the implementation of contemporary models described in the paper (IMP3rove, Innovation Radar, IPScore, Innovate, Croatian Coefficient of Innovativeness) and achieving the business excellence of the company, that will undoubtedly lead to creating solid bases for building the better competitiveness of companies. The practical value of the paper is based on highlighting the low awareness of MMIPs in Bosnia and Herzegovina, which calls an action for increasing the level of familiarity with and implementation of those model that will consequently allow managers to achieve better business result for their companies.

Keywords: innovation, innovation potential, measurement tools, Federation of Bosnia and Herzegovina

JEL: O3

Sažetak

Respektujući značaj inovacija za postizanje konkurentne prednosti preduzeća i njihove povezanosti sa ostvarivanjem izvrsnih rezultata poslovanja, u radu se fokusiramo najprije na predstavljanje pet najzastupljenijih modela za mjerenje inovacionog potencijala a potom na istraživanje upoznatosti i zastupljenosti sveobuhvatnih modela za mjerenje inovacionog potencijala kao alata za osnaživanje inovativnosti preduzeća. Polazeći od premise postojanja pozitivne povezanosti upotrebe savremenih modela za mjerenje inovacionog potencijala i uspješnosti preduzeća, u radu prezentiramo postupak i rezultate istraživanja provedenog na velikom uzorku velikih proizvodnih preduzeća u Federaciji BiH koji posluju u pet privrednih grana. Primjenom odgovarajućih statističkih metoda (regresione satatisike i analize varijanse) dokazana je pozitivna koerelacija između Hrvatskog koeficijenta inovativnosti (HKI) kao odabranog reprezentira savremenih modela za mjerenje inovativnog potencijala i uspješnosti preduzeća mjerenom metodologijom Business Excellence Index kao i adekvatnost regresionog modela. Naučna spoznaja o pozitivnom uticaju primjene odabranog savremenog modela mjerenja inovacionog potencijala preduzeća na postizanje poslovne izvrsnosti, temeljena na primijenjenoj metodologiji istraživanja, ima znanstvenu i praktičnu vrijednost. Znanstvena vrijednost ogleda se u inicijaciji budućih istraživanja povezanosti savremenih modela mjerenja inovacionog potencijala (IMP3rove, Inovacijski Radar, IPScore, Innovate, Hrvatski koeficijent inovativnosti), čije smo osnovne karakteristike koristi primjene i ograničenja opisali u radu, sa postizanjem poslovne izvrsnosti preduzeća koje će neminovno voditi ka jačanju konkurentnosti preduzeća. Praktična vrijednost rada ukazuje na potrebu veće upoznatosti menadžera bosanohercegovčkih preduzeća sa savremenim modelima mjerenja inovativnog potencijala radi njihove češće primjene i koristi koje proizilaze njihovom primjenom očitovanim u boljim rezultatima poslovanja i boljem rangu na ljestivici poslovne izvrsnosti.

Ključne riječi: inovacije, inovacijski potencijal, modeli za mjerenje, Federacija Bosne i Hercegovine

JEL: O3

1. Introduction

The capability to innovate and bring innovation to the market has been seen as a crucial determinant of the global competitiveness and national progress over the ongoing decade (OECD 2007). Likewise, the innovation potential is regarded crucial on the company level for multiple reasons. Firstly, the world is becoming highly competitive and only companies that constantly challenge what they do and constantly improve on ways of doing business are able to survive in today's globally competitive environment (Balasubramanian 2013). In addition to increased competitiveness, the Internet has significantly increased the bargaining power of customers and the dynamic market has influenced on the shortened product life cycles. Putting these factors together, it is clear that developing faster innovation processes with more predictable output is a strategic necessity (Sehested & Sonnenberg 2011, p. 5).

Therefore, the objective of the research lies in examining the presence of application of comprehensive models for measuring innovation potential in large companies in Federation of Bosnia and Herzegovina (FBiH) in the manufacturing industry in order to further stimulate innovativeness and realization of better business results. The research is aimed at establishing the link between the application of modern comprehensive models for measuring company's innovation potential and the realization of the entire business results.

2. Literature review

The most successful companies nowadays are those who are able to embrace the paradox between efficiency and creativity, and to come up with innovation solutions for the mentioned paradox (Sehested & Sonnenberg 2011, p. 6). As stated by Golja & Kontosic (2015), innovation is, among the other things, the result of iterative learning process and almost all innovations are the result of prior learning from failures (p. 91). But besides learning from mistakes, companies can enhance the innovation potential by creating "a mindset that rejects the fear of failure and replaces that fear with the joy of exploration and experimental learning" (Hess 2012).

Innovation potential of the company equals the company's ability to innovate its products and processes, but also represents its flexibility and agile responses to changes in the external environment. In context of increasing the innovation potential, available current research studies and research paper mostly address the use of information technology and knowledge management as main supporters of increased innovation potential (Norek 2012). However, experts in the applied management science have developed tools used for assessing, developing and monitoring innovation potential of the company. Models for Measuring Innovation Potential (MMIPs) usually assess multiple innovation dimensions within the company, trying to capture as many as possible perspectives affecting the innovation capabilities. According to the manual guides made by the creators of MMIPs, these models should be used on the regular basis, first as a measurement tool and afterwards as a control tool in the process of increasing and managing innovation potential within the company.

Although MMIPs are extensively used worldwide by companies of all sizes and are proven to be very helpful in the real practice, *there are very few articles focused on identifying, describing and explaining the MMIPs.* Therefore, the next section of the paper aims to give an overview of five MMIPs, including three used on the global scale and two developed and used in the Balkan region. The description of models is mostly based on expert-made reports due to the absence of scientific articles on this topic.

2.1. Model 1 - IMP³rove

Ever since it was launched in March 2007, IMP³rove has created a significant impact for various stakeholder groups (The European Commission 2008, p. 41). The major advantage of IMP³rove is the fact that it combines online and consulting approach, allowing for a structured approach but yet very flexible in the areas where needed. The IMP³rove process is divided into three main phases and five main activities. The users of this tool testified that IMP³rove is “an eye-opener”, pointing out the key strengths and weaknesses in their innovation management. However, the best value of using this MMIP is the fact that The IMP³rove Academy, the organization owning the tool, has the largest and most-up-to-date global database on innovation management that includes large data on companies, their innovation strategies, innovation cultures, and business impact achieved (Engel et al., 2010, p. 14). Using this database in the process of benchmarking allows for better comparison and

hence better outcomes and strategies for improving the innovation potential of the company.

2.2. Model 2 - The Innovation Radar

The Innovation Radar is a model for measuring company's innovativeness developed by the "Measured and Managed Innovation" (MMI) in cooperation with the Kellogg School of Management, Chicago and national innovation agencies of the Nordic countries (Garnil 2011, p. 24). Innovation Radar gives a 360-degree visual overview in a total of 12 basic areas of company's innovativeness, thus providing a more precise insight into good and bad sides of the innovation model used. More specifically, four main dimensions are measured: offerings a company creates (WHAT), customers it serves (WHO), processes it employs (HOW) and points of presence it uses to take its offerings to market (WHERE). The basic advantage of this model is the expansion of perception point of view from solely technical-technological innovations to other important segments of company's business, which leads to the development of more successful innovation strategy (De Prato et al. 2015, p. 41). A disadvantage of this model is its complexity, as it requires 12 dimensions to be integrated into one framework and six or more managers in every company to fill in the questionnaire.

2.3. Model 3 – IPScore

IPScore is, to a certain degree, different from other models mentioned, since it is a tool for evaluation of patents and technological development projects (The European Patent Office 2010). However, the literature recognizes patents as the indicator of innovation activity and hence effective measuring and managing patents contributes to effective measuring and managing innovation (Nagaoka et al. 2010, p. 1087). On the other side, the patent can be the basis for the expansion of a company and IPScore stimulates this position through adding the basis for rethinking in the company, and thereby gives a rise to new, challenging and profitable thinking (The European Patent Office, 2010). It also facilitates a systematic assessment of patents, and therefore supports decisions regarding the discontinuation patent sale. The major advantage of this model is that it allows the alignment of business strategy and IP strategy, and is a tool for better interaction between managers in different technical areas of production.

2.4. Model 4 - INNOVATE

INNOVATE is a diagnostic tool that encourages companies in Serbia to improve the innovation management in their companies and consequently affects the improvement of competitiveness as a whole. INNOVATE follows the existing global tools and is complemented to the above-mentioned IMP³rove (ICIP Serbia 2015). This model is used for measuring 21 different aspect of innovation management, by comparing the actual practice of the company with one of the four pre-defined statements (Petric 2012). Its basic advantage is that it is applicable in all companies regardless of their size or years of practice, including micro- and start-up companies, and it can be used without extreme support. However, it does not use quantitative financial data of the company, which affects the objectivity of the results.

2.5. Model 5 - The Croatian Coefficient of Innovativeness

The "Croatian Coefficient of Innovativeness" (or originally Hrvatski kvocijent inovativnosti, in the remaining text it will be referred as "HKI") is a tool developed in 2011 with the aim of exploring and measuring the level of innovativeness of Croatian companies, and stimulating the innovation through annual awarding the best companies (Sense Consulting, Lider & Vern 2013). The methodology used by HKI uses the combination of the best practice in the field of innovation management, especially the measurement of company's innovation capability. The HKI questionnaire is consisted of 29 questions classified in three groups. These questions explore and measure the level of company's innovativeness through the situational analysis of their innovation capacities (10 questions), strategies and procedures (10 questions), processes and models (9 questions), which lead to the innovation development (Sense Consulting, Lider & Vern 2013). The main advantage of this model is its availability, structured approach and instant feedback about the innovation abilities of your company. The main disadvantage is the «one-time» action, which does not allow for iterative approach or continuous measurement of improvement.

3. Research methodology

The following part of the paper presents the research methodology used in this paper, including research hypotheses, variables, sample and methods of data collection and processing.

3.1. Hypothesis and research variables

The following research hypothesis is formulated: Companies that accomplish higher coefficient of innovativeness measured by the Croatian Coefficient of Innovativeness as one of contemporary models for measuring innovation potential as a rule achieve better business results measured by the Business Excellence Index (BEX index). Business excellence, a dependent variable, is measured by the BEX index methodology. The Business Excellence Index (BEX) enables fast and simple assessment of company's business excellence. It shows and measures company's business excellence in two dimensions: (a) the current business excellence ("lagging" dimension) and (b) expected business excellence ("leading" dimension). The following financial indicators are used for the assessment of company's accomplished business results: profitability, value creation, solvency, and financial power. The BEX Index does not depend on the capital market indicators and it includes a completely new indicator – company's financial power. In accordance to the methodology of the BEX Index calculation, four financial indicators were calculated for all the companies in the sample. These indicators were pondered for every company by the weighting coefficient for every indicator determined by the authors of the BEX methodology and then summed up, resulting in the Index of business excellence for every company in three years observed. The BEX Index was calculated by applying the following mathematical expression:

$$\text{BEX} = 0,388 (\text{ex}_1) + 0,579 (\text{ex}_2) + 0,153 (\text{ex}_3) + 0,316 (\text{ex}_4)$$

The calculated values of the BEX index and the Business Excellence Ranking (BER) individually per every year in the period 2009 – 2014 are given in Table 1. The BER was established on the basis of the range of the values of the BEX Index which enabled the classification of companies in one of the following categories: World class – WC (higher than 6.01 for four consecutive years), World class candidate – WCC (higher than 6.01), Excellent – E (4.01-6.00), Very good – VG (2.01-4.00), Good – G (1.02-2.00), Marginal area – MA (0.00-1.00), and Poor – P (lower than 0.00).

Table 1. *Index and ranking of business excellence of large manufacturing companies in FBiH*

N	Company ID	2009		2010		2011		2012		2013		2014	
		BEX	BER	BEX	BER	BEX	BER	BEX	BER	BEX	BER	BEX	BER
1	4272126030007	5.22	E	3.41	VG	4.41	E	2.79	VG	1.61	G	2.39	VG
2	4272031910000	3.73	VG	7.49	WCC	2.96	VG	2.57	VG	1.61	G	1.57	G
3	4272019110006	1.79	G	2.30	VG	2.04	VG	2.19	VG	2.60	VG	2.82	VG
4	4236004800000	1.01	G	0.84	MA	0.63	MA	1.04	G	4.30	E	10.00	WCC
5	4227018430001	0.22	MA	3.77	VG	2.77	VG	0.71	MA	1.09	G	1.07	G
6	4272029000004	1.62	G	1.61	G	1.17	G	1.16	G	1.03	G	1.48	G
7	4227248350007	0.77	MA	1.11	G	0.03	MA	-0.68	P	1.75	G	0.63	MA
8	4272072270007	5.30	E	5.63	E	11.84	WCC	1.51	G	2.71	VG	1.11	G
9	4272016790006	2.31	VG	1.96	G	1.97	G	1.62	G	1.61	G	1.70	G
10	4245044170008	2.05	VG	1.80	G	1.64	G	1.67	G	1.50	G	-4.22	P
11	4209133550004	1.75	G	4.95	WCC	5.33	WCC	5.65	E	6.02	WCC	6.36	WCC
12	4236098430006	0.34	MA	0.79	MA	1.32	G	0.81	MA	0.85	MA	0.81	MA
13	4227003590002	2.65	VG	2.75	VG	2.76	VG	1.90	G	0.92	MA	1.10	G
14	4227040010008	3.72	VG	1.85	G	2.33	VG	2.94	VG	2.42	VG	1.88	G
15	4245001870006	1.75	G	3.78	VG	3.72	VG	5.32	E	4.06	E	2.00	G
16	4272070570003	1.80	G	4.16	E	3.71	VG	0.29	MA	0.48	MA	1.12	G
17	4227112960006	0.38	MA	1.77	G	1.26	G	0.76	MA	0.30	MA	0.26	MA
18	4272071200005	0.58	MA	1.31	G	3.70	VG	4.63	E	3.47	VG	3.42	VG
19	4272079280008	1.24	G	0.64	MA	0.92	MA	0.93	MA	0.89	MA	1.62	G
20	4227169640008	0.47	MA	0.73	MA	0.82	MA	0.28	MA	0.73	MA	0.16	MA
21	4272048050004	0.89	MA	0.47	MA	0.42	MA	0.83	MA	1.25	G	1.01	G
22	4209339500003	0.70	MA	1.49	G	1.00	G	0.36	MA	0.29	MA	4.01	E
23	4227031530007	7.83	WCC	9.03	WCC	8.41	WCC	5.74	E	4.27	E	3.55	VG
24	4200934630002	2.50	VG	2.83	VG	2.88	VG	1.09	G	1.31	G	2.14	VG
25	4281104300000	7.58	WCC	5.19	E	4.72	E	6.05	WCC	4.08	E	4.30	E
26	4227207670005	-3.37	P	-0.93	P	0.34	MA	-9.06	P	-49.45	P	-5.54	P

Source: Primary research data

The indicators in the previous table were calculated for the period of six years so as to enable the establishment of the BEX ranking “World Class” (in case there is one). Based on the conducted research it was concluded that none of the companies in the sample satisfy the conditions for the BEX ranking “World Class” but there is one company, which is “World Class Candidate”.

When the selected sample is observed, it becomes evident that the BEX Index for most of the companies in the period 2009 – 2014 fluctuates and that the companies with constant growth or fall are rare. This is why it is not possible to define a general trend and to offer a uniform answer whether or not the large companies in FBiH will be successful in the future. However, these fluctuations and the lack of constancy are precisely the fact, which enable us to conclude that the large companies in FBiH are not successful in

their adaptation to new circumstances and that “today they are not prepared for the changes awaiting for them tomorrow”. Also, the abovementioned cannot lead to a general conclusion on the situation in economy, but can certainly lead to the conclusion that the management of large companies in FBiH needs to improve their level of innovativeness so as to successfully meet the future challenges.

In terms of the innovativeness coefficient, the best-rated company this research scores 84 out of the maximum 116 points and is active in the manufacturing industry and energy supply. Out of the surveyed companies, 72% of them state that innovations are among the three top priorities in business. Almost 80% of the companies surveyed see themselves as innovative and claim that their partners, customers, and suppliers also perceive them as such.

Table 2 *Independent variable: Croatian Coefficient of Innovativeness - HKI*

N	Company ID	Total HKI (max 116)	Aspects of assessment		
			Innovation capabilities	Innovation process and strategy	Results of innovation
1	4272126030007	62	1.4	2.6	2.4
2	4272031910000	62	1.4	2.6	2.4
3	4272019110006	66	1.8	2.3	2.8
4	4236004800000	52	1.1	2.0	2.3
5	4227018430001	43	1.2	1.5	1.8
6	4272029000004	64	1.6	2.5	2.6
7	4227248350007	84	2.1	3.8	2.8
8	4272072270007	82	2.1	3.8	2.6
9	4272016790006	79	2.2	3.5	2.4
10	4245044170008	78	2.0	3.4	2.7
11	4209133550004	75	2.1	3.0	2.7
12	4236098430006	72	2.2	2.7	2.6
13	4227003590002	70	1.6	3.0	2.7
14	4227040010008	69	2.4	2.7	2.0
15	4245001870006	69	1.9	2.8	2.4
16	4272070570003	62	1.7	2.8	1.9
17	4227112960006	68	1.7	2.9	2.4
18	4272071200005	67	2.4	2.3	2.2
19	4272079280008	63	1.8	2.4	2.3
20	4227169640008	62	2.1	2.3	2.0
21	4272048050004	68	1.4	2.9	2.8
22	4209339500003	54	0.9	2.5	2.2
23	4227031530007	60	2.3	1.5	2.4

24	4200934630002	55	1.8	1.9	2.0
25	4281104300000	52	1.3	2.2	1.9
26	4227207670005	49	1.5	2.1	1.4
27	4236097460009	67	1.6	3.1	2.2

Source: Primary research data

3.2. Research design

The empirical research was conducted on a sample including successful large companies in FBiH in the manufacturing industry. Company's successfulness was measured by the above-explained methodology of the Croatian Coefficient of Innovativeness in the period 2009 – 2012 and the methodology of the BEX Index for the period 2009 – 2014. The population of large companies in the manufacturing industry, subdivided into six groups, included 79 companies dominating the economic structure of FBiH in terms of employment, ownership over the long-term assets and income.

The research was conducted on a sample of 27 companies in five manufacturing industries.

Table 3. *Structure of large manufacturing companies in FBiH in population and sample*

Industry	The population		The sample	
	Number	%	Number	%
Manufacturing (processing industry)	49	62,03%	20	74,07%
Civil engineering	9	11,39%	4	14,81%
Energy production and supply	8	10,13%	1	3,70%
Mining	6	7,59%	1	3,70%
Agriculture	4	5,06%	1	3,70%
Water supply	3	3,80%	0	0,00%
Total number of large companies	79	100%	27	100,00%

Source: Primary research data

The data collection methods included the primary and secondary research. The primary research was conducted mainly using questionnaires distributed to managers of the large manufacturing companies in Federation of Bosnia and Herzegovina.

In limited cases, questionnaires were replaced by interviews in order to increase the response rate. The secondary research included the desk research about the companies in the sample with the aim of creating a

broader perspective of companies' status, as well as analyzing their financial reports in order to calculate the BEX Index. The collected data were analyzed by using the appropriate statistical methods including descriptive and inferential statistics methods. The most significant data analysis method used was correlation, since the research aimed at empirical investigation into the interdependence between two continuous variables: the level of innovation potential measured by HKI and business excellence measured by the BEX index. Besides correlation, the data were further analyzed by using t-test, analysis of variance ANOVA and regression.

4. Research results and discussion

The following part of the paper aims to describe the main findings of the research when it comes to the level of awareness and the level of application of models for measuring the innovation potential in FBiH, as well as the results of the interdependence between the application of the model and achieved business excellence.

4.1. Results of the research into awareness, usage and frequency of using the models

The research results indicate that the companies in FBiH are largely aware of the regional models for measuring innovation potential, namely INNOVATE from Serbia (20 or 74%) and HKI from Croatia (14 or 52%). The Innovation Radar takes the same share (14 or 52%). Analyzing company's awareness of the models for measuring innovation potential by the manufacturing industry subgroup, it is evident that awareness is well balanced.

Table 4. *Large manufacturing companies in FBiH - their awareness of the models for measuring innovation potential*

Industry	IMProve	INNOVATE	IPScore	HKI	Innovation radar
Manufacturing (processing industry)	5	15	7	10	11
Civil engineering	1	3	1	1	3
Energy production and supply	1	1	0	1	0
Mining	0	1	0	1	0
Agriculture	0	0	1	1	0
Total	7	20	9	14	14

Source: Primary research data

The results of the research into the usage of the models for measuring innovation potential suggest that the largest number of manufacturing companies in FBiH use the model INNOVATE (11 or 41% of the total number).

The HKI model and the Innovation Radar with the same share of five companies or 18.5% follow the INNOVATE. IPScore is used in four companies (14.8%), IMP³rove is used in two companies (7.4%), while four companies do not use any model for measuring innovation potential.

Apparently, the companies in FBiH do not use any other but these identified models.

Table 5. *Large manufacturing companies in FBiH – usage of the models for measuring innovation potential in their practice*

Industry	IMProve	INNOVATE	IPScore	HKI	Innovation Radar	Other model	We do not use any model
Manufacturing (processing industry)	1	10	3	4	3	0	3
Civil engineering	1	0	1	0	2	0	0
Energy production and supply	0	0	0	1	0	0	0
Mining	0	1	0	0	0	0	0
Agriculture	0	0	0	0	0	0	1
Total	2	11	4	5	5	0	4

Source: Primary research data

The research further indicates that the largest number of companies use the models for measuring innovation potential two times a year (10 of them or 21.4%).

Four companies (19%) use these models once a year, while three companies (14.3%) use the models for measuring innovation potential every month. The remaining four companies that answered this question use the model when necessary.

Table 6. *Large manufacturing companies in FBiH – the frequency of using the models for measuring innovation potential in their practice*

Industry	Annually	Semi-annually	Monthly	When and if neccessary
Manufacturing (processing industry)	4	7	3	1
Civil engineering	0	3	0	1
Energy production and supply	0	0	0	1
Mining	0	0	0	1
Agriculture	0	0	0	0
Total	4	10	3	4

Source: Primary research data

4.2. Results of research hypothesis testing

The calculated correlation coefficient indicates a significant interdependence between the observed variables (HKI – the BEX Index). The correlation is positive, meaning that an increase in the value of the independent variable (HKI) leads to a significant increase in the value of the dependent variable (the BEX Index). The significant positive correlation confirms the existence of interdependence between company's innovation potential and the achieved business results (Table 7). Table 8 shows the results of the analysis of variance (ANOVA), where degrees of freedom (df), sum of squares (ss), mean square (ms) and F ratio are determined for the appropriate source of variance (regression, residual and total). The adequacy of the regression model is confirmed using the F-test where for the degrees of freedom (1; 26) and the level of significance $L=0.05$, the critical value is $F=4.23$.

The critical value is significantly below the calculated F value ($F=38.25$), which further indicated that regression model is adequate. The values of the linear regression parameters are shown in table 9, where it can be concluded that independent variable HKI is statistically significant ($p<0.05$).

Table 7. *Outcomes of the regression analysis*

Multiple R	R Square	Adjusted R Square	Standard Error	Observations
0,771596668	0,595361418	0,556899879	2,219970724	27

Source: Authors' research

Table 8. *Results of the variance analysis*

	df	SS	MS	F	Significance F
Regression	1	188,5303351	188,5303351	38,25487127	1,81312E-06
Residual	26	128,1350205	4,928270018		

Source: Authors' research

Table 9. *Values of parameters of the linear regression model*

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0	#N/A	#N/A	#N/A	#N/A	#N/A
HKI 2009-2011	0,040217917	0,006502438	6,185052245	1,53023E-06	0,026851965	0,053583869

Source: Authors' research

The main findings of the statistical data analysis indicate that there is a strong positive interdependence between the level of the innovation potential in the company and the level of business excellence achieved. Acknowledging the fact that models for measuring the innovation potential allow companies to monitor their innovation potential on a regular basis and to create the action plan for its increase, it can be concluded that a frequent use of MMIPs will lead to achieving better business results.

5. Conclusion

Despite numerous researches into the level of company's innovativeness and business excellence, the mechanism of the influence of innovation on achieving better business results has still not been completely elucidated. Therefore, the major *scientific value* of this paper is to contribute to the existing research gap in the aspect of models for managing innovation potential, and optimistically foster additional research studies in this area. The *practical value* of this paper is mostly seen through giving the scientific evidence that using this model can help managers to achieve better business results.

These models are very practical in their nature, and they have two key roles as they are a examination and control tool. Using these models, managers are firstly able to identify innovation potential and the current status of innovation management in the company, and afterwards they can these models as a monitoring tool for measuring the progress. The conducted

research presented in the paper indicate two *main findings*: (1) the correlation between the usage of models for measuring innovation potential, based on HKI as a representative, and excellent business results is scientifically proven and (2) the sample of large companies in FBiH showed a medium awareness of existence but very low awareness of benefits from using these models in practice.

All things considered, one can say that the companies in FBiH have low awareness of the importance of innovation, while the level of application of innovations in practice is even lower. The most important *recommendation* to managers in BiH is that they need focus their attention on the importance of innovation and adopt implementation of these models as their regular activities. By doing so, they will increase the competitiveness of the company and strengthen the outlook for the brighter business future. Fostering competition on the national level would allow the entire country to make a huge step ahead in the economy development.

The scientific research on the models for measuring the innovation potential is currently extremely limited. The innovation potential itself is addressed in research studies, but not in the context of measurement and further development. Consequently, *future research studies* should continue the research on the advantages and disadvantages of the implementation such models in business practices that would result in the practical recommendations but also the improvement of existing models. The most important question to be addressed in this field is how to build-in these models in company's daily practice and how to measure the direct impact of implementation these models on the innovation output of the company and its business success.

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**NORMATIVE AND AFFECTIVE ORGANIZATIONAL
COMMITMENT AS THE FACTORS IN PREDICTING
TURNOVER: A CASE STUDY UNIVERSITY OF
NOAUKCHOTT, MAURITANIA**

**NORMATIVNA I AFEKTIVNA ORGANIZACIJSKA
POSVEĆENOST KAO FAKTORI U PREDVIĐANJU
NAPUŠTANJA RADNOG MJESTA: STUDIJA SLUČAJA,
UNIVERZITET NOAUKCHOTT, MAURITANIA**

Abstract

This article strives to discuss the influence of affective and normative commitment on employee turnover. The paper assumed that managers are more likely to exhibit higher levels of normative and affective organizational commitment than non-managers, thus making this group of employees less likely to change jobs. The primary research was performed in a cross-sectional manner, in autumn of 2014. The population of the study included the junior and senior employees at the University of Nouakchott, Mauritania, West Africa. A structured self-completed research survey was distributed and collected after two months. Out of 195 disseminated surveys, the completed ones were checked for plausibility, integrity and completeness resulting in 65 non-usable cases, so we get (n=130); (i.e. 33 managers and 97 non-managers). Quantitative survey was the main instrument for primary data collection and it was designed in a "7 - point Likert's scale", in addition to descriptive statistics questions. Research findings showed high level of organizational commitment overall, but no statistically

significant differences could be observed in organizational commitment between two different groups of employees (managers and non-managers). Normative and affective aspects of organizational commitment were high.

Keywords: Affective commitment, normative commitment, employee turnover, University of Nouakchott, Mauritania.

JEL: M120

Sažetak

Ovaj članak nastoji da diskutira uticaj afektivne i normativne posvećenosti na stepen napuštanja radnog mjesta. U članku se polazi od toga da menadžeri vjerovatnije pokazuju više nivoa afektivne i normativne posvećenosti organizaciji, u odnosu na ne-menadžere, što čini manje vjerovitim da će menadžeri mijenjati radno mjesto. Primarno istraživanje je provedeno u kompaktnom/jednom vremenskom period (kros-sekcionalno), u jesen 2014. Istraživana studijska populacija je bila sačinjena od radnika sa različitim nivoima radnog iskustva, zaposlenih na Univerzitetu Nouakchott, u zapadno-afričkoj državi Mauritaniji. Strukturirani, od autora kreirani istraživački upitnik je podijeljen i rezultati su sakupljeni u periodu od dva mjeseca. Od 195 podijeljenih upitnika, kompletirani su bili provjeravani na vjerodostojnost i cjelokupnost, što je rezultiralo sa 65 odbačenih upitnika, tako da smo dobili ukupno 130 ispitanika); (od toga, 33 menadžera i 97 ne-menadžera). Upitnik je bio glavni instrument za sakupljanje primarnih podataka i bio je dizajniran u formi Likertove skale sa 7 odgovora, uz dodatna pitanja deskriptivne statistike. Nalazi istraživanja su pokazali visok nivo cjelokupne organizacijske posvećenosti, ali statistički značajne razlike organizacijske posvećenosti se nisu pokazale između dvije različite grupe zaposlenika (menadžera i ne-menadžera). Normativni i afektivni aspekti organizacijske posvećenosti su bile visoke.

Ključne riječi: afektivna privrženost firmi, normativna privrženost firmi, stepen napuštanja radnog mjesta, Univerzitet Nouakchott, Mauritanija.

JEL: M120

1. Introduction

Higher education is essential for Mauritania's development. East Asia and India have shown that higher education with good governance and sound infrastructures have been critical to their economic success. Potential impact of higher education in the strengthening of institutions, governance, social development, scientific innovation and technological advancement is clear. The most important roles of higher education are Economic benefits, Social and political benefits, Human capital and Professional development. Higher

education is critical to build human capital (for example, accountants, doctors, engineers, lawyers, teachers, leaders, administrators, entrepreneurs, critical thinkers, so and on. Unfortunately, Mauritanian leaders have not reiterated the call for higher education in the country, in order to attain the world-class status and become a regional center of excellence in education.

An overview of the history of research into the topic of motivation reveals that the literature on motivation and employee turnover can be broadly categorized into a number of important phases. Motivation, in its broadest sense, can be defined as forces acting either on or within a person to initiate behavior. It's what gets you going. Simply, employee turnover refers to the number or percentage of workers who leave an organization and are replaced by new employees. Measuring employee turnover can be helpful to employers that want to examine reasons for turnover or estimate the cost-to-hire for budget purposes. The theory of organizational commitment espoused among other researchers by Allen & Meyer (1990) suggested that "by understanding when and how commitments develop and how they help shape the attitudes and behaviors, the organizations will be in a better position to anticipate the impact that change will have and to manage it more effectively".

2. Research purpose

The aim of this paper was to explore the differences in normative and affective organizational commitment between two groups of employees (managers and non-managers) at University of Nouakchott, specifically to determine if different employee groups exhibited different types of organizational commitment.

The thesis postulates that managers are more likely to exhibit higher levels of normative and affective organizational commitment than non-managers, thus making this group of employees less likely to change jobs. This research is also undertaken in order to determine the relationship between components of organizational commitment and job satisfaction among staff in higher learning educational institution.

3. Sampling and procedures

Selecting a sample is a fundamental element of a positivist study. The researchers employed purposive sampling to select participants that are representative of the population. To do this, the researchers considered factors

that might influence the population: general demographic characteristics (gender, age, and education), job description (manager/non-manager), and experience with organization (length of employment with organization), etc. Then the researcher purposefully selects a sample that adequately represents the target population on these variables (Hussey & Husey, 1997).

A sample size of one hundred and thirty (130) was selected by using convenience sampling method. Convenience sampling is a simple approach where a sample is selected according to the convenience of the researchers. This convenience may be in respect of availability of data and accessibility of the elements.

4. Synopsis of literature review

4.1. Organizational commitment

Organizational commitment refers to the employee's emotional attachment to, identification with, and involvement in the organization. In essence, measuring organizational commitment is an assessment of the congruence between an individual's own values and beliefs and those of the organizational (Swales 2002). Organizational commitment is characterized "as employees' willingness to contribute to organizational goals". When employees are sure that they will grow and learn with their current employers, their level of commitment to stay with that particular organization is higher (Opkara 2004). In order to make employees satisfied and committed to their jobs, there is a need for strong and effective motivational strategies at various levels of the organization.

Besides that, Tella, Ayeni and Popoola (2007) have discovered a strong relationship between the job satisfaction and organizational commitment. According to them the job satisfaction mostly determines how well the organization meets employees' expectations. On the other hand, Maxwell & Steele (2003) believed that the organizations should be concerned to look after employees' interests. It is clear, that the higher the experience, the more positive the impact on the commitment. Furthermore, an individual's experience with their co-workers had the impact on an increase in commitment to the organization (Maxwell & Steele 2003). High levels of organizational commitment provide a clear focus for human resource managers on the grounds that commitment is in itself good and positive and that it should lead to a high level of work performance.

5. Research findings

The data was then analyzed using descriptive and inferential statistical measures, as follows:

5.1 Demographic results

This section looks at the background of the staff. These include data on where they work, sex, age, educational background and length of service. The respondents were made up of 130 staffs. It was revealed that 71 of the respondents who made up 54.6% of the staff were male whilst 59 of the respondents representing about 45.4% of the staff were females. Thus majority of the respondents were males.

Table 1. *Respondents' gender frequency*

Gender	Frequency	Percent
Male	71	54.6
Female	59	45.4
Total	130	100

Source: Authors' research

The table, below, shows that the University of Nouakchott has a very youthful working population. This is because, 46 (35.4%) of the staff were in the 31-40 years age bracket and 41 (35.5%) in the 20-30 years. This clearly shows that majority (70%) were in an active age group. In effect if the human resource at University of Nouakchott are well managed and motivated.

Table 2. *Respondents' age frequency*

		Frequency	Percent
Valid	20-30	41	31.5
	31-40	46	35.4
	41-50	24	18.5
	51-60	9	6.9
	61 and over	10	7.7
	Total	130	100

Source: Authors' research

The data in table below shows that the workforce has attained higher educational level to the extent that only 5 examinees (3.8%) had less than High School Diploma, 4 representing 3.1% of the workers, Bachelor's Degree, 14 representing 40% and 4 with Masters degree, representing 11.4%.

Table 3. *Respondents' educational background*

Level of Education	Frequency	Percent
High School	5	3.8
Some College (attended)	4	3.1
Associate Degree (A.S.) (A.A.) (2-years College)	4	3.1
Bachelor's Degree (B.S. or B.A.) (4-year College/University)	34	26.2
Master's degree (M.S. or M.A.)	49	37.7
PhD - Doctorate Degree	34	26.2

Source: Authors' research

As shown in table below, 93 staff members representing 71.5% have worked with University of Nouakchott between 0-5 years, 30 representing 23.1% have worked between 6-10 years, 4 representing 3.1% have worked between 11-15 years and 2 representing 1.5% have worked with University of Nouakchott over 21 years.

Table 4. *Respondents' seniority frequency*

		Frequency	Percent
Valid	0-5	93	71.5
	6-10	30	23.1
	11-15	4	3.1
	16-20	1	0.8
	21 and over	2	1.5
	Total	130	100

Source: Authors' research

5.2 *Differences in normative organizational commitment between managers and non-managers*

5.2.1. Constructing index variables

In order to conduct parametric testing, researcher proceeded to construct index variables for each organizational commitment dimension. New index variable were constructed: normative commitment scale items index. Variable were then tested to ascertain if the distribution significantly departs from normality assumptions for purpose of further analysis and testing.

Table 5. *Tests of normality*

	Manager / Non-manager	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Normative Commitment Scale Items Index	Manager	.120	33	.200*	.963	33	.321
	Non-manager	.075	97	.200*	.990	97	.705

a. *Lilliefors' Significance Correction*

*. *This is a lower bound of the true significance.*

Source: Authors' research

Results of normality testing indicate that newly-constructed variable is normally distributed, i.e. the distribution does not deviate significantly from normality (manager $F=.963$, $p=.321>.05$; non-manager $F=.990$, $p=.705>.05$). If p-value is more than 5% or .05 then it is not statistically significant at the conventional. Visual inspection of the distributions reaffirms test results (see figures, below).

5.2.2. Statistical testing

In order to establish whether or not there are differences in the observed level of normative organizational commitment between managers and non-managers, student researcher used the t-test. The purpose of t-test is to assess whether the means of two groups are statistically different from each other.

Table 6. *Normative commitment scale items index*

Descriptive statistics		N	Mean	Std. Deviation	Std. Error Mean
Normative Commitment Scale Items Index	Manager	33	22.58	5.937	1.034
	Non- manager	97	22.64	4.753	.483

Source: Authors' research

5.2.3. Independent samples test

Table 7. *Levene's Test for Equality of Variances*

		Levene's Test for Equality of Variances		t-test for Equality of Means						
							95% Confidence Interval of the Difference			
		F	Sig.	t	Df	Sig. 2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Normative Commitment Scale Items Index	Equal variances assumed	1.472	.227	-.062	128	.951	-.063	1.023	-2.087	1.960
	Equal variances not assumed			-.056	46.731	.956	-.063	1.141	-2.358	2.232

**Test conducted at confidence interval of 95%.*

Source: Authors' research

As we can see from the table above, Levene's F test for equality of variances confirmed that all assumptions for running a t-test had been met, i.e. variances between the groups are equal ($p=0.227>0.05$). Results of the t-test ($p=0.951>0.05$) indicate that there are no statistically significant differences in normative commitment between two groups of respondents. Hence, we failed to reject the primary research hypothesis H_0 for normative commitment dimension. The results of this test support the conclusion that the personnel's normative commitment to their organization results in low turnover. Despite minor variations in results obtained on the modified OCQ, the respondents, both manager and non-managers, indicated a remarkable consistency in normative organizational commitment.

5.3 *Differences in affective organizational commitment between managers and non-managers*

5.3.1. Constructing index variables

In order to conduct parametric testing, researcher proceeded to construct index variables for each organizational commitment dimension. New index variable were constructed: affective commitment scale items index. Variable were then tested to ascertain if the distribution significantly departs from normality assumptions for purpose of further analysis and testing.

Table 8. *Affective commitment scale items index*

	Manager/ Non- manager	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Affective Commitment Scale Items Index	Manager	.145	33	.074	.945	33	.093
	Non- manager	.092	97	.044	.983	97	.255

a. Lilliefors' Significance Correction

*. This is a lower bound of the true significance.

Source: Authors' research

Results of normality testing indicate that newly-constructed variable is normally distributed, i.e. the distribution does not deviate significantly from normality (managers $F=.945$, $p=.093>.05$; non-managers $F=.983$, $p=.225>.05$)¹. Visual inspection of the distributions reaffirms test results (see Tables, below).

Table 9. *Group statistics*

Descriptive statistics	Manager/ Non-manager	N	Mean	Std. Deviation	Std. Error Mean
Affective Commitment Scale Items Index	Manager	33	15.76	5.172	.900
	Non-manager	97	17.08	4.283	.435

Source: Authors' research

Table 10. *Affective commitment scale items index*

		Levene's Test for Equality of Variances		t-test for Equality of Means						
							95% Confidence Interval of the Difference			
		F	Sig.	t	df	Sig. (2-tailed)	Mean Diffe- rence	Std. Error Diffe- rence	Lower	Upper
Affective Commitment Scale Items Index	Equal variances assumed	.816	.368	.542	128	.588	.435	.802	-1.152	2.023
	Equal variances not assumed			.547	126.676	.586	.435	.796	-1.140	2.010

*Test conducted at confidence interval of 95%.

Source: Authors' research

As we can see from the table above, Levene's F-test for equality of variances confirmed that all assumptions for running a t-test had been met, i.e. variances between the groups are equal ($p=0.368>0.05$). Results of the t-test ($p=0.588>0.05$) indicate that there are no statistically significant differences in normative commitment between two groups of respondents. Hence, we failed to reject the primary research hypothesis H0 for affective commitment dimension. The results of this test support the conclusion that the personnel's affective commitment (especially when considered together with results attained on questions of normative commitment) to their organization results in low turnover. Despite minor variations in results obtained on the modified OCQ, the respondents, both manager and non-managers, indicated a remarkable consistency in affective organizational commitment

6. Additional tests- analysis of variance (ANOVA)

In order to additionally test if the level of organizational (normative and affective) commitment is different based on some other demographic characteristic, the student analyst used (one-way) Analysis of Variance (ANOVA) test. A one-way ANOVA is a statistical technique by which we can test if means of three or more groups are equal. It tests if the value of a single variable differs significantly among three or more levels of a factor. The results are shown below. (Note: Same index variables were used as during t-tests, hence, assumptions of normal distribution, independence of samples, and equal variances had been observed. See explanation under sections on statistical testing.

Table 11. *Commitment by age group*

Commitment by Age Groups		Sum of Squares	df	Mean Square	F	Sig.
Normative Commitment Scale Items Index	Between Groups	71.595	4	17.899	.694	.598
	Within Groups	3224.936	125	25.799		
	Total	3296.531	129			
Affective Commitment Scale Items Index	Between Groups	220.223	4	55.056	2.820	.028*
	Within Groups	2440.400	125	19.523		
	Total	2660.623	129			

*Significant at 5% level

Source: Authors' research

As we can see from the table above, there are no statistically significant differences in normative commitment between different age groups, but, there is a statistically significant difference in affective commitment ($F=2.820$; $p=.028>.05$). This difference is significant at 5% level.

Table 12. *ANOVA*

Dependent Variable		(I) Age group	(J) Age group	Mean Difference (I-J)	Std. Error	Sig. Lower Bound	95% Confidence Interval	
							Upper Bound	
			31-40	1.539	1.772	1.000	-3.53	6.60
			41-50	1.633	1.912	1.000	-3.83	7.10
			51-60	-1.089	2.334	1.000	-7.76	5.58
Affective Commitment Scale Items Index	Tukey HSD	18-30	31-40	-.684	.949	.951	-3.31	1.94
			41-50	-1.209	1.136	.824	-4.35	1.93
			51-60	-4.737*	1.626	.034	-9.24	-.24
			61 and over	-3.193	1.558	.249	-7.51	1.12
		31-40	18-30	.684	.949	.951	-1.94	3.31
			41-50	-.525	1.113	.990	-3.61	2.55
			51-60	-4.053	1.610	.093	-8.51	.40
			61 and over	-2.509	1.542	.483	-6.78	1.76
		41-50	18-30	1.209	1.136	.824	-1.93	4.35
			31-40	.525	1.113	.990	-2.55	3.61
			51-60	-3.528	1.727	.252	-8.31	1.25
			61 and over	-1.983	1.663	.756	-6.59	2.62
		51-60	18-30	4.737*	1.626	.034	.24	9.24
			31-40	4.053	1.610	.093	-.40	8.51
			41-50	3.528	1.727	.252	-1.25	8.31
			61 and over	1.544	2.030	.941	-4.08	7.16
		61 and over	18-30	3.193	1.558	.249	-1.12	7.51
			31-40	2.509	1.542	.483	-1.76	6.78
			41-50	1.983	1.663	.756	-2.62	6.59
			51-60	-1.544	2.030	.941	-7.16	4.08

*. The mean difference is significant at the 0.05 level.

Source: Authors' research

A Tukey post-hoc test indicates significant difference in affective commitment between two age groups: respondents' age between 18 and 30, and respondents' age between 51 and 60. Younger respondents have significantly lower level of affective commitment to the organization.

Table 13. *Commitment by education group*

Commitment by Education Groups		Sum of Squares	df	Mean Square	F	Sig.
Normative Commitment Scale Items Index	Between Groups	28.092	5	5.618	.213	.956
	Within Groups	3268.439	124	26.358		
	Total	3296.531	129			
Affective Commitment Scale Items Index	Between Groups	83.300	5	16.660	.802	.551
	Within Groups	2577.323	124	20.785		
	Total	2660.623	129			

Source: Authors' research

There are no statistically significant differences in normative or affective commitment between different educational groups (see Table, above) or between groups of employees with different experience as measured by length of employment (see Table, below).

Table 14. *Commitment by experience group*

Commitment by Experience Groups		Sum of Squares	df	Mean Square	F	Sig.
Normative Commitment Scale Items Index	Between Groups	103.941	4	25.985	1.017	.401
	Within Groups	3192.590	125	25.541		
	Total	3296.531	129			
Affective Commitment Scale Items Index	Between Groups	69.517	4	17.379	.838	.503
	Within Groups	2591.106	125	20.729		
	Total	2660.623	129			

Source: Authors' research

These results are in line with prior research. In general, the studies showed that the relationships between demographic variables (e.g. gender, age, tenure) and affective commitment were neither strong nor consistent. According to the results of those studies, it was more likely that an employee

develops affective commitment through interaction with particular work experiences. The results obtained in our survey, did not show any significant differences in affective commitment between various demographics, except where the difference appears the most logical- younger employees exhibited lower level of affective commitment than those in a group of age 51-60.

7. Conclusion

There are number of findings concluded from this study. The review of literature shows different aspect of the impact of employee turnover on higher education organizations. It shows several causes of employee turnover and the retention strategies in order to control this turnover. A manager is defined as someone who achieves the goals of the organization through subordinates. It is necessary to motivate employees, encourage them and move them in the desired direction in order to achieve these goals. The manager's role is to support and stimulate their subordinates despite the ambiguity of the work motivation effects. Even though motivation does not work as desired, if the manager does not treat employees with respect and he/she does not appreciate contributions and does not communicate with them, employees will not be satisfied. If motivation is lost, performance is degraded and this leads to mental problems, absenteeism and turnover. Clear communication and an explanation of strategy and the basic points of the planned future growth of the organization completely change employees' views of the whole situation and also lead to an immediate lowering of employee turnover. The intent of this research was to provide an explanation of a relationship between various aspects of the organizational commitment and staff turnover. Relations between organizational commitment and retention/turnover are well established. Researchers report negative correlations between organizational commitment and, both, employees' intention to leave the organization and actual turnover. We could not find such, statistically significant correlations.

Research findings show high level of organizational commitment, overall, but no significant differences could be found in organizational commitment between two different groups of employees (managers and non-managers), thus, we rejected H_1 . Normative and affective aspects of organizational commitment were high. The organizational commitment does not appear to be a major factor in the organizational turnover, at least in the context of the normative and affective commitment. Considering that even a subsequent ANOVA model could not detect major differences, it is reasonable to

conclude that to stay or to leave the organization comes from a completely different place. Some studies found that the labor market forces and the overall socio-economic condition in host-country are more significant decision-making considerations than an intrinsic commitment to organization or the work that an organization performs. The findings of this study also can help the organization(s) in planning and developing the strategies to enhance the organizational commitment of the employees. It may become one of the tools and guidance for further actions. This is important to keep the survival of the organization in the global era, whereby, nowadays, it is not easy to make employees to feel obliged and become committed to the organization. In conclusion, to lower the employee turnover, it is suggested to:

- Encourage independence, work on career planning, employee education, learning and development, innovations;
- Communicate openly, honestly and often, share information;
- Encourage employees to increase their feelings of importance;
- Appreciate employees' work and performance;
- Encourage friendship and good relationships and open culture; and
- Share the vision of the management team.

The key point for reducing turnover is to change the style of working with employees by encouraging independence, open communication and sharing information. As human resource management theory states, it is necessary to take into account the needs of employees at different levels of development. The needs that are often overlooked and problematic are those of: solidarity, friendship, safety and security, fulfillment and recognition by a team. The perceived difference between the desired and real situations causes dissatisfaction and employees tend to leave their jobs. Employees need to be encouraged to perform their tasks, in order to increase their feelings of importance, satisfaction and usefulness for the organization and, in particular, to maintain and increase the overall performance of the organization. It is obvious that employees who are not encouraged do not have enough information, while those that are criticized are almost certain to leave the organization. It is also suggested for a better higher education in Mauritania, to:

- Teachers' training requiring, research, technology transfers should be emphasized;
- Tailor supply to demand, and use funds more appropriately to match population's needs';

- Strengthen management, operational, and planning capacity and should emphasize science and technology.

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Endnotes

- 1 Note that Shapiro-Wilk test value is used here, due to literature recommendation for normality tests. Specifically, Shapiro-Wilk statistics is used for samples with $n < 2000$.

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EVOLVEMENT OF PENTA HELIX MODEL IN ECONOMIC COOPERATION

RAZVOJ PENTA HELIX MODELA SURADNJE

Abstract

Penta helix model stipulates implementation of the five components essential for economic development. These are businesses, government and government institutions, universities, civil society and diaspora. The methodology of this work is based on research as to how the impact of these five components could speed up development of economy in Bosnia and Herzegovina. For economic development during nineties of the last century, the Triple Helix model was recommended, which supposed to include three important factors for starting entrepreneurship, namely; Government, through incentives and stimulation of entrepreneurship, businesses and involvement of research institutes and universities. During following decades, a new circumstance for the development of project proposals required the use of funds from international donors, financial institutions and funds in cross-border cooperation with neighbouring countries, the EU funds. This new opportunity created a need to involve the civil sector through Non-Governmental Organizations (NGOs) in the promotion of economic development, what has been known as Quad helix model. Since the Diaspora wanted to get involved into development of its homeland, application of Penta helix model in all segments of society has been proposed (start new businesses, cooperation and partnerships with universities and the civil sector). Based on scientific research on using the proposed development models, considering the great number of emigrants and experiences they have gained in the area of

entrepreneurship as well as their capital, the Penta component in using the Penta helix model is considered acceptable by researchers. The aim is to point out the need for applying Penta helix model for an accelerated development of Bosnia and Herzegovina.

Keywords: Penta helix model, Triple helix model, Quad helix model, economic development, homeland.

JEL: O10

Sažetak

Penta helix model pretpostavlja primjenu pet komponenti bitnih za razvoj gospodarstva. To su: biznis sektor, vlada i vladine institucije, sveučilište, civilni sektor i dijaspora. Metodologija rada polazi od istraživanja koliko bi utjecaj ovih pet komponenti mogao ubrzati razvoj gospodarstva u BiH. Devedesetih godina prošlog stoljeća za razvoj gospodarstva preporučavalo se korištenje Tripl Helix modela, koji je pretpostavljao uključivanje tri značajna faktora za pokretanje poduzetništva, a to su; vlada, kroz poticaje i stimulaciju poduzetništva, tvrtke i uključivanje znanstvenih instituta i sveučilišta. Nedugo s obzirom na potrebu za izradu projektnih prijedloga i korištenje sredstava međunarodnih donatora i financijskih institucija, te fondova u prekograničnoj suradnji sa susjednim zemljama, sredstva fondova EU, ukazala se potreba uključivanja civilnog sektora kroz (nevladine organizacije) NVO u poticanju razvoja gospodarstva, počelo se koristiti Quadohelix model. No kako se u razvoj želi uključiti dijaspora, s obzirom na homeland, predlaže se u sve segmente društva, (pokretanje poduzetništva, suradnja i partnerstva sa sveučilištima i civilnim sektorom) primjena Penta helix modela. Na temelju znanstvenog istraživanja u korištenju predlaganih modela za pokretanje razvoja, s obzirom na brojnu dijasporu i njena stečena iskustva iz poduzetništva i stečeni kapital, Penta komponenta u korištenju modela kao Penta helix smatramo prihvatljivom. Cilj rada je ukazati na potrebu primjene Penta helix modela za ubrzanje razvoja BiH.

Ključne riječi: Penta helix model, triplehelix model, Quadrohelix model, razvoj, domovina

JEL: O10

1. Introduction

Initiating economic development of a country in order to achieve prosperity and give people jobs is an aspiration of every society. With this purpose in mind, various stimulating models for initiation of entrepreneurship have been proposed. Government administration through its Ministries, scientific and other institutions is trying to motivate entrepreneurs with

various stimulation systems, for innovation of the existing production as well as for development of new facilities, in order to be competitive on domestic and foreign markets. Moreover, various forms of cooperation and connecting with domestic and foreign partners are stimulated, in order to do research and use innovations, but also to achieve more secure products sale considering the competition and the process of globalization. Considering the great number of people who emigrated from Bosnia and Herzegovina to more developed countries, where they are directly or indirectly involved into economic activities of these countries, and their living in developed countries, their new cognition on possibilities for success, their savings, and at the same time their wish of returning to domicile country, the homeland, there is a significant potential which should be used for development of economy. It is a known fact that there are successful entrepreneurs, scientists and experts who managed to prove themselves as leaders with their ability to start production, manage business, cope with the competition, and gain profit. With stimulation of government institutions, and through partnership and cooperation, this diaspora can be included into economic development programs of the country they once left. As we propose inclusion of the diaspora in development through partnership and cooperation, Penta helix model is ideal since it upgrades the Triple helix and Quad helix models by adding an extra development factor, the diaspora. Penta helix model is an ideal approach for development of the country, especially for regions that experience development issues due to lack of leadership and the initial capital, as well as the knowledge of development possibilities.

2. Penta Helix model

2.1 From the Triple Helix and Quad Helix models to the Penta Helix development model

In the 1990s usage of the Triple Helix model was recommended for economic development, which is supposed to include the three important factors for starting businesses, namely: government, through incentives and stimulation of entrepreneurship, companies and the inclusion of the scientific sector and universities. “The concept of the Triple Helix of university-industry-government relationships initiated in the 1990s by Etzkowitz (1993) and Etzkowitz and Leydesdorff (1995), encompassing elements of precursor works by Lowe (1982) and Sábato and Mackenzi (1982), interprets the shift from a dominating industry-government dyad in the Industrial Society to a

growing triadic relationship between university-industry-government in the Knowledge Society” (Triple Helix Research Group s. a.).

The Triple Helix thesis is that the potential for innovation and economic development in a Knowledge Society lies in a more prominent role for the university and in the hybridization of elements from university, industry and government to generate new institutional and social formats for the production, transfer and application of knowledge. This vision encompasses not only the creative destruction that appears as a natural innovation dynamics (Schumpeter 1942 cited in Triple Helix Research Group s. a.), but also the creative renewal that arises within each of the three institutional spheres of university, industry and government, as well as at their intersections. Through subsequent development, a significant body of Triple Helix theoretical and empirical research over the last two decades has provided a general framework for exploring complex innovation dynamics and for informing national, regional and international innovation and development policy-making (Triple Helix Research Group s. a.).

THE TRIPLE-HELIX MODEL

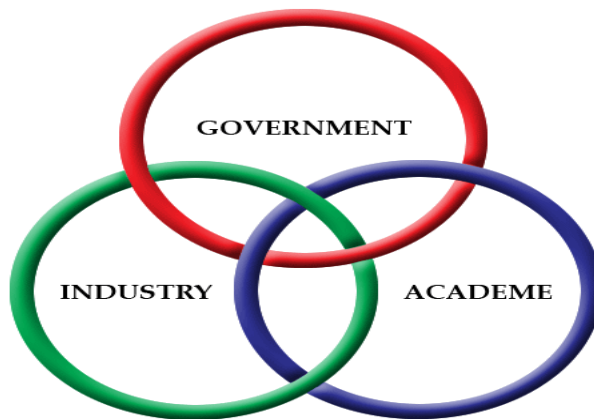


Figure 1. *Triple Helix model schematics*

Source: Tech Pinoy Trend 2011

“Triple-Helix is a model which describes the crossing of three worlds; academia, business and government. In the model, the business segment operates as the locus of production; government as the source of contractual relations that guarantee stable interactions and exchange; the university as a source of new knowledge and technology, the generative principle of knowledge-based economies” (Asplund 2012).

2.2 Quad Helix model

Due to the need for more competitive development of companies and export to world markets, the application of Quad Helix model was recommended for the development and prosperity of a company. That means in addition to the public sector, businesses and research institution, non-governmental organizations were introduced in stimulation of development.

The civil sector is the fourth participant proved to be necessary to include in the preparation of analyses of the current situation in the society, making the overall development programs, as strategic documents for development, development of business plans, investment studies, feasibility studies, cost-benefit analyses (CBA) and programs in accordance to propositions of the Project Cycle Management (PCM) methodology for development, in order to use funds of the European Union (EU) and resources of other international monetary institutions.

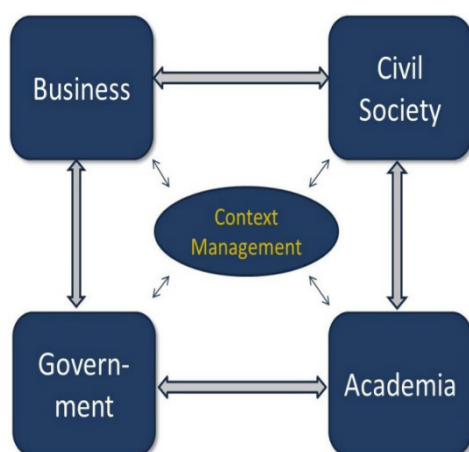


Figure 2. *Quad Helix model schematics*

Source: Asplund 2012

“Ernest J. Wilson underlines in his paper that especially in the context of innovative clusters it is critical to involve resourceful persons, not as representatives, but as resourceful entrepreneurs. He focuses on talented people who are open minded and capable to combine complex and disparate factors, irrespective of their heritage or birthplace. Ernest J. Wilson calls these persons “quad leaders” (Asplund 2012), which we have used as the forth corner in the “Quad Helix” model. The Quad Helix model recognizes that the approach is not competitive. It also illustrates the key importance of the central context management, connecting the civil society with talented

people irrespective of their home base. The prime background is if the resourceful individuals are capable to connect diverse facts, curiosity and sometimes even economic resources on their own or via their networks” (Asplund 2012). It is important to have a common goal, and Quad Helix opens an opportunity for creative talented people from internal sources, academia, government and experts from Non-Government sector to connect in innovative research and new product development.

2.3 Penta Helix model

Application of the Penta Helix model presupposes the addition of the diaspora as the fifth component to the Quad Helix model into development program of the region, as well as the whole Bosnia and Herzegovina.

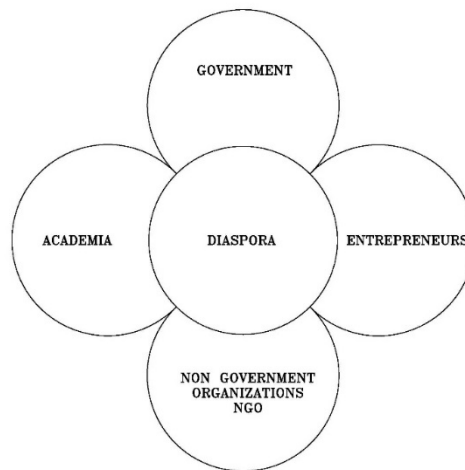


Figure 3. *Penta Helix model schematics*

Source: the Authors

As there are experts and scientists in the diaspora who have proven themselves in the world of economic activities, have seen new and modern possibilities of using technological achievements and knowledge, their experiences and acquired knowledge can be applied in development programs for all social segments: production, tourism, science, culture, and quality of life and work. Furthermore, their savings can be used in cooperation and partnerships at the existing production or when starting new production facilities and selling products on domestic as well as on foreign markets. The good side of applying the Penta helix model is inviting the diaspora to cooperate with existing organizations in Bosnia and Herzegovina

in order to use their acquired knowledge and experiences in development programs.

3. The diaspora's role in economic development of Bosnia and Herzegovina

It is still not understood enough how important can be to involve the diaspora in development programs of a country. It is the value of human resources which “implies education, expertise and qualifications of the diaspora, and socially new social, cultural and political values which can assist the social and economic development of the country of origin and serve as a bridge of cooperation on the international level (Ministry of Human Rights and Refugees 2012, p. 2).

Application of the Penta helix model by involvement of the diaspora into economic development requires above all stability and security of legal framework and established rules for tax burdens. Legal security would provide Bosnia and Herzegovina's diaspora a positive base for investments into homeland economy, and thus enable investors to benefit of invested capital.

Because of that, the Global Migration Group (GMG) was founded in 2006, which encompasses 14 UN agencies, IOM and World Bank. It has founded a Working group to help governments in incorporation of migrations into national development. In its handbook named *Mainstreaming Migration into Development Planning: A Handbook for Policy-makers and Practitioners* (2010) they emphasized incorporation of the “migrations and development” concept into national-level development plans. One of the most suitable development models is application of the Penta helix model that implies involvement in development programs of the public sector, development institutes and universities, non-governmental organizations and the diaspora.

“In advanced nations, this formal property representation functions as the means to secure the interests of other parties and to create accountability by providing all the information, references, rules, and enforcement mechanisms required to do so” (de Soto 2003, p. 108).

Emigration of people from Bosnia and Herzegovina throughout history was encouraged by economic reasons. However, during the war in Bosnia and Herzegovina “in the period from 1991 to 1995 over one million people left the country, out of which about half a million came back in the period after

the war... According to the Statistics Agency of Bosnia and Herzegovina during 2010 there were 4,284 persons who unregistered their permanent residence in Bosnia and Herzegovina. Emigration from Bosnia and Herzegovina is increasingly a demographic problem” (Ministry of Human Rights and Refugees 2015, p. 4) which is one of the two main reasons of population decrease in Bosnia and Herzegovina, together with low birth rate.

Current researches from Sweden have shown that more than half of immigrants from Bosnia and Herzegovina (55%) want to return. “Other researches from 2010 carried out on a representative sample of Bosnia and Herzegovina’s worldwide emigration have shown that although these emigrants are successful and well integrated in their arrival countries, most of them is committed to homeland and large number of them has expressed an interest to return and invest once they accumulate enough capital. According to the World Bank data number of emigrants is 1,471,594 which makes 38.9% of the population of Bosnia and Herzegovina” (Ministry of Human Rights and Refugees 2015, p. 5). What is significant for Penta helix model is that “an emigrant from Bosnia and Herzegovina today offers their resources to accelerate the development of Bosnia and Herzegovina” (Ministry of Human Rights and Refugees 2015, p. 5).

Besides various associations such as cultural clubs, emigrants from Bosnia and Herzegovina connect on economic bases, and form business clubs in the USA, Canada, Australia, Germany, the Netherlands, and Norway. “However, no major cooperation projects have been realized through these clubs” (Ministry of Human Rights and Refugees 2015, p. 11).

Same sources suggest, “In the last couple of years new positive trends are noticed in association of citizens originating from Bosnia and Herzegovina abroad, such as associations of academic staff, artists, entrepreneurs, teachers of their mother tongue and generally professionals and successful persons. Some of these associations are: Bosnian-Herzegovinian American Academy of Arts and Sciences (BHAAAS) from the USA, Association of Citizens Lastavica from the Czech Republic, NAUK - Academy of Science, Arts and Culture from the Netherlands, Artistic club ARS BOSNAE from Germany, APU network (network of academic citizens, entrepreneurs and artists) from Sweden and others. Countries of origin are more and more aware that their diaspora can be a resource for decreasing poverty and initiating national development” (Ministry of Human Rights and Refugees 2015, p. 17).

While “the diaspora in most cases makes their human, financial and technological resources, professional contacts and experience available to their homeland, mechanisms for return of educated people and using human resources of the diaspora for national development are still not deployed” (Ministry of Human Rights and Refugees 2012, p. 19).

Strategic documents of Bosnia and Herzegovina on national and entity levels, portray the diaspora as “an important element in development of Bosnia and Herzegovina and they dictate fulfilment of certain obligations to the diaspora. These are: Strategy of Scientific Development in Bosnia and Herzegovina 2010-2015, Strategy of Cultural Policies in Bosnia and Herzegovina, Strategy of Employment in Bosnia and Herzegovina 2010-2014, Strategic Development Guidelines of Education in Bosnia and Herzegovina 2008-2015 and others” (Ministry of Human Rights and Refugees 2012, p. 27). Usage of the Penta helix model provides possibility for involvement of the diaspora in certain activities of the Government, scientific institutions and universities, in cooperation with entrepreneurs and non-governmental organizations with the purpose of development in various areas in Bosnia and Herzegovina. The Government of Bosnia and Herzegovina is left with a task to introduce into legal framework stable regulations of stimulation and security for returning citizens regarding task reliefs, interests on loaned funds, usage of state-owned land etc. The purpose of this is to attract leaders and use their knowledge in initiation of economic activities, provide people jobs and increase the quality of life in Bosnia and Herzegovina.

4. Conclusion

Penta helix development model is a supplement to triple helix and quad helix models in order to use efficiently knowledge, innovations, and individual initiatives for production activities, with the help of a civil sector and stimulation from the public sector. Many members of the diaspora often profile themselves as successful entrepreneurs in the world of developed economy, and they have gained both knowledge and capital. Their knowledge and experience should be used and attracted to their domicile countries by stimulating measures. Application of the Penta Helix model presupposes involvement of the diaspora in economic development with stable legal framework and stimulation from the Government and its institutions, with precisely defined long-term rules for investors, and cooperation with

entrepreneurs, universities, research institutions and civil sector in order to accelerate economic development of Bosnia and Herzegovina.

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THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND LEADERSHIP STYLES IN HEALTH SECTOR OF THE FEDERATION OF BOSNIA AND HERZEGOVINA

POVEZANOST EMOCIONALNE INTELIGENCIJE I STILOVA LIDERSTVA U ZDRAVSTVENOM SEKTORU FEDERACIJE BOSNE I HERCEGOVINE

Abstract

In recent years, the connection between emotional intelligence and leadership styles has become a hot topic in considerable number of researches. While intelligence refers to our ability to manage information so one can use them for delivering results, emotional intelligence can be defined as the ability of effective observation, expression, understanding and management of one's own and other people's emotions in a positive and productive way. Recent research carried out in developed countries has shown that a good leader, among other things, should express high level of emotional intelligence in order to successfully impact a group of people, which ultimately leads to achieving a common goal. However, in the developing countries, there is a clear lack of empirical studies that tested the relationship of emotional intelligence and leadership styles in different business, social and cultural circumstances. The main objective of this study is to empirically establish the relationship between emotional intelligence and leadership styles in health sector of the Federation of Bosnia and Herzegovina. The relation of these two concepts is tested using three tests on the sample of 159 managers. The first test, UEK-45, determines the emotional competences or emotional intelligence of the sample. It was developed by Vladimir Takšić, a professor at the Faculty of Philosophy in Rijeka, and its validity was confirmed in his doctoral dissertation in 1998. This test is a customized version of the famous MSCEIT test of emotional intelligence (Mayer, Salovey and Caruso Emotional Intelligence Test). The second test, LBDQ (Leader

Behavior Description Questionnaire), determines respondents' behavior orientation. It was developed by Stogdill in 1963. The third test, PGTQ (Path-Goal Theory Questionnaire), determines respondents' dominant leadership styles. Hypothesized relationship was tested using descriptive statistics and correlation method. As a result, a high degree of correlation between emotional intelligence and leadership styles in the tested sample has been established.

Keywords: emotional intelligence, style approach to leadership, Path-Goal Theory

JEL: M12, M14, M50, I18

Sažetak

Proteklih godina povezanost emocionalne inteligencije i stilova liderstva je postala aktuelna tema velikog broja istraživanja. Dok se inteligencija tiče naše sposobnosti da ovladavamo informacijama i koristimo ih za ostvarivanje zadatih ciljeva, emocionalna inteligencija se može definisati kao sposobnost efektivnog zapažanja, izražavanja, razumijevanja i upravljanja vlastitim i emocijama drugih ljudi na pozitivan i produktivan način. Recentna istraživanja provedena u razvijenim zemljama pokazuju da dobar lider, između ostalog, treba da ima izraženu emocionalnu inteligenciju kako bi uspješno ostvario utjecaj na grupu ljudi radi postizanja zajedničkog cilja. Međutim, na području zemalja u razvoju, očigledan je nedostatak empirijskih istraživanja koji bi testirali povezanosti emocionalne inteligencije i stilova liderstva u drugačijem poslovnom, društvenom i kulturološkom kontekstu. Osnovni cilj istraživanja ovog rada je da se empirijski utvrdi povezanost emocionalne inteligencije i stilova liderstva u zdravstvenom sektoru Federacije Bosne i Hercegovine. Povezanost ova dva koncepta je testirana korištenjem tri testa na uzorku od 159 rukovodilaca. Prvi test, UEK-45, odnosi se na testiranje emocionalne kompetentnosti, odnosno emocionalne inteligencije ispitanika. Razvio ga je profesor Filozofskog fakulteta u Rijeci, Vladimir Takšić, a njegovu validnost je potvrdio u svojoj doktorskoj disertaciji 1998. godine. Ovaj test predstavlja prilagođenu verziju poznatog MSCEIT testa emocionalne inteligencije (eng. Mayer, Salovey, & Caruso Emotional Intelligence Test). Drugi test, LBDQ upitnik (eng. Leader Behavior Description Questionnaire), odnosi se na testiranje usmjerenosti ponašanja ispitanika. Razvio ga je Stogdill 1963. godine. Treći test, PGTQ upitnik (eng. Path-Goal Theory Questionnaire), odnosi se na testiranje dominantnih stilova liderstva kod ispitanika. Korištene su deskriptivna statistika i metoda korelacija u testiranju pretpostavljene povezanosti. Kao rezultat provedenog istraživanja, utvrđen je visok stepen povezanosti emocionalne inteligencije i stilova liderstva na testiranom uzorku.

Ključne riječi: emocionalna inteligencija, stilski pristup liderstvu, teorija Staza do cilja

JEL: M12, M14, M50, I18

1. Introduction

Leadership has always been considered the single most important factor which determines company's success or failure (Bass 1990). This may be the reason why many researchers have always focused on exploring the determinants of effective leadership (Yukl 2005). The result is a large number of leadership theories and approaches, of which only those that emphasize the emotional aspect of leadership behavior are mentioned in this paper. All of the above is supported by one assessment (Goffee & Jones 2000), according to which more than two thousand books on the subject of leadership were published in 1999. Emotional intelligence, on the other hand, is a new and growing research area. Put simply, emotional intelligence is the ability of effective observation, expression, understanding and management of one's own and other people's emotions in a positive and productive way. The topic of emotional intelligence has intrigued various layers of society. The Times has dedicated its headline to it and famous Hollywood star Oprah Winfrey an entire show. In the meantime, the psychologist Daniel Goleman's book "Emotional Intelligence" has become a bestseller. It was only a matter of time before this issue had stepped into the world of management, organization and leadership. In recent years, the phenomenon of emotional intelligence in leadership has gained such momentum that the papers which deal with this issue have become most appreciated and most current.

Emotional intelligence affects how successfully employees communicate among themselves and with their managers, how many customers will be loyal to their suppliers, how will employees work when they are under stress, etc. In short, emotional intelligence affects all aspects of business: management, sales, market share, productivity and customers' and employees' loyalty. Analogously, studies show that main causes of employees' failure lay in the absence of their emotional competences, which results in their inability to deal effectively with the changes and difficulties, to establish good and functional relationships with other people, and to be constructive team members.

A large number of researches aimed at establishing the relationship between emotional intelligence and leadership styles (Barbuto & Burbach 2006, Barling, Slater & Kelloway 2000, Dulewicz, Young & Dulewicz 2005, Gardner & Stough 2002, Sivanathan & Fekken 2002, Anand & Udaya Suriyan 2010, Macaleer & Shannon 2002, Walter, Cole & Humphrey 2011, Chopra & Kanji 2010, Weinberger 2004, Lindebaum & Cartwright

2010, Webb 2009), when analyzing leadership styles, mainly focuses on transformational and transactional leadership style. This paper, however, focuses on two other leadership approaches.

There are many ways one can define the concept of leadership. As Stogdill (1974) has pointed out in one of his researches on leadership, there are almost as many different definitions of leadership as there are people who have tried to give this definition. Common to almost all of these definitions is that leadership is understood as an influencing process which helps group of individuals to achieve common goal. Regardless of the fact that there are a multitude of different theoretical explanations about the impact of leadership on the organization's performance, the prevailing view is that leadership is treated as "a critical determinant of the organization's effectiveness" (Buchanan & Huczynski 2004). For the purpose of classification and systematization of different leadership approaches, the literature mentions three dominant analytical frameworks – Nahavandi's chronological framework for studying leadership, Buchanan and Huczynski's extended chronological framework, and Yukl's classification of theoretical approaches to leadership.

In the above mentioned analytical frameworks, style approach to the study of leadership and Path-Goal Theory are also classified.

1.1. Style approach to leadership

Style approach to leadership primarily focuses on the leaders' behavior. It solely puts the emphasis on what leaders do and the way they do it. Researchers who have explored this approach have found that leadership consists of two types of behavior: task-oriented behavior and people-oriented behavior. According to Nahavandi (2003), the cornerstones of style approach to leadership are works of Lewin and his colleagues. Encouraged by the results of Lewin's work and the results of other studies, different groups of researchers have tried to identify the leaders' behaviors. The most famous attempts are two projects: Ohio State University studies and Michigan Survey Research Center studies (Šehić & Penava 2007).

Researchers from Ohio State University wanted to know how individuals act when they are given the task of leading a group of people or organization. Therefore, they have developed Leader Behavior Description Questionnaire (LBDQ), which was given only to followers, who had to identify how many times their leaders have demonstrated a certain type of behavior.

Questionnaire has been comprised of 150 questions, which have been formed out of more than 1.800 items that describe different aspects of leader behavior. Six years later Stogdill (1963) published a shortened version of LBDQ, which he called LBDQ XII, and which is primarily used in present researches and studies. According to Buchanan and Huczynski (2004), after conducting factor analysis on responses obtained through these questionnaires, two categories of leader behavior have been identified: *consideration towards people* and *initiating structure*. The first type of behavior includes leader's concern for the people and relationships, in which the leader acts in a friendly and supportive manner. On the other hand, *initiating structure* implies leader's concern for the fulfillment of the tasks and the implementation of the objectives. According to Nahavandi (2003), to some extent leader can simultaneously apply both types of behavior, and the proof of that are studies, which have shown that the best form of leadership is being excellent in both types of the above behaviors (Northouse 2007).

While researchers at the State University in Ohio have been working on the development of LBDQ, researchers at the University of Michigan examined leadership behavior by focusing special attention to the impact which it has on the performance of small groups (Northouse 2007). According to Yukl (2005) and Buchanan and Huczynski (2004), these researchers have identified three types of leader behavior: (1) *Behavior oriented towards tasks*, which focuses on getting the job done and which is very similar to *initiating structure* behavior from Ohio studies, (2) *Behavior oriented towards relations*, which focuses on employees' needs and good relationships and which is very similar to *consideration towards people* behavior from Ohio studies, and (3) *Participative leadership*, according to which the leader is effective only when he or she focuses more attention to the group as a whole, rather than individuals within that group.

1.2. Path-Goal Theory

Path-Goal Theory has been developed by Evans (1970), House (1971), House and Dessler (1974), and House and Mitchell (1974) in the early 70's. According to them, leader's key role is to "clean the paths" on which subordinates should be moving in order to fulfill the task. Unlike other approaches, Path-Goal Theory emphasizes the relationship between leadership style and followers' characteristics, on one hand, and work environment, on the other hand. The basic premise of this Theory arises

from the Theory of expectations, which suggests that subordinates will be motivated only if they believe that they are able to do their job, that their efforts will have a certain result and that the fee for completing the job will be adequate for that effort (Northouse 2007).

This theory recommends leaders to choose the appropriate style or behavior which is best suited to the current situation in which they work and the followers' needs, so they can increase their faith in success and job satisfaction. According to House and Mitchell (1974), some of the ways in which leaders can behave are as follows:

- a) *Supportive leadership style* – showing care and concern for the followers and creating friendly climate in the workplace;
- b) *Directive leadership style* – letting followers know what is expected of them, setting clear standards for achieving results, and strict planning and coordinating;
- c) *Participative leadership style* – taking into account followers' views and suggestions and integrating them in the decisions which are being made;
- d) *Achievement-oriented leadership style* – setting challenging goals, emphasizing the aspiration for excellence and showing confidence in subordinates.

1.3. Emotional intelligence

Although science is still dominated by old, skeptical attitude towards emotions, the situation is slowly changing. Recently there has been a rapid increase in the number of research on emotions, emotional intelligence and its impact on all aspects of life, and, according to the opinion of a growing number of psychologists, in the next few years emotions will likely take their rightful place in understanding of social sciences (Oatley & Jenkins 1998).

Trebješanin (2008) states that the idea of emotional intelligence is nowadays very famous, but often for the wrong reasons, which results in a large number of misconceptions about it. Emotional intelligence is not merely kindness and indulgence to the other party. On the contrary, emotionally intelligent individual is able to counter the wrong opinion and harmful prejudices. Trebješanin (2008) further states that emotional intelligence includes a whole range of specific skills such as: the ability to understand oneself, the ability of emotional self-control, confidence, sensitivity to the problems and needs of others, conflict resolution skills, the ability to establish harmonious and friendly relations, the ability to manage groups of people, etc. Goleman

(2000), on the other hand, thinks that emotional intelligence is not an ability that is genetically determined, and that its development ends in childhood, but the ability which develops and strengthens throughout people's lives.

Emotional intelligence has its roots in the concept of social intelligence, which was developed by psychologist E. L. Thorndike in the early 20's of the last century (Solan 2008). This author has defined social intelligence as the ability to understand other people, to successfully communicate with them or, put simply, the ability to behave maturely and wisely in relationships with others. The concept of emotional intelligence first appeared in the works of psychologists Peter Salovey and John Mayer. According to their definition, emotional intelligence is the ability to track and distinguish our own and other peoples' feelings and emotions, so we can use these informations as a guide for thinking and acting (Salovey & Mayer 1990). The same scientists subsequently revised their original model by giving a new definition of emotional intelligence as the ability to perceive, assimilate, understand and manage emotions (Mayer, Caruso & Salovey 2000). The result of their model is one of the most famous instruments for measuring emotional intelligence - MSCEIT (Mayer, Salovey and Caruso Emotional Intelligence Test). This test measures four types of abilities: perceiving emotions, using emotions, understanding emotions and managing emotions.

1.4. The relationship between emotional intelligence and leadership styles

Given the fact that today's companies operate in an environment in which they have to constantly adapt to changes, this constancy of change requires people to be flexible, effective and efficient, to be able to continuously improve the systems and processes, to be oriented to the customer and to share the company's need for making a profit. People with this set of characteristics are called leaders in the literature. "Great leaders are an inspiration. They ignite passion and bring out the best in us. When we try to explain why they are so successful, we talk about strategy, vision, or powerful ideas. However, the essence is in something more primal – great leaders trigger emotions" (Goleman, Boyatzis & McKee 2008, p. 31). Goleman (2008) believes that leaders are the ones who are responsible for developing emotionally intelligent company. In accordance with the above, some authors have identified emotional intelligence as a key element needed for effective leadership. In addition, Anand and Udaya Suriyan (2010) state that, in addition to integrity, motivation, self-confidence, intelligence and

technical knowledge, emotional intelligence is one of the factors on which leadership abilities and skills depend.

As previously stated, the relationship between emotional intelligence and leadership styles has been explored by many authors (Barbuto & Burbach 2006, Barling, Slater & Kelloway 2000, Dulewicz, Young & Dulewicz 2005, Gardner & Stough 2002, Sivanathan & Fekken 2002, Anand & Udaya Suriyan 2010, Macaleer & Shannon 2002, Walter, Cole & Humphrey 2011, Chopra & English 2010, Weinberger 2004, Tupper & Cartwright 2010, Webb 2009), who have emphasized the importance of emotional intelligence and its impact on leadership styles. In doing so, they have paid special attention to transformational and transactional leadership style.

2. Research methodology

Based on the theoretical analysis, following hypotheses have been set:

- H_1 : Employees' level of emotional intelligence is high in health sector of the Federation of Bosnia and Herzegovina.
- H_2 : Behavior oriented towards tasks is the dominant leader behavior in health sector of the Federation of Bosnia and Herzegovina.
- H_3 : Supportive leadership style is the dominant leadership style in health sector of the Federation of Bosnia and Herzegovina.
- H_4 : There is a relationship between emotional intelligence and leaders' behavior in health sector of the Federation of Bosnia and Herzegovina.
- H_5 : There is a relationship between emotional intelligence and leadership styles in health sector of the Federation of Bosnia and Herzegovina.

For research purposes, a questionnaire comprised of 85 questions divided into three segments has been constructed. These three segments are:

- a) Emotional competence questionnaire – UEK-45
- b) Leader behavior description questionnaire – LBDQ
- c) Path-goal theory questionnaire – PGTQ

Emotional competence questionnaire was developed by Vladimir Takšić, a professor at the Faculty of Philosophy in Rijeka, and its validity was confirmed in his doctoral dissertation in 1998. This test is a customized version of the famous MSCEIT test of emotional intelligence (Mayer, Salovey and Caruso Emotional Intelligence Test). Emotional competence questionnaire (UEK-45) is comprised of 45 questions divided into three subscales: a) observing and understanding emotions (15 questions),

b) expressing and naming emotions (14 questions), and c) managing emotions (16 questions). These three subscales are fully compatible with the dimensions of emotional intelligence according to Salovey and Mayer. Respondents were given the possibility to evaluate each of the statements by circling a number in the range of 1 to 5, in which number 1 refers to absolute disagreement, and number 5 to absolute agreement with the statement. The Reliability of the whole questionnaire in different samples varies between 0.88 and 0.92 (Takšić 1998).

Leader Behavior Description Questionnaire (LBDQ) was developed by Stogdill in 1963. This questionnaire is primarily intended for research purposes, and it has been widely used since the 60's (Northouse 2007). It is comprised of 20 questions divided into two subscales. The first subscale measures how much leader's behavior is oriented towards tasks, while the second subscale measures how much leader's behavior is oriented towards relations. Respondents were given the possibility to evaluate each of the statements by circling a number in the range of 1 to 5, in which number 1 refers to absolute disagreement, and number 5 to absolute agreement with the statement.

Path-Goal Theory Questionnaire (PGTQ) was developed on the basis of complex series of theoretical premises with the intention of directing researchers on the development of new leadership theories (Northouse 2007). It is comprised of 20 questions divided into four subscales, each of which corresponds to a certain type of leadership style.

First subscale refers to the directive leadership style, second to the supportive, third to the participative, and fourth to achievement-oriented leadership style. The questionnaire shows which style leader practices or uses the most. Respondents were given the possibility to evaluate each of the statements by circling a number in the range of 1 to 7, in which number 1 refers to absolute disagreement, and number 7 to absolute agreement with the statement. Software package IBM SPSS v20 was used for data processing and analysis.

3. Research results

The survey was conducted from December 2011 to February 2012. Two hundred questionnaires were distributed, of which 166 were returned, resulting in a response rate of 83%. Seven questionnaires were excluded from the processing, because they did not contain all the answers, so the final

number of the processed questionnaires is 159. The questionnaire’s intention to examine the relationship between emotional intelligence and leadership styles was stated in its introduction.

Respondents were required to answer the questions intuitively and at first impression. The questionnaire also emphasized the fact that the research is anonymous and that all obtained data will be used solely for scientific purposes.

Employees of cantonal hospitals in the Federation of Bosnia and Herzegovina, who are in their daily work able to use some of the principles of leading, were surveyed. Put simply, we have tried to survey only those employees, who, according to the organizational structure, have subordinates. This means that this research included heads of departments, divisions and units, of both medical and non-medical nature.

While distributing questionnaires, representativeness of the sample was taken into account. The following table shows the socio-demographic structure of the sample.

Table 1. *The sample structure*

Gender		Age		Education		Work experience	
male	52.8%	20-30	10.1%	no formal education	0%	0-10	13.9%
female	47.2%	31-40	18.2%	elementary school	0%	11-20	15.7%
		41-50	30.8%	high school	22.6%	21-30	39.6%
		over 50	40.9%	higher education	28.3%	over 30	30.8%
				faculty/ university	49.1%		

Source: Authors’ research

After completing the analysis of the sample, descriptive statistical values of all three segments of the questionnaire were analyzed. The first one to be analyzed was UEK-45 questionnaire to determine the respondents’ level of emotional intelligence, then LBDQ to determine the dominant behavior of leaders, and finally PGTQ to determine the dominant leadership style. Above mentioned descriptive statistical values are shown in the following table.

Table 2. *Descriptive statistical values – UEK-45, LBDQ and PGTQ*

		Min	Max	Mean	Standard deviation
UEK-45		2.58	5.00	3.8298	.54408
LBDQ		1.70	4.95	4.1374	.56034
	- orientation towards tasks	1.50	5.00	4.2472	.70628
	- orientation towards relations	1.90	5.00	4.0277	.57180
PGTQ		2.80	6.60	5.4252	.66497
	- directive style	2.2	7.0	5.977	.9628
	- supportive style	3.2	7.0	5.204	.7935
	- participative style	2.8	6.8	4.945	.7939
	- achievement-oriented style	2.2	7.0	5.575	1.0217

Source: Authors' research

The following can be concluded from Table 2:

- Respondents' level of emotional intelligence is above average (mean of the responses is greater than the average of the scale).
- Orientation towards tasks is the dominant behavior of leaders (mean of the responses on appropriate subscale is greater than the average of that subscale, and the whole scale in general).
- Directive style is the dominant leadership style (mean of the responses on appropriate subscale is greater than the average of that subscale, and means of the remaining three subscales).

Based on the above findings it can be concluded that the first three hypotheses are confirmed.

After determining the descriptive statistical values of all scales and subscales, the relationship between emotional intelligence, leaders' behavior orientation and their styles of leadership (according to the Path-Goal Theory) was examined.

Since directional hypotheses were set, to establish the correlation between the above variables one-tailed Pearson's correlation coefficient was used. Summarized results of Pearson's correlation coefficients are shown in Table 3.

Table 3. *The summarized data of Pearson's correlation coefficients*

	UEK-45	LBDQ	LBDQ I	LBDQ II	PGTQ	PGTQ I	PGTQ II	PGTQ III	PGTQ IV
UEK-45	1	.573**	.349**	.691*	.479**	.245**	.620**	.482**	.160*
LBDQ	.573**	1	-	-	-	-	-	-	-
LBDQ I	.349**	-	1	-	-	-	-	-	-
LBDQ II	.691*	-	-	1	-	-	-	-	-
PGTQ	.479**	-	-	-	1	-	-	-	-
PGTQ I	.245**	-	-	-	-	1	-	-	-
PGTQ II	.620**	-	-	-	-	-	1	-	-
PGTQ III	.482**	-	-	-	-	-	-	1	-
PGTQ IV	.160*	-	-	-	-	-	-	-	1

** . Correlation is significant at the level of 0.01. | * . Correlation is significant at the level of 0.05.

LBDQ I - orientation towards tasks | LBDQ II - orientation towards relations | PGTQ I - directive style | PGTQ II - supportive style | PGTQ III - participative style | PGTQ IV – achievement-oriented style

Source: Authors' research

The following can be concluded from Table 3:

- Given that the correlation coefficient between the UEK-45 questionnaire scale and LBDQ scale is very high ($r=0.573$, $P<0.01$), one can say that there is a statistically significant correlation between emotional intelligence and leaders' behavior orientation.
- By examining the relationship between two subscales in LBDQ and emotional intelligence scale (UEK-45), statistically significant correlation was found ($r_1=0.349$ and $r_2=0.691$; $P_1<0.01$ and $P_2<0.05$). The significance was slightly more in favor of orientation towards relations, which could have been expected, because orientation towards relations arises from higher level of emotional intelligence. Put simply, with increase of level of emotional intelligence, person's behavior becomes more oriented towards relations.
- Given that the correlation coefficient between the UEK-45 questionnaire scale and PGTQ scale is very high ($r=0.479$; $P<0.01$), one can say that there is a statistically significant correlation between emotional intelligence and leadership styles according to Path-Goal Theory.
- By examining the relationship between four subscales in PGTQ and emotional intelligence scale (UEK-45), statistically significant correlation

was found ($r_1=0.245$, $r_2=0.620$, $r_3=0.482$ and $r_4=0.160$; $P_{1,2,3}<0.01$ and $P_4<0.05$). Even though all four are high and significant, it can be noted that correlation coefficients of second (supportive leadership style) and third style (participative leadership style) are slightly more dominant. That also could have been expected, if one takes into consideration that the research has been conducted in health sector. These results could also be interpreted in the following way – with increase of level of emotional intelligence, people more often practice supportive and participative leadership style. In addition, both styles stem from higher level of emotional intelligence.

Based on the above findings it can be concluded that the fourth and fifth hypotheses are also confirmed.

4. Conclusion

Phenomenons of emotional intelligence and leadership styles are for quite some time hot topic in scientific community. A large number of studies in the field of emotional intelligence show that it affects how well employees will communicate among themselves and with their managers, how many customers will be loyal to their suppliers, how will employees work when they are under stress, etc. Analogously, studies show that main causes of employees' failure lay in the absence of their emotional competences, which results in their inability to deal effectively with the changes and difficulties, to establish good and functional relationships with other people, and to be constructive team members. For these reasons, this paper has tried to emphasize the importance of emotional intelligence as a factor which can greatly influence the choice of manager's leadership style, but also as a factor which, if properly utilized, can be a key to the development of human resources and to the promotion of the right people to the right positions.

As it was expected, research results have opened many questions about the topic which this paper addresses. For example, the correlation coefficients between individual subscales within LBDQ and PGTQ indicated some interesting things, which some additional research should certainly try to answer. On the other hand, the lack of standardized instruments to measure emotional intelligence and leadership styles could be one of the drawbacks of the study, because different tests may give different results on the same sample, and because emotional intelligence is a constructs that is very difficult to measure precisely. The results of this, and any further researches, can greatly contribute to the increase of productivity and efficiency of health sector in the Federation of Bosnia and Herzegovina, in which there is a

chronic lack of good strategies for the development of human resources, and strategies in general.

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CONFLICT MANAGEMENT STRATEGIES IN BOSNIAN AND HERZEGOVINIAN COMPANIES

STRATEGIJE ZA UPRAVLJANJE KONFLIKTIMA U BOSANSKOHERCEGOVAČKIM PREDUZEĆIMA

Abstract

In the times when the modern environment is increasingly characterized by the appearance of various types of business risk, research show that organizational conflicts have become more frequent and complex. Namely, modern companies face serious risks and in that situation employees are under the pressure most, since their knowledge and skills are treated as the key factors to the organization success. Besides, pressured by the global competition and need in higher level of flexibility, companies are starting to experiment with the horizontal organizational structures, which makes employees more interdependent and responsible in the decision making process. Employee structure in modern companies has become diverse. Namely, there are a growing number of people from culturally different regions with different level of education and socio-economic background that become the members of organizations. Such diversity leads to the appearance of various types of conflicts that did not exist in the period when labor force was characterized by homogeneity. All this along with the fact that BiH companies passed through a difficult transition period, functioning under unfavorable socio-economic conditions makes clear that conflicts are inevitable. This emphasizes the need for focusing the research attention on the phenomenon. The aim of this paper is to identify and analyze the strategies for managing conflicts in BiH companies. The paper presents a part of results of

the empirical research conducted in 100 BiH companies, with the questionnaire as a data collection instrument for the survey that included managers as target group. The research results indicate that the strategies "face to face discussion" (86.8%) and negotiation (78.6%) are the most frequent forms used for conflict management, whereas the strategies of coercion (20.5%) and delusion (3.4) are the strategies least used in conflict management in BiH companies.

Keywords: conflict management strategies, BiH companies

JEL: L2; M12

Sažetak

U vrijeme kada je savremenookruženje u sve većoj mjeri obilježeno pojavom različitih oblika rizika poslovanja, istraživanja pokazuju da su organizacijski konflikti postali učestaliji i kompleksniji. Naime, preduzeća današnjice se suočavaju sa velikim izazovima, pri čemu je najveći pritisak na zaposlenicima, budući da se njihovo znanje i vještine počinju tretirati kao ključni faktori organizacijskog uspjeha. Pored toga, pod pritiskom globalne konkurencije i potrebe za višom razinom fleksibilnosti, preduzeća počinju eksperimentisati sa horizontalnih organizacijskim strukturama. Pri tome, zaposlenici postaju više međuzavisni i odgovorniji u procesu donošenja odluka. Struktura zaposlenika u savremenim preduzećima postala je raznolika. Naime, sve veći broj zaposlenika koji dolaze iz kulturološki različitih područja i koji imaju različitu razinu obrazovanja i socioekonomsku pozadinu, postaju članovi organizacija, a ova raznolikost dovodi do pojave različitih vrsta konflikata, koji se nisu pojavljivali u vrijeme kada je radnu snagu obilježavala homegenost. Ako se uz sve navedeno uzme u obzir i činjenica da su bosanskohercegovačka preduzeća prošla kroz težak tranzicijski period, te da djeluju u nepovoljnom socio-ekonomskom ambijentu, onda postaje jasno da je pojava konflikta u njima neminovna, što nameće potrebu za pridavanjem istraživačke pažnje ovom fenomenu. Otuda je i cilj ovoga rada identificiranje i analiziranje strategija za upravljanje konfliktima u bosanskohercegovačkim preduzećima. U radu će biti prezentiran dio rezultata empirijskog istraživanja koje je provedeno u 100 bosanskohercegovačkih preduzeća, pri čemu je korišten anketni upitnik kao instrument za prikupljanje podataka, a anketiranjem su obuhvaćeni menadžeri. Rezultati istraživanja pokazuju da su strategije „diskusija licem u lice“ (86,8%) i pregovaranje (78,6%) najčešći oblici strategije za upravljanje konfliktima, dok se strategije prinude (20,5%) i obmane (3,4%) najrjeđe koriste za upravljanje konfliktima u bosanskohercegovačkim preduzećima.

Ključne riječi: strategije za upravljanje konfliktima, bosanskohercegovačka preduzeća

JEL: L2; M12

1. Introduction

Conflicts often indicate the contrast that emerges due to contrary attitudes, opinions and feelings characteristic of individual, group or the entire organization (Rahim 2011). In terms of organizational conflicts, the practice shows that the most frequent ones are those emerging between two or more members of an organization or between different groups within an organization, as a result of differences in tasks, goals, attitudes, and perception on the one side and their reference to the limited organizational resources on the other (Janićijević 2008).

Although conflicts are inevitable in everyday life and important factors of development of a society, they are more perceived as an obstacle and distortion in interpersonal relations than as a possibility to change such relations to the better. During our process of socialization, we are taught to fear crises and conflicts, which make us unable to analyze crisis and conflict situations and to find and apply possible solutions. An obvious lack of knowledge and skills in this field contributes to the escalation of conflicts and manifestation of their negative consequences (Žagar 2006). Science interpreted risk as something that needs to be avoided at any cost, and only after a long period of time did it start pointing out its creative potentials as the basis of personal and social progress (Fisher 2000).

The attitudes regarding the influence of conflicts on labor performances and successfulness of organization changed throughout the history of the organizational thought. In this context, we distinguish traditional, behavioral, and interactive approach to conflicts. The traditional approach to conflicts is compatible to the study of classical theory of organization and management. According to this approach, conflicts are a highly destructive appearance that disrupts organizational balance; their influence on organization efficiency is negative and therefore managers need to eliminate them from the life of an organization (Coser 1956, Pondy 1967, Thomas 1976, March & Simon 1958, Argyris 1976, Rapoport 1960). The behavioral approach to conflicts is in accordance to the basic determinants of the school of interpersonal relations. This approach sees conflicts as a consequence of certain behavior and the task of management is to create such an organizational climate so as to develop high-quality interpersonal relations without conflicts, by valuing and encouraging behavior that leads to harmony and pleasure and eliminating and discouraging destructive activity (Petković 2008, p. 128). The interactive approach is a modern approach to conflicts, based on the view that conflicts

are an inevitable event in every organization's life, having both negative and positive effect on its performances. This approach distinguishes two types of conflicts: destructive (dysfunctional) and constructive (functional). Destructive conflicts have a negative effect on work performances, results of group activities, and efficiency and effectiveness of an organization as a whole, while constructive conflicts are a natural consequence of the interpersonal communication among organization members in the process of creative problem solving (De Dreu & Van de Vliert 1997, Amason 1996, Frazier & Rody 1991). The interactive approach focuses on the causes that generate conflict, its repercussions on various aspects of organizational activity, and conflict management strategies that lead to its optimization (Jung 2003, Sandole & Van der Merwe 1993).

The contemporary theory of organizational behavior and modern management practice accept the integrative approach to organizational conflicts. Conflicts are nowadays seen as an organizational inevitability and the phenomenon that cannot be eliminated from the organizational life. On the contrary, they need to be appropriately managed so as to prevent the escalation of their negative effects and maximize the positive ones.

Conflict management is a process in which managers undertake the activities to achieve conflict reduction and resolution in situations of high level of conflicts while in situations when conflicts are rare or non-existent managers perform activities for stimulating and encouraging them. The goal of conflict management is not to eliminate them but to bring them to an optimum (functional) level (Petković, Janićijević & Bogićević 2002, p. 375). The management of a conflict within a group as well as between two or more groups includes the learning of an integrative style of behavior with other organization members. In such a way, their energy, expertise and resources are channeled to synergy resolutions of mutual problems or to the realization of organizational goals (Rahim 1992, p. 38).

Solving conflicts in an organization depends on the conflict type, character, scope, and intensity. Each type of conflicts demands an appropriate approach and method to overcome and solve it, since in that way its positive and constructive effects are encouraged while those negative and destructive are prevented. The approach and means of its solving determines whether the conflict is to be solved or only postponed to a shorter or longer period of time, only to reappear under changed circumstances.

2. Previous research

2.1. Importance of conflict management

The means and successfulness of conflict management determines organization efficiency. In other words, appropriate conflict management can improve individual, group and organizational performances (Alpert, Tjosvaldo & Law 2000, Bodtker & Jameson 2001, Rahim & Bonoma 1979, Kuhn & Poole 2000, DeChurch & Marks 2001, Rahim 2002, p. 208). The analysis of a conflict situation, past relations of the conflicting parties, the time of conflict appearance and the time available for its resolution are some of the prerequisites for successful conflict management. Besides, manager needs to be well acquainted with the dynamics of conflict development along with possible reactions of individuals or groups to a conflict situation. Psychologists explain the dynamics of conflict development by means of a motivational cycle. Certain human behavior is initiated by a motive based on which he sets a goal and takes concrete steps in order to realize it. However, on his way to success, various obstacles appear which cause the feeling of frustration. An obstacle can be opened (physical or organizational) or closed (psychological or social). Reaction to the obstacle/barrier may be constructive, when a person accepts a new activity in order to master it, or it may be followed by a conflict, in which case a defense mechanism occurs.

Nowadays, many different approaches, tactics and strategies are developed for conflict management in organizational life. The following part of the paper presents a short overview of the most important means for conflict management in modern organizations.

2.2. Strategies for conflict management

Extensive scientific literature dealing with the phenomenon of conflict in organizational life most frequently mentions and analyzes Thomas's two-dimensional model of conflict situation in which one dimension is related to persistence in satisfying one's goals and the other to the efforts to satisfy other party's interests (cooperation) (Fisher 2000, Vasilache 2004, Monahan 2001). Based on this model, one can identify five different styles for conflict resolution, resulting from the combination of these dimensions: competing, accommodating, avoiding, collaborating, and compromising (Thomas 1976).

If we want to achieve personal goals and keep and build relationships with other conflicting party at the same time, we choose cooperation. On

the other hand, if we fail to take actions for personal goals or personal relations, then we withdraw from a conflict situation (avoidance). If personal goals are partially achieved and we keep relations with the other party to a certain amount, then compromise is reached. However, if we conclude that the relationship with the other party is not important and we concentrate on the fulfillment of personal goals, we chose competition as a style of conflict resolution. In a situation when the relationship with the other side is very important, even more important than our personal goals, we opt for adaptation.

Some authors believe this two-dimensional model to be too simplified illustration of conflict situations and suggest the additional third variable and the total of nine styles of solving conflict situations (Pareek 1982). Regardless of the model chosen, they cannot realistically illustrate conflict situations in which different dimensions are closely linked (Hammerich 1996).

William states that conflict can be solved in several ways, including the following ones (Anthony, & Nicholson 1977): a) adapting one conflicting party to other party's attitudes and position; b) one party's withdrawing from the conflict; c) avoiding relationship between conflicting parties; d) persuading conflicting party to other party's arguments; e) forcing the conflict resolution; f) reaching the agreement between the conflicting parties; g) solving the conflict completely. Blake and Mouton (1964) emphasize that conflict may be solved in the following five ways: a) avoiding conflict; b) adaptation of one party to the other; c) mutual competition between the conflicting parties; d) compromise between the conflicting parties; e) cooperation between the conflicting parties.

Jandt and Glilete formulated a pattern for conflict resolution, naming it the "mini-max strategy", which includes four questions which need to be answered in a given conflict situation: 1) What is the minimum I can accept?; 2) What is the maximum I can demand?; 3) What is it that I can give up?; 4) What is the most I can offer?. All the parties in a conflict need to ask and answer these questions. Their answers are the outline for solving conflict by compromise.

Conflict mainly includes only two outcomes, victory or defeat, which are achieved in an aggressive or passive way. However, aggressive or passive alternative are not efficient means of fighting the conflict situation; they are frequently accompanied by emotional suffering, humiliation and suppressed

anger and do not solve the problem underlying the very conflict. To lose or win are not the only possibilities available when conflict resolution is involved. It is precisely the difference in approaches, strategies and tactics which increases the number of potential options, resolutions and positive outcomes of conflicts.

By recognizing this approach, conflict can be seen as an organizational phenomenon with development potential, which provides the possibility for analyzing differences among employees, development of quality communication, cooperation and tolerance, and it can result in outcomes which are satisfactory for both conflicting parties. Organizational conflict management is thus extremely important for modern organizations, which often includes the encouragement of conflicts. The practice shows that a moderate quantity of conflicts, managed in a constructive manner, is important for realizing the optimum level of efficiency in a given organization.

3. Research methodology

Apart from doing business in unfavorable environment, BiH companies are also inappropriately structured (“robust” hybrid structures, inadequate design of work places, lack of precisely defined authorities and responsibilities, etc.). They still do not recognize the importance of having knowledge and specific skills, and human resources in these companies are not treated in accordance to their importance (lack of high-quality communication and fair system of rewarding, non-compliance with legal obligations towards employees such as the payment of social and health security, constant exposure to the risk of layoffs, non-inclusion into the process of setting goals, solving problems and making decisions, etc.).

All the above mentioned, accompanied by a high unemployment rate, depressing political situation in the country and the culturally determined lack of dialogue culture in general, points to the fact that BiH companies are the generators of various types of conflicts. Therefore, the lack of adequate strategies for conflict management may end in highly negative consequences on their performance.

The review of the available scientific literature on the causes and strategies for conflict management in the function of effectiveness and efficiency of BiH companies indicates that systematic research into this field has not been done in Bosnia and Herzegovina.

Bearing that in mind, it seems rather important to research and analyze dominant strategies for conflict management in the context of the realization of organizational goals of BiH companies, which is the topic of this research paper. Consequently, the decision was made on the conducting of the empirical research, the part of whose results shall be presented in this paper.

Data collection as a part of the empirical research was made by a survey questionnaire, structurally compatible to the subject of the research. The close question form of a questionnaire was structured, including general answers as well as intensity range answers (Likert's scale). The research sample included 100 medium and large companies from Bosnia and Herzegovina, whereby the questionnaires were filled in by top-managers or management team members. The collected data were processed by appropriate statistical methods and data processing techniques.

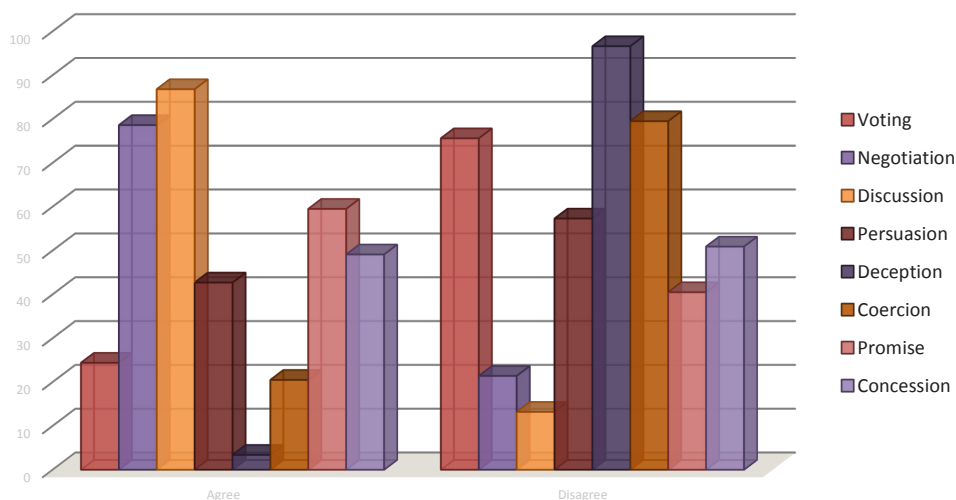
The sample was designed based on the criteria of geofigureic dispersion, aimed at including the companies from the entire Bosnia and Herzegovina - both entities (BiH Federation, Republic of Srpska) and Brčko District. The questionnaires were distributed by mail, in person and electronically to 300 subjects in 100 companies. A total of 234 questionnaires from 78 companies have been returned, at all three management levels.

The sample was made representative by the fact that all the companies included in the research belong to different industries: mining, food industry, wood processing industry, textile industry, production and distribution of electric power, metal processing industry, traffic, civil engineering, service sector, etc.

4. Results and discussion

4.1. Preferred strategies for conflict management in BiH companies

In order to determine the preferred strategies for conflict management in BiH companies, conflict resolution strategies were identified and analyzed by examining managers' attitudes. Figure 1 shows the most frequently used strategies for solving conflicts in BiH companies. The research results indicate that face-to-face discussion strategy (86.8%) and negotiation strategy (78.6%) are most frequently used. BiH managers believe that coercion strategy (20.5%) and deception strategy (3.4%) are very rarely used.



	Voting	Negoti- ation	Discus- sion	Persua- sion	Decep- tion	Coer- cion	Prom- ise	Conces- sion
Agree	24.4	78.6	86.8	42.7	3.4	20.5	59.5	49.1
Disagree	75.6	21.4	13.2	57.3	96.6	79.5	40.5	50.9

Figure 1. *Most frequently used strategies for conflict resolution in BiH companies*

Source: Mahmutovic 2015, p. 128

4.2. *Factors determining the selection of preferred strategy for conflict management*

The research was aimed at defining the factors which determine the selection of a certain strategy or the causes that lead to the usage of certain strategies for conflict management. In order to examine this, we used discriminant function analysis, the technique similar to linear regression with the exception of prediction of subject group affiliation.

The discriminant analysis results for the negotiation strategy (Table 1) show that there is a statistically significant difference between the users of the negotiation strategy and the managers who do not use this strategy at a multivariate level. One discriminant function was registered, which is in accordance with the expected results, as there are two groups in the analysis, whereby function 1 explains for 100% of the total inter-group variance.

Squared canonical correlation (r_c) shows that the discriminant function explains for the high 87.5% of the variation within the grouping variable, whether or not the subjects use the strategy of negotiation. Wilks' λ of the

discriminant function is low (Wilks' $\lambda=0.234$) and it shows that variables are good predictors for differentiating groups, meaning that the discriminant power of discriminant functions is high. The χ^2 test for function 1 is statistically significant: $\chi^2=287.81$, $p<0.01$.

This indicator proves that the discriminant model is significant and that the measures for differentiating the prediction of negotiation strategy usage are appropriate.

Table 1. *Results of discriminant analysis for negotiation strategy*

F	λ	% of variance	Cumulative % of variance	r_c	Wilks λ	χ^2	df	P
1	3.278	100	100	0.875	0.234	287.81	36	0.001

Source: Mahmutovic 2015, p. 145

The research revealed (Table 2) that managers opt for using negotiation strategy for the conflicts caused by the lack of dialogue culture, degrading employees (inappropriate material and non-material compensation of employees for their work), opposite goals by different departments, bad communication, lack of promotion options, and correlation of work tasks.

Table 2. *Structure matrix of the discriminant factor and centroid projection on the discriminant function for negotiation strategy*

Predictor	Correlation with DF	Group	Centroid projection
Lack of dialogue culture	0.306	Use the strategy	0.945
Degrading	0.304		
Opposite goals by departments	0.299		
Bad communication	0.279	Do not use the strategy	-3.438
Non-promotion	0.256		
Correlation of work tasks	0.232		

Source: Mahmutovic 2015, p. 145

The discriminant analysis results for discussion strategy (Table 3) show that there is a statistically significant difference between the managers who use discussion strategy and those who do not use this strategy at a multivariate level. One discriminant function was registered, which is in accordance with the expected results, as there are two groups in the analysis, whereby function 1 explains for 100% of the total inter-group variance.

Squared canonical correlation (r_c) shows that the discriminant function explains for the high 87.5% of the variation within the grouping variable, whether or not the subjects use the strategy of discussion. Wilks' λ of the discriminant function is moderate (Wilks' $\lambda=0.424$) and it shows that variables are moderately good predictors for differentiating groups, meaning that the discriminant power of discriminant functions is moderately high.

The χ^2 test for function 1 is statistically significant: $\chi^2=169.71$, $p<0.01$. This indicator proves that the discriminant model is significant and that the measures for differentiating the prediction of discussion strategy usage are appropriate.

Table 3. *Results of discriminant analysis for discussion strategy*

F	λ	% of variance	Cumulative % of variance	r_c	Wilks λ	χ^2	df	P
1	1.356	100	100	0.759	0.424	169.71	36	0.001

Source: Mahmutovic 2015, p. 146

Table 4. *Structure matrix of the discriminant factor and centroid projection on the discriminant function for discussion strategy*

Predictor	Correlation with DF	Group	Centroid projection
Lack of dialogue culture	0.606	Use the strategy	0.445
Different styles of behavior	0.425		
Job reshuffle	0.405		
Differences in fact interpretation	0.384	Do not use the strategy	-3.020
Bad communication	0.377		
Wrong interpretation of other person's behavior	0.371		

Source: Mahmutovic 2015, p. 146

Base on the research results obtained (Table 4), it was determined that discussion strategy is applied in cases when conflicts are caused by: lack of dialogue culture, differences in the styles of performing tasks and behavior, reshuffle of jobs, different interpretation of facts, bad communication and wrong interpretation of other person's behavior.

5. Conclusion

Conflict can have a negative or positive impact on the behavior of organization members and its performances, depending on its nature and

the way they are solved. If an organization experiences an optimum level of conflicts, which is acceptable and functional, it can then generate positive organizational performances. The theory and practice of management show that a too-low level of conflicts in an organization may have negative effects on its efficiency and flexibility. It is thus necessary to implement the strategies for encouraging constructive conflicts.

Certainly, if conflicts are too frequent and destructive, they need to be managed appropriately so as not to endanger organizational performances. The practice shows that BiH companies have still not recognized the importance of knowledge and specific skills and that human resources are not treated in accordance with their significance for the company (lack of high quality communication and just rewarding system, non-compliance with legal obligations towards employees such as the payment of social and health security, constant risk of layoffs, exclusion from goal setting, problem solving, and decision making, etc.). Therefore, these facts, accompanied by a high unemployment rate, depressing political situation in the country and the culturally determined lack of dialogue culture in general, clearly indicate that BiH companies are the generators of various types of conflicts and that the lack of appropriate strategies for their management may have utterly negative consequences on their performances.

This is why the identification of the preferred strategies for solving conflicts and conflict causes in which they are implemented is very important. It helps in determining their role in the improvement of individual and organizational performances. The research results show that the most frequently used strategies are: face-to-face discussion (86.8%) and negotiation strategy (78.6%), while BiH managers believe that coercion strategy (20.5%) and deception strategy (3.4%) are very rarely used. The analysis of causes of conflicts managed by the preferred strategies leads to the conclusion that managers in BiH companies are relatively highly aware of the role of conflict management in organizational life and that they apply “democratic” strategies such as negotiation and discussion. Negotiation strategy is applied in the situations when conflicts emerge at a group or individual level and when their escalation might have a negative impact on organizational performances. On the other hand, discussion strategy is applied in the situations more related to the dynamics of interpersonal relations (different perception, bad communication, etc.) The research results that encourage are those showing that deception strategy is rarely used, but it is still worrying that coercion strategy is used in as many as 20.5% of the cases, which can

suggests managers' autocracy and bad treatment of human relations in BiH companies. The results of the empirical research may serve managers as the basis for improving the process of conflict management in BiH companies. This paper shows that conflicts are still an important organizational phenomenon and thus need to be the subject of research in the future. Apart from the analysis of managers' attitudes, which served as the basis for this research, the future research should include employees in BiH companies in well. In that way, a more objective picture would be obtained about the nature of conflict management in these companies.

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CRISIS COMMUNICATION AND THE INTERNET

KRIZNO KOMUNICIRANJE I INTERNET

Abstract

The increased risks and the possibility of a crisis are the hallmarks of modern society and business. Businesses is operating in an environment that is highly unstable and prone to crisis situations, particularly in the context of markets opening and liberalization of the market processes. While each crisis is unique, they all suddenly appear, act insecure and offer a brief period of time to address them. Crisis communication as part of crisis management or organizational ie. part of marketing communication, aims to protect the image of the company and other organizations or reputation of an individual who is in a crisis situation. Internet as a modern medium of communication with the clear trend of increasing use in business, determined by two-way communication in real time, highlights the crisis for companies, creating new challenges in the field of crisis communication. Compression of time and space in the communication, and the decentralization of market and communicationpower, increases the possibility of a crisis situation for the company, but also multiplies their effects. Therefore, many companies face daily threats of communication on the Internet, regardless of whether they actively participated in the same. Accordingly, this paper presents crisis communications with a focus on Internet communication, and researches the possibility of using the potential of the Internet by businesses, with the mission of overcoming the crisis situations. The aim is to demonstrate the danger, but also the possibilities of Internet communication by the company, with the presentation of specific recommendations to make decisions in this area.

Keywords: crisis communication, Internet, marketing communications, public relations

JEL: M1, M3

Sažetak

Povećani rizici i mogućnost kriza su obilježja savremenog društva i poslovanja. Preduzeća djeluju u okruženju koje je izrazito nestabilno i sklono kriznim situacijama, naročito u kontekstu otvorenosti tržišta i liberalizacije tržišnih procesa. Iako je svaka krizna situacija jedinstvena, zajedničko im je da nastupaju iznenada, djeluju nesigurno i nude kratak vremenski period za njihovo rješavanje. Krizno komuniciranje kao dio kriznog menadžmenta ili organizacijske tj. dijela marketinške

komunikacije, ima za cilj da zaštiti imidž preduzeća i drugih organizacija odnosno reputaciju pojedinca koji se nalazi u kriznoj situaciji. Internet kao savremeni medij komuniciranja sa izrazitim trendom povećane primjene u poslovanju, zbog svoje komunikacijske prirode koja je determinisana dvosmjernim komuniciranjem u realnom vremenu, naglašava krizne situacije za preduzeća, stvarajući nove izazove u oblasti kriznog komuniciranja. Sažimanjem vremena i prostora u komunikaciji, te decentralizacijom tržišne i komunikacijske moći, Internet povećava mogućnost nastanka kriznih situacija za preduzeće, ali i multiplicira njihove efekte. Zbog toga se brojna preduzeća svakodnevno suočavaju sa prijetnjama komunikacije na Internetu, bez obzira da li aktivno sudjelovala u istoj. Shodno navedenom, u radu se predstavlja krizno komuniciranje sa fokusom na Internet komunikacije, uz istraživanje mogućnosti korištenja potencijala Interneta od strane preduzeća, sa misijom prevazilaženja kriznih situacija. Cilj rada je da pokaže opasnosti, ali i mogućnosti Internet komuniciranja od strane preduzeća, uz predstavljanje određenih preporuka za donosice odluka u ovoj oblasti.

Ključne riječi: krizno komuniciranje, Internet, marketinška komunikacija, odnosi s javnošću

JEL: M1, M3

1. Introduction

Modern economy is subject to various types of crisis. Crises are the features of modern society and consequently business, as well as common in the performance of business activities by the companies. Technological advances, particularly in information technology, have made the crisis more frequent, but also created new opportunities for a more adequate organizational response to the crisis situation. Companies now have at their disposal a variety of defenses mechanisms, with the potential of the Internet as a communication channel which is oriented to a global audience. Communications in times of crisis or crisis communication goes through a transformation because of the impact by new media, primarily Internet communication. Communication becomes faster, practically instantaneous, and its domain is global, with the possibility of using multimedia to better convey the message. Now it is possible to clearly identify target audiences, and contribute to an understanding of its characteristics and communication preferences. This greatly improved the crisis communication, but it also opened space for the development of the crisis inherent for new media. Internet accelerates the spread of the crisis, giving it a viral effect which can pose an enormous challenge for the company, especially if it does not respond in a timely manner or uses wrong communication strategy.

In the following pages of the paper, we will present the concept of crisis, with the main characteristics of crisis communication, focusing on crisis communications on the Internet.

2. The concept of crisis

The crisis is a sudden and unexpected event that requires a rapid response. It is defined as a serious incident that threatens the safety of people, the environment and products or distorts the image of the organization, according to which is observed hostile attitude of the media. Unlike ordinary incident, the crisis is more serious for the organization and requires special attention from the management. The crisis can be defined as a situation which is characterized by surprise, a serious threat to important values of the organization, and a short time to make a decision (Cutlip, Center & Broom 2003, p. 184). As such, the crisis hinders business routines and creates uncertainty and stress for the employees of the organization. Therefore, organizations naturally seek to avoid the crisis and minimize the risks for their formation.

The crisis for the organization is a situation where the organization can not operate normally, and as such, prevents the attainment of the objectives and threatens the viability and survival of the organization (Riha 2015). Depending on the context and nature of the crisis, there are positive and negative crisis. The first type of crisis brings certain benefits for a given organization, while the second has a negative impact on an organization's operations. An example of positive crisis can be a crisis situation from which the organization draws particular benefit (for example, companies whose products have had increase in demand in times of crisis). On the other hand, negative crisis are the ones that in some way threaten the organization. Crisis differ from organizational failure because they represent the transformation of the old system for external needs for change. Failure is more inherent to inefficiency and ineffectiveness of business organization.

We need to distinguish between crises that are caused by human activities and those that are caused by natural disaster. Also, depending on where they are produced, it is possible to distinguish internal and external crisis. The internal crisis is occurring within the organization, while the external crisis is linked to micro and macro environment of the organization. For crisis and emergency situations it is usual to take place in certain operations or sectors of business. Therefore, it is important for the organization to accept crisis as inevitable part of business, and to adjust its communication to adequately

and timely response in the event of a crisis. In doing so, the key role is played by management that should keep the organization on alert due to the possibility appearances of crisis.

Crises occur and inevitably pass, and usually pass through five clearly defined phases, that are: the beginning, rise, culmination, decline and end of the crisis. The beginning of the crisis is no different from an ordinary incident and shows no clear signs of progression. The stages of the rise and culmination of the crisis directly affect the organization and mobilize its resources for the sake of finding solutions. Decline phase occurs due to the success of organizational effort or behavior of objective factors that caused the crisis, while the last phase of the crisis means that the crisis does not affect the company in a larger scale anymore, and that the organization begins the process of learning from the crisis. From the perspective of the organization, it is possible to talk about the pre-crisis, crisis and post-crisis period, depending on the time of a crisis.

3. Crisis communication

Crisis communication is a kind of response to a specific crisis. There are a lot of different definitions of the term crisis communication, as well as different classification of the term according to the total communication. Thus, some authors observe crisis communication as part of a larger business process called crisis management (Bulajić 2010, p. 87). Role for the crisis communication is to protect and defend the image of the organization as a valuable asset in modern business. The image of the organization or its products/services has an exceptional value for the organization when it comes to crisis because the results of some researches regarding the global economic crisis showed that those companies that have developed the brand or with a higher value of the brand, got better through economic situation of crisis - recession or depression.

Other authors state that crisis communication is one of the organizational form of communication, and with the marketing and managerial communications is one of the dominant form of communication in the organization (Garača, Ratković & Raletić 2013, p. 364). This crisis communication is linked to the overall communication efforts of the organization. Crisis communication could be viewed as a special area of public relations, which is designed with the aim of protecting the individual, companies and organizations whose public reputation is compromised (Barrera 2013). This puts crisis

communication in the framework of marketing communications and the public relations as one of the tools of marketing communication.

Crisis communication in its broadest conception is any communication under the state of crisis. It is clear that such communication can be clearly distinguished from the normal communication by individual organizations. Crisis communication could be viewed as the methods and policies used by the corporation for the distribution of information during the uncomfortable situation affecting the public (Cutlip, Center & Broom 2003, p. 563).

What can be cited as the main characteristics of crisis communication is that it is closely connected with the activity of management within the organization, but also the department of public relations. Also, crisis communication is very specific form of communication that is tied to a certain time period, rather than to normal business activities. It is noteworthy that the crisis situations, especially those that have external causes, often imply involvement of the media i.e. direct communication with the media. Therefore, public relations as one of the instrument of marketing mix, appear as the holders of activities of crisis communication. When it comes to crisis communication activities, they can be carried out by staff from within or outside the organization, which will be showed in the last part of the paper.

Crisis communication and crisis management should be as much as possible planned and systematically organized, and ready to respond to emergencies. Crisis communication should be able to answer three questions: What happened? What the organization will do about it? How will it affect the organization? (Cohn 2007, p. 66). In doing so there are few clear guidelines for responses in the event of a crisis. According to international authorities, planning for the crisis take into account seven steps (Bulajić 2010, p. 87):

- Establishment of the crisis staff;
- Establishment of internal communication in crisis situations;
- Identifying and training spokesman;
- Development of scenarios and simulations of crisis;
- Determination of the target groups of the public;
- Crafting the key messages for the target audience;
- Determining the most effective methods of communicating.

Before the crisis it is necessary to prepare the organization for possible crisis events. By recognizing that the future crisis is inevitable, organizations must prepare their own crisis plan of action, as well as crisis communication plan.

Unfortunately, organizations do not necessarily have crisis communication plans, and when there do have it, most of the employees face it for the first time during the crisis and are not trained to act according to plan (Bačić 2010, p. 150). It is necessary to use the methods of forecasting and scenario building, in order to have certain scenarios of action, but also to do the necessary simulations of crisis. In the period before the crisis, it is necessary to define each of the above steps. During the crisis, the organization must provide the emergency response to the current crisis situation. This includes the establishment of the crisis staff headed by someone from management or the department of public relations, depending on the intensity of the crisis. It is crucial that to establishment effective internal communication within the organization. It is also necessary to determine the target audience, and to assemble the required messages and determine the channel, and communication tools. After the crisis, the organization should do an analysis of the reasons for the crisis, but also to indicate the lessons learned during the crisis. These lessons should be distributed throughout organisations as the learning process that should prepare everyone for the next crisis.

There are several different strategies of communication in a crisis. Some of these may be: an attack on one who accuses you, denial, excuse, justification, compliance, corrective action and an apology (Cutlip, Center & Broom 2003, p. 188). Depending on the nature of the crisis, the organization will use a different strategy of crisis communication. The attack on one who accuses implies that the organization is openly opposing the party claiming that there is a crisis. This strategy is often used when the image of the organization is at risk by someone who does not have its own credibility or relevance in communication. By denying the organization is trying to convey the message that the crisis does not exist. This is intended to minimize the crisis, reducing it to the level of the incident. In cases of natural disasters or criticism of the product, the organization can use the strategy of excuses which minimizes its own responsibility for the crisis. Such justification is trying to minimize the crisis, while with complying the organization seeks to reassure the concerned public. The corrective action strategy involves correcting damage caused during a crisis, while the apology takes responsibility for the crisis with asking for forgiveness. The application of these strategies is conditional on the size and nature of the work of the organization, and a number of other factors, such as the micro and macro environment of the organization, the press of external parties, media activities and the like. Some authors believe that proactive strategies such as apology or correction action should be used when other, defensive strategies are not working. Other authors state that

it should be started with proactive strategies that basically provide sincere message to the public, which can be a “double-edged sword” for a given organization. So Kotler and Keller stated that the reaction of the company should be honest –showing recognition in the public and that it is prepared to take all necessary and feasible steps to resolve the crisis - it is less likely that consumers can form a negative attitude (Kotler & Keller 2006, p. 296). Crisis communication in particular should use a proactive strategy of action. Every lack of proactivity in crisis public relations opens wide, unstable and unpredictable space where they can be different speculation, manipulation and, ultimately, different interpretations of what happened, sometimes with unforeseeable consequences (Perinić 2011, p. 179).

It is important to mention that crisis communication is closely linked to the communication of risk which includes all verbal or written exchange which aims to convey information about the risks to health and safety and the environment (Cutlip, Center & Broom 2003, p. 191). Risk communication is particularly interesting in the last twenty years as more private organizations are being engaged in activities that may carry certain risks to human health. With the development of information technology, risk communication is gaining additional importance because it becomes the dominant source of information for millions of users worldwide.

4. Crisis communication and Internet

Development of the Internet and the global economy have contributed to the creation of a new concept in business. It allows instant and almost free communication between people thousands of miles distant (Krugman & Obstfeld 2009, p. 18). The integration of a large number of information systems and networks has led to the globalization of business using computer networks. This has expanded the concept of the market as such, so that market transactions can be carried out regardless of where subjects are located and regardless of the time in which certain actions, essential for the conclusion of different types of transactions, are taking place. It seems that the buyers and sellers are directly connected (Kurtović, Brkić, Softić & Čatić 2013, p. 261). The customers are not passive, but active audience (Husejnefendić 2011, p. 52), especially in the current Web 2.0 world that implies the socialization of the Internet and allows users to create contents. Therefore, it is a great advantage of the Internet in that it provides nearly instantaneous response to all the questions of customers, who have made a decision to get information through this medium (Rakita 2009, p. 614). All

this significantly determines the connection between crisis communication and the Internet as a modern media of communication.

By using multimedia, hypertext and the ability to interact in real time with users, the Internet has established itself as a superior platform for communication, which uses all the benefits of conventional media, but in a better way. Indeed there were no trends or media that have so much altered the overall functioning of the world economy such as the Internet. Osmančević concludes that audience moves from traditional media to new communication; with the consequence of the greater availability of the Internet in relation to the press, radio and TV (Osmančević 2009, p. 22). He claims that in addition to increased needs for information, users are more sensitized for verifiable informations, which gives priority to the Internet over conventional media such as television, which creates a clear timetable to send certain information, without excessive need to explain their sources. Because of the nature of Internet, the customer or user becomes true emperor of communication which creates additional challenges for organizations that communicate over the Internet.

Some authors suggest that there is a compression of space and time (Harvey 2012, p. 16). Technology connects market participants, which leads to long-term economic prosperity of unprecedented scale, but in parallel with it increases the possibility of crisis events which proved to be true by the expansion of the global economic crisis in 2008. In a very short period of time, the US financial crisis turned into a global economic crisis and recession, and then initiated the European crisis which threatened the European financial sector (Tasić 2012, p. 83). Because of the speed of propagation, global economic crisis is being considered under the umbrella of globalization and the Internet as a paradigm of globalization of media. It even brings in connections with the class war, so Harvey writes about the explosion of activity in new sectors, such as the Internet, as well as changing the focus of economic power of the upper classes (Harvey 2012, p. 50).

The three important elements of a new era of Internet communication are (Stankić 2009, p. 56): diversity (primarily of informations), the world of real-time (payment or informations travel in seconds from one end of the earth to the other) and connectedness. The variety of information, real-time communication and interconnection of market participants around the world, and very easy access, anonymity, cause that Internet represents fertile ground for the emergence of crises and crisis situations for the organization.

In addition it allows easy and rapid distribution of the crisis, so Icelandic banks can in few days fail due to activity in the US mortgage market. It allows the direct emergence of crises, because the organization are exposed to a global audience reactions throughout the year. On the other hand, using the Internet, organizations have a better tool for early detection of potential crises, allowing more time to react. Bulajić writes that modern media and channels of communication generally require the ability to react in 24 hours a day (Bulajić 2010, p. 88). This is a remarkable communication pressure for organizations, especially those that do not have prepared plan of crisis communication.

In such a “jungle of information” and environment characterized by crises, public relations play a key role in maintaining the company’s image on the Internet, as well as the development of communication with different publics. What is certain in our society is increasing uncertainty ie. the possibility of crisis situations for the company. Obtaining the right information in such circumstances is extremely expensive (Taleb 2010, p. 67). Public relations in such situations react by techniques of crisis communication that is interactive process of exchange of information and opinions before, during, and after the outbreak of the crisis (Bulajić 2010, p. 87).

From one perspective, Internet has improved crisis management, while on the other side it made it more difficult and risky. The dark side of the Internet in crisis communications is reflected in (Kešetović, Mihalić & Mojsović 2012, p. 349): limited access to certain types of information, rumors and deceit, false information and bias. Although Internet implies treasury of information, it still restricts access to certain types of information, and stimulates the formation of rumor and deception that can virally spread very quickly and globally. False information are characteristic of Internet communication, as well as bias in the preparation of the content because there is no dominant source of information. Organizations also need to pay attention to the selection of information on the Internet. From the flood of information organisation should selecte information that really pose a threat and ignore those who are not real threats that jeopardize the business (Muratović 2006, p. 58).

Internet opened new possibilities for crisis communications. In order to manage the crisis, it is crucial that consumers perceive the company to react to it and that such a reaction was quick and honest (Kotler & Keller 2006, p. 295). For this purpose, the company may use the dominant

forms of communication on the Internet, including: Internet advertising and owning own website, the optimization of Internet search engines, direct e-mail, social networking and viral marketing. Each of these forms of communication offers the possibility of rapid and visible response of organization during the crisis. Kešetović and other authors state that in the crisis it is especially popular to use Internet media like blogs, microblogs, forums, social networks, online associations, social websites and the like (Kešetović, Mihalić & Mojsović 2012, p. 349). Taking into account the popularity of social networks, especially Facebook in the area of the Western Balkans countries, the use of the Facebook page is a great way to provide answer to social media users when they are most needed - in crisis (Zavišić & Zavišić 2011, p. 196).

In crisis it is primarily to use own Internet site as the central platform for crisis communications. Website of the organization is the first address for users seeking information in times of crisis. Controlled by the organization, it allows the creation of relevant and verifiable sources of information, both for the general public, and the media, as well as any other parties interested. This is showed by example of airline Malaysia Airlines from Malaysia which is a few hours had the tragic accident which killed 295 passengers that were transported by their plane. The company created subpage on its website which is solely intended for presentation of the latest information about the accident (statement by officials of the company, press releases, etc.). Subpage had the review of current information about the crash and contained visibly placed contacts of department for public relations companies. An example demonstrates the power of the Internet activities for a company at the time of crisis. As well as communications and crisis are a challenge for the company (Bulajić 2010, p. 97), and therefore it is necessary to use all the potential of the Internet as a medium of communication in order to overcome the crisis. Website of the organization is the first in a series of media to be used for such purposes.

Crisis communication on the Internet should be the result of the department for public relations, but also the IT sector or agency that runs Internet communications. All this should be based on the strategy/plan, with a focus on a comprehensive crisis communication plan. Crisis communication plan is adopted before the crisis and needs to fulfill the following objectives (Mihaljević & Mihalinić 2011, p. 226):

- Predict and identify potential crises;
- Establish a team to lead the organization through the crisis and be in charge of communication;

- Determine and educate PR manager;
- Determine the target audience in a crisis situation;
- Develop strategies and tactics of communication in a crisis;
- Determine and shapes the best way to reduce the damage to the company image;
- Do tests and simulates of a crisis plan;
- Prepare a check list for a possible crisis.

When it comes to companies in Bosnia and Herzegovina, the results of primary research conduct by the author in 2014 on a stratified sample of 100 companies, suggest that 41.77% of the companies, have a certain employee within the company who has the responsibility of implementation of a specific plan/strategy of performances on the Internet. It is usually someone from IT sector ie. an employee who is a computer technician. Only 10.12% of the companies use adequate specialized agency that is outside the company. The largest number of respondents (46.83%) used a combination of the employees within the company and outside agencies specializing in organizing its Internet appearance. It is assumed that agencies are mainly used for creating web pages and other forms of performance on the Internet for the company, while the employee continues with the maintenance and updating of given web page. Consequently, crisis communication on the Internet is mostly done by a employee within the company, mostly of information technologies.

The media are a key focus of the crisis communications, particularly when using Internet communication. The media are an integral part of modern society. They are companies engaged in collection, processing and placement of informations and they bring us into contact with the world that is beyond our direct contact (Mihaljević, Šutalo & Regvar 2015, p. 862). When it comes to the media, 23% of the surveyed companies from Bosnia and Herzegovina noted that they communicate with the media via Internet. This is mainly true for large companies (36%), and small (32%), not so for medium (20%) and micro (4%). Because of its size, which inevitably means more interaction with different publics, it is expected that large companies in Bosnia and Herzegovina mostly use the Internet to communicate with the media and do that within the framework of public relations as an instrument of marketing communication on the Internet (76% of large companies use public relations on the Internet). In times of crisis, the media constitutes one of the initial address to send messages by the organization and the Internet makes the process significantly improved.

Finally it should be noted that the characteristics of the Internet use of Bosnian companies is significantly different from the performance of companies in developed countries. Turčilo states that Web 1.0 and Web 2.0 is relatively new phenomena for substantial part of the Bosnian population (Turčilo 2010, p. 13). Therefore the habits of Internet users in Bosnia and Herzegovina, as the Internet market in the development, different from the users in developed regions where a mature Internet population already exists (Osmanbegović 2009, p. 121). Consequently, companies in Bosnia and Herzegovina are still in the process of developing their own crisis communications on the Internet.

5. Conclusion

The Internet has changed the way companies communicate, particularly in the context of the crisis phenomena and characteristics of crisis communication. Internet medias, active audience, but also the pragmatic nature of the use of these communication made Internet dominant over conventional media, which are already described as outdated. While on the one hand, Internet is fertile ground for the emergence of new crises and their rapid distribution, on the other hand it offers many opportunities for the organization, particularly in terms of the diversity of communication tools which have the basic features of speed, proactivity and the possibility of global reach. Therefore, it is necessary to start planning and in a systematic organise use the potential of Internet media, so that the company can minimize the possibility of a crisis. If a crisis situation occurs, organizations must respond quickly and be honest in their response, taking into account the fact that they are performing in front of a global audience. For companies in Bosnia in Herzegovina it is especially important to pay more attention to crisis communication on the Internet because the opportunities for the new crisis increase every day according to the processes of globalization and liberalization of market forces.

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SOCIAL CONSEQUENCES OF ECONOMIC CRISIS

DRUŠTVENE POSLJEDICE EKONOMSKE KRIZE

Abstract

Crises are the characteristics of modern economies and can occur in the form of the global economic crisis or the economic crisis of individual countries and regions. The most common manifestation of the economic crisis implies a fall in economic activity and consequently the lack of economic growth. This inevitably leads to broader social consequences that could jeopardize long-term economic prospects of a country. The lack of economic growth in a given period, in particular in undeveloped and developing countries, can undermine social values and stability of social institutions. The social consequences of the economic crisis are usually related to unemployment, poverty, inequality, political crisis, changing of cultural patterns, conflicts, wars and the rise of extremist movements. All this creates conditions for long-term bewitched circle which again leads to new economic and wider social crisis. The paper gives an overview of the phenomenons of the economic crisis and economic growth, with a research of their causes. Consequently, the paper discusses what is and what causes the economic crisis and what is needed for achieving economic growth. Paper also explores the relationship between the economic crisis and certain social problems, with the claim that there is a clear correlation between the given. At the end of the paper are conclusions, and concrete recommendations developed based on the previously shown research.

Keywords: economic crisis, economic growth, social consequences of the crisis

JEL: A1, E6

Sažetak

Krize predstavljaju obilježja savremenih ekonomija i mogu se pojaviti u formi globalne ekonomske krize ili ekonomske krize pojedinih država i regiona. Najčešća manifestacija ekonomskih kriza podrazumijeva pad u ekonomskoj aktivnosti i shodno tome izostanak ekonomskog rasta. Ovo neizbježno vodi ka širim društvenim posljedicama koje mogu da dugoročno ugroze ekonomsku perspektivu jedne

države. Izostanak ekonomskog rasta u određenom periodu, naročito u nerazvijenim državama i državama u razvoju, može da naruši društvene vrijednosti i stabilnost društvenih institucija. Društvene posljedice ekonomskih kriza se najčešće odnose na nezaposlenost, siromaštvo, nejednakost, političke krize, promjenu kulturnih obrazaca, konflikte, ratove i razvoj ekstremističkih pokreta. Sve navedeno dugoročno stvara pretpostavke za začari krug koji iznova vodi ka novim ekonomskim i širim društvenim krizama. U radu se daje prikaz fenomena ekonomske krize i ekonomskog rasta, uz istraživanje uzroka navedenog. Shodno tome, rad razmatra šta podrazumijeva i zašto nastaje ekonomska kriza i šta je potrebno za ostvarivanje ekonomskog rasta. U okviru rada istražuje se povezanost između ekonomske krize i određenih društvenih problema, uz tvrdnju da postoji jasna korelacija između datih pojava. Na kraju rada se pored zaključaka, nude i konkretne preporuke razvijene na bazi istraživanja u radu.

Ključne riječi: ekonomska kriza, ekonomski rast, društvene posljedice krize

JEL: A1, E6

1. Introduction

In modern economies, the emergence of the crisis is a frequent event that leaves significant effects on society, usually years after the real crisis is over. The financial crisis in the US, the Eurozone crisis, global economic crisis, and individual crisis of some countries, necessarily have a large impacts on society, which are primarily reflected in the higher level of political and economic uncertainty, social unrest, rise of extremist movements, but also deep social problems such as poverty, inequality and others. It is therefore necessary to understand these impacts on society and to explain social context of the crisis. Consequently, at the beginning, paper presents term of the economic crisis which is primarily related to the decline in economic activity of the country. The concept of economic growth is presented too, as a condition opposite to crisis, that also minimizes the social impacts of the crisis. Paper listed and explained in detail the social consequences of economic crises, which may relate to unemployment, poverty, inequality, political crisis, change of cultural patterns, conflicts, wars and the rise of extremist movements. Each consequence is explained, on the basis of which is adopted the appropriate conclusion of a paper.

2. Economic crisis

The concept of crisis is most commonly used to highlight interruption from the perceived state of balance or development. It is an abnormal departure

from equilibrium. Accordingly, the economic crisis is related to decrease in rates of economic growth and the emergence of certain structural problems within the economy of a country. It is a typically unforeseen event that leaves strong effects on the community. The economic crisis is a situation in which the country has a sudden drop in economic activity, often marked by decline in GDP, the liquidity crisis, inflation (rise in prices), rising unemployment and the like. The crisis may also refer to the periods of absence of economic growth, which is especially noticeable in less developed countries or countries in transition. The absence of the annual growth of the economy has a significant impact on the extremely delicate economic and social situation in these countries.

States of recession or depression of economy are commonly referred to as periods of economic crisis. There are different perceptions of the economic crisis, according to the school of economics which some interpreters belong. So Austrian economists like Joseph Schumpeter and Ludwig von Mises, explain the economic crisis through the business cycles, a series of ups and downs that determine the level of economic activity. The crisis is therefore always caused by the monetary sphere, and the modern monetary system is considered to be the root of the problem (Butler 2013, p. 75). So the crisis happens during the business cycles in the economy that are primarily caused by monetary intervention.

Milton Friedman perceived crisis as a normal market adjustment of money and goods, while the Keynesians see it as a deviation from the full-employment level (Sharma 2010, p. 8). For John Maynard Keynes, the economic crisis is caused by a fall in aggregate demand. Consequently, the solution is to increase aggregate demand through government spending (Boudreaux 2014, p. 47).

Because of the different perception of the crisis, there are also different views on solutions for the purpose of stopping the economic crisis. So there are dominant interventionist calls that involve the intervention of the regulator ie. the government, as well as other, non-interventionist views that assume that the market will during the period of time solve newly created crisis. Between the two camps there are many different solutions, inherent to the nature and location of the crisis outbreak. The history of economic thought concerning response to emergencies is largely interventionist, except for a short period from the 1980s to 2005., which is often called “the Age of Milton Friedman” (Koppl 2014, p. 2) because of the dominance of Friedman

schools of thought. In the recent past, the stimulus plan by US President, Barack Obama, is a continuation of interventionist economic policies in relation to the crisis.

History of the economic crisis is very interesting, since the banking crisis of the 14th century in Italy, over the crisis of tulips in the Netherlands in the 17th century, the Great Depression in the period from 1929th to 1939th up to the financial crisis of 2008. From the 1970th to 2008th world was hit by 124 banking crises, 208 exchange crisis, 63 debt crisis, 42 double and 10 triple crisis. Charles Kindleberger writes that from the 1725. to date, financial crisis in western capitalist economies happen on average of every eight years (Jurčić 2010, p. 318). Major crises in the last 300 years are depressions in the 1820s, 1870s, 1880s, 1920s, 1970s, 1990s, and then in 2008 (Sharma, Koncul 2013, p. 434). On the basis of written, it is clear that the crisis are the determinants of a modern economy and that their appearance is usually.

That is why today, some economists believe that there should be no greater concerns since the crisis is short-lived phenomenon and is usual for a market economy. On the other hand, many are disturbed by the emergence of crisis and seek rapid macroeconomic reactions. Sharma states that the only certainty is that every economic crisis leads to new business solutions and establishing of new paradigms (Sharma 2010, p. 8).

3. Economic growth

Economic growth represents improvement of the state of a particular economy and the consequent growth of living standard and material wealth of a society. Economic growth may be related to the increase of production, production capacity, or other elements of the economy of a country. As such it is a central political goal (Samuelson & Nordhaus 2007, p. 555).

History of economic growth shows that the global population mainly lived in poverty and had a linear growth rate. Only from 1800. is coming to the incredible changes that implied exponential growth and changing patterns of material consumption (Clark 2007, p. 2). In the period before 1800., a significant part of humanity was living in poverty without access to basic living needs (water, food, etc.). Some authors romanticize this period by creating myths of the golden era of simplicity (Rosenberg & Birdzell 1986, p. 3). Today world population lives better and people are healthier, wealthier, and live longer. Angus Deaton, winner of 2015 Nobel memorial prize in

economic sciences, wrote a book about this, trying to prove that the world is a better place than it used to be.

There are two basic ways to achieve economic growth. First one is called “growth by brute force” and the second is “smart growth”. The first assumes that the economic growth can be achieved by simply adding new inputs - labor and capital which will lead to higher output. The second, “smart growth” implies that technological solutions are the foundation of growth and development of the economy (Baumol, Litan & Schramm 2007, p. 38). Regardless of the way to achieve growth, it is possible to make use of the four basic factors or wheels of economic growth (Samuelson & Nordhaus 2007, p. 558):

- human resources (labor supply, education, discipline, motivation),
- natural resources (land, minerals, fuels, environmental quality),
- accumulation of capital (machines, factories, roads),
- technology (science, engineering, management, entrepreneurship).

A combination of the above factors can achieve economic growth. In doing so, movers of economic growth are entrepreneurs through creation of new combinations of existing factors of production that generates entrepreneurial profits (Schumpeter 2012, p. 133). This sometimes leads to short-term sectoral crises because it involves a change in the existing combination of certain factors. For example, change in human capital leads to layoffs in the old unprofitable and job creations in new profitable industry. While this causes short-term attention and public pressure, Boudreaux argues that prevention of the change will threaten the economic growth (Boudreaux 2014, p. 44). Capitalism should be seen as an evolutionary process (Schumpeter 2008, p. 82), which implies that in the long-term it creates benefits for the whole society. Of course, in the long run we are all dead (Keynes 1924, p. 80), but this does not change the crucial importance of economic growth.

By explaining economic growth and development of the western countries, Rosenberg and Birdzell concluded that the key assumptions of economic growth are: the autonomy of the individual/company, the ability to experiment and diversity of legal solutions (Rosenberg & Birdzell 1986, p. 33). This means that companies have a certain autonomy in relation to political decision-makers, and that they can perform experiment activities through process of trial and error. It is essential too that there are legal forms that accompany modern market trends and allow business operations for as many individuals. The same authors argued that the development of the

West can not be attributed to natural resources, historical trends, inequality, colonialism, imperialism and slavery, because the effects of the above are not immediately obvious as how they appear at first. Economic growth in contrast to the economic crisis has positive social effects. They include increasing the rate of material well-being of individuals, higher levels of employment and the general quality of life. Economic growth also facilitates the transition process, performs a change in cultural patterns, but also strengthens the support network for vulnerable groups. What can also be seen as a result of economic growth is political stability. On the other hand, the economic crisis carries a large number of negative effects on society, which will be discussed in the next section of the paper.

4. Social consequences of economic crisis

The economic crisis in addition to the direct economic effects which include reduction in consumption, decline in living standard and general well-being of a society, increase of unemployment and/or inflation, has a wider social effects that can be felt for several years after the crisis. Among different authors there is no consensus regarding the list of social consequences of the economic crisis. Still it is possible to single out some of them. One World Bank report cited several direct economic and social effects of the economic crisis (World Bank 1999, p. 1):

- Reduced demand for labor, and thus lower employment. Also, reduced wages and lower labor incomes in the informal sector. Women are often most affected by these changes.
- Changes in relative prices, which tends to affect poor people disproportionately.
- Fiscal cutbacks, which leads to reduced public services or transfers, or higher taxes.
- Changes in asset prices—from shares traded in the stock market to cattle or other goods used as savings by the poor.
- Changes in the community environment, in terms of both public health or public safety, bringing increased risks of disease, violence, and insecurity.

From the above it is clear that the economic crisis directly affects the poor, and other vulnerable groups such as women. In addition to that crisis increases total social risks. It is likely to have many dimensions—falling incomes, rising absolute poverty and malnutrition, declining public services, threats to educational and health status, increased pressure on women, and increased

crime and violence (Manuelyan Atinc & Walton 1998, p. 14). Some authors state the following consequences of economic crisis (Knowles, Pernia & Racelis 1999, p. 1):

- rising of prices, unemployment and decreasing of income,
- an increase in poverty and inequality,
- violation of human development,
- reduction of social capital,
- threat to the environment,
- vulnerability of certain categories of the population.

In accordance with the previously listed social consequences, paper will analyze the following consequences of the economic crisis, grouped in three areas:

- unemployment, poverty and inequality,
- political crisis and change of cultural patterns,
- conflicts, wars and the rise of extremist movements.

4.1. Unemployment, poverty and inequality

One of the most visible effects of the economic crisis is the phenomenon of unemployment. It is the failure to use the existing workforce in the labor market, which implies that the economy does not reach the border of its manufacturing capabilities and does not use human capital as the main determinant of the competitiveness of modern economies. Macroeconomists mainly watch unemployment in the context of the decline in real production. As a consequence, employees are laid off and unemployment grows. Therefore, changes in unemployment rates closely track the changes in production (Krueger 2009, p. 17).

Problem of unemployment is particularly present in Bosnia and Herzegovina, where by the currently available data unemployment rate by ILO definition (LFS) is about 31,7% (data for 2014). Youth unemployment rate is as high as 57.9% according to the Regular Economic Report for South East Europe SEE6, which is particularly problematic given that the young usually tend to join extremist movements that are drivers of social unrest, which will be analyzed later in paper. Unemployment is economic, but above all the wider social problem of a particular country. Due to the negative impact of the economic crisis, unemployment in the European Union initially hit men because it affected parts of the industry where they were mainly male

workers (eg. construction), as well as young workers and workers with little education. In high-income countries, generally speaking, in the past male unemployment was generally lower than female unemployment. But since the global economic crisis hit, initially male unemployment rate increased faster than female unemployment in the developed economies, showing the convergence between the two groups (Otobe 2011, p. 10). Women and girls may be disproportionately hurt by the economic crisis too. That is mostly true for developing countries where women are the first to lose their jobs, and families tend to pull their daughters out of school. The particularly poor ones when they are pressed by the crisis, may sell their daughters to brothels or individuals generally connected to human-trafficking industry. Economic decline, the corporate crisis, and a credit squeeze are causing lay-offs, real wage declines, weak demand for new labor market entrants, and falling margins in the informal sector (Manuelyan & Walton 1998, p. 14).

Poverty is also one of the obvious consequences of the lack of economic growth. It usually affects the less developed countries or countries in transition. There are also cases of increase in relative poverty in developed countries. Relative poverty is determined in relation to the overall standard that prevails in a given society (Giddens 2005, p. 317). However, poverty can be considered as the pre-crisis problem, but still it is a vulnerable area that is, further prolonged by the crisis (Manuelyan & Walton 1998, p. 7). Thus, the recent worldwide economic crisis was preceded by an increase in food and energy prices in 2007. and the first half of 2008., that in many countries worsened the public finances and the current account balance of payments and pushed more than 100 million people in developing countries into poverty (Jurčić 2010, p. 317).

In the context of economic crisis, there is an interesting phenomenon called “the new poor”. It describes those who are different from the “old poor” in that they are mostly educated, younger, working age and from urban, previously developed regions in which unemployment rose the most. “New poor” have a good chance to escape poverty as soon as the chance of finding jobs improves. So they are in a “pass-through” mode (Družić Ljubotina 2013, p. 192) which depends on the duration of the economic crisis. The British economist Guy Standing has dealt with this phenomenon with a solution in a form of “basic income”. The core of the proposal is that every legal resident of a country or community, children as well as adults, should be provided with a modest monthly payment (Standing 2011, p. 171).

One of the significant consequence of the economic crisis is the growing inequality that can be viewed as the inequality between different countries of the world, but also the inequality of classes in a given society. Some authors believe that the uneven distribution of national income creates inequality in society, causing financial and economic crisis in industrial society (Jurčić 2010, p. 321). Inequality can be considered a subjective problem because absolute economic well-being does not necessarily lead to happiness. Thus, in Japan for example from 1958. to 2004. revenues per person increased by seven times, while personal happiness fell. Happiness does not depend on the individual absolute well-being, but above all of that, what is his situation in relation to the reference group (Clark 2007, p. 14).

4.2. The political crisis and change of cultural patterns

Young democracies are extremely sensitive to the economic crisis or the lack of economic growth. Economic growth often has a significant role in the development from dictatorship to democracy, but also the other way around, from democracy to dictatorship (Friedman 2005, p. 10). Political freedom is linked to economic well-being (Palmer 2014, p. 103) and comes with a free market and the development of capitalist institutions (Friedman 1997, p. 30). This link is particularly vulnerable in times of crisis when there is public uncertainty. Then, public is wishing for specific, short-term solutions in order to reduce the effects of the crisis. These solutions can jeopardise political stability in the country. Because of this political crisis is the faithful companion of economic crisis.

The transition process, especially in Eastern Europe is promised by economic well-being of society, and the absence of that shakes the foundation of that promise and opens the way for a dictatorship. Such situations could be seen on the example of Hungary, which in the midst of the economic crisis, chose the dictatorship oriented Viktor Orban, who right after coming to power, made the nationalization of the private pension fund in the amount of 13 billion dollars (Simon 2011). There is also the example of Greece, where the extreme left-wing Syriza came to power due to the effects of the economic crisis. The political stability of Russia also depends on the economic situation in that country. This is really important in 2015, due to the recent economic sanctions against Russia. China too is a good example, so Friedman writes that as long as China continues with economic growth, China's citizens will enjoy a greater degree of political democracy and personal freedom provjeriti kod Friedmana kako je napisao (Friedman 2005, p. 11). This is

actually happening, so from 1978. and Deng Xiaoping reforms, China had a significant increase in the growth of living standards of ordinary citizens, but also the level of political freedom in that country. One can still argue that this is not enough, but progress has been made.

Economic crisis may also lead to political populism and extremism. Thus, the Greek politician George Papandreou won the 2009. elections with a simple slogan – “There is money!”. His election rivals, the Conservatives, have previously reduced the salaries of civil servants and other public expenditure (Karsten & Beckmann 2013, p. 71). The problem is that populism leads to a vicious circle that extends the duration of the crisis. What is problematic when it comes to extremism is that dictators are not ready to give up social control in favor of economic prosperity. Most of the world society did not allow this, in the past and present. That’s why they’re still in the poverty trap (Rosenberg & Birdzell 1986, p. 34).

Some authors have linked a high level of economic growth and prosperity with certain cultural values like hard work, patience, discipline, fulfillment of obligations and the like, which is a feature of the economic development of Western countries (Friedman 2005, p. 17). These values were in the service of increasing economic productivity of society, which maintained economic growth. The power of culture in determining economic growth is perhaps best seen by Max Weber, and him describing the “protestant ethic“ that has influenced on the development of market economy and capitalism in general. Authors like Pyrkosz state that the last economic crisis is crisis of ethical values (Pyrkosz 2012, p. 146), and that as such they have to be reinvented.

Economic crisis may lead to change of cultural values where the result is a crisis of morality and the development of negative cultural patterns. Some countries are because of crisis surfacing negative cultural values and phenomena such as xenophobia, racism and the like. The recent crisis shows that the philosophy of hatred feeds itself on the social effects of the economic crisis. In addition, the economic crisis can determinesome cultural characteristics and behaviors. So the Czechs for example, because of the recent economic crisis, decided to reduce the consumption of alcoholic beverages, including beer (Klix 2013) which is one of the important segments of the culture of this nation.

4.3. Conflicts, wars and the rise of extremist movements

In rare cases, the economic crisis may lead to increased risk of the conflict in a certain areas or even in some cases open war. It mostly leads to the appearance of conflict situations, that are states of latent danger of the conflict (Kurtić 2005, p. 527). The economic crisis can cause the reduction of trust and cooperation among the different countries of the world, which creates political tension as can be seen in the example of Germany and Greece in the midst of the Greek government-debt crisis.

Economic growth reduces the possibility of a conflict between countries. This is beautifully expressed in the maxim “when goods do not cross borders, soldiers will², which is attributed to the French lawyer Frédéric Bastiat. Economic growth means growth in living standards for the majority of citizens and mainly involves more opportunity, tolerance of diversity, social mobility, commitment to fairness and democracy (Friedman 2005, p. 4). Peace is thereby the first precondition for economic development (Palmer 2014, p. 37). The war on the other side may be due to economic reasons, primarily the economic crisis which tends to increase conflict situations between countries. Thus, at the height of the global economic crisis in 2011., some authors saw the possibility of the outbreak of World War III, because of the previous experience of the Great Depression and then World War II (Kreitner 2011). Conflicts or in some cases wars could also escalate due to simplicity of government solutions regarding the economic crisis. This is the result of political populism. Simple, but at the same time popular answers to the twelve century economic depressions made by national socialism, fascism or communism, have resulted in the spread of the crisis from the economic to the political field, and finally resulted in a political conflicts in the form of various wars (from world to cold war) and the mass persecution of the civilian population (from Holocaust to the “Gulag Archipelago”) (Cvetićanin 2010, p. 32).

Important feature of the economic crisis is the rise of extremist movements which later may become factor of conflict and wars. Even in democracies, citizens in times of crisis and general uncertainty have shown preferences for extremist movements on both sides of the political spectrum (extreme left and extreme right). Those are mainly movements that are associated with communism on one side and fascism on the other. It is necessary to state that there is no fundamental difference in the economic policies of these movements, which was argued extensively by Friedrich von Hayek,

who concluded that “fascism is the stage reached after communism has been proved as an illusion” (Hayek 2006, p. 29). While communism is a relic of the past, romantic socialism, combining Marx and Rousseau, still attracts a large number of people. Fundamentalist movements like this, celebrate the purity of pre-industrial society (Friedman 2005, p. 13). What marks these movements is a kind of moral height from which they view economic growth which has improved the living standards of billions of people worldwide.

Similar to historical examples when crisis in the 1930s favored the ascent of Nazism and Fascism, the recent crisis has strengthened the national radical parties on the left and the right, which is best seen in Greece (nearly 7% votes in elections received by the neo-Nazi Golden Dawn). Far right is getting stronger in France and the Netherlands too, which hinders the formation of a stable government that could carry out serious reforms, and also strengthens xenophobia. However, giving the fact that in some countries extremist political parties gained parliamentary representation and partial social reputation, it will be difficult for them to have a decisive impact on international relations and developments. Still they should not be ignored (Benić 2012, p. 852). There are four important reasons for the rise of extremist movements in relation to the economic crisis. These are (Giddens 2005, p. 336):

- Changes in the labor market, taxation and policy of minimum wages,
- Increasing social exclusion in local communities,
- Economic poverty and fragmentation of communities,
- Termination of financing of certain government programs.

The economic crisis is radically changing labor market causing an increase in unemployment and creating a potential candidates for the extremist movements. In addition there is an increasing social exclusion on local level, followed by poverty and fragmentation of communities. In times of crisis there is a crisis of the government budget due to the weakening of revenue side. Therefore, the approach to reform budget expenditures includes the elimination of certain government programs, which might trigger deviant behaviors. Finally, it is important to note that the economic crisis has had an impact on the increase in the crime rates. Thus, data from Thailand on crime between 1998. and 1999. indicate that there has been a large number of criminal activities during the financial crisis (Knowles, Pernia & Racelis 1999, p. 37).

5. Conclusion

Economic crises have a significant impact on contemporary society and its citizens. This impact is primarily expressed by economic slowdown in economic activity, a decline in living standards and material wealth of society, increase in unemployment rate or the emergence of inflation, as well as other structural problems. However, in addition to the economic consequences of the economic crisis, there are another much more serious effects that include broader social consequences like the emergence of poverty and inequality, then the political crisis and changes in the cultural patterns of a society, and at the end of conflicts, wars and the rise of extremist movements.

The emergence of the crisis has become frequent due to the impact of globalization and development of information technology, which means that the crisis can spread quickly and in real time. The economic crisis can be seen as part of the business cycle, market adjustments or the fall in aggregate demand. The absence of economic crisis implies greater opportunities for achieving economic growth. As we could see in the paper, the economic growth is characteristic of modern economies and because of that the world becomes richer and humanity develops. That is why today relatively less people are living in poverty. For a country it is better to use smart growth with a long-term perspective and better protection against sudden crises. Growth based on the factors of productions is extremely vulnerable to the impacts of the world economic crisis. To achieve the required level of economic growth, the country needs to create market conditions which will enable unhindered process of creative destruction, with a greater level of freedom for entrepreneurs who are creating the growth.

When it comes to the social consequences of the economic crisis, the biggest problem is unemployment. Namely, due to rising unemployment, there is a spread of other consequences of the economic crisis. That is why unemployment should be the focus of economic policy. This can be achieved through an increase in public works, public investment, as well as support programs for finding a job. In doing so, it is necessary to focus on those directly affected by the crisis. Economic crisis leads to inequality, which means that the various population groups are differently affected by the crisis. The government should first try to solve the problem of the poor, as well as the class of “new poor”, which implies a part of the population that can be quickly returned to the labor market.

The consequences of the economic crisis are most pronounced in emerging democracies, countries in transition, as well as closed or partially closed societies. This happens because there are no clear institutional support that will reduce the effects of the economic crisis. Therefore, for these countries it is important to development institutions to support the wider population. This support may include more investment in programs to help the poor, minority groups, the unemployed and the like.

The economic crisis is also affecting the degree of conflicts in the world, and economic growth is a guarantee for the preservation of peace in some parts of the world. Therefore, the global policy should go towards ensuring balanced economic development, as well as material support to certain countries. This can be done by promoting market economy, as well as increasing global linkamong different countries, especially when it comes to global trade.

It should be noted that the economic crisis may affect social values, which is why it is necessary that the government and other social institutions work to promote positive social values. This is especially true for those values that increase the productivity of labor, which can lead to long-term reduction in the duration of the crisis.

The social consequences of the economic crisis can open a vicious circle that will create conditions for the emergence of a new crisis. Before modern societies lies the challenge of Ensuring economic growth. This will contribute to the spread of positive social values aimed at long-term peace, political and economic stability. At this point, the only guarantee of economic growth is the market economy based on the protection of private property and the rule of law, with minimum state intervention. Countries with this model had the least social problems caused by the global economic crisis. Therefore, it is essential for countries in transition such as Bosnia and Herzegovina and other Western Balkan countries to focus on the establishment of sustainable market relations and fair competition, which should be a precondition for economic growth which will Ensure peace and prosperity in the region.

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ORGANIZING VOLUNTEER ACTIVITIES

ORGANIZARANJE VOLONTERSKIH AKTIVNOSTI

Abstract

Volunteering is the participation of individuals and groups with the proper selection and preparation provide services to a certain population, on a voluntary basis. It is based on the ideas of self-help, mutual aid and philanthropy. Volunteers are non-professionals but with a good selection, preparation and supervision can achieve a high level of professional competence. In almost all countries, volunteering is present at a high level, and every day more and more people acknowledge the need for their contribution to contribute to the community in various aspects of social life. Volunteering at major sporting events contributes significantly to the phenomenon of voluntary service on a global basis. The organizers of sporting events per year involve voluntary thousands of volunteers who have significant roles in the unfolding of events and carry a number of different and specific responsibilities. The aim of this paper is to highlight the importance of the participation of volunteers in sport and sporting events.

Keywords: volunteering, organization, sport event

JEL: L31

Sažetak

Volontiranje je sudjelovanje pojedinaca i grupa koji uz adekvatnu selekciju i pripremu pružaju usluge određenoj populaciji na dobrovoljnoj osnovi. Zasnovan je na idejama samopomoći, uzajamne pomoći i filantropizma. Volonteri su neprofesionalci, ali

uz dobru selekciju, pripremu i nadzor mogu postići zavidan stupanj profesionalne osposobljenosti. U skoro svim državama volonterizam je prisutan na visokom nivou i svaki dan sve više ljudi primjećuje potrebu da svojim obolom doprinosi zajednici u raznim segmentima društvenog života. Volontiranje na velikim sportskim događajima značajno doprinosi fenomenu volonterskog servisa na globalnoj razini. Organizatori sportskih manifestacija angažiraju godišnje na dobrovoljnoj osnovi više tisuća volontera koji imaju značajne uloge u odvijanju manifestacija i nose veliki broj različitih i specifičnih zaduženja. Cilj ovog rada je ukazati na značaj sudjelovanja volontera u sportu i sportskim događajima.

Ključne riječi: volontiranje, organizacija, sportski događaj

JEL: L31

1. Introduction

The notion of volunteering nowadays is on the rise, both in scientific circles and in all other spheres of society. Topics related to volunteering all the more relevant, a number of people interested in volunteering is steadily increasing. It is therefore necessary to explain the very concept of volunteering. So far, the published literature on the phenomenon of volunteering, i.e. volunteer activities, can be found many synonyms such as volunteering, volunteerism, volunteer work, volunteer work. This paper will primarily use the phrase “voluntary activity” and the term “volunteering” as the umbrella terms listed synonyms. There are many definitions of voluntary activities and volunteering, and some of them will be exhibited and explained in this paper.

2. What is volunteering?

Historically, volunteering is typical of many societies from their foundation to the present day. According to Egyptian records, these forms of philanthropy have been reported 4,000 BC. In modern society, volunteering is a basic form of civic activism. Volunteer work is the basis of functioning as local citizens’ associations, and organizations that operate in the wider area. It has been published in a wide range of organizations: religious, humanitarian, social, sporting, non-governmental, etc. Based on this, the volunteers without doubt represent a significant potential of overall social development. Volunteering is a voluntary human activity outside of their regular activities, whether spontaneous or organized, for the benefit of another person, group, organization, society in general, as well as for your personal prosperity while for that activity has no monetary compensation except for reimbursement of expenses.

There are many definitions of volunteering, and volunteer activities. It is common that these definitions have common or points of contact, but in some areas still differ. For example, according to a brochure on Volunteerism issued by the Volunteer Center Zagreb, the volunteer center in Croatia, volunteering is “a non-profit and unpaid activity which individuals/will benefit the community or the entire society, and that occurs in many forms and includes local and national general Voluntary initiatives” (Begović 2006). This definition provides a basic framework for understanding the idea of volunteering. Important elements of the definition are that it is an activity for the performance of which the individual is not getting funding, promotion, material incentives of any form or similar prize and that because of such activities comes to improving the community and society as a whole.

This definition extends one of the most active member of the Volunteer Center Zagreb Ms. Hrvojka Begović, that volunteering is defined as follows: “Volunteering is primarily a way and style of life, closely linked to the human value system. Through participation in volunteer activities that contribute to improving life in the community, people create a sense of responsibility to the community and raise awareness among the full range of values - tolerance, solidarity, unity, intercultural understanding, peace, love, gender equity/equality, the value of non-violent communication, environmental and personal and social development” (Begović 2006). Begović therefore approves the above definition because it also believes that volunteering activities improve the community and society.

Furthermore, Begović, unlike the first definition, states and the positive effects that arise as a result of voluntary activities of an individual, but also society as a whole. Begović also believes that “the experience of volunteering actually learning experience and gain knowledge” (Begović 2006).

This definition expands the meaning of volunteering because it states that the mere act of volunteering one at a time and I’m working on it, that is, comes to the personal development of volunteers.

Simultaneous with helping others, one actually develops new skills, meet new people, changing their opinion and get new knowledge and experience.

2.1. Economic dimension of volunteering activities

Are we talking in general about the division of social activity, all the activities people engage can divide into three sectors: government, private for-profit sector and non-profit sector (Škopelja et al. 2004). In the non-profit sector includes all voluntary activities, the activities of civil society and NGOs. At a basic level, these types of activities and associations belonging to the non-profit sector. However, if we consider all the benefits that such activities and associations bring particular community and society, it can be said with certainty that those very economic contribution to the community and society as a whole.

As we have already pointed out, volunteer activities are solely and exclusively non-profit activities that promote individual self, but also their society. However, why is volunteering so important in today's world? Given that we live in a world where all major material losses and economic dimensions, some authors decided to determine the economic or market value of volunteering. In other words, some authors have tried to determine the economic benefit from the activities of non-profit sector, especially volunteer activities.

The results are interesting and very stimulating to encourage volunteering by any government of the world. In fact, it is interesting to note that, for example, Americans annually spend 15.5 billion hours of volunteer time and "earn" their country amount to 243 billion dollars. Austrians week volunteer 16,700,000 hours and the time volunteer activities has an annual economic value of 8.7 billion euros (Begović 2006). Taking these data into consideration, it is clear why it occurs more and more supporters of voluntary activities and even those of the members of the administration or the private sector. Except for the experience, knowledge, satisfaction and skills that an individual acquires volunteering, remains the economic dimension of his work that contributes to society.

If we compare the results of the same survey in Croatia, volunteers only 5% of the population over 15 years old (Begović 2006). It is therefore necessary to better inform the general population about the possibilities and the positive aspects of volunteering. In the case of young people required element is to inform, but also to education and the free time, which would have given them a solid foundation and good guidelines for better and more positive the implementation of their free time.

3. Volunteers in sport

Volunteer work in sport is defined as carrying out any activities related to sports, in addition to direct participation in sports competition, without any payment except to cover expenses related to concrete work. The aim of this paper is to highlight the importance of the engagement of volunteers in sport. As in any other social segment, and in the sport is very much needed volunteering or activism of young people. Volunteering in sport represents the beginning of a systemic approach to the issue of volunteerism in sports.

According to the Universal Declaration of Volunteerism “Volunteering is a way of establishing ties that reduce the differences between people and by working together, create the conditions for a life together”. Volunteers are one of the most important factors of each institution, events and any form of organized sports. Volunteers and volunteerism contribute to the building of social and human potential, increase citizen involvement in social development and contribute to the successful implementation of all the activities they are involved in. This is a new situation which should be meticulously work and to pay special attention as a scientific and professional factor in the sport, having in mind the lack of technical materials related to this topic in Croatia and the region.

Groups and individuals who may be involved in volunteer work are:

- selected students from universities (not only professional),
- high school students,
- municipal and city sports federations,
- sports clubs and fan groups and the like.

Most sports organizations in Croatia do not recognize volunteers as a strategic resource that can be positively affected through the implementation of their business policies. One of the main reasons for such a poor approach is the lack of a clear perception of who are volunteers and what kind of volunteer work there. Sports organizations are faced with a lack of personnel, especially when it comes to the organization of the competition. On the other hand, young people your own time wasted in idleness, and they need information about the possibilities of participation in sports organizations through volunteer work.

The larger the influence of volunteering in sport would enable better insight into the relationship between sports organizations and potential volunteers.

In this way, a detail for action towards the establishment of a mechanism for promoting, organizing and evaluation of voluntary work in sport. Also, volunteering in sport aims to encourage volunteerism and youth at regional and local levels. The importance of volunteering in sport is reflected in the creation of a close relationship between sports organizations and volunteers, and a significant increase in the number of young people who are engaged in sports activities.

The term volunteering is a novelty in the field of sport, and therefore on its further promotion in the sport should pay special attention to young people realized that the area of volunteerism aimed directly at them, which only just entered into your life, choosing their lifestyles. Volunteer activity of all these young people, given the opportunity for their growth, development and training especially at the professional level. Volunteering in sport, as a specific form is a great importance for the further development of society, the local community as a whole, and particularly in the field of sport.

The International Olympic Committee, as the largest sports organization in the world, recognized the features of volunteering in sport. Today organize special symposia to educate volunteers organized by the IOC in cooperation with the global community. There are involved experts from non-governmental organizations, national and international voluntary association, National Olympic Committees, organizers of the Olympic Games, national and international sports federations and researchers.

The contribution of volunteers in the Olympic Games is a multi-dimensional and their organizations could not be imagined and implemented without the voluntary participation. The role of volunteers in the Olympic Games is not duly recognized in terms of adequate appreciation of their work or by the organizers nor the media.

3.1. Characteristics of volunteers

Volunteering in sport attracts a diverse population, although there is a strong tendency of involvement of male and younger population. Men are more active in sports volunteering in relation to other forms of volunteering, prevailing with respect to the female population in the ratio of two to one (Taylor et al. 2003). Young people are quite active in sports volunteering, especially this tendency pronounced among students.

According to research at the EU level (Low et al. 2007) in 2007 over 47% of youth volunteering waste on sports volunteering. Although there is a large number of young volunteers, their functions in sports volunteering are mainly minor roles, while the function of judges, organizers, protocol, delegates in 85% of cases were over the age of 40 years. Volunteers in sport are recruited mostly from better socio-economic environment, it should also be noted that people with disabilities are quite involved in sports volunteering.

3.2. Motivation of volunteers

As in any volunteering, different factors influence the motivation of people to volunteer in sports events. Motivation varies for each person, but mostly a source in altruism and moral and instrumental attitudes of individuals (Coleman 2002). Altruistic motivation in large numbers present in former players and sports organizations including the desire to work through the expressions of gratitude for the support received during their active sports career and to help the continued operation of the same sports organizations.

Another type of motivation refers to parents whose children are playing in clubs and who want to help in the smooth running of the work of sports activities, statistics show that more than half of volunteers in sports clubs is active primarily due to commitment of one or more children in the sports organization (Nichols 2006). The desire to create new friendships, companionship and a sense of belonging is the third type of motivation that carry social characteristics unique to any volunteer individually.

In the study “Motivational segments and Mindset” (SPARC 2006) that investigated the motivation of volunteers in New Zealand have identified four key motivational guidelines: a love of sports, generosity, acceptance and recognition of environmental groups. Among the younger people altruism and social acceptance are the most important motivators in sports volunteering, but the reasons are instrumental equivalent, namely the wish to help people and sport organizations to be successful, which personally feel fulfilled because their work is reflected in the results and functioning of the organization. Young people also in sports volunteering see a chance to gain experience of life and the development of new skills and competencies to be able to continue to apply in life, while others see their future in the opportunities for a professional career through a variety of professional sports functions. Although there are dominant positive motivation of volunteering in sport, it should be emphasized negative motivations and pressures for volunteering as a fear of financial collapse and dissolution

of the organization, and volunteer “force” to maintain the minimum functionality of the organization because no volunteers are available to replace the existing as unfortunately becoming more and more present reality in all non-profit sports associations in Split and in Croatia.

3.3. Problems and barriers in sport volunteering

Key issues in sports volunteering are recognized in the absence of personnel to fill volunteer positions, difficulties in recruiting new volunteers, and the fact that the existing volunteers switches increasing the workload on fewer volunteers. In recent years due to a chronic lack of money in the sport, there was a decrease in the number of professional positions in sports organizations, but the freight business is not reduce the already switched to the very small number of volunteers in organizations.

3.4. Lack of volunteers

In football as in Croatia’s most populous sport poll HNS performed in clubs at all levels found that more than three quarters of the clubs have a lack of staff to volunteer in clubs, and two thirds said that they do the workload more than doubled the remaining volunteers in clubs. Although the problem is present for more than a decade, most of the clubs stressed that in recent years the issue came to the fore, causing significant difficulties in the normal functioning of organizations. However it should be noted that it is also 40% of clubs recorded an increased interest in volunteering and engagement so it is not possible without more detailed analysis to identify the cause of this issue.

3.4.1. Planning staff

HR planning and succession leading role in sports organizations on a voluntary basis is a significant problem because most organizations do not have any organized control and staffing to the selection comes unorganized, incompetent and unplanned. Unfortunately, in such cases comes to organizational difficulties that often result in degradation of the club in organizational and financial terms, and consequently there is a loss of valuable knowledge and skills that are not transferred to heirs. Given the negative trends and shorter time commitment of volunteers in sport is of utmost importance that sports organizations can plan staffing.

3.4.2. Business overload and deprofessionalization

An increasing volume of work represents a significant burden to existing volunteers and also reject and potential new volunteers. Namely all employees as volunteers in sport emphasize that bureaucratization and paperwork that have introduced new regulations, new requirements at Registration of members, technological changes, new laws on security, sanitary rules create a sense of the volunteers that they are victims of exploitation, which lose their motivation to work and engagement. This condition is in accordance with the aforementioned amateurism of sport and former professional functions. The vast majority of sports volunteers were dissatisfied with the burden of responsibility in the formal and legal meaning. Only increasing technology demands new skills and specific knowledge which holdings trained volunteers reduces and limits the influx of new people.

3.4.3. Lack of time

Lack of free time is a significant impact on volunteering in sport as in other forms of volunteering. Volunteering requires commitment, consistency and above all free time which is contrary to modern living trends, although the middle as Dalmatia, which generally has an emphasis on tourism activities has the specificity that in small communities outside seasonal activities and volunteering abolish lethargic drowsiness small towns out of season. Unfortunately, in urban areas, the pressure of the working hours, obligations to family, commitment of students to teaching and learning for exams as already mentioned problem of increased scope and responsibilities that are required of volunteers, create serious problems in the commitment and perseverance of volunteer work. The desire to volunteer lately among young people are increasingly replaced by the desire for an additional source of income, while the elderly population comes to marked tendency toward resting in their spare time because of increased stress at work.

3.4.4. Attitudes and cultural changes

One on the most important negative attitudes that prevents fluctuation of new volunteers is in the mentality of “pay and play” where the parents do not show too much interest in further engagement in addition to lead and take their children with training and pay a monthly membership fee. Changing the culture and the social perception of people that under capitalism nothing is free further undermine the idea of volunteerism as a sense of activism.

Even when parents volunteer activated, most things only temporarily or equal to the time until the child is active in the club. One recent negative examples is certainly disbanding women's basketball team "Jolly JBS" from Sibenik. After the daughter of the owner retired the basketball, there was a complete dissolution of the club and the disappearance of the same.

3.5. Impact of sports volunteering to the environment

Volunteering in sport has a significant impact on clubs, members, players, environment, society at large and the individual volunteer. "Sport England" leading sport association in England clearly stated volunteering as a vital contribution to the health of the nation, social reintegration and national cohesion, and contributing to the security community and educational progress (Taylor et al. 2003). Sporting activities can make a positive contribution in addressing key social issues of today, such as the general health of the nation, reducing obesity among young people, and community reintegration and social cohesion.

3.5.1. The impact on sports organizations

Disintegration of Yugoslavia and the advent of capitalism, finance associations and organizations is no longer under the jurisdiction of the state, and such organizations are left more or less successfully find their own models of self-financing. Of crucial importance for the normal functioning of these organizations proved to be voluntary activation in fundraising and engagement in contributing volunteer work on functions that enable the functionality of the organization, which allowed the survival of clubs and associations. As a secondary effect of this has led to a reduction in operating costs and more efficient ways of functioning which is a medium stability of the organization. Also it is allowed to continue to operate and to the environment, and actively create the environment that has contributed to the progressive annual increase in enrolment of children in sports clubs in Croatia.

3.5.2. The impact on the players

Simply put, without volunteers, many clubs and organizations would not be able to function, and thus would not exist, therefore sports would have been completely marginalized and non-existent in society. Activism volunteers allows the existence of clubs thus provide thousands of people of all ages the possibility of organized events and sports and recreational

activities. Volunteers to function and thus allow for the possibility of athletes participating. Unfortunately there is no research that could quantify the effect of sports volunteering in general sport activity of Croatian society.

3.5.3. Impact on volunteers

Factual indicators clearly demonstrate that volunteering in sport does not only bring social benefits but also contribute to personal self-fulfilment and the development of new skills and knowledge. Social contributions to strengthening the community, friendship and socialization of new opportunities are emerging as critical motivators to older and younger population.

Volunteering allows the expansion of the network of contacts beyond generational social framework to work together with people of different ages, life experiences and education. There should be added the positive psychological effects that has on the volunteers in building a sense of belonging to society, building the success of the organization, participation in the creation of the common good. While participation in the functioning of an organization of considerable importance for all volunteers, young population has a functional benefit from such activities. Acquiring new knowledge and skills that will enhance engagement of your resume and build self-confidence and gain experience of working in the organized management model creates significant benefits to young people in entering the business world.

According to a survey conducted in England (Taylor et al. 2003) students engaged in volunteer activities are clearly indicated that the volunteers built a stronger feelings of self-confidence, leadership and enhance their organizational and “time management” skills. Eventually it turned out that young people there is a change in motivation and functional motivation overcome stronger forms of motivation altruism.

Young eventually feel the connection with the community and the need for active involvement as in complete contrast to the functional motifs. This clearly indicates the impact of sport as a social cohesion element especially in terms of social integration of youngsters. Of course, there are also negative impacts on volunteers such as the overload of responsibilities and the inability of termination due to lack of adequate replacement.

3.5.4. Community impact

The possibility of active participation and volunteering in sport has a significant impact on the local community. Volunteers enable the functioning of sports organizations that provide recreational, amateur of competition, a children entry to the world of sport and the possibility to develop the professional framework, and are thus the basic backbone of the sport of every society. Access to sporting activities, a large population without volunteers would be totally unthinkable, and thus led to question the general health of the nation's readiness as well as other forms of social and social skills. "Sport England" states that the quality of competition in the sport is directly related to the general moral values in society, and that quality sports structure is the cornerstone in the creation of healthy people with strong moral and ethical values. Key advantages of sports associations in local communities realize they create a sense of community and belonging, enhanced health and preventing obesity, the reduction of juvenile delinquency and less substance abuse.

As mentioned above sports activities enable young people to acquire new skills, opportunities for professional development, and great opportunity to develop talents and achieve professional sports career. The city of Split is known as specific environment that is disproportionate to the population has seen a large number of top athletes, who again by example and activism directed many young people to the sport but also motivate many to actively volunteer in building sport as a basic recognition of the city of Split as a world sports phenomenon. The influence of sports and sports volunteering in the local community on the example of the Split and Dalmatia County is of paramount importance although, unfortunately there are no technical studies to demonstrate how and how sport contributes to the overall mental and physical good condition of the population.

However there is no doubt noticeably larger dimensions sense of belonging and fostering common values and moral principles in the county that have been developed especially to the overall sports activism whole family in Split and Dalmatia County, which is reinforced by the perception of the city of Split as a unique environment that all of its social cultural diversity successfully assimilate into one unit of common moral values and healthy foundations for sports activism of the entire population. It is also necessary to emphasize the importance of voluntary work in organizing the successful sporting events such mega events, which would be almost impossible

without the participation of a large number of volunteers who organized their work enable the functioning of logistic and organizational demanding sporting events, among which we can highlight the Youth Sports Games, which take place every year Split and on which we will elaborate on the phenomenon below.

4. Conclusion

Volunteering at big sporting events is making major contributions to the phenomenon of voluntary service. Also there is a significant economic contribution of volunteering which is why we absolutely must support and continue its efforts to as many people as volunteers. However, there are still some problems that need to be addressed such as the lack of information, lack of knowledge of the needs of young people and their motivational factors, state organizations and institutions for volunteer work. Also wrong attitudes of the environment in terms of voluntary work as soon as you imply and its bad reputation in modern society where “nothing is free” and the notion of altruism is significantly undervalued the company. To minimize these problems, or eliminate there is a need to raise awareness about the appropriateness of volunteerism.

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**ECONOMIC THEORY AND POLITICS /
EKONOMSKA TEORIJA I POLITIKA**

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CONFLICT BETWEEN LABOR AND CAPITAL IN TIMES OF GLOBAL CRISIS IN BOSNIA AND HERZEGOVINA

SUKOB RADA I KAPITALA U VRIJEME GLOBALNE KRIZE U BOSNI I HERCEGOVONI

Abstract

Ideological framework of neo-liberal paradigm and a program framework for the conduct of economic policies established by Washington Consensus intensified the historical conflict between labor and capital. The neoliberal paradigm excludes industrial policy because it proceeds from the neoclassical assumption of equality of labor productivity between countries, and the economic policy suggests the flexibility of the labor market, the absence of inflation and a fixed exchange rate. Such economic policies lead to the reduction of the country's competitiveness at the expense of work. In BiH, these disadvantages to constitute problems for workers' rights violations in Bosnia, which is constituted by Bosnian abolition of work, namely: (1) the neoliberal form of economic development, (2) opening the problems dual labor force and (3) simultaneous existence of structural and cyclical unemployment. Soothing the conflict between labor and capital can be led: first, the more powerful presence of the state in economic development stimulus (leading an active industrial policy and abandonment of macroeconomic stability at the expense of high unemployment) and, second, the opening of the social dialogue with all relevant participants who are interested in social dialogue and social improvement of working conditions.

Keywords: society of labor, society of capital, “abolition of work”, the violation of workers' rights, social dialogue, BiH.

JEL: E2

Sažetak

Ideološki okvir neoliberalne paradigme i Washingtonskim konsenzusom uspostavljeni programski okvir za vođenje ekonomskih politika zaoštrio je povijesni sukob rada i kapitala. Neoliberalna paradigma isključuje industrijske politike jer polazi od

neoklasične pretpostavke o jednakosti proizvodnosti rada među zemljama, pa se ekonomskim politikama sugerije fleksibilnost tržišta rada, odsustvo inflacije i fiksni tečaj. Takve ekonomske politike vode umanjuju konkurentnosti zemlje na štetu pozicije rada. U Bosni i Hercegovini ove nepovoljnosti se konstituiraju problemima bosanskohercegovačkog ukidanja rada, i to: (1) neoliberalnim obrascem ekonomskog razvoja, (2) otvaranjem problema dualne radne snage i (3) istovremenim postojanjem strukturne i ciklične nezaposlenosti. Ublažavanje sukoba rada i kapitala moguće je voditi: prvo, snažnijim prisustvom države u poticaju ekonomskog razvoja (vođenje aktivne industrijske politike i odustajanje od makroekonomske stabilnosti na uštrb visoke nezaposlenosti) i drugo, otvaranjem socijalnog dijaloga sa svim relevantnim sudionicima koji su zainteresovane za socijalni dijalog i socijalno poboljšanje uvjeta rada.

Ključne riječi: društvo rada, društvo kapitala, “ukidanje rada”, kršenja radničkih prava, socijalni dijalog, Bosna i Hercegovina.

JEL: E2

1. Instead of an introduction: neoliberal framework as incentive for conflict of labor and capital

For unsuccessful transition countries, such as BiH, the already expressed problem of the mismatches between supply and demand in the labour market has deepened with the consequences of the global recession: together with the crisis, cyclic cause of unemployment becomes simply added on to the preceding structural unemployment which arised out of many years of failure in the implementation of neo-liberal model of economic development, as well as the Dayton disaggregated labour market of BiH.

The ruling neo-liberal economic paradigm, through the rules of the game “Washington Consensus”, is in the function of strict conservation and stimulation of private mega-capital and financial oligarchy, based on the principles of deregulation, privatization, liberalization of prices and liberalization of the foreign trade (Stojanov 2013). With ethical judgment “the immorality of liberals”, the ideological background of this doctrine P. Krugman (2010) recognizes in its orientation on fundamental grounds: low and stable prices (orientation to zero inflation) and fixed exchange rates. If we take into account the neoclassical treatment of work, expressed through the attitude of flexibility of wages and prices, which assumes that the domestic product is always at its natural level, and unemployment is always the question of the willing decisions of workers not to work, then, in the structure of liberal democracy, we reached basic relations of social

relations - the conflict between labor and capital. Quantitative minimization the significance of the work shows a constant decrease of the relative share of labor in the structure of GDP: in the last 30 years the labor participation fell from 75% to 68%, while capital increased from 25 to 32% (Mencinger 2008, p. 2).

Ideological and programmatic imposition of such a form of the “Washington consensus” to small and for the transition unprepared countries such as Bosnia and Herzegovina, as few critics noticed since the transition started, is logical consequence of lack of understanding of the basis of the market economy and the basis for institutional reforms. This approach, on the one hand, derives from “excessive reliance on academic neoclassical models of the economy”, that understands universal liberalization and privatization “as a sign of success” and not as a means of achieving development perspectives. And, on the other hand, the reduction the economic neoliberalism on a small number of instruments (macro-economic stability, trade liberalization and price with an open economy and privatization), which will very quickly create a market, which will soon to reallocate resources and allocate them to efficient owners. Hence, “the fact that privatization has failed to establish the foundations of a market economy are not a coincidence, but a logical consequence of the way in which it was conducted” (Stiglitz 1998). The end result of this approach, as was pointed critical thought (Stiglitz, 1998; Stiglitz, 2003; Kolodko, 1999; Kolodko, 2000; Horvat, 2007), which is also manifested in the case of BiH, is the following: (1) the private market, without adequate institutional structure, may give impetus only to the process of selling of state assets, (2) if the markets open too quickly to competition, before the establishment of strong financial institutions, existing employment will be further deepened, (3) the policies underlying the Washington Consensus may provide only short-term stability, but no long-term growth.

In contrast, the attitude of the World Bank on the model of macroeconomic policy in Bosnia and Herzegovina speaks of its positive effect on the consolidation of the stability of Bosnia and Herzegovina because of the established price stability and the exchange rate on the strict adherence to a Currency Board regime. In addition, one argues that such macroeconomic policies limiting the potential of BiH economy will be solved “by accelerating key structural reforms, including improving the business environment and increasing the degree of flexibility of the labor market” (World Bank 2005).

Such ideological framework of neoliberal paradigm and by the Washington consensus established programming framework for the conduct of economic policy, sharpened the historical conflict between labor and capital. With such policies in BiH, the labor market is more flexible with the imperative to reduce wages in order to attract foreign capital. In measuring global competitiveness (World Economic Forum 2012), within the VII pillar of efficiency of the labor market, according to the indicator of wages and productivity of BiH stands at 98th position, which is well below its place in the overall scale of competitiveness (according the Sustainable Competitiveness Index - SCI, BiH is on the 88th position out of 144 measured countries). The analogy of research in Croatia (Sever & Associates 2010; Stojanov 2013) says that “the labour is not as expensive as it is commonly argued, “but that labor productivity is much lower than in developed EU member states”. The neoliberal paradigm excludes industrial policy as it starts from the neoclassical assumption of equality in labor productivity between countries, and it suggests, to economic policies, dominant flexibility of the labor market, the absence of inflation and a fixed exchange rate (see previous parafigure of the World Bank to BiH). It is clear that such economic policies lead to impairment of competitiveness of the country at the expense of the position of labour and opening a conflict of society of labor and society of capital.

2. Global recession impinges into subsistence of society of labor

According to the World Bank for South East Europe (World Bank 2015), BiH in 2015 can expect modest economic growth of 1.5%. This is a slight shift from 2012 when it was recorded zero growth. The registered unemployment rate in BiH reached a record level and it is, according to the latest available statistical indicators, 44.4%. In the year of the deepest recession, at 2009, when the growth rate dropped to - 2.9%, 41,000 jobs were lost. At the beginning of 2013, BiH has recorded the highest number of unemployed in its history: 550,574 people, while the number of employees compared on 2011 decreased by 0.3%.

The global recession brings downturn of economic activity, insolvency of the real sector, problems financing the current income, slowing growth and development of companies, depression of spending of the citizens and aggregate consumption. It follows further reduction the sales market and falling production, and according to a survey we conducted in 2009¹,

managers do not exclude the possibility of opening the list of “missing the companies in a time of crisis”.

However, the recession does not bring the mere reduction of economic growth and the expansion of poverty, but also impinge on the existence of “society of labor”, which was, in the past four decades seriously broached by neoliberalism. In the conflict between labor and capital, which was voiced, more than a decade ago, by Latouche as criticism of the triumph of secondary sociality western modernity at the cost of visible deletion of each sociability and suppression of other forms of sociability (Latouche 1998, pp. 80-82), neoliberalism is permanently on the side of capital. But, while the power of capital over labor and the financial domination over the real capital have been pretty blurred by establishment of liberal democracy, the global recession finally crashes neoliberal institutionalized myth of market society in which all participants of the market game have benefit, and reveals that the problem of social relations is not only economic but and epistemological and anthropological. The recession fully discloses “Putting the market” on the side of capital, widening Gorz’s fear (Gorz 1997, pp. 16-17) of the collapse of civilization and the implosion of the globalized world and financelised economy as possible consequences of mass cancellation of work and deterioration of labor substances which can not serve the valorization of capital. Specified attitudes of Latouche and Gorz’s are given according to Mestrovic (2001, pp. 32-33).

Accordingly predicting a drastic reduction of the sales market and the reduced volume of business, according to the above mention survey, the companies announced further staff reductions. In the period of recession duration viewing the structure of qualifications of employees for which the need will seize to exist, unskilled workers dominate (it is expected in 70% of companies). This confirms the thesis that the penetration of economic globalization, whose negative effects on the fate of unskilled workers recession dramatically deepens, reduces the need for unskilled labor. According to the declaration of the majority of managers (90%), workers with higher qualifications will not come under redundancy effect, which confirms the second part of the thesis of the positive impact of globalization on employment creation especially for skilled workers based on modern technology and the economy of knowledge. The demand for highly skilled jobs in the modern economy of knowledge will grow, and the demand for unskilled labor will decline. Unskilled workers will furthermore drop out from the game, while those who can compete on labor market will earn well.

With further technological development and the creation of knowledge-based economy, the need for unskilled workers will become increasingly smaller, and the result will be a growing gap in income. The crisis will increase the flexibility of the market, which brings with it increasing inequality and uncertainty.

Hence the first effects of the recession we find in the world of labor. With tertiarization of economy, labor is included in the process of increasing to a higher level of qualification. This process rejects those members of society who can not fit in it. This is confirmed by the fundamental dynamics of neoliberal exclusion of significant segments of the population with primary market. The conclusion of J. Young (Young 1999, pp. 20-21) is: neoliberalism not only tried to narrow the boundaries of the state, but was allowed to limit civil society. Actuarial *cordon sanitaire* sharply separates the world of losers from the world of winners (according to Mestrovic 2001, p. 39). The index of general social exclusion in Bosnia and Herzegovina, which in 2006 showed that 50.32% of the population “in a certain way excluded from society”, while 21.85% of the population is “extremely socially excluded” (Papic 2009, p. 263), could be significantly increased in the years to come!

Almost half of the managers from the mentioned survey do not exclude the possibility that a certain number laid-off workers could be substituted with the recruitment of temporary and casual workers. By all odds, according to the survey, 80% of managers believe that the remaining workers who retain their jobs will have a reduced wages, while only 20% of managers believe that the crisis will have no effect on the reduction of salaries. It is indicative that most managers would be willing to pay even higher wages to skilled workers in relation to the payment of wages in 2008. In addition, 20-30% of managers expected to open up the possibility of hiring new highly skilled workers.

In the perception of the impact on easing the crisis; managers expect that country start up the salvation of capital. A small number of managers (30% of them) considers that the effects of the crisis can be alleviated by own forces, while the majority (70%) expect help from the state as exclusive authority to pull the companies out of crisis. In the “capital protection”, managers expect from state: (a) tax relief (including the reduction of contributions and taxes, and the write-off of residual taxes and contributions), (b) the protection of domestic production (including incentives such as favorable loans for the

creation of new or preservation of existing jobs, opening credit lines for exporters, subsidized interest rates for investment and activation of allowed anti-dumping measures), (c) the opening of public investment projects that would eventually raise the demand for outputs of economic sectors, as well as encouraging public-private partnerships in the investment activities (d) the preparation of development projects to be financed from EU funds and international financial institutions.

Absent questions related to the “protection of labor”, since it is only 20% of managers who perceived assistance of state through the resolution of social status issues of workers, such as tying years of service to workers and problem solving of retirement of workers on a credit basis. Way to “protect capital”, by sending the workers “on hold”, as a particularly pronounced problem in FBiH, is a rough - it happens that employers by unilateral decisions, without explanation, send the workers on hold, neglecting the employment contract and its obligations, regulated by Article 70 of the Labour Law of Federation of BiH, which concern primarily on financial compensation during the cessation of work. The amount of compensation is determined by the Collective Agreement, book of rules and employment contract, but in practice it is usually determined by the employer and employees mainly seek protection of their rights on this issue in court (SEE Portal 2009).

3. Problems of employees – violation of workers’ rights

Since Charles Fourier, utopian philosopher, first, drew attention to the right to work, this term in XVIII, XIX and XX century is opened as one of the most pressing political, social and economic issues resulting from the treatment of fundamental human rights and material well-being of individuals. By the end of XX and beginning of XXI century approach to protecting the right to work was further complicated by an economic ideology of neoliberalism, and increased global competition, which ended up in the global recession, deteriorated labor conditions and standard of workers. For radical critics of neo-liberal economic ideology in the transition conflicts in society grown tense to such an extent that question can be asked: whether to re-actualize “class struggle”, which is why “it is necessary to revise the thesis about the wear of the idea of class struggle between workers and owners of capital” knowing that “the right to the protection of workers’ rights were transferred to the rights of private owners of property, which obtained authorization to arbitrarily regulate the rights of labor relations” (Golubović, 2008).

In the “specific specificities” of BiH (Stojanov 2000, p. 48), these disadvantages have a special form which determines us to define something that could mark as the framework for violations of workers’ rights in Bosnia and Herzegovina, and which constitutes the problems of *Bosnian and Herzegovinian abolition of work*: (1) neoliberal form of economic development, (2) the opening of the problem of the dual labor force, including the occurrence of atypical forms of work and (3) alarming structural and cyclical unemployment. The right to work and protection of workers’ rights are amongst the largest problems in the field of human rights in BiH, since their violation does not arise from individual cases of non-compliance with workers’ rights, but derives from the system framework and ideological neoliberal form by which BiH develops. A violation of these rights directly prevents economic development and is contrary to the stable democracy and the functioning of markets in general.

It should be noted that in BiH one approach is seen and truly can be found in other countries, and is concerned with the problem of dual labor force in the workforce. In fact, there are those who work in state and public sector, in some large companies - whose rights are protected and covered by collective agreements. Unlike them, there are a large part of the workforce that is completely unprotected, from those who work illegally, those who work in small private enterprises where there is no union organization, to those who work in sectors where the average wage is less than the amount needed to cover montly basic needs – as known as “the consumer basket” (manufacturing, construction, trade and catering) and those who work in companies in bankruptcy.

Workers’ rights in all these cases are not covered by trade union action, collective agreements, and is estimated that their number in BiH reach up to 350,000 workers. According to research carried out by the Center for Investigative Journalism (CIN), of this number, more than 240,000 people are working on the black labor market surviving on low and irregular salaries earned on such way. The most frequently violated rights of workers are related to: termination of employment, payment of accrued salary that are not paid, and severance pay (SEE Portal). As an illustration, it is stated that the provisions on termination of employment due to economic, technical or organizational reasons, as a result of inability of employee to perform work duties from employment (Article 87 of the Labor Law of FBiH and Article 124 of the Labor Law RS) are set wide and imprecise and leave open the possibility of abuse by employers. The legislator did

not defined precisely “what is deemed justified dismissal”, but it was left to the “free assessment of the employer”. Beside that, blurs are second part of “regulations concerning the liabilities of employees, and it is again left to the assessment of the employer”,.... so it is “easy to get into a situation that, for exaple, judgment on health capabilities of worker to carry out a job, is left to incompetent employer instead of experts from institutions responsible for health care”. In a wider context here, one would include the violation of rights in the field of ethnic difference of the workers who find themselves on the “wrong territory”, arising from the Dayton constituents, which remains a remarkable powerful source of human rights violations in BiH (Stojanov 2000). Ethnic (territorial) fragmentation and common disunity of trade union organizations, which relativizes their convincing position they advocate, reducing the chances of social partnership of trade unions, employers and the state, that in democratic countries includes formalized and informal forms of cooperation and harmonization of conflicting interests of the three sides on the regulation of labor and labor market. The general conclusion from the applied form of economic transition, from which are derived all described “cases”, reads as: *violation of the right to work in BiH have a systematic character!*

Pattern of transition and post-war reconstruction of “Dayton” BiH are constantly preoccupied with the problems of building a liberal society (markets and democracy), but more of his political than economic content which has consequently left in the shadow the economic and social rights or at least positioned them in the second row of social objectives in the country. This systematic neglect of these rights, which have hardestly struck precisely workers’ rights, derives from at least four reasons:

The first reason is that the main attention after the democratic changes is focused on the protection of civil and political rights while socio-economic rights are neglected. That is the first paid tribute to the primary political goal of transition which had to be radical incapacitating any thought on the restoration of the previous political nomenclature. Second, the economic development of the country is entirely based on the neo-liberal pattern, based exclusively on macroeconomic especially financial stability, which neglected the real sector that creates the material preconditions for job creation and application of the right to work. The first consequence of this quasi achieved macroeconomic stability in the country is alarming unemployment. Such situation threatens to breakdown the entire system of social protection to which it is not possible to answer using the classic measures to protect

workers' rights. Third, political tensions and ethno-national divergence lowered the threshold of social sensitivity of working classes, substituting them with theses on national endangerment, which are above the vulnerability of workers' rights. And finally, what further complicates the protection of these rights are known problems with the justice system and the efficiency of judicial protection of workers' rights. From the many examples in practice we testify that litigations are too long and that, prolonging the agony of those in violation of these rights, means endangering their basic living existence. This is due to the lack of development of legal mechanisms, particularly marked in the case of bankruptcies. As a result, today we have: the weak and divided unions, explicit grey labor market, then inactive professional organizations that should be involved and insufficient pressure on the state to fulfill given rights.

BiH's economic development is based on a neo-liberal form, solely based on macroeconomic, especially financial stability. Reduced market transformation of Bosnia and Herzegovina in a very narrow number of elements in which it is developed above all on macroeconomic stabilization, where country enjoys exclusive and only stability of, so-called nominal indicators and they are: stability and convertibility of the local currency, fixed exchange rate and low inflation.

Actually in BiH is more than in other transition countries (neoliberal) pattern of stabilization is entered as the dominant economic goal in which monetary policy were given simultaneously or alternatively two tasks: development and stability. Supported by other measures, monetary policy gives some results in overcoming the recession and curbing inflation, but experience shows that successfully does not eliminates the second problem: when it overcomes the recession it does not bridle inflation and when inflation is restrained, it does not provide sufficient development (Perišin & Šokman 1988).

Monetarist fallacy ignores the structural characteristics of the real economy - economic growth, current account and unemployment, and the economic success overemphasizes the role of low inflation. The latter case is confirmed by the example of BiH, in which, every macroeconomic stability is fragile if there is no acceleration of the economy, and increase productivity and thus the competitiveness of the country. With axiomatic view that macroeconomic stability is a precondition for sustainable economic growth, application of the neoliberal concept is by far well contributed to the establishment of a

quasi macroeconomic balance in the country, with alarming registered unemployment rate. With the failure of economic reforms, the need to develop protection of economic and social rights of workers has been completely ignored, and the fragility of protection in terms of the global recession was created.

4. Conceptual disagreements between Bosnian and Herzegovinian economists as theoretical foundation of support to society of labour and/or society of capital

The underlying divisions present in domestic economic opinion in BiH today are similar to those which appeared at the beginning of the transition process in most former socialist countries: there is a dominant group which is markedly neoliberal in orientation, with a second group that is critical of the application of ready-made neoliberal nostrums, and a third group of observers, preoccupied with issues which lie outside the contested areas in current economic thought (Hodžić 2015, pp. 32-47).

4.1 The neoliberal group of Bosnian and Herzegovinian economists

The neoliberal group developed a certain faith in the power of the market as the answer to all the country's developmental problems and so adopted and continues to promote, within that framework, the neoliberal option of building a market society in Bosnia and Herzegovina. Such opinions are, in fact, an expression or version of the neoliberal principles of the Washington Consensus as taken over and introduced into the country by representatives of the international community, the real standardbearers of the process of transition, and so of macroeconomic stabilisation and privatisation. Consequently, for the dominant current, acceptance of liberal doctrine has rather been an expression of political and ideological allegiance than one of the authentic production of liberal ideas within the country.

In any case, there has not been enough time for a domestic liberal worldview to develop, particularly since liberal ideas have not traditionally a historical foothold amongst Bosnian and Herzegovinian economists. During the period of socialism, there was no indigenous development in BiH even of the Yugoslav polemics on property-based and non-property-based conceptions of social property, the property-based ones of which reflected a certain liberalisation in attitudes towards ownership. In fact, it has, for the most part and somewhat indiscriminately, been the members of the governing

institutions and their economic advisers who have presented these ideas, both explicitly and implicitly.

They are regularly the co-authors of studies produced by the World Bank and the IMF on the economic problems of or development projections for BiH. Moreover, their approach has involved less robust advocacy of radical and comprehensive neoliberal prescriptions for transition in BiH, than simply reflected the acceptance and adoption of neoliberal nostrums, without any serious theoretical discussion and certainly without any grounding in the original ideas of the leading advocates of radical and comprehensive neo-liberal prescriptions for transition (like Sachs, Lipton, Gros, Steiner or Kennett and their respective packages) or in the views of the political creators and standardbearers of the economic policies of transition (during the first decade of the implementation of transition, the leaders in promoting and actually implementing liberal ideas included V. Klaus in the Czech Republic, Balcerowicz in Poland, Gaidar and Chubais in Russia, and P. Aven and M. Laar in Estonia). The promoters of these and similar neoliberal approaches in BiH included: Zlatko Hurić, former chief adviser to the Council of Ministers of BiH, and professors Hasan Muratović (former Chair of the Council of Ministers of Bosnia and Herzegovina), Jadranko Prlić (another former member of the Council of Ministers of BiH), Stijepo Andrijić, Slaviša Raković, Meho Bašić, Marko Beroš, Mirko Marković and Novo Plakalović. This group presented a neoliberal vision of economic growth, macroeconomic stability and liberal democracy based on a general model of an open economy and a shock therapy approach to transition in BiH (rapid and thoroughgoing privatisation, heavy reliance on small to medium enterprises as the new paradigm for economic development, and the fragmentation of large industrial combines, etc.). In the first flush of enchantment with private ownership, one of the protagonists of these opinions proclaimed that “the character and reach of the current war in BiH and Croatia is significantly connected to the absence of private property as the dominant form of ownership” (Beroš 1994 p. 11).

Most of the developmental studies and documents sponsored by the “international community” were based on some concept of neoliberal reform and the real degree of participation by local economists as co-authors of the studies is quite unclear, that is, whether they played a real role in drafting the studies or were simply added as co-authors on the basis of positions held in various ministries and government agencies, particularly as a number of them would later express significantly different positions in their own

works (examples include professors Mladen Ivanić, Mirsad Kikanović, Jusuf Kumalić, and Mesud Sabitović). The contingency of their support for neoliberalism, as expressed in official documents and official statements, was clear, in so far as it was often abandoned once these authors were at work in independent, local publications.

From the series of such cases, we may single out the examples of Ivanić's textbook on the *Principles of Economics* (Ivanić, 2000), which even retains Marxist terminology to a certain degree, of Sabitović's text in the collection on "The impact of the transformation of ownership on unemployment and employment" (1999, pp. 41-49), of A. Milojević, who in later statements to the media (2010-2015) called for "a return of the state to the economy", and even of Prlić himself, whom we have already met as one of the foremost advocates of neoliberalism in BiH, who himself admits "that a simplified understanding of the Washington consensus for political propaganda use in trivial pseudo-academic constructions does not provide an adequate formulation. This is particularly the case, when there is a form of macroeconomic equilibrium (albeit with high levels of unemployment)." One of the protagonists of this group has even claimed that, during the current period of recession in BiH, "there is, for a country like ours, now no alternative to the concept of market economics and liberalisation" (Prlić & Marić 2008, p. 477).

Amongst local studies driven by this concept, it is worth mentioning the *Mid-term development strategy for 2004 to 2007* (Sarajevo, 2004), which advocated further liberalisation and opening up to foreign markets, and the *Private Sector Development Plan*, developed under the aegis of the International Business Forum *Perspektive – Tuzla* (1999), and which included no fewer than 38 tailored measures, including a call for bolder penetration by the private sector of communal services and the infrastructural sector and of health insurance and pensions, along with a restriction of workers' rights in labour law, as well as a withdrawal of any form of lending to companies not in private hands.

4.2 The critics of the neoliberal proposals

The second group of economists took a critical approach to the application of off-the-peg neoliberal prescriptions, particularly in an unprepared country like BiH. This was an ideologically and intellectually diverse group of critics of neoliberal nostrums, including some advocating pro-Keynesian viewpoints (Dragoljub Stojanov, Dušan Jakšić, Žarko Papić, Kadrija Hodžić,

Fikret Čaušević, Manojlo Babić, and from 2010 Aleksa Milojević), others advocating a form of welfare liberalism (Esad Vilogorac, Boris Tihi, Anto Domazet, Nikola Grabovac, Rajko Tomaš, Vjekoslav Domljan, Fahrudin Šebić, Svetlana Cenić, Mirsad Kikanović, Damir Miljević and Izudin Kešetović), and a few representing traditionalist socialist views (Mićo Carević, Franjo Kožul, B. Bijelić, Sabrija Pojskić, and Dragutin Bošković), while more recently this space of critique of the global neoliberal and transition right wing has also been occupied by a group of young new-leftists, led by Vuk Bačanović. The first two groups, but particularly the pro Keynesians, advocate a gradual approach to transition in BiH and in general, follow a similar critical orientation and espouse similar critical views to their global colleagues J. Stiglitz, D. Ellerman, D. North and G.W. Kolodko, and others, for whom the lesson of the neoliberal project of transition is that it is essentially a banal experiment with no proper scientific basis, and indeed to those developed by colleagues of a similar orientation in the other countries of South Eastern Europe (including B. Horvat, J. Mencinger, S. Zdunić, V. Baletić, O. Kovač, and D. Vojnić).

The fundamental and consistent critique directed by the pro-Keynesian economists at the transition package for BiH boils down to a critique of the policy of privatisation and macroeconomic stabilisation combined with excessive dependency on the concept of small-to-medium enterprises. Their concrete objections to the transition package are: firstly, that it reduced macroeconomic stabilisation to a rigid monetary policy and “a sound fiscal policy”, an approach which left no room for an active economic policy and in which discretionary fiscal policy is entirely disregarded; secondly, that macroeconomic stability is tabled as a goal of transition and not a principal precondition, which has contributed to establishing a quasi-macroeconomic equilibrium in the country, accompanied by alarming levels of unemployment and a balance of payment deficit, a model of reductive macroeconomic stability that has been characterised as “nominal, but certainly not true stability” (D. Stojanov, in a number of works between 1997 and 2008) or as “quasi-macroeconomic stability” (K. Hodžić 2006); and thirdly, that privatisation as carried out involved distinct risks for the future of Bosnian and Herzegovinian society (D. Stojanov 2000; M. Babić 2006), both because it was a form of “ethnic privatisation” and because of the long fostered, but unrealistic expectation that privatisation would, in and of itself, lead to increased economic efficiency and so, over the long-term, to increased employment. We may note a distinguished continuity of such critical reviews of neoliberalism (by such authors as Papić, Čaušević,

Stojanov, Domljan, Domazet, Tomaš, Hodžić, and D. Miljević), published under conditions both of growth and of global recession, in three issues of the distinguished journal, "Forum Bosnae," between 2008 and 2011, entitled respectively: *The Economics of Rapid Development* (2008), *The Crisis of the Bosnian and Herzegovinian Economy* (2009) and *The Economic and Social Future of Bosnia and Herzegovina* (2011).

The traditionalist socialist critique of the free market and of privatisation has been offered by left-wing intellectuals from scholarly neo-Marxist circles. In so far as privatisation is the key distinguishing element of the transition package, we find a greater focus of attention amongst left-wingers on problems of ownership. At play are more or less negative and reactionary responses to the results of the project of privatisation and transition generally. Most of them find even the phrase transition unacceptable and speak more readily of reforms. It can, nonetheless, sometimes be difficult to distinguish them from the Keynesian advocacy of gradualist privatisation: on the one hand, they all share practically the same critique of the shock therapy approach to privatisation, while on the other all agreeing that private ownership cannot be the fundamental form of ownership relations. In contrast to the preceding set of opinions, however, the necessity of privatisation itself is being questioned here. In most cases, we are in fact dealing with advocates of some form of workers' capitalism, who remain attached to the idea of workers' co-ownership (popular capitalism with worker-shareholders as the method of privatisation). This approach had many adherents at the beginning of transition throughout the former Yugoslavia, and was represented in BiH by a collection published before the war on "The Introduction of Internal Shareholding in Social Enterprises and the Reorganisation of these Firms into Shareholding Companies in Ownership" (1990).

After the war, a certain number of economists continued to advocate the idea of employee shareholding as the most acceptable method of privatisation (S. Pojskić). In their critique of privatisation, they start from an elaboration of the negative aspects of privatisation, while for Mićo Carević privatisation it lacks any positive correlation to economic and social development certainly does not represent "an economic necessity", as it is "an ideologically and politically driven speculative measure", aimed at reducing transition to a "restoration of capitalism" (Carević 1997, pp. 128-132). He even introduces a version of conspiracy theory, with regard to "new forms of enslavement" by the West. Such pointed criticism of the privatisation programme has been published under the influence of left-wing critics of globalisation

and transition, in particular the Moscow Journal, *Voprosiekonomiki*, which has developed its critical tone regarding transition and change “within the context of a discussion of problems related to seeking a new paradigm for native economic science”, and taking a stand against the “domination of Economics” (e.g. the text by A. Buzgalin and A. Kolganov from 1998).

Such publications include the Belgrade published *Ekonomski anali*, whose critical editorial line regarding “the imposed liberal approach, which is unsuitable for the development of former socialist countries” (e.g. texts by M. Eremić, M. Marković, O. Kovač, M. Jakšić and others) was set particularly by the former editor, Professor BogdanIlić, and Šuvar’s *Hrvatska ljevica* which has been filled by such texts, particularly by leftist authors like B. Denić, M. Križan, S. Žižek, V. Tkalec and S. Šuvar. More recently (after 2010), a “United Front for Socialism and Democracy”, has appeared, particularly on web portals (e.g. radiosarajevo.ba), bringing together younger Bosnian and Herzegovinian left-wingers, led by Vuk Bačanović, and presenting a radical critique of neoliberalism, while looking for new paradigms for socialist economic solutions, or, as they say “for transformation of the economic system into a humane economy” (2011).

5. Conclusions

The area of labour rights in BiH is unsettled, social dialogue undeveloped, social inclusion almost unknown, economic situation in the country is critical; to large extent the existing positive legislation and the provisions of social and labour policy are not applied. Given the neoliberal perspective, underestimation of society of labour is due to last long. Mitigation of conflict between labour and capital in BiH is possible to lead on two levels.

The first implies a stronger presence of the state incentives in economic development (overcoming quasi macroeconomic stability and conducting active industrial policy). Second, it is necessary to open the general social dialogue in which it is necessary to retract all the relevant factors, from trade unions, employers and government to NGOs, political parties, who are interested in social dialogue and social improvement of working conditions. On the other hand, it seems relevant a thesis of Z. Papic (2008, p. 283) of the “economy of accelerated development in the framework of concept of human development”, and that concerns a “radical reversal”, first in strategies, and then in policies”: current “cost” in the social aspects of development could become “investment” – social inclusion would have changed the character of

the traditional social protection, from help to passive users towards inclusion into the labour and social life.

Conditions of work, education or active labour market policies can not be the sole responsibility of the state, nor entirely left to market forces. The social partners can play a key role in defining, explaining and implementing these policies.

Market and social solidarity are not contradictory, as *the maintenance of employment is the most important instrument of social cohesion in society*. Quality dialogue between representatives of workers and employers can help BiH to get through the economic crisis. However, the absence of strong autonomous and independent social partners in BiH, reduces the potency of the collective negotiations and settlement of labour disputes, making it necessary to “expand the scope of dialogue through collective agreements”, and “initiate consultation and dialogue with social partners on a wide range of issues related to labor and employment, including dialogue on labour laws, employment and labour and employment policies” (Employment Strategy Federation of BiH 2008, p. 101). In the long -term context, the first and foremost thing in order to protect economic and social rights is to change the theoretical and ideological paradigm. The current pattern of economic development was based on the reduction of transitional package, on privatization and restrictive monetary and financial policies, where, the need for more dynamic economy and job creation is completely ignored or cast aside. Solutions for the economic and social future of BiH have to be sought in changes in economic dogmas and political settings.

This change can be expressed as follows: approach to economic growth that is based on the economics of production, instead of the applied concept based on the economics of demand and free market. Second, the opening of the positive impact of approaching the EU: EU directives which need to be applied, imply permanent control of realization of social and economic rights of workers, which represents the core of the European social model, which, inter alia, refers to issues (the candidate countries) such as protection of the right to work, then the relationship of male and female workforce, then also, related to the family rights deriving from labour, etc. The rights and obligations of labour relations, therefore, must be determined in accordance with international standards and the European Convention on Human Rights and Fundamental Freedoms. However, in BiH, the first assumption is not fulfilled, since there is no unified Law on Labour Rights,

but the Constitution of BiH obliges the entities to implement international regulations and standards that refer to social dialogue.

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Endnotes

- 1 Survey entitled "The impact of global recession on the (un)employment in the metal sector in Tuzla Canton" for 2009 we have carried out for the needs of the Cantonal Committee of Independent Trade Unions of TK in February 2009. No matter how territorial and sectoral limited, crisis paradigmatic metal sector provides a valid analogy with the situation and trends in the relationship between labor and capital of BiH as a whole (see: Hodzic 2009).

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TRANSFORMATION OF MEANING OF TERMS IN THE NEW KNOWLEDGE ECONOMY AND ECONOMIC SOCIOLOGY

TRANSFORMACIJA ZNAČENJA POJMOVA U NOVOJ EKONOMIJI ZNANJA I EKONOMSKOJ SOCIOLOGIJI

Abstract

In this paper, the authors formulate an interdisciplinary referential framework. Their main interest is related to the epistemological complexity of the economic research methodology in explaining the meaning of socio-economic consequences of globalization and transition. The paper shows that all the terms used in social sciences are changeable social constructions rather than forever defined givenness. Terms are social products and their meanings are changed in symbolic and other forms of interaction among people and communities. The root of economics is a rational individual (homo oeconomicus) that strives to maximize one's personal gains. However, that is not enough. The aim is to show that research hypotheses cannot be replacements for theories and values, such as a body cannot be a replacement for spirituality. Research perspectives should be thoroughly, not superficially presented and explained in the light of "small details" that do not fit into the dominant story or discourse. Facts, events, and phenomena must be presented in their relation to other facts, events, and phenomena. Facts mean nothing outside reflectively and critically mediated knowledge and specific context. A popular method of data collection or attitude research, by means of a public opinion survey, may become absurd if one day, under the influence of the social media and poor education, most subjects lose their ability of balanced thinking and judgment. Hypothetically speaking, this is possible. The aim of the paper is to show the tendencies for minimizing the importance of theoretical work and of book reading and eliminating thoughtful studying from lectures and research process, all in the name of "pleasure" or in

the name of creating the global knowledge society. We argue in favour of phronetic interdisciplinary research that might contribute to responsible dialogue and practice of rethinking these tendencies, which is the most important result of this paper.

Keywords: knowledge economy, economic sociology, triangulation

JEL: Z1, B4

Sažetak

U ovom radu obrazujemo interdisciplinarni referentni okvir. Zanima nas epistemološka kompleksnost metodologije ekonomskih istraživanja u objašnjavanju značenja socio-ekonomskih posljedica globalizacije i tranzicije. Pokazujemo da svi pojmovi koje koristimo u društvenim znanostima predstavljaju promjenljive društvene konstrukcije a ne zauvijek definirane datosti. Pojmovi su društveni proizvodi, a njihovo značenje mijenja se tokom simboličkih i drugih oblika interakcije između ljudi i zajednica. Osnova ekonomske znanosti je racionalni pojedinac (homo oeconomicus) koji teži maksimizirati vlastite dobitke. Ali to nije dovoljno. Želimo pokazati da istraživačke hipoteze ne mogu biti zamjene za teorije i vrijednosti, kao što tijelo ne može biti zamjena za duhovnost. Istraživačke perspektive trebaju biti podrobno, a ne površno predstavljene i obrazložene u svjetlu „malih detalja“ koji se ne uklapaju u dominantnu priču ili diskurs. Podaci, događaji i pojave moraju biti predstavljene u njihovim vezama sa drugim podacima, događajima i pojavama. Podaci ne znače ništa izvan refleksivno i kritički posredovanog znanja i konkretnog konteksta. Popularna metoda prikupljanja podataka ili istraživanja stavova metodom ispitivanja javnog mnijenja u praksi može postati besmislena ukoliko većina ispitanika pod utjecajem društvenim mreža i lošeg obrazovanja jednoga dana izgubi sposobnost uravnoteženog mišljenja i rasuđivanja. Hipotetski govoreći, to je moguće. Cilj rada je ukazati na tendenciju da se u ime „zadovoljstva“ ili u ime stvaranja globalnog društva znanja minimizira važnost teorijskog rada, važnost čitanja knjiga, pa, čak i da se promišljeno studiranje isključuje iz nastave i procesa istraživanja. Zalažemo se za fronetička interdisciplinarna istraživanja koja bi mogla doprinijeti odgovornom dijalogu i praksi preispitivanja navedenih tendencija. U tome je možda najvažniji rezultat ovoga rada.

Ključne riječi: ekonomija znanja, ekonomska sociologija, triangulacija

JEL: Z1, B4

1. Introduction

At the beginning of the 21st century, it is permitted to state that human beings are faced with economic, ecological, and security challenges, that is, issues, that are unprecedented in the history of this planet. When

unemployment is above 30 percent, what sense does neoclassical concepts of poverty, opportunity costs, determining role of individual preferences, lack of unused sales profits, and many others, have? What sense is of the unavoidable buzzwords (phrases, empty phrases) from the arsenal (jargon) of new knowledge economy, such as efficiency, effectiveness, excellence, quality, satisfaction, sustainability? Is there a problem of insufficient consideration of the actual meaning of the named terms? Is there a problem of their imprecise use in economic analysis? The answer to both of these questions, justified in this paper, is yes, there is. However, the existence of this problem is not recognized as a true scientific problem, primarily due to the fact that the new knowledge economy shows a strange affinity to turn all problems into *challenges*, thus avoiding facing real problems of real people that live in real communities. A significant number of almost uniform papers, from the field of new economics that are published without previous critical work on qualitative analysis of the meaning of key economic and political terms used in such papers. The penetration of technical vocabulary through all these processes and procedures of the societal and institutional legitimization, self-legitimization, and evaluation of science and scientific work – is not perceived as a foundational scientific and methodological problem that eliminates in advance the need for *orientational* knowledge, and it creates almost ideal conditions for “expert dissemination of ignorance” and nonsense. When politicians and “economics experts” are left speechless, they most often talk about “sustainability of something”, whatever it may be (Sagoff 1989, Furedi 2005). Economics and economic politics have gotten stuck deep in the quick sand of empty phraseology that was their creation. “Everyone may speak all they wish under the condition that they do not say anything” (Monbiot 2003). What is, for example, the aim of economic efficiency? Efficiency implies optimal satisfaction of consumer preferences. Efficient market is a market in which more and more people get more than what they are most ready to pay for. However, why would we, as a society, especially when we consider ecological issues (that are very significant for public health of people and communities), assume satisfaction of personal preferences as the most important goal? Why would that be a goal of official politics when we recognize the obvious and we admit that many of the personal preferences are silly, stupid, vulgar, dangerous, immoral, criminal, and so on? Why would we consider that satisfaction of racist, criminal, stupid or sadistic preferences is a good thing? Scientific orthodoxy does not feel the intellectual need to oppose reification, bureaucratization of economic language and methodology. In prevalent practices of education from the field

of economic methodology, the fact is neglected that dry hypotheses and quantitative variables cannot act as a replacement for theories and values, such as the body cannot be a replacement for spirituality. It is wrong to analyze ecological and security catastrophes that continuously quake the planet Earth, only with quantitative instruments of economic analysis and through the glass of the econometric cost-benefit analysis.

2. Previous critical researches on the meaning of economics terms

Since the 1960s, many studies have focused on numerous criticisms of the homo oeconomicus and the methodological individualism (Zanini 1997, Dow 2003, Cohen 2012). Reassessing the sense, the meaning, and the cognitive reach of the basic economic terms and the practice of their activities, became more intensive after the publishing of Rachel Carson's book, *Silent Spring*, in 1962. This book has become a manifesto of the ecological or sustainable economics. This is partly due to the fact that the dimensions of ecological issues are rarely limited by specific boundaries of any special discipline (Miller 1994).

Jane Mansbridge's book, *Beyond Self-Interest*, represents a useful collection of essays on criticism of the economic reductionism, and Graham Dunkley's book, *Free Trade: Myths, Realities and Alternatives*, represents an informative review of how the *free trade* begun to threaten whole societies and cultures. A story of a salutary character of free trade has turned into a dangerous myth. Many authors that pay attention to the analysis of meaning of founding terms in the economic theory and politics consider that it is necessary to use a much larger number of methods and criteria than used in the conventional or orthodox economics. The subject is the economics that has become an extremely narrow discipline with too great, almost absolute, pretensions on the scientific status of its statements that are becoming largely ideological and are increasingly less corroborated with scientific proof. In the series of articles compiled into the book *The Economy of the Earth: Philosophy, Law, and the Environment* (2007), Mark Sagoff develops a perspicacious and a convincing example against resorting to the economic analysis as a dominant weapon of creators of ecological politics. The neoclassical approach is represented in detail in the collection named *Managing the Commons* (San Francisco 1977), which was edited by Garret Hardin and John Baden. Strengths and weaknesses of the economic theory and politics were also illustrated in a paper written by Gary S. Becker (1930-2014) from the University of Chicago. Becker won the Nobel Prize in

economic sciences in 1992, because he broadened the domain of economic theory to those aspects of human behavior previously examined by other disciplines, such as sociology, demography and criminology. The principle of *rational choice*, as a foundation stone of *quantitative modeling*, states that people try to maximize their satisfactions by acts founded on calculations. Becker encouraged his economics colleagues to broaden their views and include subjects of study from other social sciences. He researched human capital, racial discrimination, crimes, drug addiction, etc. He encouraged his economics colleagues to consider desires that are altruistic, loyal, defiant and masochistic. All these forces – he stated – influence rational choices.

A significant contribution to critical researches of the meaning of economics terms was given by the authors that worked on qualitative merge or criticism of certain aspects of economics, ecological and ethical analyses. Therefore, we may emphasize a series of authors, such as: Piero Zanini, Graham Dunkley, Richard Swedberg, Fran Tonkiss, Iver B. Neumann, Andrew Heywood, Anthony Giddens, Bent Flyvbjerg, Manuael Castells, John Elster, Francois Walter, Amory Lovins, G. Tyler Miller, Susan Armstrong, Richard Botzler, Louis Pojman, Christine Pierce, James Sterba and Michael Zimmerman.

3. Research methodology: the necessity of qualitative methodology application

There are economics practitioners that believe that economics is an exact science such as physics or biomedicine. They believe that economics methodology should mostly be based on methods and techniques of a natural science. This assumption does not need to be accepted in a non-critical manner, but it should be considered in a relational, dialogical context of the latest economic, ecological and security crises. Seemingly separated fields such as economics, ethics, security and ecology should be re-contextualized and considered in a unique epistemic key. Absolutism of the quantitative variables and abstract mathematical models, in the economic analysis, has exceeded every reasonable limit, turning into a quantophrenia that produces many damaging consequences: “Methodology does not consist of pointing the finger, and many confuse it with this” (Dow 2005, p. 11). We apply the *methodological pluralism* in the frame of open and *multi-paradigm* understanding of all social outputs as results of science and its practices. Facing the negative consequences of *neoliberal world globalization*, as well as, the negative *ecological* and *social* consequences of the economic

and political transition – reveals the failure (deficit) of the classic market economy and the deficit of methodology that lies in its basis.

The subject of economic science is variable. That means that both, theories and methods of the economic analysis, must become variables, that is, subject to intellectual processes of interpretation of their meaning (Mansbridge 1990). The variability of subjects of economic theory opens a possibility that some theories, in some contexts, are better than others, regardless of what we decide to consider as “better”. Economic methodology probably presents the most complex and the most important part of methodology of social research. The importance of methodology of science and research becomes most visible in the time of orientation, value, and epistemic crises. Still, economic methodology is the least developed part of economic science. By “crisis”, we consider periods when economics loses its ability to explain and predict. Then, the focus is on (or should be on) questioning the foundation of economics and its cognitive methods. The core of the controversy is, it seems, still represented by the obvious discrepancy between the quantitative and the qualitative methodology in the economic theory and decision-making practice (Flyvbjerg 2012).

There is a growing pessimism in terms of the ability of economics to solve concrete socio-economic issues, such as poverty, unemployment, lack of jobs, debt slavery, and ecological issues: pollution of atmosphere, biosphere and hydrosphere. Because economic theory includes only some causes, and neglects many others, its statements are imprecise and its predictions are inaccurate and unreliable (Adizes 2011). A decision to use only one group of methods during the research of socio-economic issues, automatically means exclusion of some other group of methods.

Despite that, the economic analysis and natural scientific economic methodology are considered most reliable scientific means to reach *objective*, and allegedly value-neutral truths about man and his world. Still, we know today that social science, in general, including economics – is not of neutral value. Methodology of social and economic researches represents the *most complex* field of science in general. The economic methodology is a *black box* of economic science, and in that field, a total confusion governs, even though many are trying to mask it and “sweep it under the rug”. This confusion is an eye sore, even at the level of terminology (phraseology), that is, where the meaning of the most circulated economic terms is most often found in the public discourse. For example, they are found in explanations

of master thesis proposals from the field of economics and in ways of their creation. Perhaps the greatest obstacle to telling the whole story of the epistemological and orientational crisis of economic methodology, and perhaps of the new knowledge economy as such is not the inability of science to obtain answers, but rather its limitation when asking questions. The common insight of most studies we mention in this paper may be expressed in a general attitude that science (and with that, economics) is not of neutral value. “Our culture highly trusts science as the final authority regarding knowledge and truth. This trust is so detailed and so little researched that it assumes the dimensions of a cultural myth” (Jardin 2006, p. 34).

Doubt forces us to reexamine everything – or a part of something – one more time. In order for science and research work to make sense to certain scientists, and to society itself, it is necessary to differentiate immediately *useful knowledge* and *orientational knowledge*. Useful knowledge is a positive knowledge, that is, knowledge of causes, effects and means. Positive knowledge must to be joined by orientational knowledge that directs effects, if we wish to answer the question of what we *should* do, and not only the question of what we *can* do. “Even politicians, who deal with the question of education, are clear that there still is no unique overview of questions to all individual sciences, and therefore, the idea of a unique science remains a modest desire of certain positivists that believe that all things behave as presented in physics, biology or economics textbooks. Things will not provide them with that pleasure” (Sommer 2009, p. 80).

4. Consideration of the discrepancy between market economy and ecological (sustainable) economics

Market economy enjoys the status of science through ensuring rational theories, methods and techniques that are generally used for efficient and effective improvement of human life. Economic analyses and cost-benefit analyses are basic methodologies of official politics that are used in decision-making, regardless of them being economic or ecological decisions. Economics tells us what we should do as individuals, society, or as a state. Why should we listen to this advice? Probably, because it will lead us to a better reality – economic efficiency – utilitarian goal of providing the greatest good to the greatest number of people. But does economic efficiency really provide the greatest good to the greatest number of people? Sagoff states that a greater part of economic analysis lies on serious confusion between desires or preferences on the one side, and beliefs and valuations, on the

other side. Economics only deals with desires and preferences, because they are what matters on the economic market. A market may only measure the strength of our desires through our readiness to pay (at price), to measure and compare individual desires (through a cost-benefit analysis), and to determine efficient means for optimal satisfaction of desires. However, markets may not measure or quantify our beliefs or valuations. Since many ecological questions include our beliefs and valuations, economic analysis is not of any significance. When economics interferes with the ecological politics, it treats our beliefs as mere desires, and this is what seriously distorts this issue. Economics approach usually uses terms such as *usefulness*, *welfare*, *happiness* or *well-being*, in order to explain the aim of preference satisfaction. However, to explain the value of preference satisfaction, simply through its definition in these ways, means to take explanation that is true in a trivial sense as a proof even though it has not been proven. On the other side, if usefulness, welfare, happiness or well-being are defined in more detail, the statement that satisfaction of preferences always leads to goods is a false one. Satisfaction of my preference for a cigarette does not always make me happy in a non-trivial sense, states Joseph Jardin. Dissatisfaction of my preferences may sometimes be in my greatest interest, teaching me patience, diligence or moderation. Satisfaction of a preference may sometimes be disappointing. Sometimes, I could afford myself everything offered on the market and still be deprived of what is considered important (Jardin 2006). Jardin's argumentation is very insightful: economic methodology assumes, under the condition that other things remain the same, that it is good for people to get what they desire. A more realistic and fair assumption, under all circumstances, would be: whether that what I desire is good depends on whether that is what I really want. Besides that, we should keep in mind that the economic analysis succeeded to normalize distorted language practice to call things goods, despite the fact that the word good (as we know when we think about it deeper) originally comes from an ethical and not economic analysis. "Economic methods may not ensure information necessary to justify the official politics. Economics may measure the strength we hold on to our preferences; it may not evaluate those preferences according to their value. And still, such evaluation is of core significance when making political decisions. This is my greatest and the only criticism of the cost-benefit analysis" (Sagoff 1981, p. 1393-1419).

The economic science is growingly dealing with the formalization of models at high levels of abstraction, and the price of focusing on such things is paid by neglect of the reality itself (Tonkiss 2012). Jargon or phraseology has

become a norm. There are a lot of economic and political terms circulating, even though they are completely imprecise or deprived of all meaningful content. When analysing the speeches of economic experts that influence key political decisions, we notice only empty words instead of ideas we should discuss. Everyone is for sustainability, transparency, excellence, quality, social cohesion, inclusion, best practices, added value, securities market or a reform on health and education. However, what do these pretentious words (phrases) even mean? Let us consider the abovementioned example of a meaningless usage of “sustainability”. This word is derived from “sustain”, which means support, to bear a load of something, give strength, firmly last. Sustainability is a term that has become significant in discussions about development during the 1980s, because of the fact that for four decades of experience in development have shown that “development” and its synonym “economic growth”, were used to show steady increase of income per capita, while they were non-sustainable processes in reality. Development was not sustainable because it undermined ecological stability and it destroyed basic income of people. “Fair growth” and “sustainable development” were attempts to, in periods of doubt, legitimize and prolong economic growth. Economic growth promised to create abundance. It promised to eradicate poverty. Instead, growth itself has become a source of poverty, scarcity and misery, because it destroyed basic systems for sustainability of life in the Third World, as in many transitional societies (Ha-Joon 2002).

Even though development, brought down to economic growth and commercialization of knowledge, is now recognized as a cause of the ecological crisis in the Third World, it is paradoxically offered, in shape of sustainable growth, as a treatment for the ecological crisis. The result is a loss of the meaning of sustainability itself. The most serious theoreticians of society, economy and politics, do not hide the feeling of “exhaustion” that intertwines with different “politics of fear” (Furedi 2008) for the future. Commenting on the global quakes, that do not shatter only the Middle East as it is often wrongly believed, but they also affect, for lack of a more adequate term, “the new world order”, Ibrahim Karagül has very indicatively written about waking up from the 20th century in fear from the 21st century (Karagül 2012, p. 280). In this paper, we claim that the type (and the means) of economic growth characterizing the present economic models, is not sustainable. Sustainable life and sustainable development require changed economy and changed society. During the last decades, an alternative to the (neo)classical market-based economics has made an appearance. Sustainable economics, also called ecological economics, suggests a different way of

thinking about economics. It does this in the light of our present ecological challenges and obvious failure of the (neo)classical market economy– in the form of the new knowledge economy–to face these challenges. The meaning of foundation terms, used by the economic analysis, such as: usefulness, welfare, happiness, pleasure, well-being, desires, preferences, and so on – is impossible to understand independent of other types of analysis, such as philosophical, sociological, ethical, ecological.

The most important remark (that is most often directed towards the procedure of economic analysis), includes that markets cannot *measure* or *quantify* our *beliefs* or *valuations*. The market does not leave room for debate, discussion or dialogue in which we may defend our own beliefs. The concept of valuable goods (resources), in the economic analysis, is almost always quantified (measured); and so the *qualitative goods*, such as clean air and security of life – are transferred into economic terms. Therefore, lately, during the re-conceptualization of *developmental* and *ecological* questions, criticism of the neoclassical economic approach is powerfully re-actualized. The crisis we live in is *cognitive, orientational, moral, emotional, ecological, institutional, security, communicational*, but even this description is not definite. There is no safe knowledge about the nature of human knowledge and fallacies. Knowledge cannot be secured against insecurity. Human knowledge, in its nature, is fragile and insecure. However, the skepticism expressed here does not need to have explicitly negative sense or role, especially if it is justified well methodologically and supported by facts. Skepticism, that does not undermine our health, is merely an intellectual exercise (Sommer 2009). A balanced synchronization between quantitative and qualitative methodologies of economic sciences is necessary.

Mutual belittling of either one of those two methodological approaches is not fruitful for development of science or good communication among scientists of different orientations. These two types of methods have their own unique virtues and weaknesses in the frame of essentially different dimensions (Hayek 1967). This is the understanding that was explained by Aristotle a long time ago using the concept of *phronesis* (prudence). The problem is that the phronetic researches are not represented in the prevailing methodologies of economic researches. Bent Flyvbjerg, the Danish professor of Major Programme Management at the Said Business School of Oxford University, considers that social sciences today are generally trapped in a battle they cannot win, because they have accepted conditions that are self-defeating.

Social sciences, in their phronetic role, are the strongest where natural sciences are the weakest. As social sciences have not contributed much to the explanatory and predicable theory, natural sciences have not contributed to the reflective analysis and discussion on values and interests. And this reflective (self-criticizing) analysis is precisely the pre-condition to enlightened political, economic, and cultural development in any society. Such analysis is in the core of *phronesis* itself (a thought out research and activity). That should be the core of social science, states Flyvbjerg, if we wish to overcome the present sickening state of scientific wars. *Phronesis* is, therefore, the most important virtue. This is because the *instrumental rationality* synchronizes with the *value rationality* through it, but also because this synchronization (not only according to Aristotle, but also according to many modern advocates of the *ecological* or *sustainable economics*), is necessary for permanent satisfaction of residents of any society. Therefore, instead of trying to stimulate natural sciences and create some sort of general theory, the strength of social sciences lies in their rich, developed, reflective analysis of value and power which is essential for social and economic development.

5. Results of criticism of vocabulary and practice of the new economics in the context of ecological and security crisis

Global management cannot be brought down only to the questions of expansion of the free trade principle or the increase of capital movement. The neoliberal and the neoclassical meanings of terms, such as: free movement of goods, capital, ideas, and people, as well as the meaning of the new knowledge economy as a whole – should be thoroughly questioned in the context of alternative knowledge economy (an example may be the ecological economics). This questioning, therefore, should be done, not only in the new economics context, but also in the new historical and security context: context that has, during the past several years and during the past months – become more complex for analysis (Karagül 2012). We should always have in mind that “context represents a middle concept for understanding what social science is and what it may be” (Flyvbjerg 2012, p. 23). However, in a world of moving images, mediated by the media, which show new insecurities, the textual meaning of “context” has been quaked and the *work of imagination* has been weakened (Appadurai 1996). The development so far has been based on the growth of market economics. The invisible costs of this development were the destruction of other two economics those of *natural processes* and *human survival*.

The concept of knowledge in social sciences, such as economics, sociology, political science, must not be reduced only to quantitatively calculated economic models of knowledge. Such reduction represents a non-scientific betrayal of the “ethical principle” of science objectivity. To bring down the whole concept of knowledge only to economic rationality is very damaging and even dangerous for civilization understanding of the concept of development and the concept of sustainability of the society itself. Limitless legitimacy of knowledge, built in the western democratic institutions and practices of their actual functioning, has tried to be proven through organized violence, which does not come only from air, but from all sides: “If politics has truly become senseless, then we have a right to fear everything. The failure of politics accelerates the process in which public dissatisfaction is systematically shown as a private problem of individuals that are sensitive and in need of therapy” (Furedi 2008. p. 8). This shows that, market economics, from which we expected salvation, as well as politics in the 21st century, both need *new orientational knowledge* – new rationality, new solidarity, and new planning. We need different paradigms of development which are based on non-violent knowledge. Social benefit – not extra profit – should be the main criterion and goal of the upcoming changes.

6. Conclusion

The new world order is built with the help of language, methodology and terminology (phraseology) of the new knowledge economy and information. At the bases of this order, there are will for power, militarism, technocentrism, techno-dictatorship, destruction of the natural habitat, egoism, infantilism, materialism, greed, and expert dissemination of ignorance. All these are vicious diseases of the modern world and these are often skillfully wrapped into false promises about global knowledge society, reduction of poverty, social inequality, and ecological pollution of biosphere, atmosphere and hydrosphere. The heuristic value of asking questions about methodology and research methods represents one of the most significant characteristics of each responsible science worthy of that name, including economic science as a premium science of knowledge and information management. That, which we most often, in a non-critical manner, call the new economic reality, requires not only questioning the meaning of basic terms upon which the building of economic science is built. Such reality also requests methodologically supported, relational and dialogical questioning of the very foundations and sources of legitimacy of economics as a science. The future researches might show to inadequacy of the instrumental knowledge

and the necessity to turn to the orientational knowledge that is not of neutral value, but it also contains the value of life preservation.

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SOCIO-ECONOMIC DIMENSIONS OF WORLD'S RISK SOCIETY

SOCIO-EKONOMSKE DIMENZIJE SVJETSKOG DRUŠTVA RIZIKA

Abstract

This paper does not have the tendency to analyze the economic history of risk and disaster management, since the literature on this topic is rather extensive. Instead, we take the insufficiently discussed paradigm of "world's risk society" as a starting point. The cognitive scopes of this paradigm are compared to the cognitive scopes of narration of the global knowledge society. Recent research into world's risk society indicate that the negative consequences of globalization have long been here, not only in the field of economics, ecology, conflicts between different world views or value orientations but also in the field of dramatic increase in insecurity. Insecurity most often occurs due to unbalanced development or unbalanced approach to resources. The rise of the world's risk society as the "disaster capitalism" is related to the increased gap between the extremely rich and the extremely poor. However, poverty does not only signal the material deprivation or the lack of possession of certain goods. Poverty can be ideational or cognitive. It concerns our cognitive and educational systems of knowledge, and is primarily related to the orientation or epistemic crisis of the western paradigm of the global knowledge society. The aim of this paper is to point to the cognitive weaknesses of the "global knowledge society" paradigm, with regard to the real socio-economic indicators in Bosnia and Herzegovina and its surrounding countries as well as in the context of the new risks we face. The qualitative methodology in the field of socio-economic research is used precisely due to the fact that this methodology is often unjustifiably neglected. The result of the paper is evident in the fact that the methodological assumptions used by holistically oriented researchers such as D. Cohen, E.O. Wilson, and B. Flyvbjerg can be qualitatively improved, if analyzed in the context of the world's risk society paradigm.

Keywords: world's risk society, global knowledge society, qualitative methodology

JEL: Z1, F6, B4, P2

Sažetak

Ovaj rad nema pretenziju da analizira ekonomsku povijest upravljanja rizicima i katastrofama, o čemu već postoji obimna literatura. Umjesto toga, polazimo od nedovoljno prodiskutirane paradigme „svjetskog društva rizika“. Kognitivne domete te paradigme kompariramo sa kognitivnim dometima naracije o globalnom društvu znanja. Istraživanja svjetskog društva rizika pokazuju da su negativne posljedice globalizacije već odavno nastupile. I to ne samo na području ekonomije, ekologije, sukobljavanja različitih svjetonazora ili vrijednosnih orijentacija, nego i u području dramatičnog porasta nesigurnosti. Nesigurnost najčešće nastaje zbog neravnomjernog razvoja ili zbog neravnomjernog pristupa resursima. Uspon svjetskog društva rizika, kao “kapitalizma katastrofe,” povezan je sa povećanjem jaza između ekstremno bogatih i ekstremno siromašnih ljudi. Ali, siromaštvo nije samo oznaka za materijalnu lišenost ili neposjedovanje određenih dobara. Siromaštvo može biti i idejno, odnosno kognitivno. Ono se tiče naših kognitivnih i obrazovnih sistema znanja, a prije svega odnosi se na orijentacijsku ili epistemičku krizu zapadne paradigme globalnog društva znanja. Cilj ovoga rada je da u kontekstu novih rizika s kojima se suočavamo, imajući u vidu realne socio-ekonomske pokazatelje u Bosni i Hercegovini i njenoj okolini, ukaže na kognitivne slabosti paradigme “globalnog društva znanja”. Koristimo kvalitativnu metodologiju iz domena socio-ekonomskih istraživanja, upravo zato jer se kvalitativna metodologija često neopravdano zanemaruje. Rezultat rada je u tome da se metodologijske pretpostavke od kojih polaze holistički orijentirani istraživači poput D. Cohena, E. O. Wilsona, B. Flyvbjerga, mogu kvalitativno poboljšati ako ih analiziramo u kontekstu paradigme svjetskog društva rizika.

Ključne riječi: svjetsko rizično društvo, globalno društvo znanja, kvalitativna metodologija

JEL: Z1, F6, B4, P2

1. Instead of introduction

Modernistic categories, that is, terminology that we inherited from the 20th century, along with endeavor to use them to describe and explain the development of societal world – do not correspond to the situation we are in today, the second decade of the 21st century. “We live in a society that changes so rapidly and unpredictably that, almost all we inherited, cannot be taken as a granted fact.” (Hobsbawm 2013, p. 62). The advanced, *modernistic* categories, such as *progress* and *development*, do not sustain global reality. The arrow of progress has been broken. It is not that we choose the most adequate terminology. Still, we may repeat the attitude that “each year ahead of us is anticipated with increased confusion.” (Hobsbawm 2014, p.

4). Various doubts arose in the western paradigms of rationality and linear development. *Risk, fear, unpredictability, catastrophe* – those are the words that possess our intellectual imagination. They vaguely point to new global, regional and local *dangers* we face, the ones we are not used to and do not know how to respond to them. This is how the term *Weltrisikogesellschaft* (world's risk society) incurred. Reflection of unpredictability goes on and now it means that the world is no longer able to control dangers that were created due to highly civilized, advanced modernity. Risk society brings new forms of life that are intertwined with the new consequences of blazing modernity. These consequences affect all people. No one can completely protect oneself from them. By naming various examples of social break-downs and irrational events, Beck digs deep into dogmatic economic concept about linear social-historical advancement. Now, we discuss the occurring “world's risk society” as a new global situation, with new incalculable risks. The consequences to understanding of society, and consequently to socio-economic vocabulary, are more than dramatic: we cannot use old, advancing terms for the new risks (financial, biogenetic, ecological, terrorist) any more. Beck reminds us that an adequate, terminological, self-description of the founding contradictions of the modern society is missing. The old progressivist categories, non-critically grabbed by the new knowledge economics, such as progress, growth, development, advancement, improvement, promotion, encouragement, and so on, need to be newly reformed. These terms have become “zombie categories”. They are not in accordance with the reality we live in. All traditional scientific-social terms need to be newly reconstructed into a context of changed reality. They need to be considered in a wider sense and to be re-conceptualized starting from the anticipation of unpredictable consequences of false advancement and expert dissemination of ignorance, in which the highest education institutions take part more or less. It may be advisable to combine insights of political economics and the new economic sociology in order to overcome the sad reigning state of economic reductionisms (Stiegler 2015).

Using the term “reflexive” was in the center of essential debates among sociologists that deal with *risk*, mostly due to its double meaning in the English language, because it may denote what is “reflex-like” (that is, inadvertently or accidentally), but also “reflection” which means conscious consideration and conscious choice. This is a structural change, because the current changes that take place are not planned and are not chosen by anyone. Social criticism of expert knowledge has become the major topic in the European and the North-American societies since the end of the 18th century. In the area of food

control and environment protection, relations between scientists, institutions and wider public were tense (Irwin & Winne 1986). Ecological issues, relating to destruction of environment, should be observed as the following social and political issue “how will we live”? Facing this scale of questions, institutions usually offer us previously “organized modes of unaccountability” (Beck 2007), rather than a more detailed analysis and proof of their self-criticism.

Beck was criticized for his over abstraction of argumentation of “slipperiness” of attitudes (he was criticized for not being an empiricist, even though, it became obvious subsequently that such statement was not true). Emphasizing that *danger* replaced *class*, as an “important term”, Beck also aroused the fury of the neo-Marxists. However, the term “risk society” is regularly used simply as an abbreviation when we think of the dispute about *danger* as a social instance. Beck’s work intended to be provocative and stimulating, rather than universal and strictly analytical (Goldblat 1996). In that sense, we believe that Beck’s work is extraordinarily significant for the understanding of our topic.

2. Previous researches of the world risk society

The word ‘risk’ was imposed as late as during the 1970s, in the discourse ranging from economics to medicine, from the individual to collective. Mary Douglas (1921-2007) suggested a cultural theory of risk. During the 1980s, this British anthropologist tried to transfer the idea that risk cannot be reduced to the theory of rational choice, but it may be understood only through the reference to the real world and to the perception of that world, with the help of what she calls the cultural and social indirect path. A man is not occupied only by the empirical discoveries of the world (through scientific discoveries and technical artistry); he constantly mobilizes moral and cultural references. This means that every living being makes a selection of risks: some he is afraid of, some he ignores, depending on his position and his value system. Such approach enables the author to overcome the traditional interpretation stating that, for generations, humans were led by superstition and fear of unnatural forces, while modern societies, on the other hand, claim for themselves, the privilege to perceive nature in a neutral and objective way. Like it or not, the author emphasizes, the concept of nature with older societies is not completely different from our own, in the sense that both of them are actually “social constructions” (Douglas 1986).

Francois Walter has offered a cultural history of catastrophes and risk. He has conducted very useful terminological distinctions between *risk* and related terms. For example, Shakespearean language skillfully differs between *risk*

and *hazard*. The latter denotes a potential threat that overshadows human societies, while risk is a probability of a hazard. If we travel across an ocean in a ship or a boat, *hazard* that we die due to sinking is same in both cases, but *risk* (probability that this would happen) is significantly larger in the second case. If this may happen, we speak of a *disaster* (catastrophe), that is, an actualization of hazard. This concept, therefore, corresponds to what the French language calls dangers or coincidences (unexpected events) of nature; this is the approach from the aspect of mutual actions of the environment and human societies. The German language has the same difficulty, as French does, in the translation of the word hazard. The word *Naturgefahrenis* used (among the most used handbooks in German, see: Geipel 1992). In the English literature, the term Xevent is also often used (it was created as a blend of the words extreme and event) to describe both, natural catastrophes and the ones rising from the anthropological and social origins. There are, on the one side, natural coincidences, and on the other side, other social vulnerabilities that mutually act and turn into catastrophes under certain conditions. This is why current researches differ five characteristics in this type of studies: (1) Catastrophe itself (*disaster*), always assessed according to what people undergo during it; (2) Natural dangers (*hazards*), such as volcanic eruption or quake; (3) Social, economic, physical, psychological *vulnerability*, that is, specifics of a social group and context that determines the ability to predict, to react, to withstand and to recover from a potential actualization of a certain coincidence; (4) *Resilience*, that is, mechanisms and technical resources that enable facing the catastrophe or, in other words, the ability of the system to reach the previous state of balance again, (5) Cultural resources (*culture*) that define a model of perception and making sense of a catastrophe.

Basically, the word ‘catastrophe’ belongs to a semantic register of drama arts and represents a tragic closure. François Walter presents a dilemma if there is an essential pessimism of the western society, since it used the Greek root to coin only the term that predicts a negative development of events. Why, for example, is not there the word ‘anastrophy’, that would represent a process that anticipates a happy outcome? This is the question asked by Claessen Dieter in 1995 in *Katastrophen und Anastrophen*. For some authors, the desire for catastrophe is an integral part of the post-modern culture, such as its counterpart, the duty to keep the memory. An emotional investment in the past and a catastrophic empathy collide in practice. It is certain, that tide of memories, characteristic of the historical regime since the 1990s, is closely related to great catastrophes of the twentieth century, wars, holocaust, and

genocide. And in other scales, remembering is always a work on deep cultural and social break-ups, often suppressed, but abrupt.

Therefore, we speak of catastrophe as a concrete and damaging realization of potential risk. Very often, also, catastrophe reveals risk to the point where Meschinet de Richemond is right when he states that risk in history is revealed through catastrophic events. Catastrophe assumes the time before and the time after. The difficulty for societies in question is that they manage transitions from one to the other, overcoming entrance of imbalance, suffered the mess and the feeling of defeat in the face of inability to control events. This social treatment of a catastrophe has many faces. These faces are summarized by a sociologist Gaëlle Clavandier as follows: “Shape facts into an event, in order to consider actions, act in the sense of socialization, so that the drama, experienced as aggression, would be culturalized on the outside: take care of the victims (deceased or not) and rebuild thorn down territories to erase every morbid trail; build a norm memory that is adequate to the project of commemorative memory (Clavandier 2004). Among the authors who contributed largely to the study of the world’s risk society, as well as of the anticipation of catastrophes, there are (recently deceased) German sociologist Ulrich Beck (1944-2015) and the British author Anthony Giddens. “Thanks to the advancements in science and technology, we are long over the border that separated us from the world of nature” (Giddens 2009). Both authors have expressed their belief that it is necessary to radically change the way of our political thinking. However, it is easier *said* than *done*.

3. Research methodology on world’s risk society

If we were to use traditional, modernistic and positivistic guidelines, we could state that the current practice of economic and social research needs to be improved, most often by using the statistical methods and techniques based on the literal quantification of quality (Begić & Delić 2013). However, if we were to try to achieve that only in the frame of natural science, that is, quantitative methodology, then, one might show that all-dominant, technoid, meta-narration about the *advancement* and *improvement*, is part of the problem rather than of the solution. Why? There are things that “cannot” be improved due to ethical and moral reasons. Or, more precisely said, there are things that should not be – improved. Nevertheless, it should be clear that we should not improve such things that go in the wrong direction. It is not only about the dilemmas relating to climate changes, but, generally, about new

dangers. For example, we cannot say that catastrophes should be improved or advanced. Or, for example, if someone stated that *financial speculations* should be advanced and improved (even though, after all, this may not come as a surprise!). When we face the *risk society* and the new *incalculable risks*, we should keep in mind that researchers also analyze the scientific justification of the use or normative attitudes. The example for usage of the normative attitude is the universally-categorical attitude based on the belief that people, if they want to survive, must change the modernistic (essentially predator-like), colonization relationship towards nature and other human beings (Delić 2012). Catastrophes, that mankind faces, do not allow us to non-critically use terms, such as advancement, growth, and development, in methodology and research practice. Adorno cynically determined that it is true that the mankind had advanced – it advanced from the sling-shot to atomic, that is, the “smart” bomb. However, what kind of advancement is that? It is like, according to the words of the Swedish writer Sven Lindqvist, genocide also became “an unavoidable counter product of advancement”.

Therefore, it is necessary, on the highest social-epistemological level, to reinvent and reconstruct the cognitive range (or ideological outcomes) of progressivist vocabulary of the new economy of knowledge and skill. Especially in situations when it becomes very obvious that certain economic activities (such as financial speculations) lead to negative economic and social outcomes. However, in order to perform this in a socially responsible way, it is necessary to work (in a balanced and programmed way) on epistemological and moral recovery of social sciences, led by the new economics of knowledge and skills. Let us mention the example of *global warming*¹. Here, we are facing with the so-called “Giddens paradox”. It includes the statement that, “because the dangers that global warming creates, however awful they seem, are not tangible, immediate, and visible in daily life, many people will sit quietly and will not do anything concrete about it” (Giddens 2009). In the context of difficulties in researching similar phenomena, we may state that specificity of methodology of economic research expresses the thought of the American economist Kenneth Boulding, who states: “In economics, you may not understand anything until you’ve understood all”. Surely, the immanent analysis of the meaning of the mentioned attitude would have a task to answer the question what the term “all” means. Therefore, in this paper, we use the *methodological pluralism*: open, qualitative and creative research methodology primarily interested in the *meaning* and *understanding* of the research problem. An approach to a certain research problem should be *holistic* and not specialist (researched

phenomena are observed as a complex wholeness, and not as a sum of mechanical parts). The philosophic basis of the named approach is the post-positivism, that is, “double hermeneutics” (Giddens 2007). Considering that the subject of economic sciences is *variable*, the terms used to describe and explain economic phenomena cannot be observed statistically, as invariable (fixed). They must be observed dynamically, that is, dialectically. The truth criterion cannot be some extra-societal theory, but rather correspondence of theory and practice in a determined context that is subject to processes of interpretation and understanding. Absolutizing statistical techniques, along with excommunication of qualitative scientific methodology, brings enormous damage to the methodology of economic research. Economist Paul Krugman states: “Whoever saw how economic statistics is educated knows that it is the sub-genre of science fiction” (Krugman 1999).

4. From “global knowledge society” to world’s risk society

We live in the society of knowledge, and new economics of knowledge and skill, founded on self-legitimizing narration of advancement and improvement of all processes, has a historic task to make the knowledge society become globally aware. For a quarter of a century, we have been listening to variations of one – and essentially the same – story about the creation of the global knowledge society. The predictions from the 1990s, stating that “globalization must take the key place in the lexicon of social sciences”, have become true indeed. However, the great “promise” of globalization, given in the name of new economy of knowledge and information (that, in its neo-liberal option has functioned as an unquestionable cognitive matrix to establish the global knowledge society), has not become true. This is a foundational, *cognitive* and *actual* problem, which depraves trust in social rationality of the *homo oeconomicus*, and – after all that has happened to us – makes attractive various discourses about the risks and the new upcoming catastrophes.

In 1812, Georges Cuvier stated that formation of the Earth may be explained through a series of cataclysms. Since then, this way of thinking has become only one exciting episode in the series of marginal theories in the history of sciences, which, at least in the beginning, was much underrated. Actually, for a long time, it was reduced to mythology. The idea, by which the Earth endured cosmic catastrophes of great extent, has started to provoke various interests lately. The paper is not an attempt to re-actualize one such idea, but rather an attempt to emphasize the fact that ideas we develop (in

the name of science and education) generally have a great impact on our understanding of the world we live in. It would be interesting to analyze in more detail, not only the field of natural science about the Earth, but, before all, the favorization of catastrophism in daily language in the social, cultural, aesthetic, and ideological context.

The “house on fire” – techno-science appears as a devil machine that, insensitive to far-reaching consequence, forces us directly into destruction (Lipovetsky 2013). And still, we should have in mind, within the ten pages, we do not have room for straight-line elaborations of all the ideas that contributed to the spectacular development (and finally some sort of “normalization”) of culture, politics and practice of catastrophism.

Catastrophism states that we keep to the worst possible case scenario. Literally, this is almost an impossible thought and existential position. Even if it was possible to clearly imagine that we, as residents of the Earth, will soon be hit by the worst possible catastrophe, it would probably not be possible to convince all the people in the authenticity of our belief, regardless of which arguments we would present towards our beliefs. And still, catastrophism blooms all over (not only in science fiction or the film industry). Catastrophism awakes the attention of historians and researchers of various orientations. The use of this word in politics dates back from the 19th century. It circulated even in some socialist circles. In the ideology of historic materialism, the belief was spreading that the world of capitalism will unquestionably fail and disappear in dust and ashes. Fortunately (or unfortunately), that never happened. However, a sudden break-down of socialism, which happened during the 1990s, did not completely eliminate the belief that capitalism might be struck with a similar “destiny.” Historical dialectic, that is, the circulation of various ideas about the inevitability of natural and social catastrophes, may be interesting to some people, and to some, it may not (Delić 2010). However, before the 1970s, the transfer of catastrophism into social sciences was not much noticed. With his radical criticism of the technological society, which moved away from ethics and responsibility towards future generations, German philosopher Hans Jonas (1903-1993) largely contributed to many researches, many streams known today as political ecology, social ecology, eco-philosophy, sociology of risk society, political economics of corruption, and such, whether in the shape of occurrence of a global ecological catastrophe, or in some other shape caused by a human factor in a self-faulted way.

A rather over-emphasized cultural and media production of risk – as a catastrophism of all colors and terms – probably do not represent very different and incompatible types of production of the “politics of fear” (Furedi 2005). This is because the programmed spreading of fear acts in such way so as to relativize things less than it desensitizes our ability to see and interpret them in the right way. Still, the list of new dangers we face on the global and regional level, but on local levels as well, is too long for us to neglect them. Deepening the gap between the extremely rich and the extremely poor probably presents the most serious challenge we face in the 21st century. Different authors, such as Daniel Cohen, Joseph Stiglitz, John Ralson Saul, John Elster, Jeffrey D. Sachs, etc., in their most recent researches, talk in a very similar way about the ‘catastrophic’ increase of *social inequalities*. Globalization is on the dock.

5. Evaluation of research results on the world’s risk society

We are faced with the globalization problem over and over again, as soon as we wish to conduct an evaluation of its economic, ecological and social effects. It seems as if the neo-liberal globalization is found in the middle of a total chaos: in the epicenter of universal globalization of chaos, fear and violence. Because of that, it may be instructive to pay attention to corrective reach of the paradigm of the world’s risk society, considering the – seemingly betrayed – promise of creation of prosperous knowledge society.

The “summary of promised future”, recommended by a Canadian theoretician John Ralson Saul, properly summarizes what it is all about. If you tried to summarize the abundance of strong promises, announced hopes, enthusiastic thoughts, and deep beliefs, which have been expressed since the 1970s onward, by political leaders, academics, serious columnists, business leaders and their spokespersons, among which there are numerous independent expert organizations, you would understand that the promise of the new knowledge economics about the creation of the global knowledge society would look like this:

- The power of national states is getting weaker.
- Such states, with their familiar order, may even be terminated.
- In future, power will rest on global markets.
- Therefore, economics, not politics or army, will shape the flow of human history.
- Those global markets freed from narrow national interests and restricting regulations, will gradually establish international economic balances.

- And in such way, we will finally overcome the eternal problem of the cycle of expansion and recession.
- Such markets will start up trade in waves. And these waves will in turn start up a wide economic tide of development.
- This tide will in turn lift up all ships, and among others, the ones that belong to the poor, whether in the West or in the developing countries.
- The resulting development will enable the exploited individuals to establish democratic regimes instead of the dictatorship ones.
- Surely, these democracies will not have absolute power of the previous national states. Therefore, we will welcome the disappearance of irresponsible nationalism, racism and political violence.
- On the economic front, the size of new markets themselves will require existence of even greater corporations. And, their size will save them from the possible bankruptcy risks. This will be yet another source of international stability.
- These multinational companies will indeed be the front runners of the market leadership of civilization. They will become great virtual states. And, due to their aggressive dominance, they will become insensitive to local political prejudices.
- All the above mentioned will establish conditions for healthy management, and we will be witnesses of governments without debt. Markets will accept nothing less.
- Such stable public finances will in turn stabilize our societies.
- In short, freed from the braces of obstinate people, we will be able to monitor our own benefits on the way towards life full of prosperity and general happiness. Historic cycles will be broken off.
- History, in fact, will be dead.

Turning trade and knowledge economics into a deceiving (and self-deceiving) religion, dogma, and ideology, is expressed in the following attitude: “On no continents ever in the history, has there ever been a serious thinker who would recommend that only trade could lead to civilization, and that, if given such significance, would it succeed in leading itself. Karl Polanyi, one of the most original modern economists, stated that the concept of a market that only adapts is a pure utopia” (Saul 2011, p. 26).

However, despite all that, the Western society has started pretending as the financial speculation no longer has the consequences on economic, political or ecological welfare. *Risk management* is faced, therefore, with the theatre of absurd. Risk society is probably not an alternative that

might automatically stop every possible management practice of expert dissemination of ignorance; however, it might be a symptom of the crisis of understanding the term risk itself. Therefore, living in the world's risk society means living with unbeatable not-knowing (*Nichtwissen*), more exactly along with the time of threat and not-knowing, and the consequent upcoming political, social and moral dilemmas. Due to the global character of threat, along with the not-knowing grow the necessity and the need for making life or death decisions. The story of the "knowledge society" is a euphemism of the first modern. The world's risk society is the society of not-knowing in a very precise sense. In comparison to the pre-modern, it may not be overcome with more knowledge and better knowledge, with more science and better science. It is the exact opposite: the *product* of more and better science. Not-knowing leads the world's risk society. Living, therefore, in a milieu of produced not-knowing, means searching for unknown answers to the questions that no one can clearly formulate (Beck 2007).

6. Conclusion

The paper is based on a belief that the current socio-historic and cognitive development may also be considered from a perspective of the world's risk society. Proverbial optimism needs to be corrected and supplemented with insights offered by critically reviewed studies of science and technology. It is possible that, in future, after anthropogenic catastrophes that may happen, a new cognitive economy may be qualitatively corrected with insights of fundamental sciences that deal with knowledge and its social functions from a holistic perspective. Social ontology, double hermeneutics, cognitive linguistics, and other closely related areas, should also deal with the questions made to us by the world's risk society. "Cognitariat", as a second term for a wrongly applied "global knowledge society", must yield to a critical analysis of the *meaning of knowledge* in the 21st century. The new knowledge economics, social ecology, and bioethics – may be understood as intrinsically connected, and not as separate areas of science and technology. Sciences and modern technology have given us new innovations: new institutions have been formed; new forms of networking and communicating; new lifestyles. On the other side, multiple new dangers and uncertainties – the ones that were created by the very science and technology, ensuring relative wealth and personal freedom – threaten to bury the complete sense of progress. The "classical" modern society (or the one from the 19th century), promised us a giant step forward in comparison to the pre-modern lifestyle. The "newest" society (the past 15 years of this century), expresses doubts in terms of

what was considered certain before. It arouses feelings of tension and uncertainty, feelings that threaten our life and prosperity. The most important (or the strangest) in all this is that these doubts should be seen more as consequences of the *success* of the modern age, rather than its failure. The new dangers, which our age faces, regardless of how we may name them, are qualitatively different from the ones from the past. Sociologists speak of “reflective modernization” to describe current social development. The turn from the “classical” towards the “late” modernity, or *the world's risk society*, represents a process in which what it was afore perceived as an alternative effect (externalities) and unintentional consequences of the techno-scientific progress, seems to be starting taking over. In other words, that which is “bad” takes over of what is “good”. The growing rationalization of the new economic processes of *integral risk management* does not succeed in lowering a large amount of accumulated fears that represent an integral part of daily lives of our contemporaries all over the world. It looks as if people in the 21st century are starting to adapt to insecurity and fear. We are afraid of wars, ecological catastrophes, new illnesses, and new uncertainties. Despite the omnipresent domination of the soothing *ideology of transparency*, it looks as instead of the (promised) global knowledge society, happiness and prosperity, we are found in a society without consensus even on the issue whether such thing as a society exists at all.

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Endnotes

- 1 The global warming issue cannot be solved by organizing some modern “workshop” on that topic.

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SMALL AND MEDIUM SIZED ENTERPRISES IN THE FUNCTION OF ECONOMIC DEVELOPMENT AND POVERTY REDUCTION IN BOSNIA AND HERZEGOVINA

MALE I SREDNJA PREDUZEĆA U FUNKCIJI EKONOMSKOG RAZVOJA I SMANJENJA SIROMAŠTVA U BOSNI I HERCEGOVINI

Abstract

In developing countries, local enterprises are responsible for most of economic activities that increase productivity and, in the end, that influence on poverty reduction. Therefore, building and empowering manufacturing capacities through development of micro, small and medium - sized enterprises in the competitive sectors is of great significance. When creating a business environment adequate for growth and development of the private sector, governments play the key role on one side, and on the other, they represent the key player in the acceleration of economic growth and development creating possibilities to the poor to be included in productive activities. Today, the battle against poverty and social exclusion through SMEs development is proclaimed through realization of the Millennium development goals, the Monterrey Consensus, OECD programmes and growingly through politics and strategies of the European Union. The objective of this paper is to emphasize the poverty issues and the possibilities of the private sector as a generator of the economic growth in Bosnia and Herzegovina (BiH). Besides the theoretical elaboration, this paper also presents the results of a primary research on the contributions of the measures of economic politics on SMEs and entrepreneurial development, the accelerations of economic development and the poverty reduction in BiH. For that purpose, a questionnaire was created and was sent to 250 micro, small and medium sized enterprises, and also to sixteen federal and cantonal ministries involved in the issue of economic and entrepreneurial development. Based on the results, the authors have made a

conclusion that governments play key role in entrepreneurship development in the function of economic development and poverty reduction.

Keywords: SMEs, entrepreneurship, economic development, poverty, BiH

JEL: O10, I32, L26

Sažetak

U zemljama u razvoju, lokalna preduzeća su odgovorna za većinu ekonomskih aktivnosti koje povećavaju produktivnost i u konačnici utiču na smanjenje siromaštva. Shodno tome, izgradnja i jačanje proizvodnih kapaciteta preko razvoja mikro, malih i srednjih preduzeća u konkurentnim sektorima je od velikog značaja. U stvaranju poslovnog okruženja adekvatnog za rast i razvoj privatnog sektora, ključnu ulogu igraju vlade zemalja s jedne strane, dok s druge strane vlade predstavljaju i ključnog igrača u ubrzanju ekonomskog rasta i razvoja koji otvaraju mogućnosti siromašnima da se uključe u produktivne aktivnosti. Borba protiv siromaštva i socijalne isključenosti u s preko razvoja SMEs, danas se u svijetu proklamuje kroz ostvarivanje Milenijumskih razvojnih ciljeva, Monterejski konsenzus, programe OECD-a, a sve intenzivnije i kroz politike i strategije Evropske unije. Cilj ovog rada je da ukaže na problem siromaštva i privatnog sektora kao pokretača ekonomskog razvoja Bosne i Hercegovine, te uloge državnih organa kojima se daje ključna uloga u kreiranju poslovnog okruženja koje će omogućiti uspješno funkcionisanje ovog sektora. Osim teorijske elaboracije, u radu su predstavljeni i rezultati primarnog istraživanja o doprinosu mjera ekonomske politike razvoju SMEs i preduzetništva, ubrzanju ekonomskog razvoja i smanjenju siromaštva u Bosni i Hercegovini. U tu svrhu koncipiran je anketni upitnik koji je poslat u 250 mikro, malih i srednjih preduzeća, te šesnaest državnih i kantonalnih ministarstava koja se bave pitanjima ekonomskog razvoja i preduzetništva. Na bazi primarnog istraživanja moguće je zaključiti da je neophodna značajnija državna pomoć razvoju preduzetništva kako bi ono bilo sposobno preuzeti ulogu pokretača ekonomskog razvoja Bosne i Hercegovine.

Ključne riječi: SMEs, preduzetništvo, ekonomski razvoj, siromaštvo, BiH

JEL: O10, I32, L26

1. Introduction

Poverty is a widely dispersed phenomenon in the world, and solution to the poverty and inequality issues may be found in the core of the economics science. In the modern, informational and high-tech age, every day 50,000 people die due to the consequences of hunger and poverty. According to the World Banks' data, there are "more than 2.5 billion people around the world

living in poverty with less than 2 USD daily. About 3 billion people live in the conditions of underdevelopment and one sixth of total mankind live at the beginning of the ladder of development. The above mentioned clearly discusses the deepened gap between the wealthy and the poor. If the focus is put on countries in development, the moderate poverty is chronologically decreased, but it is still placed at the significant level of 33%, while the rate of extreme poverty amounts to 13.7% (World Bank 2014).

In respect to Bosnia and Herzegovina (BiH), the UNICEF report from 2013 has identified and has documented a serious and growing level of poverty and social exclusion. “The report has shown that more than half a million people in BiH live in relative poverty, and it is possible that this number may even be 1.5 million. Over a million of other residents live in a state of hard material shortage or in a situation of social exclusion.” Of all European countries, BiH has the greatest risk of poverty and social exclusion (58.6% of population), and it fairly deviates from the AROPE (at-risk-of-poverty and social exclusion) EU-27 that totals to 24.2%, and from new member countries whose AROPE totals to 30.6% (UNICEF 2013, pp.12-13). One of the most significant causes of poverty is an extremely high unemployment. Unfortunately, the creators of the economic politics do not offer solutions from the beginning of the transitional process, and remains the fact that from year to year, there are more and more poor people in BiH. According to the World Economic Forums’ The Global Competitiveness Report 2013–2014, BiH is positioned at the last place in Europe in respect to its competitiveness (WEF 2013). With the goal to increase the competitiveness of the domestic economy, it is necessary the investments into research and development.¹

The role of the private sector in the context of poverty reduction is emphasized in the economic politics, and is conducted through various strategies of the European Union, such as strategy of growth “Europe 2020”. One of the primary goals of the Strategy is the battle against poverty and social exclusion, and in that context, the primary role is given to the development of micro, small and medium sized enterprises that create jobs and contribute to the increase of employment. The battle against poverty and social exclusion in the world is proclaimed, beside all, through the realization of the Millennium development goals. Here, we start with the fact that every development strategy should contain a clear frame for growth of the private sector. The role of the private sector in poverty reduction is also emphasized by the Monterrey Consensus where significant focus is put on giving support to new mechanisms of help small and medium sized enterprises (SMEs) in

developing countries and economies in transition. (UNDP 2005). Therefore, through the empowerment of the entrepreneurial infrastructure, that is, business incubators, business zones, technological parks, the government may contribute to building capacities and competencies of the existing and new business subject.

The first part of the paper provides a theoretical background and literature review on the importance of the entrepreneurial sector in economic development, focusing on the entrepreneurial sector contribution to poverty reduction. The second part of the paper represents implemented research methodology. After that, the paper represents research results and discussion of perceptions of SMEs and government institutions representatives of the BiH government activities in creating positive environment for entrepreneurial enterprises and SMEs to assure poverty alleviation.

For the purposes of the research, a structured questionnaire was sent to 250 small and medium enterprises (SMEs) and to the relevant government institutions on the state, entity and cantonal level such as Federal Ministry of Development, Entrepreneurship and Crafts; Federal Ministry for Programming Development; Agency for Development of Small and Midsized Enterprises of Republic of Srpska; Government of Brcko District – Development Grant Fund of Brcko District; Federal Ministry of Energy, Mining and Industry; Ministry of Foreign Trade and Economic Relation of BiH, as well as to ten cantonal ministries of entrepreneurship.

2. Theoretical background and literature review

Through centuries, in the science of economics, we have been paying attention to the economic development and poverty reduction. If we analyze the mercantilism period, we have to emphasize the contribution of Pososhkov and his most significant work “The Book of Poverty and Wealth”, published in 1724, where the author “emphasizes the great significance of government control on trade by the emperor and state, in the conditions of great space and general misery and poverty” (Jakšić 1994, p. 33). Besides him, poverty was also considered by Mandeville in his work “A Mirror about Charity and Schools of Charity”, where he presented himself as insensible to the state of poverty, where he “advocated keeping the poor not educated” (Vujačić 2012, p. 89). Contrary to these authors, the representatives of physiocrat school criticize the mercantilism politics, considering that it is the cause of underdeveloped agriculture and poverty, where they see the solution to this problem in the development of agriculture.

The poverty issue takes a significant place in the frame of classic economic thought, and especially in works of Smith, who emphasizes that “poverty causes pain, not only because the poor feel hungry, sick, and cold, but also because it is connected to adverse appearances” (Smith 2008, pp. 56-57). As a representative of institutionalism, List, in his works, considers causes of wealth of nations in the world, and he “emphasizes that a national country is a matrix of each individual and that his personal prosperity depends on the progress of his country” (Jakšić 1999, pp. 126-127). In their works, Marshall and Keynes, consider that poverty is caused by the economic underdevelopment and lack of human capital (Jung & Smith 2007). Besides that, Marshall emphasized that poverty is the result of institutional neglect of the significance of education of wide masses, and he considered that with better education will come better work productivity, and this will lead to poverty reduction. Besides the named authors, this issue was also considered by Marks, Schumpeter, Knight, Sen, Samuelson, Bradshaw, Junus and Piketty.

Relevance of the relationship between entrepreneurship and poverty alleviation has been shown in several empirical research papers (e.g. Carree & Thurik 2008, Van Praag & Versloot 2007). In respect to the relation between entrepreneurship and decline in poverty, the research shows positive relation. Statistical analysis of all 50 states in the USA indicates that states with a larger share of entrepreneurs had bigger declines in poverty. In fact, comparing states during the last economic boom from 2001 to 2007 the data shows that for every 1 percentage point increase in the rate of entrepreneurship in a state, there is a 2 percent decline in the poverty rate (Slivinski 2012, p. 1).

Reynolds, Miller and Maki (1995) find that the degree of entrepreneurship has a positive impact on regional economic growth in the United States, while Audretsch and Fritsch (2002) find that this relationship for Germany shifted from negative in the 1980s to positive in the 1990s, confirming theoretical background on the relation between economic growth and entrepreneurial activity. The relationship between entrepreneurship and economic growth has seen an increased interest at local, state, and national levels, and recent studies have shown that the contribution of the entrepreneurial sector to employment and GDP is increasing (Audretsch & Thurik 2001). Singer (2006) emphasizes that the best cure for poverty is boosting business and entrepreneurial activities, through entrepreneurship development, while

Adenutsi (2009) suggests that entrepreneurship provides a new approach for fighting poverty and stimulating economic growth in developing countries.

More about the relationship between entrepreneurship and economic development may be found in the works of the following authors: Acs and Storey (2004), Leff (1979), Brouer (2002), etc. During the eighties, reforms of economic programmes in many developing countries have begun, emphasizing the need of development of an adequate environment for the private sector. Today, we have an increased awareness that we are in need of great reforms in a sense of investment climate. Traditionally, governments try to strengthen their environment for the private sector by providing support to the economic institutions and the infrastructure of business development services in that context, and this plays a significant role.

In economic science, Italian experience in strengthening entrepreneurship is especially indicative. The Emiglila-Romagna region is especially significant because it was underdeveloped during the seventies of the last century, and today, it is extremely developed (the GDP of this region is 25% greater of the state average) thanks to the small family enterprises. However, development of SMEs in Italy has been greatly contributed to by regional state administration and regional development politics. In Bologna, Regional Development Agency of this province is located, and it includes dedicated sector service centers (for construction, shoe manufacturing, farm machineries, leather industry, etc.). This model also actuates the international profession, and it should be especially interesting for BiH (Džafić 2007, p. 189).

3. Research concept

3.1. Methodological approach and defining hypothesis

The previously presented issue of poverty forces the need to find new ways of its solution. The theoretical elaboration finds entrepreneurship as a platform to stop the state of underdevelopment and poverty. According to that, the subject of this research is limited to the role of measures of economic politics in the development of entrepreneurship, and through the development of entrepreneurship onto economic development and poverty reduction in BiH, and therefore, the research hypothesis is:

H1: The existing measures of economic politics do not contribute to the development of SMEs and entrepreneurship and poverty reduction in BiH.

Besides the secondary, primary research has also been conducted in this paper where a questionnaire has been used as a research instrument. On collected primary data, the descriptive and multi-variation statistical analysis has been conducted. The subject research is a part of the growing scientific research paper realized at the Faculty of Economics at the University of Tuzla during the 2014.

In this research, we have come upon certain limitations. Namely, poverty indicators in our country are monitored by the World Bank and the Agency of Statistics of Bosnia and Herzegovina within the Questionnaire on household consumption, but still, all important poverty indicators are not monitored, such as the social exclusion required by EUROSTAT. “BiH does not have an official line of poverty, nor it systematically analysis this area” (DEP 2010, p. 13), and this presents a problem with chronological monitoring of indicators and trends of poverty rates.

3.2. Research goals

In order to prove the set hypotheses, it is necessary to realize the following research goals:

- Determine the possibility to strengthen SMEs and entrepreneurship in the function of poverty reduction;
- Conduct an analysis of the attitudes of the surveyed from the private and the government sectors in a role of SMEs through provision of technical assistance to BiH enterprises;
- Determine variations in attitudes of the surveyed from the private and the government sectors using the multi-variation analysis;
- Based on the empirical research, provide recommendations on the future steps of state intervention in strengthening entrepreneurial sector which can contribute to economic development and poverty reduction in BiH.

4. Empirical findings

Connection of the processes of economic development with the SMEs and entrepreneurship and the phenomenon of poverty are presented in a way to make a methodological foundation for the primary research. The primary data on the role of measures of economic politics in the development of entrepreneurship and poverty reduction in BiH are collected through the method of written structured questionnaire. The questionnaire, as a

research instrument, has been divided into two parts: The first part, that has been filled by enterprise management and the second part that has been filled by representatives of government institutions. The collection of data has been conducted on the foundation of proportional stratified sample. The whole population has been divided into for stratum: micro, small, medium and large enterprises, and then, by data filtration, the large enterprises have been excluded from the sample, considering the research subject. From the stratum, micro, small and medium enterprises underwent the random sampling where a certain number of units has been selected that was proportional to the stratum size. Considering that the population is extremely large (39,579 enterprises), if we used the fraction of selection of 5%, then the size of the sample would amount to 1,979, and such sampling in actual conditions would be hardly feasible. For the subject research, we have decided that sample includes 250 units. The structure of the planned proportional stratified sample according to the number of employees, that is, according to the size of enterprise, has been presented in Table 1.

Table 1. *Size and structure of the sample of the surveyed SMEs*

Group	Number of employees	Enterprise size	Stratum		Sample		
			Number of SMEs	%	%	Number of SMEs	Number of SMEs in the sample
1	0 – 10	Micro enterprises	31,102	78.58	78.58	196.45	197
2	10 – 50	Small enterprises	6,539	16.52	16.52	41.3	41
3	50 – 250	Medium enterprises	1,938	4.90	4.9	12.25	12
Σ			39,579	100	100	250	250

Source: Data on the number of SMEs has been taken from the register for 2010, of the Bureau of Indirect Taxation of BiH

After that, selection of sample units has been conducted.

Each enterprise, through the record in the database, has been given an unrepeatable number. These numbers from the enterprise database for the three selected stratum (micro, small and medium enterprises) have been recorded into software for generating random sample.

Through the random sampling of the stratum units, we have formed a list of 197 enterprises from the micro enterprise stratum, a list of 41 enterprises from the small enterprise stratum, and a list of 12 enterprises from the

medium enterprises stratum. In the same way, for every stratum, a reserve list has been formed, where the immediate next enterprise was selected in case that an answer was not received from the enterprises from the primary list.

Surveying of the private enterprise management was conducted in the time frame of 6 months (May-November of 2014), and the response rate (filled questionnaires) was 54%.

In the frame of surveying of government institution, the research has been conducted in the ministries responsible for entrepreneurship development at the level of BiH: Federal Ministry of Development, Entrepreneurship and Crafts; Federal Ministry for Programming Development; Agency for Development of Small and Midsized Enterprises of Republic of Srpska; Government of Brcko District – Development Grant Fund of Brcko District; Federal Ministry of Energy, Mining and Industry; Ministry of Foreign Trade and Economic Relation of BiH, as well as to ten cantonal ministries of entrepreneurship.

The rate of response (filled questionnaires) by government institutions was 62.5%.

For the purpose of this research, a descriptive statistics (arithmetic medians, frequencies) was used, and for determination of quantitative variations at the multi-variation level and determination of statistically significant variations in the attitudes of the surveyed from the private and the government sectors, the discriminant analysis was used.

4.1. Discussion

4.1.1. The role of the government in SMEs development through provision of assistance to enterprises (SMEs perceptions)

The primary research has included assessment of components of assistance to enterprises, either by the private, or by the government sector. The experiences of formerly successful countries in transition show that neither one of those economy sectors has such great need for the systematic or economic assistance from the government and government institutions.

Due to that fact, we have tried to determine, through the following group of questions, the level of satisfaction of their relationship of the government

towards their daily institutional and other needs, and this is presented in Figure 1.

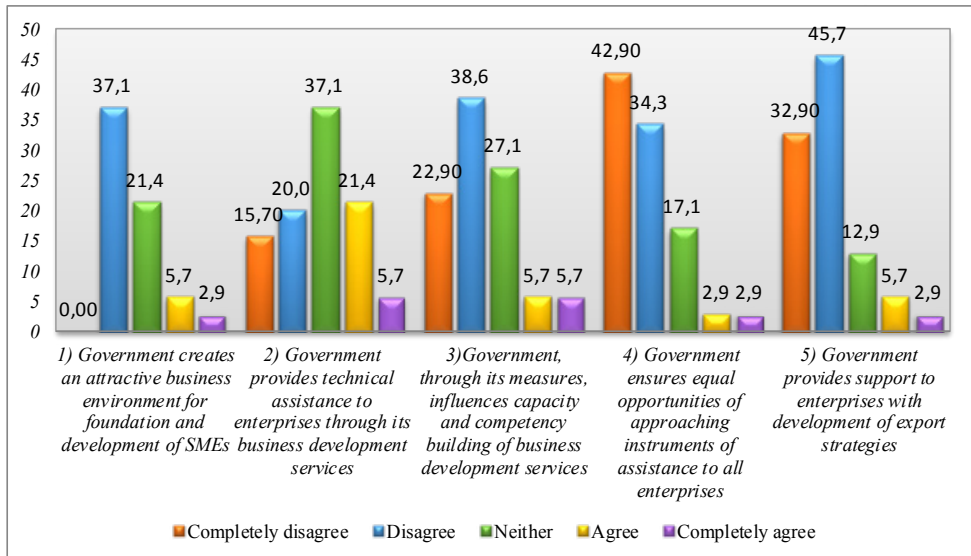


Figure 1. *Attitudes of the surveyed in the private sector about the role of government in SMEs development through provision of assistance to enterprises in BiH*
Source: Authors' research

The survey has shown that, when we are discussing the role of government in SMEs development through provision of assistance to enterprises in BiH, there are mostly negative attitudes (“Disagree” and “Completely disagree”) and very little affirmative attitudes (“Agree” and “Completely agree”).

The perceptions of the surveyed SMEs are presented in ascending order (from negative to affirmative attitudes) and it shows that the surveyed have negatively evaluated mostly the statements *Government provides support to enterprises with development of export strategies* (45.7% answered “Disagree“ and 32.9% answered “Completely disagree”) and *Government ensures equal opportunities of approaching instruments of assistance to all enterprises* (34.3% answered “Disagree” and 42.9% answered “Completely disagree”).

The presented points in the direction that BiH, through the measures of its economic politics, does not support export activities of enterprises, even though it has been realizing a deficit of foreign trade balance for years.

Besides that, the surveyed from the private sector have evaluated that enterprises are not offered equal opportunities of approaching the support instruments with 42.9% of answers “Completely disagree” and 34.3% of answers “Disagree”, and this can be connected to the high rate of corruption in our country (assessed by the Transparency International), and to the common practice of “bribing”. The most neutral attitudes, the surveyed SMEs have shown with the statement *Government provides technical assistance to enterprises through its business development services* (37.1%). The surveyed SMEs had very negative attitudes towards the statements *Government, through its measures, influences capacity and competency building of business development services (agencies, organizations, chambers of commerce)*, with 38.6% answers “Disagree” and 22.9% answers “Completely disagree”, and *Government creates an attractive business environment for foundation and development of micro/small/medium enterprises*, with 37.1% answers “Disagree” and 32.9% answers “Completely disagree”.

4.1.2. The role of government in SMEs development through provision of assistance to enterprises (Government Perceptions)

Contrary to the surveyed from the private sector, a certain percentage of the surveyed from the government sector had affirmative attitudes towards certain elements of technical assistance to enterprises, and this is shown in the following Figure 2.

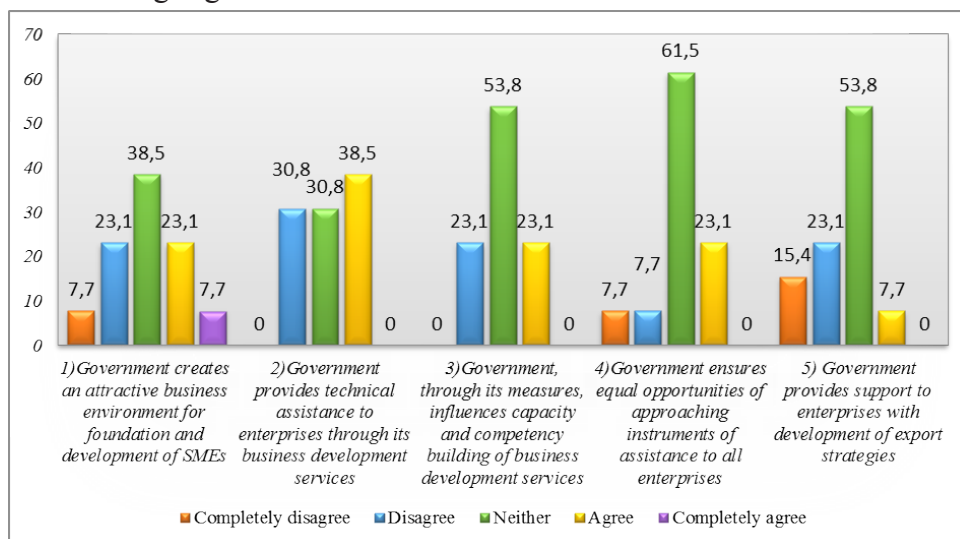


Figure 2. Attitudes of the surveyed from the government sector on the role of government in SMEs development through the provision of assistance to enterprises in BiH
Source: Authors' research

The surveyed from the government sector mostly had neutral attitude concerning the question of the role of government in SMEs development through the provision of assistance to SMEs in BiH. As the Figure 2 shows, even 61.5% of the surveyed from the government sector has expressed the neutral attitude towards the statement *Government ensures equal opportunities of approaching instruments of assistance to all enterprise*. Contrary to the surveyed from the private sector, the surveyed from the government sector express more affirmative attitudes towards certain segments of assistance to enterprises. For example, 38.5% agrees with the statement *Government provides technical assistance to enterprises through its business development services*, while 23.1% of the surveyed expressed the affirmative attitude towards the statements *Government creates an attractive business environment for foundation and development of micro/small/medium enterprises*, *Government, through its measures, influences capacity and competency building of business development services (agencies, organizations, chambers of commerce)*, and *Government ensures equal opportunities of approaching instruments of assistance to all enterprises*. Therefore, considering that we have noticed significant variations in attitudes of the two surveyed groups, we have approached the determination of the level of variation with each observed statement.

4.1.3. Discrimination analysis

The results obtained through the conducted survey have enabled the conduction of the discrimination analysis. We have noticed significant variations in the attitudes of the surveyed from the private and the government sectors, and data from Table 2 shows that there is also a statistically significant variation in the attitudes at the multi-variation level.

Table 2. Results of the discriminatory analysis for provision of assistance by the government

F	λ	% of variances	Cumulative % of variances	r_c	Wilks' λ	χ^2	df	p
1	0.245	100	100	0.444	0.803	17.231	5	0.004

Source: Authors' research

We have determined the existence of one discriminant function, which is in accordance with the anticipations, because there are two groups in the analysis that are based on the sector of their operations (government and private), where the discriminant function explains 100% of total intergroup variance. The squared canonical correlation (r_c) shows that the

discriminatory function explains marginally satisfied 44.4% of variation within the group variable. The Wilks' λ of the discriminatory function is high (Wilks' $\lambda=0,803$), and it shows that the discriminatory strength of the discriminatory functions is low. Hi squared test (χ^2) for the function 1 is statistically significant, $\chi^2=17.231$, $p=0.004$. This indicator proves that the discriminatory model is significant, that is, that the measures are adequate to differentiate the attachment to the group, but also showing determined variations in reality are small. The following Table 3. shows the greatest determined variations between the groups, that is, the private and the government sectors.

Table 3. *Discriminant coefficient and group centroids*

	Discriminant Coefficient	Group	Centroid
Government ensures equal opportunities of approaching instruments of assistance to all enterprises	0.859	Private sector	-0.211
Government creates an attractive business environment for foundation and development of micro/small/medium enterprises	0.661		
Government, through its measures, influences capacity and competency building of business development services (agencies, organizations, chambers of commerce)	0.485	Government sector	1.136
Government provides support to enterprises with development of export strategies	0.415		
Government provides technical assistance to enterprises through its business development services	0.180*		

Source: Authors' research

Note: * - There are no variations

Through the analysis, it has been determined that the greatest variation, at the multi-variation level, in this case *Government ensures equal opportunities of approaching instruments of assistance to all enterprises*, where the private sector gives a lower average grade (1.89) than the government sector (3.00). It has also been determined that there is a variation also in the case of *Government creates an attractive business environment for foundation and development of micro/small/medium enterprises*, where the surveyed from the private sector give a lower average grade (2.09) to the role of the government than the surveyed from the government sector (3.00). In the case of the statement *Government, through its measures, influences capacity*

and competency building of business development services (agencies, organizations, chambers of commerce), the private sector estimates the role of the government as lower (2.33) than the surveyed from the government sector (3.00). It has been determined that there is also an existence of variation in the case of the statement *Government provides support to enterprises with development of export strategies*, where the private sector expresses that the role of the state is lower (2.00) than in the case of the government sector (2.54), while in the case of the statement *Government provides technical assistance to enterprises through its business development services*, there were no variations determined because the private sector gives an immaterially lower grade (2.81) to the role of the government than the surveyed from the government sector (3.8). It is necessary to emphasize that even though there are variations at the multi-variation level between the government and the private sectors, where the private sector regularly gives significantly lower grades to the technical assistance by the government (except for the statement *Government provides technical assistance to enterprises through its business development services*), the presented variations are not extremely large, and this may be seen from the presented average values and values of the Wilks' λ , which shows that the discriminatory strength of the discriminatory functions is low.

5. Conclusions and recommendations

The primary data shows that the business environment for the SMEs development is not stimulating and that it is the main reason for the slow growth of the private sector in BiH. As the previous experience has shown, the private sector is considered to be generator of growth. The success of operations of SMEs greatly depends on the support provided by the government. The experiences of other countries show that, with its influence, the government may create an attractive and easy climate for operations of private subjects, while on the other side, the government may also be a great limiting factor in foundation and development of enterprises. A very significant element of economic reform in BiH is the continuation of transitional processes with an active private sector. The European experiences show that progress in this sense requires numerous efforts, and development of a motivating business environment for existing and new private enterprises plays a key role. When the SME sector is discussed, there is no institutional support, economic politics, or concrete measures for its development. Therefore, the governments in BiH take very little action to make the business environment easier for entrepreneurs that create new

value and contribute to the formation of GDP, and that they influence poverty reduction in such way.

The results of the empirical research have confirmed that, through the measures of economic politics, the government does not support export activities of enterprises, it does not provide all enterprises equal opportunities to approach the instruments of support, that the level of technical through business development services is not adequate. Generally, there is a very small percentage of affirmative attitudes considering technical support to enterprises by the government, therefore, the conclusion is that, in the context of SMEs development in BiH, a more significant role of the government in the sense of technical support to enterprises is necessary. The general conclusion is that the role of the government in SMEs and entrepreneurship development (which is key) is missing in BiH, therefore, it is not able to take over the function of the generator of economic development, which, in the end, would contribute to poverty reduction. We believe that SMEs could contribute to the reduction of unemployment, and with that, poverty, but only with the presence of a strong government and consistent industrial politics in whose entrepreneurship environment may be developed. This is contrary to the leading neo-liberal ideology that assumes minimizing the role of government in the economy.

The above mentioned confirms the research hypothesis, that is, that the existing measures of economic politics do not contribute to SMEs and entrepreneurship development the poverty reduction in BiH. Besides the confirmation of the research hypothesis, we have also realized the research goals set in this paper. Consequentially to the presented, governments should put in more efforts in the sense of creating a more adequate business climate through provision of better support to enterprises. If competitiveness does not get better, and it is not going to get there without investments into research and development, then, we will not have innovations, the productivity will get weaker, and this will lead to the decrease of efficiency in manufacturing and the decrease in exports. This will not decrease unemployment, and this will lead to deepening of the spellbound circle of poverty.

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Endnotes

- 1 The investments total between 0.1 to 0.14% of the gross domestic product. That is less than one third of the regional average for South-East Europe which totals to about 0.46%, and less than one tenth of the average of the EU-27 that totals to 1.8% (OECD 2013, pp. 13-16).

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THE EFFECTS OF THE STRUCTURE OF PERSONAL CONSUMPTION MARKET ON INFLATION IN BOSNIA AND HERZEGOVINA

UTICAJ STRUKTURE TRŽIŠTA LIČNE POTROŠNJE NA INFLACIJU U BOSNI I HERCEGOVINI

Abstract

Understanding inflation and its causes is important both in terms of individuals, companies or consumers, as well as an entire country that intends to control inflation in order to maintain or improve the living standards of her citizens. Excluding the assessment of the applicability of certain economic theories of inflation in the case of Bosnia and Herzegovina (BIH), this paper aims to find the causes of inflation in the existing relationships and conditions prevailing in the personal consumption market, by focusing and isolating the microeconomic causes of inflation rather than analyzing the macroeconomic causes. Based on the potential impact of market structures such as monopolies and oligopolies on inflation, the paper includes two variables: the structure of the personal consumption market in Bosnia and Herzegovina (independent), which is determined by measuring the concentration of the market's leading intermediaries and inflation in BIH (dependent) measured by the consumer price index (CPI). The theoretical-methodological and empirical findings obtained as a result of the research, indicate that the market structure of intermediaries in the personal consumption market in Bosnia and Herzegovina influence and affect to a greater or lesser extent the general level of prices, and consequently the inflation in the country.

Keywords: personal consumption market, consumer price index, inflation, market structure, market intermediaries

JEL: D12, D43, D47, E20, E31

Sažetak

Razumijevanje inflacije i njenih uzroka važno je kako sa aspekta pojedinca, preduzeća ili potrošača, tako i sa aspekta države koja želi kontrolisati inflaciju u cilju zaštite životnog standarda svojih građana. Ne ulazeći u ocjenu primjenjivosti pojedinih ekonomskih teorija inflacije na slučaju Bosne i Hercegovine (BiH), ovim radom se nastoje pronaći uzroci inflacije u postojećim odnosima i uslovima koji vladaju na tržištu lične potrošnje, čime se pažnja sa makroekonomskih uzroka inflacije usmjerava na mikroekonomske. Polazeći od potencijalnog utjecaja tržišnih struktura kao što su monopoli i oligopoli na inflaciju, istraživanje obuhvata dvije varijable: strukturu tržišta lične potrošnje u BiH (nezavisna) koja se utvrđuje mjerenjem tržišne koncentracije vodećih posrednika i inflaciju u BiH (zavisna) koja se mjeri indeksom potrošačkih cijena. Teorijsko-metodološka i empirijska saznanja, dobivena kao rezultat provedenih istraživanja, upućuju na jedan opći zaključak, a to je da tržišne strukture posrednika na tržištu lične potrošnje u BiH u manjoj ili većoj mjeri utječu na opću razinu cijene, odnosno inflaciju u zemlji.

Ključne riječi: tržište lične potrošnje, indeks potrošačkih cijena, inflacija, tržišne strukture, tržišni posrednici

JEL: D12, D43, D47, E20, E31

1. Introduction

Within free market economy, price stability is necessary for measurement of economic value, rational allocation of scarce resources and for sound economic decisions. Modern inflation is very complex and heterogeneous phenomenon that occurs in different socio-economic and political conditions, and the reasons for its occurrence are many (Perišin, Šokman & Lovrinović 2011, p. 168). Several economic theories of inflation aim to explain its causes, however, while not assessing the applicability of those economic theories in the case of Bosnia and Herzegovina (BIH), and abstraction of other possible causes of inflation, we aim to find the causes of inflation in the free market structure itself.

Current monetary policy in BIH conducted by the Central Bank of Bosnia and Herzegovina (CBBiH), is severely limited by the currency board model adopted in 1997, which bound domestic currency to EURO with a fixed exchange rate. CBBiH, based on the principles of the currency board, does not have specific jurisdiction as central banks in other countries have, therefore, it is obligated to conduct passive monetary policy which is one of

the basic functions for preservation of domestic currency stability and low inflation rate (CBBiH 2007).

Other potential reasons for inflation in BiH are the changes in prices of food, oil and other goods on international markets, defining such an occurrence as “imported inflation”. Being a small open economy BiH is predisposed to inflationary spill over effects from other countries. In 2002, CBBiH in its yearly report points out that “... domestic price movement is mostly caused by movements on international markets and is caused by the openness of Bosnian economy which is implied by the board”. BiH can, by some parameters, certainly be placed in the category of small and open economies, and the definition of that term states that small and open economy is a country that is enough small in comparison to world markets that it participates in, and that its policies do not affect prices or world revenues, which is why it modifies prices in accordance with world markets (Mata 2008, p. 6). Literature about small open economies in developed world and countries in development state that there is a significant spill over effect caused by changes in world prices (Krznar & Kunovac 2010, p. 1).

Moreover, some inflation theories underline the psychological factors, i.e. theory of behaviour whose supporters point out that behaviour of different social groups is the key factor in price movement and in inflation development. Perroux with domination theory considers that “... dominant companies and economies have a key part in the market, because the decisions of the big units such as public government and large business associations (monopolies) have the most impact on all movements, while many small economic units are the subject to that impact” (Perišin, Šokman & Lovrinović 2011, p. 239).

Inflation can be measured in many ways, but the most common one is the consumer price index (Blanchard 2005, p. 29). Consumer price index (CPI) in BiH is the measure of inflation, which is used to measure change in prices of products and services that households and end consumers buy on the territory of BiH to meet their basic needs (Statistics Agency BiH 2006). Personal consumption market which is in marketing theory also known as the consumer market represents a place where households (end consumers) buy products and services that meet their needs (Group of authors 1999, p. 87). Such a market in BiH is comprised of manufacturers/providers, end consumers and mediators as well (wholesalers, retailers and services providers) who provide consumers with products and services.

Interests of consumers and mediators on the personal consumption market are different and because of that, their activities are different. General and basic principle of all consumer behaviour theories is that consumer aims to maximize utility within the limits of the available, predetermined income (Benić 2009, p. 164). Unlike the consumers, companies whether the mediators or producers, aim to increase their profit, mostly because the microeconomics starts with an assumption that an increase in profit is the end goal of business (Sharma & Tomić 2011, p. 7). There are several factors that steer the price forming process, and one of them is competition, which represents market behaviour of subject during the price forming process. Depending on that behaviour and current conditions we can distinguish between perfect and imperfect competition. In monopolistic and oligopolistic market structures (imperfect competition) there are several companies that have the power (market power) to influence the prices of products and services (Jurin & Šohinger 1990, p. 160).

Taking into consideration the potential influence of market structures such as monopoly and oligopoly on inflation, several questions emerge: What is the structure of personal consumption market in BiH from the mediators' point of view, and what is their market power? Are there any monopolistic or oligopolistic structures of mediators on the personal consumption market in Bosnia and Herzegovina, and as such, can they influence the inflation in the country? While overseeing other possible causes, we attempt to draw attention from macroeconomic causes of inflation to microeconomic, subject of research was defined, and it is reflected in the examination of causes of inflation in already established market relations in the market of personal consumption in BiH. Based on the specific research subject, we propose a central research hypothesis: *current monopolistic and oligopolistic market structures of mediators on the personal consumption market affect the inflation in Bosnia and Herzegovina.*

2. Theoretical aspect of market structures

Personal consumption market is large and heterogeneous from the aspect of products and services diversity that are the subject of exchange and number of mediators that deliver them to the end consumers. Behaviour of companies i.e. their business strategies and their activities influence the market structure and organization of the market (Sharma & Tomić 2011, p. 2). Modern markets morphology is very diverse. Market structure represents consumers' and sellers' behaviour and their different behaviour considering

the differences in their power (Benić 2009, p. 409). Perfect competition is therefore "... technical term that describes automated structure of the market that prevents individual companies or consumers to influence the price" (Samuelson & Nordhaus 1992, p. 40). Due to the flawed market, behaviour of real markets are far from perfect, and deviation appears in form of imperfect competition where only several companies have the power to influence prices. According to Schumpeter it is questionable whether the monopolistic prices (in our case the prices of intermediaries) significantly higher than competitive prices put the same customers in the inferior position in relation to the prices of free competitive enterprises. Moreover, monopolistic enterprises do not necessarily have to provide goods and services at higher prices compared to the companies operating in terms of free market competition.

There are many factors that can influence forming competitive relations between the market participants: number and size of individual participants, restriction level and possibility of new competitors emerging, spatial distribution of buyers and sellers, smaller or greater homogeneity or differentiation of products, the degree of elasticity of demand for certain product etc. All of these criteria influenced the economic theory to emerge with different classifications of market structures. Weintraub's classification (Jurin & Šohinger 1990, p. 164) defines four market structures: complete (perfect) competition, monopoly, oligopoly and restricted (monopolistic) competition. Monopoly represents market in which there is only one supplier, where product does not have any close substitutes and that is closed for other companies that aim to enter that market, whether for legal or technical reasons. Company that controls the market, controls the prices and quantity of goods, and makes profit in the long run. Oligopoly is dominant market structure in many developed countries. Oligopoly represents market structure in which several suppliers offer homogenous or differentiated product, i.e. there is small or none differentiation of the product. Unlike total competition, on oligopolistic market, changes in price of one company influence sales and profit of their competitors, mostly due to a small number of economically strong participants. Monopolistic competition defines a market structure characteristic by the existence of many suppliers and consumers on the market, which offer similar but not the same products and the possibility of entry into the market. Every participant in such a market covers a relatively small part of the total market, so it acquires only a limited degree of price control.

Price is an instrument for demand stimulation and a determining factor of company's long term profitability. Before the decision about price forming is made, a company has to establish goals that it wants to accomplish in the context of general financial and marketing terms of the company (Jobber 2006, p. 36). Products and services price establishment should reflect the goals set by the company, but mediators have to take into account the conditions of competition on the market i.e. their own market power compared to other mediators and market participants.

Basic indicators of market power are market shares of the participants and the level of their market concentration, as well as their market competitors (AZTN 2005). The larger the market shares, the higher the possibility that such entrepreneur has a large market power that enables him to dictate purchase conditions and to remove competition from the market. His market power is higher if he operates on the closed market.

3. Methodological framework of research

As it is emphasized in introduction, consumer price index (CPI) represents level of inflation in a country. Moreover, it also expresses the change of price of products and services which households or ultimate consumers are buying for their individual needs by cash transactions on a specific economic territory. Consumable prices movement data in BiH are collected and published in a unique way and in accordance with the internationally accepted methodology since 2005 by the Agency for statistics of BiH. CPI in BiH is calculated based on representative list of products and services. Classification of products and services from the statistic of consumer prices is based on the international Classification of individual consumption by purpose (COICOP), which sorts total expenditure of household in twelve sections products and services for which indexes are calculated (Agency for statistics BiH 2010).

Ponders which are applied for index of consumable prices calculation are coefficients which maintain relative importance of selected products and services in total household consumption in BiH.

Main source of data for the ponders used for CPI calculation is a Poll about household consumption in BiH, which was piloted for the first time in 2004 and published by the Agency for statistics in BiH, and then repeated in 2007 in order to follow the procedures of European and international

recommendations (related to COICOP classification and definitions of price index).

Poll form 2007 represents the most important secondary data for this research: (1) it provides insight in structure of individual consumption of households on the market of individual consumption in BiH, and (2) it represents the foundation for estimation of ponders for calculation of consumer prices indexes.

Considering that the structure of expenditure for household consumption is used as a base for ponder calculation or coefficient of importance of individual products and services in calculation of CPI, it is used for the purpose of testing the proposed hypothesis as the structure of individual consumption represents the structure of the consumer prices index.

Table 1. *Structure of consumer price index (CPI) and individual consumption in BiH*

STRUCTURE OF CONSUMER PRICE INDEX		STRUCTURE OF INDIVIDUAL CONSUMPTION IN BIH
COICOP sections		(%)
01	Food and non-alcoholic beverages	31.91
02	Alcoholic beverages and tobacco	3.27
03	Clothing and footwear	5.28
04	Housing, water, electricity, gas and other energy sources	22.15
05	Furniture, household devices and regular maintenance of the house	5.44
06	Health care	4.03
07	Transport	11.24
08	Communications	3.27
09	Recreation and culture	3.65
10	Education	0.53
11	Restaurants and hotels	2.84
12	Other goods and services	6.39

Source: Adapted from the data of Statistics agency of BiH and Eurostat

Considering that CPI in BiH is calculated in accordance with European standards and methodology and taking into account that COICOP classifications have been used since January 2005 (Statistics agency BiH 2006), research of the influence of market structures of intermediaries on inflation in BiH is limited for the period of 2005-2010, with the provision that 2005 is selected as a base year.

Analysing the data from the Table 2 about the highest recorded level of inflation in five-year period it can be perceived that the level of inflation was 17.7% on average, and that the levels of inflation were recorded for every submarket, in every COICOP sections, except for the clothing and footwear market where deflation rate was recorded in of 13.7%. The highest level of inflation in observed five-year period was recorded on the market of Housing, water, electricity, gas and other energy resources (34.6%), and then on the following markets: Alcoholic beverages and tobacco (33.9%), Communications (31.6%), food and non-alcoholic beverages (22.8%), Restaurants and hotels (21.3%), Recreation and culture (15.0%), Health care (13.5%), Transport (13.1%), Education (11.6%), other goods and services (8.0%) and Furniture, household devices and regular house maintenance (4.7%).

Table 2. *Inflation movements on submarkets in period from 2006. to 2010.*

Level of inflation (%) by years with regard on year 2005.					
COICOP SECTIONS- SUBMARKETS	Ø2006	Ø 2007	Ø 2008	Ø 2009	Ø 2010
00 Total level of inflation	6.12	7.72	15.7	15.3	17.7
01 Food and non-alcoholic beverages	8.26	1.38	24.8	23.7	22.8
02 Alcoholic beverages and tobacco	0.01	0.39	1.5	11.4	33.9
03 Clothing and footwear	-0.77	3.87	-5.9	-9.6	-13.7
04 Housing, water, electricity, gas and other en. sources	13.02	15.74	25.6	30.5	34.6
05 Furniture, household dev. and regular maintenance	1.19	1.59	3.8	4.6	4.7
06 Health care	8.98	10.12	10.6	11.5	13.5
07 Transport	5.55	5.42	17.2	5.6	13.1
08 Communications	13.69	16.21	21.4	23.1	31.6
09 Recreation and culture	4.78	6.29	10.6	14.1	15.0
10 Education	1.87	6.37	9.0	8.8	11.6
11 Restaurants and hotels	3.87	6.76	14.3	20.0	21.3
12 Other goods and services	1.35	1.97	4.9	7.2	8.0

Source: Adapted from the data of Statistics agency of BiH: Index of consumer prices 2005, 2006, 2007, 2008, 2009 and 2010.

In order to test the proposed hypothesis regarding the influence of market structure of intermediaries on the inflation in BiH, it was necessary to determine the market structure of intermediaries. This task was accomplished by division of individual consumption in BiH into submarkets in accordance with COICOP classification for which the level of market concentration of intermediaries was individually determined, or the height of their market shares.

Indicators used for determination of market structures of intermediary were:

- “monopoly” exists if one intermediary owns 75% of market shares or more,
- “oligopoly” if five intermediaries own 75% off market shares and
- “other markets” if the market is not monopoly or oligopoly.

4. Research results

Research results of the market structures on the market of individual consumption in BiH and the structure of expenditure for individual consumption of households in BiH, which are also representing the Consumer price indexes in BiH, are presented in Table 3. The markets are ranked by the principle of the highest recorded level of inflation in BiH in 2010, in accordance with the base year - 2005.

Table 3. *Research results*

O. No.	INDIVIDUAL CONSUMPTION MARKET SECTIONS AND GROUPS	MARKET STRUCTURE OF INTERMEDIARY	STRUKTURE OF INDIVIDUAL CONSUMPTION AND CPI (%)	LEVEL OF INFLATION 2010/2005 (%)
1.	04 HOUSEHOLD, WATER SUPPLY, ELECTRICITY, GAS AND OTHER ENERGY SOURCES AND SERVICES MARKET		22.15	34.6
	04.1/ 04.2. Rent market/ imputed rents	Other markets	13.84	1.8
	04.3 Maintenance and house repair market	Other markets	0.89	17.5
	04.4 Water supply and other utility services market	Monopoly	0.97	49.0
	04.5 Electricity, gas and other energy sources market	Monopoly	6.45	37.9
2.	02 ALCOHOLIC BEVERAGES AND TOBACCO MARKET		3.27	33.9
	02.1 Alcoholic beverages market	Other markets	1.25	11.0
	02.2 Tobacco and tobacco products market	Oligopoly	2.02	44.9
3.	08 COMMUNICATIONS MARKET		3.27	31.6
	08.1 Postal services market	Monopoly	0.08	24.7
	08.2 Telephonic and fax equipment market	Other markets	0.13	-35.8
	08.3 Telephonic and fax services market (fixed / mobile telephony)	Monopoly/ Oligopoly	3.06	35.3
4.	01 FOOD AND NON-ALCOHOLIC BEVERAGES MARKET		31.91	22.8
	01.1 Food market	Other markets	28.52	24.2
	01.2 Non-alcoholic beverages market	Other markets	3.39	12.4
5.	11 RESTAURANT AND HOTELS MARKET		2.84	21.3
	11.1 Food service market	Other markets	2.05	21.0
	11.2 Accommodation service market	Other markets	0.79	22.0
6.	09 RECREATION AND CULTURE MARKET		3.65	15.0
	09.1 Audiovisual, photo and computer equipment market	Other markets	0.58	-2.8
	09.2 Other durable goods for recreation and culture market	Other markets	0.01	-5.9
	09.3 Other goods for recreation, garden and house pets market	Other markets	0.62	6.5
	09.4 Other recreational and cultural services market	Other markets	1.05	11.4
	09.5 Books, newspapers, stationery market	Other markets	1.23	31.0
	09.6 Package arrangement market	Other markets	0.16	*

	06 HEALTH MARKET		4.03	13.5
7.	06.1 Medical products, supplies and equipment market	Oligopoly	2.82	20.8
	06.2/06.3 Hospital and outpatient services market	Monopoly	1.21	2.9
	07 TRANSPORT MARKET		11.24	13.1
8.	07.1 Means of transport market	Other markets	2.14	-6.7
	07.2 Use of means of transport market	Oligopoly	7.72	14.1
	07.3 Transport service market	Oligopoly	1.38	27.9
9.	10 EDUCATION MARKET		0.53	11.6
	10.1/10.2/10.3 and 10/4 (All submarkets jointly)	Monopoly	0.53	11.6
	12 OTHER GOODS AND SERVICES MARKET		6.39	8.0
10.	12.1 Personal care market	Other markets	4.11	12.2
	12.3 Personal items of other purpose market	Other markets	0.27	18.4
	12.4 Social service market	Monopoly	0.05	*
	12.5 Security market	Other markets	1.52	-7.0
	12.6 Financial services market	Oligopoly	0.02	*
	12.7 Other services market	Other markets	0.42	17.2
	05 HOUSEHOLD AND ROUTINE MAINTENANCE EQUIPMENT HOUSEHOLD		5.44	4.7
11.	05.1 Furniture, carpets and other market	Other markets	1.73	0.9
	05.2 Household textile market	Other markets	0.14	0.9
	05.3 Household devices market	Other markets	0.90	9.3
	05.4 Glass, dishes and household utensils	Other markets	0.17	1.3
	05.5 Tools and equipment for house and garden market	Other markets	0.57	10.5
	05.6 Products and services for regular house maintenance market	Other markets	1.93	7.9
12.	03 CLOTHING AND FOOTWEAR		5.28	-13.7
	03.1 Clothing market	Other markets	3.63	-9.8
	03.2 Footwear market	Other markets	1.65	-22.4

Note: *Statistics agency in BiH does not calculate CPI on markets on which the percent of personal consumption segregation is smaller than 0.1% of total personal consumption.

Source: Meholfić 2012

The research results showed that households in BiH used 26.31% of their income for purchasing products and services for personal consumption on monopoly and oligopoly markets, while 73.69% of income was spent on purchasing products and services on so-called “other markets” which could be less or more competitive.

The effects of monopoly and oligopoly market structures on inflation in BiH were tested by a simple qualitative analysis. It is noticeable from the data in Table 4, which presents data on the level of inflation only on monopoly and oligopoly markets, that the inflation is present on every listed market (there is no deflation), and that in some cases it moved up to 49.0%. Those high levels of inflation were not recorded on the so-called “other markets”. A state, or its

entities, cantons or municipalities, appear to be monopolists or oligopolists on eight of twelve markets. On markets where intermediaries have taken over or have a large part of ownership of the state (telephonic and fax services market, postal service market, electricity, gas, other energy sources, water supplying market and utilities market), levels of inflation range from 24.7% to 49%. Clear evidence of monopoly or oligopoly influence of state as an intermediary on inflation in these markets, reflects in the following: during 2006 multiple increase of prices accrued like implementation of tax on every service, increase of the gas price twice during a year (total by 60%), and increase of the electricity price by 6% (DEP BiH 2006). In 2008 liquid fuel prices and liquefied gas prices were increased by 8% in accordance to previous year (DEP BiH 2008). On these markets delivery service prices were mostly determined by the regulatory body of the state, and companies which provide household supplying services or government of entities/cantons/municipalities via control mechanisms which they use through the establishment of these companies.

Table 4. *Inflation on monopoly and oligopoly markets in BiH*

No.	COICOP LABEL	MONOPOLY AND OLIGOPOLY MARKETS IN BiH	MARKET STRUCTURE OF INTERMEDIARY	LEVEL OF INFLATION IN 2010/2005 (2005=100)
1	04.4	Water supplying and utilities market	Monopoly	49.0%
2	02.2	Tobacco and tobacco products market	Oligopoly	44.9%
3	04.5	Electricity and other energy sources market	Monopoly	37.9%
4	08.3	Telephony and fax services (fix / mobile telephony)	Monopoly /Oligopoly	35.3%
5	07.3	Transport service market	Oligopoly	27.9%
6	08.1	Postal service market	Monopoly	24.7%
7	06.1	Medical products, supplies and equipment market	Oligopoly	20.8%
8	07.2	Utilization of means of transport market	Oligopoly	14.1%
9	10	Education market	Monopoly	11.6%
10	06.2/06.3	Hospital and outpatient services	Monopoly	2.9%
11	12.4	Social security market	Monopoly	-
12	12.6	Financial service market	Oligopoly	-

■ *State in a role of monopoly and oligopoly (entity, canton, municipality)*

Source: Data from Table 3. regarding to monopoly and oligopoly markets

On oligopoly markets like tobacco and tobacco products market and utilizations of means of transport market – oil and oil products, the state also

undertakes a big impact on prices through specific politics which contributed to the general increase of level of product prices on these markets in the observed period. Highest tax which the state charges is in the form of road tax on oil and oil products in accordance with a Law about excise goods (Official courier of BiH, no. 42/09) is important: the amount of excise duty 0.30-0.40 KM (depending on type of oil product) is billed per one litre of a product, plus the road taxes 0.15 KM per litre for roads and 0.10 KM for road building. Total minimum excise duty by a pack of cigarettes in year 2012 was 1.65 KM. If we consider that the average price of pack of cigarettes was 2.5 KM then we can conclude that state for its' budget, by excises, takes more than 50% of amount of pack of cigarettes and with that the state is directly affecting retail prices. On an oligopoly market for medical products, supplies and equipment the inflation went up to 20.8% in the observed period.

Monopoly and oligopoly market structure of intermediaries are evident on the market of personal consumption in BiH. Based on large market power which they have, monopolists and oligopolists in BiH increase the price of their products and services to achieve extra profit, subsequently they influenced an increase of general level of prices in observed markets. Considering the fact that households in BiH use 26.31% of total income for personal consumption, purchasing products and services on monopoly and oligopoly markets, and knowing that the expenditures of personal consumption are representing base for estimation of ponder of calculation of consumption prices index, central research hypothesis can be confirmed: *current monopolistic and oligopolistic market structures of mediators on the personal consumption market affect the inflation in Bosnia and Herzegovina.*

5. Research of the influence of “other” market structures on inflation in BiH

On “other markets” in BiH, which can be more or less competitive, where households spend 73.69% of total income intended for personal consumption, various levels of inflation were recorded, but not as high as those on monopoly and oligopoly markets. For qualitative analysis of influence of “other” market structures on inflation in BiH, Food and non-alcoholic beverages markets were selected in which the highest individual level of inflation was recorded (22.8%), as well as the biggest share in expenditure structure for personal expenditure of households (31.9%). Starting from the fact that the BiH is a small open economy which is through

free movement of goods and capital subject to inflation and that she mostly imports goods from the EU (EU 27) and neighbouring countries (DEP BiH 2010) a comparative analysis of market structure of intermediaries and inflation in BiH was conducted in comparison to EU 27 and Croatia.

In all EU countries there is a trend of increasing concentration of the retail markets which is calculated by aggregate shares of the five largest commercial retail chains; their aggregate share in Sweden amounts to 92% (Arčabić 2011). In Croatia we have similar situation: cumulative share of first five retailers was 55%, while in the first nine months of year 2011 it went up to 58% (Poslovni puls 2012). Market competition protection agency in Croatia (AZTN 2010) published the data which show that the biggest shares on wholesale market are still held by two large retail chains: Konzum with market shares in range from 45% to 50%, and Metro Cash & Carry with shares in a range from 20% to 25%. Considering the size of market shares, and the criteria set for this research, for Croatian and European food market and non-alcoholic beverages one could infer that they form an oligopoly market, unlike the market in BiH where the situation is slightly different. Namely, in 2006 and 2007, retail market in BiH was fairly fragmented. The existence of a great number of intermediaries with small market shares was evident: market share of seven biggest chain stores was only 19% (Kasumović & Meholjić 2013, p. 417). Since 2007, a number of supermarkets and hypermarkets was increasing constantly damaging the minimarkets and traditional stores even though they had significant role in the market. The chain of distribution of food and non-alcoholic beverages in BiH wholesalers have a significant role providing a great amount of small stores and partial big chain stores. In a market structure like that, due to increased expenses of distribution and a big number of intermediaries in a chain, retail prices tend to increase. Retail market in BiH is still not consolidated, although it is more and more concentrating on following the figures from EU in 2011. Ten leading retailers had a market share of 45%, which is by 8% more in comparison to previous year, and it has enhanced by 40% in the last five years (Gfk 2012).

Data on inflation on the observed markets (Table 5) shows that in EU 27, average inflation rate for the five year period was 15.11% and it was lower than inflation rate in Croatia (16.6%), and significantly lower than in BiH (22.8%). After rise in prices in BiH and the introduction of VAT prices were stable in 2007 and the inflation rate was 2.9 %. In 2008 record rate was achieved on the food market and it was 12.1% in BiH, while at the same time

in EU inflation rate was 6.45%. In 2009 and 2010 deflation was recorded in BiH and it was -0.9% and -0.7% respectively, while in the same period in the EU, inflation rates were 1.01% and 1.06% respectively, while Croatia had a similar situation.

Table 5. *Inflation movement on the food and non-alcoholic beverages market in BiH, EU and Croatia*

	COICOP SECTION/GROUP		Ø2006/ Ø2005	Ø2007/ Ø2006	Ø2008/ Ø2007	Ø2009/ Ø2008	Ø 2010/ Ø2009	Ø 2010/ Ø2005
BiH	01	food and non-alcoholic beverages	8.26	2.9	12.1	-0.9	-0.7	22.8
EU 27	01	food and non-alcoholic beverages	2.4	3.45	6.45	1.01	1.06	15.11
HR	01	food and non-alcoholic beverages	2.5	3.3	10.0	1.6	-1.5	16.6

Source: Statistics agency of BiH, Eurostat, European Central Bank and State office for statistics of Croatia

Similarities between Croatia and BiH are in small territories and open economies, while differences are evident in the market structure of mediators and recorded inflation rate. Inflation pressures are expected to occur in the process of strengthening the institutional and economic relations with EU. Moreover, due to convergence of price levels of products and services towards average levels in EU in the inflationary pressures are expected in the observed period in BiH and especially in Croatia who officially became the EU member in 2013. Convergence, in general, causes the growth of relative price levels, and that growth can be accomplished in two basic ways:

1. inflation rate that is higher in the country than in the EU and
2. appreciation of the exchange rate against the euro, but of course, with a combination of these two ways (Nestić 2008, p. 4).

For the products that are a subject to international exchange, such as food and non-alcoholic beverages, price levels in all countries are generally closer to average price levels in EU. In comparison with average EU-25, in Croatia, prices of food and non-alcoholic beverages, reached 84% of price levels in EU, and that means, according to Nestić (2008, p. 9), that in the following years, pressures on food and non-alcoholic beverages price growth will be

smaller and eventually concentrated on individual articles, which actually happened. Based on the research results, while excluding other possible causes of inflation, one could say that the consolidated market of food and non-alcoholic beverages, which are mainly traded internationally, enabled Croatia to “import” almost identical rate of inflation from the European markets. Price levels of food and non-alcoholic beverages in comparison to the price levels in EU and BiH for the period of 2005 to 2010 is unknown to authors, but in year 2012, data from Statistics agency of BiH, shows that it has already reached 76% of the price levels in EU. In BiH, prices convergence could not be accomplished by appreciation of course in comparison to euro, because of the currency board as a model for monetary politics, and because of that we cannot say that convergence was achieved by larger inflation rate in BiH, than it was in the EU. In one hand, larger inflation on the market of food and non-alcoholic beverages, in the period from year 2006 to 2008, was just a consequence of prices convergence towards prices in EU, and other countries from which it imports these products, and very granulated mediator structure on the other hand. Deflation that was recorded in 2009 and 2010 in BiH, with stabilization of prices on the world market, is a consequence of continual competition on this market between retailers that intensively expand with acquisitions or opening new facilities on more locations in BiH, and all that to eliminate little sellers and to conquer leading positions among the retailers. Disregarding other possible causes of inflation in Croatia and BiH, based on the presented results, it can be concluded that the cause of higher rates of inflation in BiH in relation to the EU and Croatia, is partly a result of non-consolidated and fragmented market of food and soft drinks in BiH.

6. Conclusion

The research has shown that the BiH market of personal consumption is monopolistic and oligopolistic market in which consumers allocate 26.31% of total income for the purchase of products and services for private consumption, while the remaining 73.69% of their income is used for purchasing products and services on other markets, which do not have the characteristics of monopolistic and oligopolistic structure and in which the degree of competition varies. Since the structure of personal consumption market is the basis for calculating the consumer price index or inflation in the country, one could infer that the markets in which monopolistic and oligopolistic structures appear have a share of 26.31% in the structure of the consumer price index, or to oligopolistic and monopolistic market

structures intermediaries in the market of personal consumption influence the inflation in BiH, thus confirming the central research hypothesis. On all the monopolistic and oligopolistic markets in BiH inflation in the observed five-year period has been recorded and inflation rates range up to 49%. In these markets, a large state influence on the formation of retail prices is evident and in some markets state herself is a monopolist. Knowledge about the impact of market structures of intermediaries and so-called other markets on inflation in BiH, on the example of quantitative analysis of inflation rate movements on the food and non-alcoholic beverages in BiH and in comparison with EU and Croatia, contributed to a general conclusion – market structures of intermediaries on the personal consumption market in BiH more or less affect the inflation in the country.

The theoretical-methodological and empirical knowledge about the impact of market structures of intermediaries in the market for personal consumption in BiH on inflation in the country, obtained as a result of the research, is the basis for institutional support to the development of retail infrastructure in BiH. Moreover, it contributes to the removal of institutional obstacles and barriers to the entry of new agents to monopolistic and oligopolistic markets, in order to increase competition and reduce the market power of the monopolists and oligopolists, all in the context of reducing their impact on the general price level. The research drew attention from the macroeconomic causes of inflation to microeconomic reasons while examining the conditions in the market of personal consumption in BiH. The limitation of this research is reflected in the fact that all other possible causes of inflation were excluded. However, the intensity of the impact of the market structure of personal consumption on inflation in BiH was not measured and it should be considered in future research.

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**DIVERSIFICATION OF ECONOMIC ACTIVITIES IN
RURAL AREAS OF BOSNIA AND HERZEGOVINA IN
THE FUNCTION OF ENVIRONMENTAL ECONOMICS**

**DIVERZIKACIJA EKONOMSKIH AKTIVNOSTI U
RURALNIM PODRUČJIMA BOSNE I HERCEGOVINE U
FUNKCIJI EKONOMIJE OKOLIŠA**

Abstract

The EU policy of rural development aims to increase competitiveness in agriculture by diversification of the rural economic activities through the protection of environment and rural areas, but also through an improvement of the life quality in rural areas. In EU 10% of farms report that they have additional revenue activity directly associated with the farm. A higher percentage of commercial farms (13.5%) have other revenue activities as well. The research results point to the obvious inequality between particular EU countries concerning the mentioned aspects. This further suggests that, primarily is necessary to consider transitional issues, and that an implementation of the successful projects within area of rural economy diversification will represent the next research challenge. The importance of market chains for realization of added value within the wider rural economy, mobilization

of the local endogenous capacities and resources in rural areas, advancement of economic activities and creation of employment opportunities for the rural population, as well as the emphasis on the territorial LEADER approach, are the objectives that support the concept of diversification in the EU rural development policy and its orientation towards the multi-sectoral approach, which particularly emphasize the importance of micro and small rural entrepreneurs in implementation of these goals. The aim of the paper is to identify possibilities of diversification of economic activities in rural areas of Bosnia and Herzegovina (BiH), given that BiH has good preconditions for development of rural economy through diversification of activities on the farm. Primary sources of data were collected through the survey of farms that have or expect to have diversified activities on the farm, while the secondary data were collected from domestic and foreign scientific and professional literature sources. Concerning the methodology survey methods, desk research method, analysis and synthesis, comparison method and descriptive statistics were used.

Keywords: Diversification, rural economy, farm, development goals, Bosnia and Herzegovina

JEL: Q16, Q17

Sažetak

Politika ruralnog razvoja EU ima za cilj da poveća konkurentnost u poljoprivredi putem diverzifikacije djelatnosti u okviru ruralne ekonomije, preko zaštite okoliša i ruralnih krajeva, ali i putem poboljšanja kvaliteta života u ruralnim područjima. U EU 10% poljoprivrednih gazdinstva prijavljuje da ima dodatnu prihodovnu djelatnost direktno povezanu sa svojim gazdinstvom. Nešto viši procenat komercijalnih poljoprivrednih gazdinstava (13,5%) ima i druge prihodovne djelatnosti. Rezultati istraživanja ukazuju na očite nejednakosti između pojedinih zemalja EU kada su navedeni aspekti u pitanju. Ovo nadalje navodi na zaključak da je prije svega neophodno razmotriti tranzicijska pitanja, te da će realizacija uspješnih projekata diverzifikacije ruralne ekonomije predstavljati naredni istraživački izazov. Važnost tržišnih lanaca za ostvarenje dodane vrijednosti u okviru šire ruralne ekonomije, mobilizacija lokalnih endogenih kapaciteta i resursa u ruralnim područjima, unapređenje ekonomskih djelatnosti i stvaranje mogućnosti za zapošljavanje ruralne populacije, kao i akcenat na teritorijalnom LEADER pristupu, sve su to ciljevi koji podržavaju koncept diverzifikacije u politici ruralnog razvoja EU i njegovo usmjerenje prema multisektorskom pristupu, a koji posebno ističu značaj mikro i malih ruralnih preduzetnika u realizaciji navedenih ciljeva. Cilj rada je da identifikira mogućnosti diverzifikacije ekonomskih djelatnosti u ruralnim područjima Bosne i Hercegovine (BiH), s obzirom da BiH ima dobre pretpostavke za razvoj ruralne ekonomije kroz diverzifikaciju djelatnosti poljoprivrednih gazdinstava. U istraživanju su korišteni kako primarni izvori podataka prikupljeni putem anketiranja poljoprivrednih

gazdinstava koja imaju ili očekuju da će imati diverzifikovanu djelatnost na gazdinstvu, tako i sekundarni podaci objavljeni u domaćoj i inostranoj naučnoj i stručnoj literaturi. U istraživanjima su korištene metode anketiranja, istraživanja za stolom, analize i sinteze, komparacije i deskriptivne statistike.

Ključne riječi: Diverzifikacija, ruralna ekonomija, poljoprivredno gazdinstvo, razvojni ciljevi, Bosna i Hercegovina

JEL: Q16, Q17

1. Introduction

Diversification of the rural economy means acquiring additional income at the farm holding or outside of it aiming at an improvement of the living standard, reduction in vulnerability of the farm household in terms of income, i.e. engagement in additional activities that could be or may not be connected with production or manufacturing of food on the farm. Previous experience of many countries shows that the mainstay of the rural economy can no longer be just agriculture, but also a wide spectrum of activities based just on the inactivated potentials of rural areas (Bogdanov 2007).

Diversification of the rural economy in the European Union is reflected in the objectives of rural development policy, through an increase of competitiveness in agriculture, further through the protection of the environment and rural areas, up to an improvement of the life quality in rural areas. In the EU the agricultural sector has gone through a process of modernization and specialization, by which it has become more automated and less demanding in terms of labor. This has resulted in the increasing importance of industry and services in the economy, and thus agriculture has lost its significance in terms of source for creating the jobs in rural areas. In such situation, farmers have to look for ways to increase their income from sources other than primary agricultural production. As an opportunity to be increased an income of the farm household, it is an initiative for economic diversification, which is directly linked to the farm. A special place in these processes has marketing as a philosophy and the business function of economic entities and farms that are located in rural areas, and which want to use their comparative advantages over the competition (Cvijanović et al. 2013). The above mentioned trend has resulted in gradual changes in the farm business operations, while diversification of rural economy is increasingly gaining in importance. The environmental management is a component of rural development aiming at strengthening the rural sustainability, so as to

ensure a basis for appropriate use of natural advantages and resources of rural areas. A large portion of these resources can be used more effectively in accordance with improvement of the rural communities' capacities, in order that they should manage the rural environmental resources in a better way, and thus provide basis for improvement their chances to secure better livelihoods in rural areas. In the paper it has been started from the assumption that environmental management and protection in the development as well as the use of environmental resources and advantages are based on the principle that the land managers who have adequate skills and motivation, can adequately utilize well protected natural wealth and resources, which are managed appropriately, and thus provide the basis to improve opportunities for better earnings in the rural areas.

2. Diversification of agricultural activities

In the rural economy diversification a very important place has the value chain as well, both for the wider rural economy, mobilization of local endogenous capacities and resources for rural areas, and for the advancement of economic activities as well as creation of employment opportunities for the rural population. All mentioned support the concept of the rural economy diversification, including the emphasis on the territorial aspect based on the principle of the LEADER approach. Figure 1 illustrates the areas of the EU rural development policy application.

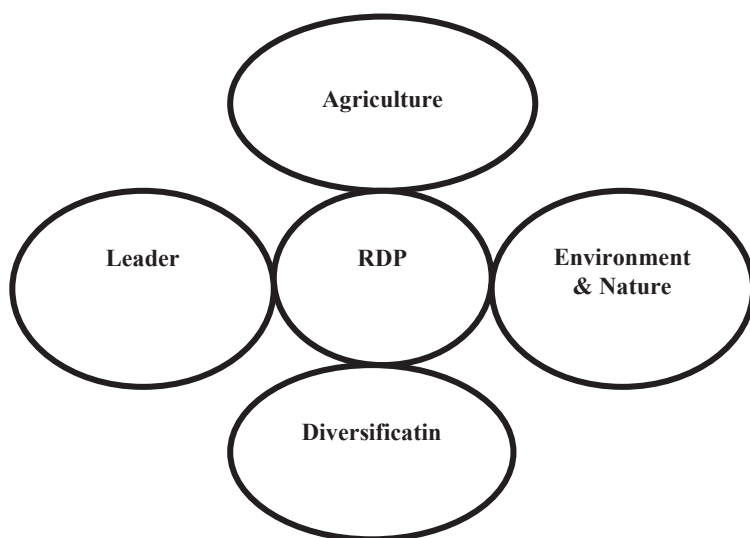


Figure 1. *Areas of the EU rural development policy application*

Source: FAO 2012, p. 24.

As it can be seen in Figure 1, the Leader approach is integrated in the rural development policy. The Leader is different from other rural development measures as it is both an approach and method, which proved to be useful in other projects of the rural economy diversification.

The importance of economic activities' diversification in rural areas is high, especially diversification of the farms, whose transformation over time can be observed through the revenue structure and synthetic indicators. Agriculture as an activity in global and rural economies of developed countries has lost importance it once had. However, it still has a big impact on the economy and development of rural areas in these countries, regardless of the small proportion of the rural population. Despite the impact agriculture still has, a large number of farms cannot provide a satisfactory level of quality of life only from the agricultural revenues, so they are in a situation where they have to diversify their activities and revenues (Cvijanović et al. 2014). The importance of agriculture for rural areas is reflected primarily in the food production and designing the rural-natural areas, as well as in its impact on the way of life in rural areas, but also in the activities which are directly or indirectly related to agriculture. In any case, a large part of the rural area includes arable land which is used by agriculture that further implies the importance of land, forests and water, as a natural, but also an economic resource.

This further indicates the indispensable importance of property (land and other) relations, which can largely profile appropriate development tendencies in rural areas. It is not surprising that due to the effect of these factors, as well as the modernization of agriculture, the rural development has still represented an important segment of consideration in relation to the farms and their development, as well as their direct or indirect impact on the rural economy (composed of agricultural and non-agricultural activities) and rural-natural environment as one of the most important resources of rural areas (Janković et al. 2014).

If things are viewed more broadly, in the context of agricultural modernization, the diversification has to be seen as a form of rural development (observed at the farm level), which has its various forms and practices, and which incurred as a result of different strategies, definitions and goals' operationalization that farms placed themselves within the same or similar structural conditions (Janković & Novakov 2014). The modernization, market and technological match (so-called "technological

mill”), caused the pressure on farms, which from the aspect of modernization need to increase the volume of production, technical efficiency, as well as to adopt rapidly new technologies and to adjust the marketing strategies and farm management strategies (Janković et al. 2014).

Some authors have a broad understanding of the farms’ diversification concept and they equate it with multifunctionality. This includes the revenue activities on the farm and outside the farm. In contrast, there are opinions that diversification includes only non-agricultural activities on the farm (Delgado & Siamwalla 1997).

3. The measures and rate of diversification in the EU rural development policy

The EU rural development policy includes several measures aimed at economic diversification in rural areas. Those measures are relating to the farms, but also to the micro and small rural entrepreneurs. In general, the measures of the rural economy diversification can be divided into two categories, depending on their effects, as can be seen in Figure 2 (Ludvig et al. 2010). The first group includes the measures that *directly* support economic diversification, e.g. encouraging entrepreneurship, improving the position of micro-enterprises and the development of trade and tourism. Also, they provide the ability to the farms to increase the value added through processing of agricultural products produced on the farm.

The second group contains the measures that *indirectly* support economic diversification. Those measures are grouped around the “capacity building” in the sense of preserving traditional skills, training of youth and women in different skills, creating the preconditions for starting jobs, the development of natural and cultural heritage, as well as creating the basis for improving the quality of life, but also for diversification of rural economy. Also, this includes measures such as improvement of spatial planning in rural areas, the establishment of public meeting places for community, encouraging local initiatives, strengthening the identities of local communities, etc.

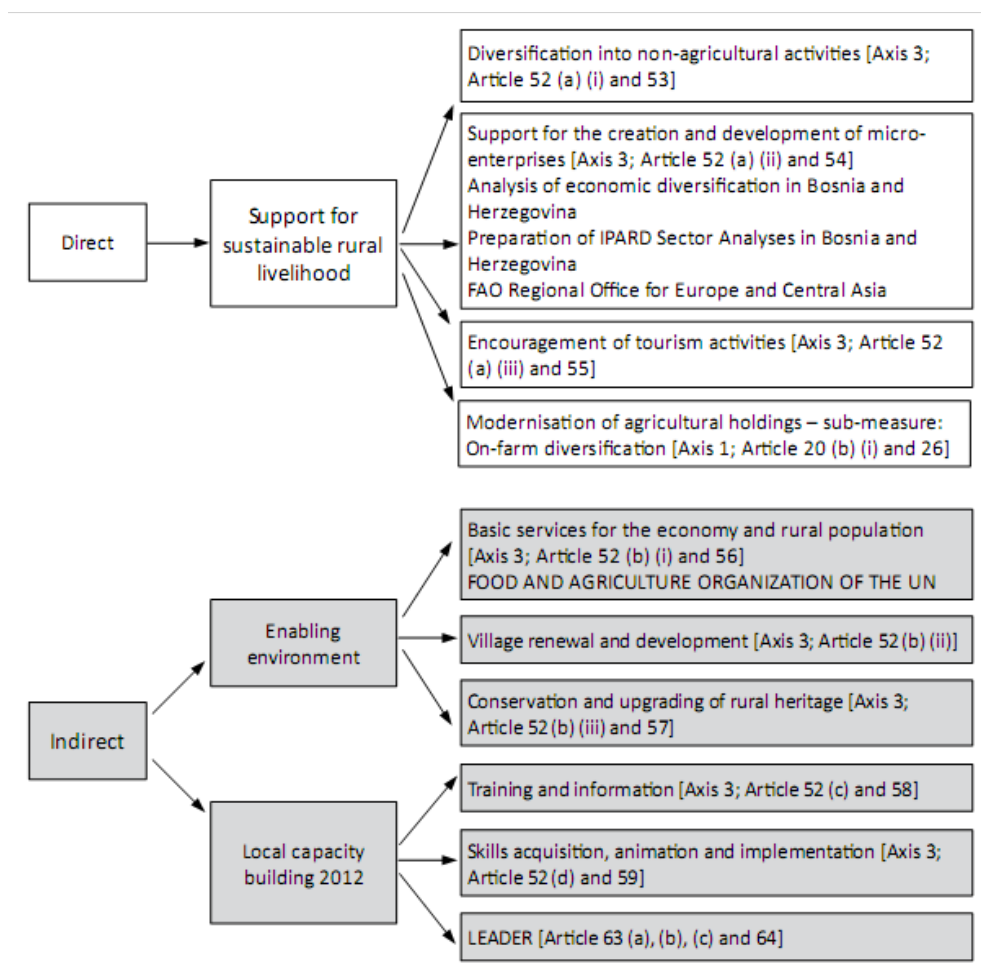


Figure 2. *Measures for diversification of rural economy*

Source: Ludvig et al. 2010

4. The value chain of diversified products in the rural economy

The value chain of a product includes a whole range of activities that are needed to bring the product from the production, through transportation, processing, retailing, to the consumer. The value chain of a product has been increased by the range of combinations that include engagement of equipment, labor force, knowledge and skills, as well as inputs for production of agricultural products.

The value chain is a series of several primary and supporting activities which adds value to products or services, i.e. it has been connected the supply side with the demand side of business. That is why the creation of profitable value

chain requires the harmonization between the desires of the consumers, i.e. between the demand chain and what is created in the supply chain. In order the supply chains achieve maximum value, it is necessary to align the supply flow with the consumers' value flow, due to rapid changes in their tastes, desires and requirements (Perkov & Čosić 2012).

The value chain of diversified products in the rural economy is specific and has certain specifics for each product individually. It is common for all diversified products that the value chain starts with planning, followed by production and processing of products. The product is then distributed to the retail sale, where it is available to the consumers. The value chain of diversified products in the rural economy is shown in Figure 3.

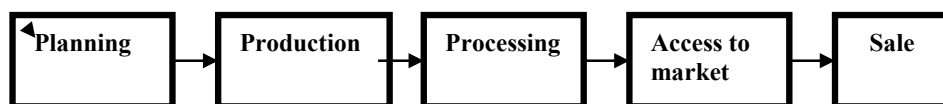


Figure 3. *The value chain of diversified products in the rural economy*

Source: FAO 2012, p. 55

Through the analysis of the diversified products' value chain in rural economy of BiH it could be concluded that it should be paid attention to elimination of weaknesses in the value chain, in a way that the available opportunities should be used in order that the latent natural and human resources of rural areas in BiH should be turned into the concrete advantages on the basis of which there can be built and developed the rural economy and rural communities.

5. The research results of diversified economic activities in Bosnia and Herzegovina

It is important to point out that the family is very important for most businesses in rural areas, as economic activity starts by the family owned assets with an emphasis on the economic activities carried out in order to be provided an additional income. Some economic activities subsequently expanded and they employ other labor or seasonal workers, developing in this way into the small enterprises in the rural areas.

Entrepreneurship in rural areas of BiH has great potential, while challenges are reflected in diversification of economic activities. The problems that are challenging the diversified economic activities in BiH are the sources

of financing those activities as well as insufficient knowledge on doing business. Just in those areas there have been identified the key problems of business, which needs to be solved by education, planning and conducting business operations in rural areas through diversification of economic activities.

Diversification of economic activities can be also considered as an income activity which does not involve agricultural work, but which is directly connected with the farm. Activities of this type include tourism, handicraft production, processing of products that are produced on-farm (such as e.g. processed fruit and vegetables, or dairy products, as well as the meat processing and production of meat products), aquaculture etc. (Cvijanović & Vuković 2014).

There is an interesting concept of multifunctionality which is related to the management of the farm, which means the existence of other income activities for the farmers which are not connected with the farm.

What can be regarded as an economic activity related to the farm, *inter alia*, it is the expansion of primary or conventional agricultural production, or the production of new and high-value crops and animal husbandry, organic production, the production of energy crops, then an increase of production with higher added value (e.g. the food processing), the production of regional products (products with protected geographical origin). Economic diversification which is not directly linked to agricultural production, includes agro-tourism, catering, services related to the sports, cultural and other recreational activities, craft activities linked to the production of handicrafts, therapeutic activity on the farm, agricultural services etc. These economic activities result in creation of jobs in the mini-enterprises and service activities in rural areas, including daily, seasonal or annual migration of workers. By diversification of economic activities in rural areas it is encouraging the self-employment, both in the small and medium entrepreneurship. All cited statements create good opportunities for development of rural areas in BiH. Processing and finishing of diversified products as a part of the value chain is reflected in the establishment of mini processing capacities. The processing of products, among other things, includes mushrooms, where there are good potentials in BiH and demand in the market. In BiH there is also a tradition in production and processing of medicinal and aromatic plants. What can be also considered as diversified products are various processed products of fruits and vegetables, as well

as the dairy and meat products. The main objective of the rural economy diversification is to make additional income for the farm and rural family. According to the results of research presented in the FAO study, over 51% of the farmers have additional income activity beside agriculture, which can be seen in Figure 4 (FAO, 2012). The research results show that in the Republic of Srpska there is a higher additional income from non-agricultural activities (59%) than in the F BiH (44%).

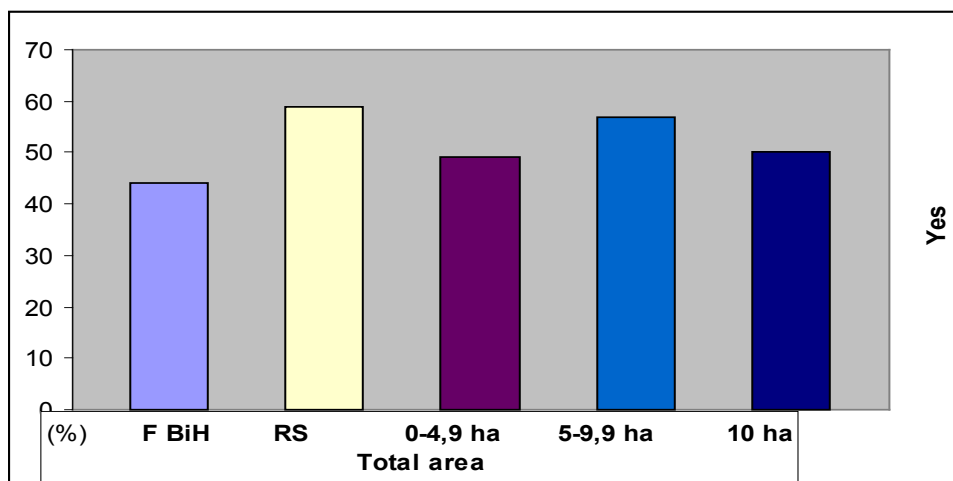


Figure 4. *Additional income from non-agricultural activities in B&H*

Source: FAO 2012, p. 61

Farms that have additional income from diversified activities consume a large share of its labor on this activity. According to the research results presented in the FAO study, the most of these farmers pay more than 30% of their total working time onto diversified activities (FAO, 2012).

When there have been analyzed the types and sources of additional income, it can be concluded that 10% of the farmers who participated in the survey on fruit and vegetables generate the non-agricultural income in the processing of products produced on the farm, 8% of the farmers are engaged in beekeeping, while 6% of them are dealing with construction activities, cheese production, beverage production or trade. Only 2% of farmers are engaged in goats' breeding (Figure 5).

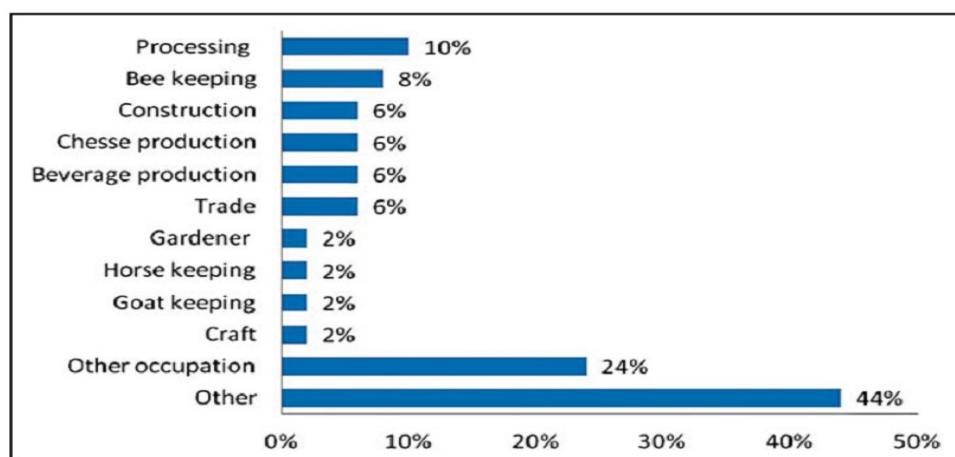


Figure 5. *Type of additional income from diversified products in B&H*

Source: FAO 2012, p. 63

Note: In the questionnaire it was given the possibility of giving several answers so that the sum of percentages may not be 100%.

According to survey results, 44% of farmers have cited the answer “Other” or they gave a description of the activity they are dealing with by their own words, which were not listed as an item in the questionnaire. There are 4% of farmers indicated that they are retired, while other responses were very different, e.g. they generate additional revenue from the production of jams, catering, physiotherapy services, etc. (FAO 2012).

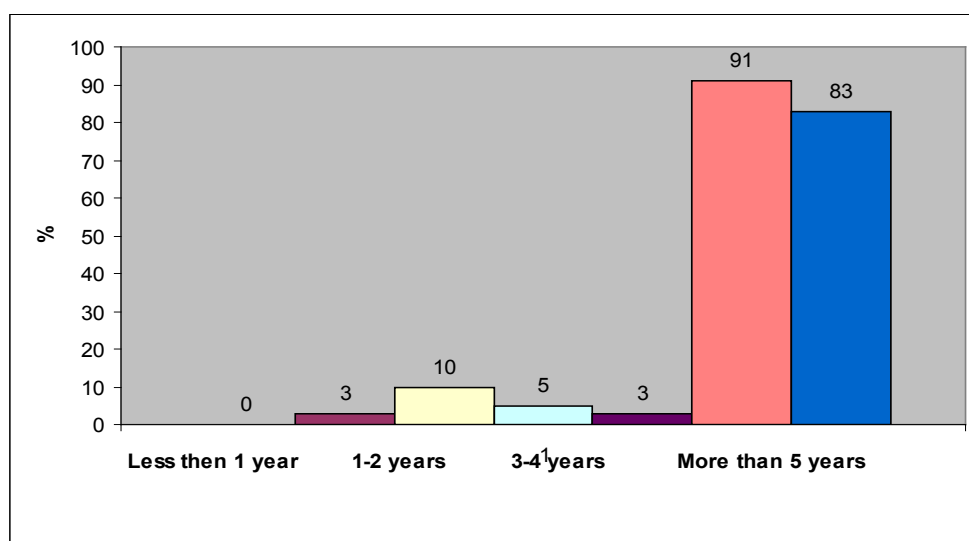


Figure 6. *Time period the farmers are dealing with additional activity*

Source: FAO 2012, p. 63

Most farmers with additional revenue activities are dealing with certain additional activity in a longer period of time. The research results show that 86% of respondents have been engaged in such activities for more than five years, and only 2% of them are dealing less than one year, which can be seen from Figure 6. Concerning the barriers that occur at the start of additional revenue activities in the rural economy of BiH, it can be concluded that they are mainly of economic nature. According to the research results, 81% of the farmers dealing with fruit and vegetable production generally cite a lack of access to the financial resources as a major obstacle. Another big obstacle is the impossibility of securing loans, which also represents a major obstacle to farmers to deal with diversification of economic activities in rural areas of BiH. The answers of farmers concerning the obstacles for diversification of economic activities in rural areas of BiH are shown in Figure 7 (FAO 2012).

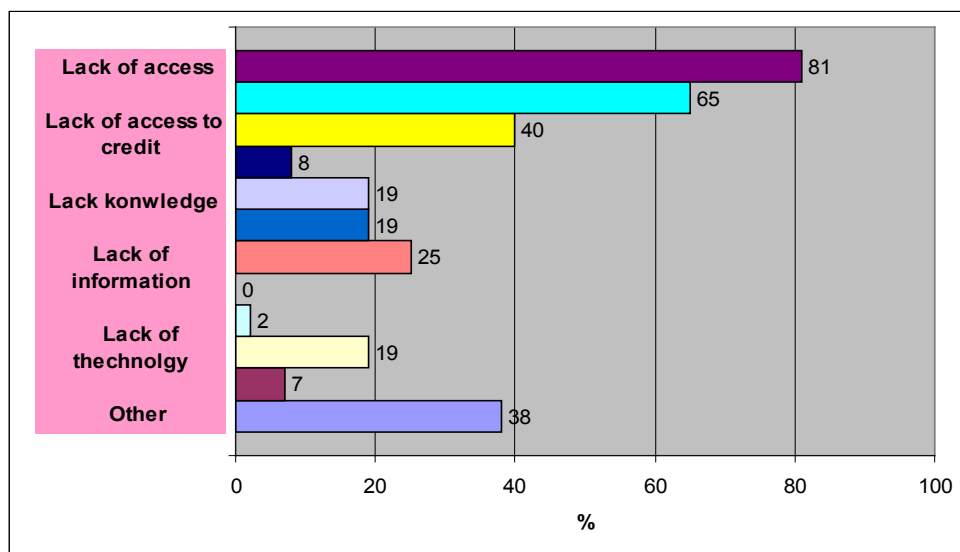


Figure 7. Barriers to launch diversified activities in rural areas of Bosnia and Herzegovina
Source: FAO 2012, p. 65

Note: In the questionnaire it was given the possibility of giving several answers so that the sum of percentages may not be 100%.

Lack of information does not represent a particular obstacle for farmers in Bosnia and Herzegovina in diversification of economic activities. The respondents who have chosen the answer “Other” specified that they have problem with age, or too big risk or lack of business partners.

6. Conclusion

Diversification of economic activities in rural areas can be defined as the process by which one farm holding is gradually reducing its dependence on agricultural activities. Diversification can absorb a part of the surplus labor force and enable the growth of agricultural productivity as well. In addition, it contributes to the achievement of additional income of the farm holdings. Diversification of the rural economy has a direct connection to the farm, but does not include the work in the agricultural production activities on the farm.

Diversification of rural economy and income of the rural population can affect overall economic growth and the necessary preservation of rural areas and their functions. The measures of the rural economy diversification that support economic diversification in rural areas are divided into direct and indirect ones. The value chain of diversified products in the rural economy has specific features and it depends on the product itself. Generally, the value chain starts with planning, going over the production and processing of products, to distribution, and finally comes to retail and consumers. The research presented in this paper was found that entrepreneurship in rural areas of BiH has good potentials through diversification of economic activities. However, the research has also showed that agriculture, environment and value chain for diversified products in BiH have a number of weaknesses, as they are not able to compete both on domestic and foreign markets. The consequence of these weaknesses is the lack of competitiveness for the BiH producers, as well as of their production capacities, which should meet the needs of the modern market. It is important that diversification of economic activities should be seen as a source of additional income for the farm holdings that do not involve agricultural activities.

By diversification of economic activities in the farm holding it can be also considered the expansion of primary or conventional agricultural production, i.e. the production of new and high-value plant and animal products (enlargement of the value chain), organic production, the production of energy crops, then an increase of production with higher added value (e.g. the food processing), the production of regional products (products with protected geofigureical origin). Diversification of economic activities in rural areas as a consequence has an encouraging of the employment both in the small and medium entrepreneurship, but self-employment as well. The research has shown that the rural population in BiH has the desire to improve

and/or expand its main source of income (agriculture), which is an important starting point for the development of diversified rural economy. It has been increasingly recognized the importance of creating new jobs and income opportunities in rural areas from sources that are not primarily linked with agriculture. However, the research has also shown that there is no systematic approach to the implementation of programs in BiH, which could support the diversification of economic activities in rural areas. Through this research, it was realized the necessity of investments into the rural infrastructure (roads, sewage system, IT facilities, etc.), as well as enabling the easier access to the rural areas, which can be considered as the basic requirements that have to be fulfilled in order to support economic diversification in rural areas. An important part in development of diversified rural economy in BiH is the process of education and advising, not only for the rural population, but also for entrepreneurs in rural areas aiming at better understanding of the economic diversification of the rural economy concept, as well as how to start it and how to develop it.

One of the problems is also the low level of social capital in terms of mutual distrust and lack of confidence in institutions and the authorities in BiH. This lack obstructs the development of the economy in general, but also of economic diversification in rural areas. Characteristically for BiH regarding economic diversification in rural areas is also the unregulated market, the emergence of small and fragmented farms, as well as a lack of trust in institutions from the micro to the macro level. All those results in poor cooperation between producers and other participants in the value chain of diversified products in rural areas. The specificity of economic activities in rural areas of BiH is also a large share of the farm production which serves for own consumption and for the local market, which is usually small. Research has shown that it was done the differentiations of producers in rural areas of BiH, to those who have the ambition to expand production of diversified products and willingness to export them, then to those who have ideas about the expansion of economic activity in rural areas and finally to those who mostly produce for their own consumption. It should be noted that all participants in the value chain of diversified products in the rural economy of BiH have to strengthen the efforts and acquire skills in promoting this kind of economic activity. Concerning the measures for environmental protection in BiH rural areas, it is necessary to emphasize that there is no clear and precise curriculum and program of those measures, although there is declarative discussion on these matters. It should be borne in mind that through the environmental measures there will be tested the

production systems as well, such as the “integrated” production systems, as well as the protection of the concrete environmental resources. It is necessary to emphasize that the improved environmental protection and a higher awareness will result in integration with other rural development measures, aiming at improvement of environmental resources and successful implementation of rural development programs. It should be particularly stressed that in the framework of the environmental protection measures it is important to improve the land management and thus to use adequately the well protected natural wealth and resources. In that way there should be created the prerequisites for the creation of additional income in rural areas of BiH. In the future period the researches should be focused on improving the supply chains of diversified economic activities in rural areas of BiH, with an emphasis on advancing the creation of value added in the total value chain of diversified agricultural products in BiH.

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**INTERNATIONAL ECONOMY /
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SOCIAL RESPONSIBILITY AND ENERGY EFFICIENCY IN THE FUNCTION OF ECONOMIC DEVELOPMENT

DRUŠTVENA ODGOVORNOST I ENERGETSKA EFIKASNOST U FUNKCIJI EKONOMSKOG RAZVOJA

Abstract

In parallel with a rapid growth of information technology, intensified process of globalization and increased challenges in the field of environment protection, various categories of stakeholders (shareholders, employees, financial institutions, suppliers, customers/clients, local community, state), international organizations and socially conscious individuals and groups exert their pressure on companies to be socially responsible. This is why managers' attention on the profit only is increasingly transformed in the strategic orientation that includes socially responsible activities. In the process, orientation towards the implementation of energy efficiency programs is one of the key areas, which indicates the level of company's commitment to socially responsible business activities. In other words, company's socially responsible conduct in the field of energy efficiency is nowadays related to the economic stability and sustainable development of company's business environment. Consequently, such company frequently becomes the prism through which the level of company's social responsibility is seen and measured. Improvement of energy efficiency should be a priority in formulating the strategies of sustainable development in Bosnia and Herzegovina (BiH) which is one of the prerequisites for the EU membership. Concerning the fact that energy efficiency should be observed as a socio-economic concept basically focused on increased competitiveness and well-being in BiH, Bosnian and Herzegovinian companies should be prepared for

rational energy management. The aim of this paper is to analyze the situation in the field of socially-responsible business activities of BiH companies, all in the context of implementing the energy efficiency concept in the function of economic development in BiH. The paper analyzes the relevant legal regulations and secondary data from this field, which will result in identifying the assumptions and obstacles and creating recommendations for company's socially responsible business activities with regard to energy efficiency management.

Keywords: social responsibility, energy efficiency, sustainable development, BiH

JEL: M14, 01, Q2, Q4, Q5

Sažetak

Uporedo sa rapidnim razvojem informacione tehnologije, intenziviranjem procesa globalizacije i rastom izazova na polju ekologije, jača i pritisak od strane različitih kategorija stakeholdera (dioničara, zaposlenika, finansijskih institucija, dobavljača, kupaca/klijenata, lokalne društvene zajednice, države), od strane međunarodnih organizacija, kao i pritisak od strane društveno osvještenih pojedinaca i skupina prema preduzećima da se društveno- odgovorno ponašaju. Zbog toga se nekada isključivo na profit usmjerena pažnja menadžera sve više transformiše u stratešku orijentaciju koja uključuje društveno odgovorno djelovanje. Pri tome je orijentacija na implementaciju programa za ostvarivanje energetske efikasnosti, jedno od ključnih područja na kojima se danas manifestira stepen usmjerenosti preduzeća na društveno odgovorno poslovanje. Naime, odgovorno ponašanje preduzeća na području energetske efikasnosti danas se dovodi u vezu sa ekonomskom stabilnošću i održivim razvojem okruženja u kojem to preduzeće posluje, te to područje nerijetko postaje i prizma kroz koju se posmatra i mjeri stepen društvene odgovornosti preduzeća. Unapređenje energetske efikasnosti bi trebao biti prioritet pri formulisanoj strategiji održivog razvoja u BiH, a što je jedan i od preduslova i za članstvo u EU. S obzirom da energetska efikasnost treba posmatrati kao socio-ekonomski koncept, koji u osnovi ima jačanja konkurentnosti i životnog blagostanja u BiH, to bi bosanskohercegovačka preduzeća trebala imati razvijenu izrazitu spremnost za racionalnije upravljanje energijom. Cilj ovoga rada je razmatranje stanja na polju društveno-odgovornog poslovanja bosanskohercegovačkih preduzeća, s posebnim osvrtom na njihovu orijentaciju na ostvarivanje energetske efikasnosti, a sve u kontekstu implementacije koncepta energetske efikasnosti u funkciji ekonomskog razvoja u BiH. U radu će se analizirati relevantna zakonska regulativa i sekundarni podaci na ovom području, što će rezultirati identificiranjem pretpostavki i prepreka, te kreiranjem preporuka za društveno odgovornije poslovanje preduzeća kada je u pitanju upravljanje energetske efikasnošću.

Ključne riječi: društvena odgovornost, energetska efikasnost, održivi razvoj, BiH

JEL: M14, 01, Q2, Q4, Q5

1. Introduction

The purpose of every company's business activity is to gain profit. This exclusive orientation towards profit by most world companies and multinational companies in particular, started producing the effects that are contrary to the goals of the local community. The lack of concern about the consequences of their decisions related to uncontrolled usage of resources, both human and natural, led to catastrophic results whose proportions are almost immeasurable. They are related to all spheres of human life in the future. Such uncontrolled absorption of natural resources and environment destruction led to natural imbalance and climate change with material and human loss. Negative influence on society's social development, uncertain survival, frequent financial crises, insufficient education of citizens, increasing gap between the rich and the poor, etc. have all led to social disturbances. Insensitivity to these factors in the last 15 years made large corporations attacked by the public, informal and formal groups of citizens as well as executive and legislative bodies. All this brought their socially responsible business activities to the fore (Dima & Mirshak 2007). A socially responsible company needs to take responsibility for its actions and through its activities encourage positive influence on the environment, customers, employees, community, shareholders, business partners and all the other members of the public sphere. The development of socially responsible business activities includes economic stability which recognizes economic value, social responsibility and responsibility towards the environment. Responsible business activities have lately been associated with the implementation of the energy efficiency programs, since their realization generates repercussions on the organization and various aspects of life in a social community.

2. Previous research

2.1. Social responsibility of a company

In its document *White Paper on Corporate Social Responsibility*, European Commission (EC 2003) defines corporate social responsibility as a "concept by which company voluntarily integrates concern about social issues and environment protection into its business activities and relations with stakeholders (owners, shareholders, employees, customers, suppliers, government, the media and the wider public". The Organization of Economic Cooperation and Development OECD state that "company's responsibility includes searching for an efficient 'harmony' between companies and the

society in which they operate. The term 'harmony' is used to acknowledge the interdependence of the business world and society – economy is unable to progress unless the society in which it operates progresses as well, and unsuccessful company shall inevitably get in the way of general welfare. The World Business Council for Sustainable Development (WBCSD), one of world's leading non-profit organizations which provides companies with information, instruments, training and counseling regarding the connection of corporate social responsibility and strategic orientation, defines corporate social responsibility as "business which responds or surpasses ethical, legal, market as well as the public expectations, or the ones the society has for a business." Comparing this definition of corporate social responsibility with other definitions, one might see that it is more comprehensive as it links business decisions with "the ethical values and legal regulations but also with respecting people, communities and the environment" (Kotler & Lee 2009). S. Rochlin from the Boston College Center for Corporate Citizenship points out that the Center defines company's responsibility as a "process in which firms act as economic and social goods of the communities which they affect, whereby social interests are matched to other goals of their basic business activity". On the other hand, Warwick University promotes the idea that the responsibility of a company as a citizen is evident in business and ethical obligations of a company in an array of segments, including legal rights, social community, labor relations, customers, owners, the environment, suppliers, production, code of conduct, philanthropy, marketing activity, ethics, etc. (Delić 2013).

At the beginning of the 21st century, owing to the increased environment awareness on a global level (affected by the knowledge of the degree and consequences of the global warming, ozone holes and the usage of genetically modified food) new theories emerge of companies/corporate social responsibility. In 2001, D. Baron introduced the term and concept of strategic corporate social responsibility based on two assumptions: 1) buyers demand and prefer products/services with the built in element of corporate social responsibility and 2) corporations shall manufacture a product/provide a service with social responsibility built in provided that the benefits of corporate socially responsible behavior exceed the resulting costs.

M. Porter and M. Kramer published the article titled "The Competitive Advantage of Corporate Philanthropy" in 2002 and founded the Center for Effective Philanthropy. By doing so they made company's corporate social responsibility the topic of scientific discussions. These authors believe

that the concept of strategic corporate social responsibility, as worked out by D. Baron, includes the activity of a company in those fields that bring the company respect, improve its image and reduce dissatisfaction of civil organizations or government. However, M. Porter and M. Kramer company's corporate social responsibility should be in the function of the general wellbeing and an integral part of the "competitive context" in which the company operates. Corporate social responsibility, M. Porter and M. Kramer state, may affect company's competitive context, and the company may use this potential for creating additional social value and improving its competitive advantage in general (Porter & Kramer 2002 pp. 56-68 in Letica 2010 pp. 66-76). Contemporary trends in the domain of social responsibility are marked by overcoming the traditional approach to corporate philanthropy, which was reduced to financial participation in solving social problems, and understanding socially responsible behavior as one of the sources for building and keeping company's competitive advantage (Delić 2013).

2.2. Energy efficiency, sustainable development and social responsibility

Energy efficiency is one of the most important issues of the modern times, in terms of production and use of energy (Šimleša 2010). A low level of energy efficiency brings the wheel of economic development backwards (Pješivac 2009, p. 43). Improvement of energy efficiency means to generate more energy with less fuel and lower harmful gas emission (UNDP 2008, p. 148). Increased energy efficiency contributes to lower greenhouse effect (primarily less CO₂), which is why more efficient production and rational consumption of energy are actually the key measures in fighting the global warming and climate change. Efficient usage of energy sources as well as final forms of energy has an important effect of the economic-financial aspect of business and life in general. Also, increased energy efficiency needs to be observed in the context of safe energy supply and saving energy sources for generations to come, which is one of the basic postulates of sustainable development. Energy facilities affect the environment immensely. In order to reduce this effect on the environment, significant effects may be reached by increasing efficiency, applying new technology, and using renewable energy sources. The environment awareness of citizens should be raised regarding the importance of energy, costs, efficiency, possibilities for saving and environmental impact.

Efficient management of energy consumption is one of the biggest challenges of the European Union (EU). By the year 2020, every EU

member state needs to reduce its energy consumption compared to the reference year (Dubreta 2010). This is a serious task whose accomplishment requires the need in change of life styles of European citizens as well as of business activities and the state policies. This is the context in which the issue of energy efficiency in BiH needs to be understood, as one of serious generators of future economic growth and a potential employment tool. Energy efficiency is believed to have a more important position in the future investment policy of BiH state institutions, local authorities and companies. Some domestic investors succeeded in launching important investment projects that can nowadays be regarded as the “best practice” examples, and can serve as the basis for the growth of the national fund of knowledge regarding the development of projects and technologies in the field of energy efficiency in BiH.

Therefore, turbulent political, economic and ecological reasons along with the growing need for more intensive existing energy resources followed by a rapid industrial growth impose the development of new sources of energy efficiency on BiH. Actually, development of energy efficiency should be the priority in many newly-emerging strategies of sustainable development in BiH as well as the precondition for the EU membership. Since energy efficiency should be observed as the socio-economic concept with a positive goal – to improve competitiveness and welfare state in BiH, the authors believe that the state of BiH should, via various agencies, affect other society members to consume energy rationally. This so called “mission” might be achieved by educating and informing the public, a series of projects and/or feasibility studies, and this is precisely where social responsibility is evident and/or revealed.

On the other hand, environmental dimension of responsibility reflects company’s impact on the environment or the ecosystems it depends on. This dimension point to the usage of materials, energy and water in production processes, biodiversity, greenhouse gas emission, suppliers and their attitudes to the environment, recycling rate or re-usage of products/services and the level of adherence to the valid relevant regulations. From the aspect of responsibility towards the environment, one needs to bear in mind that the very purpose of existence of every organization is to produce goods that people need, but not to the cost of people or generations to come. Finding the ways to protect the environment, whether by innovating the existing processes or the final products so that they are no longer harmful to the

environment, must become the task of the entire world and the pattern of conduct for all the companies.

3. Research methodology

Starting from the premise that the improvement of energy efficiency should be the priority when formulating the strategy of sustainable development in BiH (which is one of the conditions for the EU membership) and considering the fact that energy efficiency should be observed as a socio-economic concept based on the increase of competitiveness and wellbeing in BiH a research was conducted. The aim of the empirical research based on the secondary sources of data was to assess the readiness of BiH companies for more rational energy management and to discuss the present state in socially responsible business activities of BiH companies in the context of the implementation of the energy efficiency concept in the function of economic development in BiH. The results of this research are given in the remaining part of the paper.

4. Results and discussion

4.1. Present state in the energy sector of Bosnia and Herzegovina

The energy sector is one of the strongest economic sectors in BiH, with long tradition and large potentials and possibilities for further development and investment.

The World Bank data indicate that energy intensity in BiH is rather high and assessed to 0.77 tons per 1000 units of GDP. This is four times higher than the EU and OECD state average. The average European country produced four times more national income than BiH for the same quantity of the energy used. The annual consumption of electric energy per capita is 2320 kWh while the average consumption in the EU countries is around 6145 kWh per capita as a result of the low standard of poverty and low level of economic efficiency (CPU 2011). The access to modern energy service is an important and necessary element of the modern development of a country. It contributes not only to the economic growth and increased household income, but also affects the quality of life. Without an appropriate approach to modern commercial energy types, poor countries shall remain trapped in the vicious circle of poverty, social instability and development stagnation. The share of modern sources of energy in the total consumption is largely dependent on the indicators of human development and vice versa. BiH has

problems with using outdated equipment, which is why it should concentrate on the usage of new technology as a necessary element of its development.

4.2. Investment into the energy sector of BiH and BiH energy potentials

The largest investment expected is for the electric energy sector (65.8%), followed by investment into coal mines (12.1%), and district heating (8.2%). Somewhat lower investment is expected for the oil sector (7.5%) and the gas sector (6.4%).

Table 1. *Structure of expected investment into the energy sector of BiH (2007-2020)*

Energy sector	million €	%
<i>Electric energy sector</i>	4.057 million €	65.8
<i>Gas sector</i>	394million €	6.4
<i>District heating</i>	508 million €	8.2
<i>Coal mines</i>	465 million €	12,1
<i>Oil sector</i>	745 million €	7,5

Source: CPU 2010.

The structure of the total investment into the development of the energy sector in BiH is dominated by the expected investment into the electric energy sector in the amount of €4.057 million, followed by the investment into coal mines of 745 million, district heating in the amount of €508 million, the oil sector with €465 million and the gas sector with €394 million.

4.3. Regulation of energy efficiency policy in BiH – present state and perspective

The energy policy is in the domain of the executive government bodies or entities (Council of Ministers of BiH, Government of BiH Federation, Government of Republic of Srpska, Ministry of Foreign Trade and Economic Relations of BiH, Ministry of Energy, Mining and Industry of BiH Federation, Ministry of Economy, Energy and Development of Republic of Srpska. The Ministry of Foreign Trade and Economic Relations is authorized for activities and tasks under the jurisdiction of H related to the definition of policy, basic principles of coordinating activities and tasks of entity bodies and institutions at the international level, including the energetic, environment protection and development, and usage of natural resources. BiH should make an effort to transform its huge potential in renewable energy into new jobs, higher income and better economic options for companies and individual consumers, which may be achieved by a creative strategy of the energy sector.

There are no statistical data and consequently appropriate analysis that would clearly indicate the potential in BiH for reducing energy costs in the public and private sector. Some studies revealed that the saving of up to 30% is possible. The programs of energy efficiency in Bulgaria demonstrated that the potential for saving in public schools is 40% and in Serbia the number is 44%. Such a large potential for saving means quick return of investment. There is no reason to believe that such potential in BiH is in any way different.

BiH is a signatory country of the following international agreements which directly regulate the tasks in the domain of energy efficiency and climate change (Stefanović 2012):

- The Energy Figureer Treaty,
- The Energy Community Treaty (EnCT),
- The United Nations Framework Convention on Climate Change
- The Kyoto Protocol linked to the United Nations Framework Convention on Climate Change.

The duties/obligations of BiH are transposition and implementation of the following EU acts:

- Directive 2006/32/EC of the European Parliament and of the Council of 5 April, 2006 on energy end-use efficiency and energy services, and repealing Council Directive 93/76/EEC;
- Directive 2010/31/EU of the European Parliament and of the Council of 19 May, 2010 on the energy performance of buildings;
- Directive 2010/30/EU of the European Parliament and of the Council of 19 May, 2010 on the indication by labeling and standard product information of the consumption of energy and other resources, by energy-related products.

Since 2006, when the Energy Community Treaty became effective, BiH has not made any significant progress in nearing the directives in the field of energy efficiency. Such a conclusion is made due to the fact that BiH has not established appropriate institutions for the promotion and encouraging of investment into the technologies that lead to a higher level of energy efficiency. The legislation in this field has still not been introduced either. The key thing is the creation of Action plan for energy efficiency, which lags in BiH, and of the data basis for energy consumption in entities by Eurostat/IEA/UNECE standards, including the data on energy supply and demand.

The main directive related to energy efficiency in the public sector is the Directive of energy services. The analysis of the measures taken by other countries in order to transpose this directive shows that most of them are related to (CPU 2011): (1) creation of the action plan for energy efficiency in the public sector, (2) implementation of the figure of energy management in the public sector at the level of local authorities, (3) modifications of the regulations of the public procurement in the energy efficiency related segments, (4) establishment of energy efficiency agencies, (5) creation of the figure for investing into energy efficiency project through the public sector, and (6) creation of reporting data basis and mechanisms as well as the data basis in the public sector for monitoring and reporting.

Satisfying the basic needs for energy in BiH is at a very high level although the poor have rather limited access. Most households have the electric power connection, but those with natural gas and central heating are rare. The problems in the sector are as follows: the lack of energy strategy, non-existing legal and institutional framework at the level of BiH, outdated technology, administrative determining of electric power prices, and delayed reforms in restructuring, insufficient transparency in the work of public companies, high transport costs, and the lack of reliable statistical data.

The main priorities for the further development of the sector include: (1) establishment, realization and implementation of clear, well designed energy policy and appropriate planning activities, (2) encourage energy saving in households and industry, (3) reform the system of energy pricing, and (4) encourage the usage of renewable energy sources, research and application of new energy technologies and other technologies that increase energy efficiency and harmonize the regulatory framework and development plans with those for the EU.

The policy of development segment of energy efficiency in BiH is mainly based on fulfilling the obligations accepted by international treaties, programs and projects. By signing the European Community Treaty, BiH accepted the obligation to transpose the regulations of EU directives related to energy efficiency. All the signatories of the European Community, including BiH, need to realize carry out in the period 2011-2018 a decrease in final consumption of energy by 9% compared to the referential year of 2010 (Trivanović 2012). Energy efficiency has still not been appropriately positioned in the energy policy of BiH, which should concentrate on energy efficiency as its priority for the future development of the energy sector.

4.4. Energy efficiency in terms of the ISO 50001 standard

It is indisputable that energy efficiency is one of the key elements in the process of sustainable development. In order to achieve energy efficiency, BiH must adapt to the European legal frameworks, new energy sources and new ways for energy saving. By increasing energy efficiency in organizations in BiH through the implementation of the energy management system, significant financial saving can be achieved, which can then be invested into the further development of the organization. This is the way to promote corporate social responsibility of organization, by rational management and usage of renewable energy sources, and to encourage the usage of renewable energy sources along with building the organization image.

ISO 50001 is a voluntary international standard developed by the International Standard Organization (ISO), which provides organizations with internationally recognized frameworks for management and improvement of energy efficiency (Standard BAS EN ISO 50001:2012). The ISO 50001 standard emerged due to the need for providing assistance to organizations in managing their energy efficiency, aimed at energy source reduction, decrease in greenhouse gas emission, bigger social responsibility, and better public image for buyers and suppliers (Marković & Savić 2011).

ISO 50001:2011 defines the requirements for establishment, implementation, keeping and improvement of the energy management system, with the purpose of providing organization with a systematic approach in achieving constant improvement of energy performances, including energy efficiency, usage and consumption of energy. By introducing the ISO 50001 standard, organizations have access to a harmonized standard applied, with logical and consistent methodology for identification and realization of improvements (StandCert s. a.). It is based on the ISO model of management system and follows the PFCA process for continuous improvement of the energy management system.

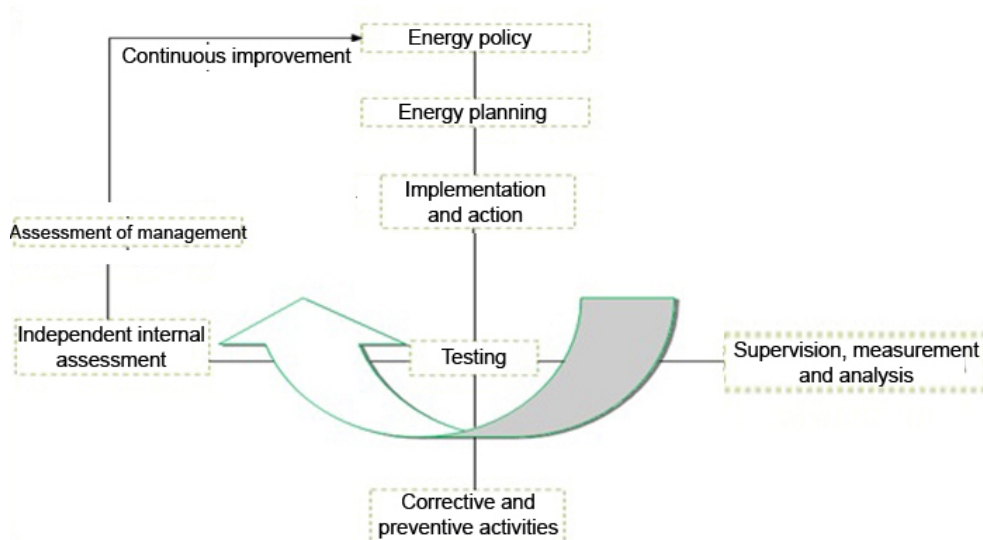


Figure 1. *Model of energy management system*

Source: Marković & Savić 2011, p. 19

The introduction of the energy management system has the following advantages : (1) management of consumption and energy source costs; (2) saving by program realization; (3) reduction of the negative impact on the environment; (4) documents for monitoring energy source consumption which can be used to prove the saving to all the interesting parties; (5) better image of the company presented to clients, business partners and community; (6) increased awareness on the aspect of energy among the employees; and (7) competitive advantage in tender procedures.

Also, the general requirements of the standard are: (1) establishing, documenting, maintaining and improving the energy management system; (2) defining and documenting the scopes of implementation and limitations of the energy management system; and (3) fulfilling the requirements of this international standard aimed at the achievement of the constant improvement of the energy performances.

Organizations are not able to affect the energy prices, government policies or global economy, but by introducing the ISO 50001 standard they can improve the way in which they manage energy. Such improvement of energy performances can bring organizations rapid reduction of energy costs and consumption and alleviate the negative effects of energy consumption on a global level, such as the global warming. This type of management certainly has its long-term positive effects on corporate social responsibility

of organizations, creation of better image, and earning trust and loyalty of company's customers/users.

According to the available data, since 2011 only two companies in BiH have introduced the ISO 50001 standard, RPC Superfos Balkan Helioplast ltd from Gračanica and the Public Utility Company Brčko, etc. The awareness of BiH citizens of energy efficiency and renewable energy sources is at an insufficient level. This is why we should act in order to strengthen cooperation between universities, elementary and high schools so as to create educational programs for work with future generations (Građani za Evropu 2013).

5. Conclusion

The dominant idea nowadays is that modern companies can no longer be oriented towards the realization of their business goals but are also obliged to act in accordance to the interests of their stakeholders (shareholders, employees, buyers, suppliers, banks, government, the media and the wider public). Socially responsible business has lately been related to the implementation of energy efficiency programs, since the realization of these programs bears important implications at the level of company, but also the wider public.

Energy efficiency is one of the key elements in the process of building sustainable development. The results of the conducted research show that the public awareness of energy efficiency and renewable energy sources in BiH is at an insufficient level and those actions must be taken so as to strengthen the cooperation between universities, elementary and high schools so as to create educational programs which will function in the affirmation of energy efficiency importance. The research results indicate that the realization of the energy efficiency programs is yet to take hold in BiH companies. In order to achieve energy efficiency, BiH must adapt to European legal frameworks, turn to new energy sources and new ways of energy saving.

By increasing energy efficiency in organizations in BiH through the implementation of the energy management system significant financial saving is possible, which can be invested into company's further development. This is the way of promotion of corporate social responsibility by means of rational management and usage of non-renewable energy sources as well as the initiative for using renewable energy sources and consequently better company's image. It is thus necessary in BiH and the

neighboring countries to promote the concept of socially responsible business in general and particularly in the segment of energy efficiency. The ways to do this are the following: more intensive and high- quality information to the public in order to increase its awareness and better interest in these issues, implementation of various guidelines created by international institutions, as well as the changes in legal regulations of company's activities in this domain.

Bearing all this in mind, the authors of the paper believe that in the near future, for the purpose of connecting socially responsible business and implementation of the energy efficiency system, a set of activities need to be initiated, aimed at the promotion of more rational usage of electric power and the saving of electric power on the consumption side.

The paper particularly emphasized the fact that there is a large potential and room for reduction of electric power consumption in BiH. For example, the authors believe that the potential activities to achieve this should be based on customer education and increasing their awareness in terms of the need for more rational usage of electricity. The attention should be focused on the buyers of electricity from the category of households, since their share in the total consumption is some 50%. This is why the following measures of energy efficiency should be effected such as: distribution of energy saving light bulbs, support to end customer state aid given by the Government of BiH, change in tariffs, etc.

While doing this, special attention should be given to the optimized management of environmental aspects in order to verify environmentally friendly activities in the European milieu. This would actually include responsible and continuous application of organization and technical measures of system management and improvement of environmental aspects of business activities. The companies should then, in accordance to the technological and economic conditions in our country, permanently monitor their effects on the environment and use prevention and corrective measures to reduce their negative effects.

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RENEWABLE ENERGY USAGE IN UNIVERSITY CAMPUSES: ECONOMIC BENEFITS OF PHOTOVOLTAIC ELECTRIC PRODUCTION IN MUGLA UNIVERSITY

UPOTREBA OBNOVLJIVIH IZVORA ENERGIJE NA UNIVERZITETSKIM KAMPUSIMA: EKONOMSKE KORISTI PROIZVODNJE FOTONAPONSKE ENERGIJE NA MUGLA UNIVERZITETU

Abstract

Alternative energy resources are one of the key elements of sustainable economic development. Turkey has very suitable for wind and solar energy resources. Although few examples of energy production started in those areas in macro level there are promising examples of micro level energy production started in Turkey. The most important example is electricity production by photovoltaic batteries in Muglia University campus. In this paper I will briefly outline the historical development of campus enlightenment project by solar energy in Muğla University.

Keywords: solar energy, Muğla university, environmental economics

JEL: Q42, Q50

Sažetak

Alternativni izvori energije su jedan od ključnih elemenata održivog ekonomskog razvoja. Turska ima vrlo održive izvore energije iz vjetera i sunca. Iako postoji samo nekoliko primjera proizvodnje iz ovih izvora energije na makro nivou, postoje obećavajući primjeri mikro proizvodnje u Turskoj. Najvažniji primjer proizvodnje električne energije iz fotonaponskih ćelija je onaj u kampusu Mugla Univerziteta.

U ovom radu dat je pregled historijskog razvoja projekta osvjetljavanja Mugla kampusa iz solarane energije.

Ključne riječi: solarna energija, Mugla univerzitet, ekonomija okoliša

JEL: Q42, Q50

1. Introduction

Turkey has experiencing high growth rates for a decade and it is very promising for coming years with its strong economic performance. One of the main outcomes of this growth is a soaring energy demand for country which heavily relies on imported fossil fuels. Upward momentum of capacity utilization rate in industrial production reveals that the demand for energy resources will possibly increase in near future. Governments had efforts to lessen high dependency ratio of imported energy resources so the importance of renewable sources increasing. The hydropower, geothermal, nuclear and wind energy resources are promising in future. The solar energy is unique opportunity for matching the deficit in energy resources supply. The cleanness, low cost production and easy access to resources in most parts of Turkey make solar energy business very lucrative, profitable and efficient.

Because of the desirable environmental and safety aspects it is widely believed that solar energy should be utilized instead of other alternative energy forms because it can be provided sustainably without harming environment. Renewable Energy Potential of Turkey is as follows: (Gwh/Year) Hydro 135.000, Wind 130.000, Geothermal 5.000, Biomass 230.000, Solar 380.000.

The renewable energy resources especially solar energy became a priority for most of the European countries due to get rid of toxic carbon polluted nonrenewable fossil based energy sources. One of the main problems of exhausting fossil fuels is global warming by excess creation of carbon dioxide. That does not allow heat radiation from reemerging like a glass in greenhouse. That called greenhouse effect of those energy resources consumption which increases heat in whole world. Solar energy presents may provide important part of future energy needs of Turkey. Turkey has an average annual sunshine duration of 2640 h and an average solar intensity of 3.6 kWh m days. Residential and commercial sectors, especially in the southern and western regions had an installed flat plate collectors.

The main potential benefits of solar energy is as follows.

1. The high energy demand in near future makes those investments very popular and profitable in coming years.
2. Government financial incentives for the solar energy production are very high in order to attract new investments.
3. The high availability of free land for solar farms.
4. Turkey has high solar energy potential due to its geofigureical location.
5. Solar energy is widely accepted and recognized by citizens of Turkey.

2. Solar energy potential of Muğla

Muğla is located in south west of Turkey at 37° 13' latitude. Since 1998 solar radiation measurements has been carried out using a Kipp and Zonen (CM11) pyrometer. An average daily solar radiation is found to be over 9.5 hours during December and January and over 14 hours during June and July. Average monthly solar energy per square meter is calculated to be just above 50kWh for December and January and well over 200kWh for June and July (Oguz 1999). Humidity sensor, wind speed sensor, wind direction sensor, ambient temperature sensor and air pressure sensor are form weather station which was established on the top the Menteşe Library in University campus. Performances of photovoltaic systems for different conditions are being investigated by meteorology station.

Solar Energy measurements for Turkey are carried out by Renewable Energy division of General Directorate of Renewable Energy and results are published in a Solar Map in Figure 1. Yearly average sum of solar radiation of Turkey is about 1350kWh and measured solar potential of Mugla is approximately 30% over the country's average.

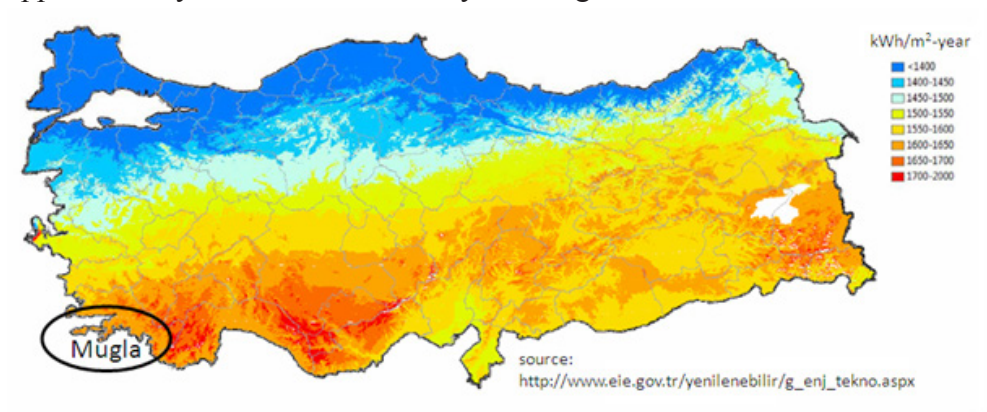


Figure 1. Solar energy map of Turkey (where Mugla is marked)

Source: Solar Energy Potential Atlas 2009.

Photo voltaics (PV) convert solar radiation into direct current electricity by solar cell. Heaps of time solar cells have insufficient power to operate many devices alone that used in real life. PV systems may be grouped in various configurations generally; grid-connected systems and standalone systems. Sometimes the third one is called, which is composition of two systems and generator, as hybrid systems (Parida et al. 2011).

PV systems can be connected to the public electricity grid via a suitable inverter or inverter groups. Energy storage is not necessary in this case. The electricity produced by the PV system is used first to cover any electric requirements (e.g., appliances, lights) in the home. If more electricity is produced from the PV system than the user needs, the excess energy is sold back to the utility through net metering. In many countries it is possible to sell the unused electricity with agreements. But for Mugla Sıtkı Koçman University there is only 120 kWp installed power and it can cover only 4% of the demand of the electricity used in the main campus.

A large number of photovoltaic systems installed in industrial nations today are grid-connected. The most significant problems in PV industry are installation costs and efficiency. When we incorporate efficiency with costs, Building Integrated Photo Voltaic systems (BIPV) begin important for consumers. BIPV means photovoltaic systems integrated in the building skin, i.e. roof top and façade (International Energy Agency 2002; Jahn & Nasse, 2004, Ayompe et al. 2011). It is widely recognized that integration of PV modules into buildings (roof or façade) can effectively decrease the cost of the installation of systems. In other words, building aesthetics or architect designer must take into account PV covering.

3. Cumulative electricity yield in University campus

Mugla Sıtkı Koçman University has 120 kWp installed PV power and 84% of it is grid connected. Whole grid connected systems and their yield from start-up was summarized in Table 1. This values show that over 85000 kWh annual electricity can be produced from PV in Mugla Sıtkı Koçman University from the installed several PV systems and over 700,000 kWh of electricity is produced from PV since the installations has started. Although there is only 120kWp installed power at Mugla Sıtkı Koçman University, it can cover 4% of the demand of the electricity used in the main campus. Besides this, PV now covers 2.6% of the electricity demand in Europe (Eke 2007). This is a good ratio compared with the results obtained for Europe. The target of the covering ratio is 5% in 2020.

Table 1. *Annual Electricity Yield of PV Power Plant Applications in MWh Systems*

Year	Test site	Roof-BIPV g	Façade-BIPV	Double-axis Tracking
2003*		18.53		
2004		35.98		
2005	6.09	31.26		
2006	11.13	29.24		
2007	12.23	28.04		
2008	10.06	28.74		
2009	6.00	28.88	26.94	32.38
2010	5.30	24.99	35.20	24.53
2011	6.00	24.46	26.50	14.35
2012	6.00	20.06	11.90	28.65
2013	6.00	24.46	34.12	26.52
2014	N/A	23.85	35.10	27.21
2015*	1.80	9.02	12.50	9.52
Total	70.61	327.51	182.26	163.16

* Only results of 4 first months

Source: Data received and gathered from PV systems of campus labarotary.

4. Conclusion

In this study, monitoring results of the grid connected PV systems installed at Mugla Sıtkı Koçman University is presented. There are four different application types, ground mounted test systems, BIPV systems and two double axis tracking systems with all different types of PV module technologies. Although there is only 120 kWp installed power it can cover 4% of the demand of the electricity used in the main campus. The overall cumulative produced electricity is more than 700,000 kWh from the start-up of the installations. Annual energy rating (electricity produced per installed power) of the PV

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FOREIGN DIRECT INVESTMENTS IN REPUBLIC OF MACEDONIA 2006 – 2014

STRANE DIREKTNE INVESTICIJE U REPUBLICI MAKEDONIJI 2006 - 2014

Abstract

Foreign Direct Investments (FDI) are one of the main fundamentals of every economy which is characterized with small and relative closed market. FDI are controlling ownership in a business enterprise in one country by an entity based in another country. FDI are important for the modern world economy. In the last two decades we are witness of more intense growth of the FDI. High developed economies want long period to be on the top, while low developed economies want to increase their own economic growth with attracting more FDI. The methodology to be used is based on qualitative and quantitative research methods. In order to strengthen the credibility and validity of the findings, the research will include data source triangulation, cross verifying the information through an extensive desk research. The findings from the envisaged primary and secondary research will be analyzed to infer the impact of FDI in the economy of the Republic of Macedonia for the period 2006 - 2014. The expected results of this research aim to show the impact of FDI in Republic of Macedonia for the researched period. Furthermore, it will provide an overview of the incentives which Republic of Macedonia offer to foreign investors and inflow of FDI in Republic of Macedonia.

Keywords: foreign direct investments (FDI), Republic of Macedonia, impact of FDI on economy

JEL: F21

Sažetak

Strane direktne investicije (SDI) predstavljaju jedan od glavnih temelja svake ekonomije koju karakteriše malo i relativno zatvoreno tržište. SDI su kontrola vlasništva u preduzeću u jednoj državi od strane kompanije sa sjedištem u drugoj

državi. SDI su važne za današnju svetsku ekonomiju. U poslednje dve decenije svedoci smo sve intenzivnijeg rasta SDI. Želja visoko razvijenih ekonomija jeste da dugi period budu na vrhu, dok nisko razvijene ekonomije žele povećati svoj ekonomski rast privlačenjem više SDI. Metodologija koja se koristi je zasnovana na kvalitativnim i kvantitativnim metodama istraživanja. U cilju jačanja verodostojnosti i validnosti dobivenih podataka, istraživanje će obuhvatiti izvore podataka triangulacije, te proći proveru informacija putem opsežnog desk istraživanja. Rezultati dobiveni iz planiranog primarnog i sekundarnog istraživanja će biti analizirani u cilju utvrđivanja uticaja SDI na ekonomiju Republike Makedonije za period 2006 - 2014. Očekivani rezultati ovog istraživanja imaju za cilj da pokažu uticaj SDI u Republici Makedoniji za navedeni period. Osim toga, ovo istraživanje će dati pregled poticaja koje Republika Makedonija pruža stranim investitorima i priliv SDI u Republici Makedoniji.

Ključne riječi: strane direktne investicije (SDI), Republika Makedonija, uticaj SDI na ekonomiju

JEL: F21

1. Introduction

Foreign direct investments (FDI) are one of the basic backbones for each newly created economy with small and relatively closed market. They represent an investment of foreign capital or investments of multinational companies in the host country. The international movement of capital in the form of FDI after the end of World War II to the end of the last century grew at a much faster pace, which was incomparable with the pace and intensity of the international trade. Because of the great importance that it has, the international movement of capital is in interest of many experts who are giving various explanations at their theoretical presentations.

Countries must have properly conceived macroeconomic policies to attract foreign direct investment because the net benefits from FDI are dependable, besides the comparative advantages of the host country and its economic policy.

For the correct conception of strategy for attracting foreign direct investment, certainly it is necessary to constantly monitor the situation in the international movement of the capital worldwide and especially on a regional level and through constant analysis to remove the constraints and enhance the opportunities for attracting FDI.

The investments or investment funds are serving to renew and expand the production base of the economy. By investing, the natural resources of the country are activated which contributes for opening new jobs, creating a modernization of the existing facilities, adopting and applying new knowledge and technologies and increasing the productivity.

2. Defining FDI

The FDI represents the fastest growing form of the international movement of capital. The dynamics of their growth is far greater than the pace of growth of world exports and imports.

The FDI are the most important tools for intermediation, which in one national economy are stimulating its production, import of know-how, employment growths, infrastructure development, poverty reduction etc. The benefits which are yielded by the inflow of FDI prompted a serious competitiveness in the global markets of the free capital and all with a purpose to attract more extensive and diverse FDI.

Bogun (2009) argues that how much the inflow of FDI is bigger it is more profitable for the host country. He argues that on 11 (eleven) industrial levels FDI creates greater productivity in the industrial branch. FDI creates a cumulative system where the excellent results of past FDI result in attracting new investments. However, he insinuates that the impact of FDI will be substantially greater if they are directed to the appropriate industrial sector with comparative advantage, i.e. higher productivity, employee training, a higher level of marketing activities, etc. (Hourvouliades & Davcev 2014, p. 9).

United Nations Committee on Trade and Development (UNCTAD) defines the FDI as “investments which include long-term relationships and a reflecting a lasting interest and control by a resident entity in one economy (direct foreign investor) in an enterprise that is resident in another economy than the one of the foreign direct investor” (Popovski 2010, p. 122)

The FDI are mainly realized through the activities of transnational corporations, which are opening their own primarily manufacturing companies - affiliates in foreign countries by buying the controlling stake package in an existing company or by establishing a completely new enterprise.

FDI represents type of global strategy for the companies through which they provide their physical presence in other countries, foreign or global markets. They do this by way of acquiring ownership of productive assets such as capital, technology, labor, land and more.

3. Types and characteristics of FDI

FDI have three basic forms (Nenovska 2013, p. 12):

1. Creating a new enterprise (Greenfield investments) where the foreign investor builds new production facilities with 100% ownership of foreign investor.
2. Acquisitioning of a majority stake in the ownership of an existing enterprise, with purchasing the company, buying shares or directly purchase of shares ownership.
3. Joint ventures with the domestic firms of the country receiver.

According to the World Bank, the classification of the FDI is defining towards the motive for investment, which is very useful because it is simpler to define the target groups of investors. According to this division there are:

1. Investments that require resources (investment seeking natural resources such as minerals, raw materials or agricultural products and investments that require cheap and skilled labor).
2. Investments seeking markets (investment coming in markets where the importation of certain products is high, investments that follow the movement of its customers top companies and investments that follow market trends and engage local suppliers).
3. Investments that require an increase in the productivity which means rationalization of production or production operations are in progress in connection with other companies in order to reduce costs or specialized production,
4. Investments that require existing facilities in order to retain and promote long-term goals of the company (they are directed primarily towards privatization and acquisition, because by buying existing companies they retain the production program and the existing market).

The characteristics of the FDI can be grouped into 6 (six) points:

1. First, the FDI are causing greater engagement of resources by the company.

2. Secondly, that involves a local presence and local activities, which are establishing contacts with other participants in the economic and public sector.
3. Third, FDI allow companies to achieve efficiencies of global scale that significantly enhances the medium- and long-term performance of the company.
4. Fourth, FDI impose essential risk and uncertainty because it relies on permanent and fixed presence in a foreign country, where they can be exposed to unexpected changes in operating conditions.
5. Fifth, in this type of activity, investors are exposed to the need to work intensively with different social and cultural variables and conditions that are present in the domestic market.
6. Sixth, the company usually seeks to socially responsible behavior in the host country.

4. The role of FDI upon the economic growth

FDI in international economic relations have a dominant position in the development not only of the least developed and developing countries, but even more so in countries that are in a transition. FDI is the dominant factor in the total flow of foreign support for the lowest developed and developing countries.

Today almost all countries believe that FDI can have a favorable role in the development of their economy. Because of this they open the doors to the foreign capital because it causes an increase in the efficiency of the national economy, increasing employment, transfers modern technology, management skills and so on.

FDI are attracting a lot of attention and interest in all countries. Hence every country strives to promote and attract foreign direct investment because of their contribution to the economy. Many countries offer favorable duties, taxes and financial incentives to attract FDI.

With the FDI is enabling better use of the natural resources of the host, improved technology, increased competitiveness and improved performance of local companies, increased exports or overall acceleration of economic growth. Despite the transfer of technology, FDI are also transferring the managerial skills, they implement innovation, promote integration into the international trade. Through them is also possible the industrial specialization of jobs, job creation, training of employees, leading to

increased productivity. FDI is the most preferred method of financing the current account deficit, especially when the deficit is large and unsustainable.

5. Incentives that Republic of Macedonia offer to the foreign investors

In last 9 (nine) years regarding the strategy of the Government of Republic of Macedonia above the FDI in Republic of Macedonia are adopted a lot of legal and sub legal acts that significantly affect the attraction of FDI in Republic of Macedonia

By 2006, with further implementation of the strategy for accelerated economic development put forward by the Government of the Republic of Macedonia and with the Government's top priority for attraction of more FDI, the Directorate for Technological Industrial Development Zones (DTIDZ) are responsible for speed up the overall progress of Macedonian economy.

For now there are 4 (four) Technological Industrial Development Zones established by the Government of the Republic of Macedonia: TIDZ Skopje 1, TIDZ Skopje 2, TIDZ Stip, and TIDZ Tetovo and other 7 (seven) TIDZs which are under construction and is expected to be ready intended for equal economic development of all regions on the territory of the Republic of Macedonia (Figure 1).



Figure 1. TIDZ in Republic of Macedonia

Source: Directorate for Technological Industrial Development Zones 2015.

Regarding the concept and mission DTIDZ is planned to become international business hub of the South-Eastern Europe by providing

world-class infrastructure supported with service excellence and incentives unparalleled anywhere in the region and wider. Incentives which offer DTIDZ to the foreign investors are grouped in 3 (three) positions (DTIDZ 2015):

1. Infrastructure logistic and subsidies;
2. Tax incentives and
3. Customs incentives

1. Infrastructures logistic and subsidies:

- 1.1 The construction land in the TIDZ is available under long-term lease for a period of up to 99 years at concessionary prices.
- 1.2 Investors are exempt from paying the fee for construction land to local governments, as well as fees for obtaining construction permits.
- 1.3 Investors are exempt from fee for the gas, water and sewerage connection.
- 1.4 Regarding the number of employees the value of the investment, the Government subsidize the construction costs up to 500.000,00 Euro.

1. Tax incentives:

- 1.1 The investors which will open factory in TIDZ are exempt from value added tax.
- 1.2 In period of 10 (ten) years the investors are exempt from corporate income tax and personal income tax.

In Table 1 is defined what kind of taxes are paying investors which are in and out of TIDZ.

Table 1. *Tax incentives for investors in TIDZ*

TAX DUTIES	RATE OUTSIDE THE ZONE	RATE IN THE ZONE
Value Added Tax	18 %	0 %
Corporate Income Tax	10 %	0 % for 10 years
Personal Income Tax	10 %	0 % for 10 years

Source: Directorate for Technological Industrial Development Zones 2015.

Regarding the Table 1 we can conduct that investors in TIDZ are completely exempt from income tax and from corporate and personal income tax for a period of 10 (ten) years. Investors doesn't pay personal income tax for every salary of the employees in period of 10 (ten) years.

3. Customs incentives:

- 3.1 All investors in TIDZ are part of Custom green channel.

- 3.2 Companies which are in Custom green channel don't pay customs fees.
 3.3 The rate for equipment and spare parts is 0%.

In Table 2 is defined what kind of customs fees are paying investors which are in and out of TIDZ.

Table 2. *Custom incentives for investors in TIDZ*

CUSTOM DUTIES		
PRODUCTS	RATE OUTSIDE THE ZONE	RATE IN THE ZONE
Equipment and spare parts	5% - 20%	0%

Source: Directorate for Technological Industrial Development Zones 2015.

6. Impact of FDI in Republic Macedonia 2006-2014

In a developing economy such as is Republic of Macedonia the contribution of the FDI is very significant. The contribution of FDI is primarily prevalent in reducing unemployment and the increase in exports and imports. Despite the creation of direct jobs, companies in the zones are stimulating the development of local economy in a broader sense. Foreign companies in the zones are engaging the local companies as suppliers of raw materials. Furthermore, domestic companies are hired for maintenance of machinery and equipment used for transportation services and logistics, security, catering, also construction companies are hired for construction of factories. According to the data, about 500 Macedonian companies are cooperating with foreign investors. Foreign companies always consider the possibility to find local suppliers who can meet their needs. Regarding the National Bank of the Republic of Macedonia (NBRM), FDI in Macedonia represent an important source of financing the deficit.

Regarding December 2014 the total number of employees in the TIDZ Skopje 1, Skopje and Stip 2 is 3500 employees. It is important to note that during 2014, around 13 new companies have announced their decisions to invest in Macedonia and these new investments will contribute to the opening of an additional 13000 jobs when the companies will operate with full capacity (Vecer News 2015).

In Table 3 it's displayed the FDI inflows expressed in millions of US dollars for the analyzed period 2006-2014. The total amount of FDI in Republic of Macedonia for the period 2006 – 2014 is 3.035 billion US dollars or an average of 337.2 US dollars per year.

Table 3. *FDI in Macedonia (in millions of US dollars)*

2006	2007	2008	2009	2010	2011	2012	2013	2014
424,0	700,2	600,5	185,5	206,9	473,9	147,7	350,1	370,0

Source: National Bank of the Republic of Macedonia 2015.

Regarding the official dates from TIDZ the exports of the FDI have seen continuous growth particularly the FDI located in TIDZ. In 2013, the export from companies in the zone areas was 767 million euro, and imports 726 million. The net effect on exports from companies in the TIDZ in 2013 was 41 million, or 5.3% of exports. As a percentage of total exports of the country, the exports of foreign companies located in the zones in 2013 reached 25%. In 2014 was realized total exports from the country of 3.7 billion euro, of which 1 billion and 170 million euro was realized from export companies located in the zones. Total imports in 2014 amounted to 5.5 billion euro, of which 1 billion and 37 million euro was realized from imports companies in the zones. The net effect of the export companies in TIDZ in 2014 amounted to 133 million euro, or 11.4% of the actual export. As a percentage of total exports, exports by companies located in the zones in 2014 reached 31% (Kapital 2015).

7. Conclusion

This paper show that all this incentives are stimulating the entrance of many foreign investors from different sectors in Republic of Macedonia, which work and production is based on new technologies with high environmental standards and their final products it's sealed out of country. Also the paper shows that FDI in Republic of Macedonia are one of the most important factors that increase the national economy and employments. From this research we can conclude that FDI in Republic of Macedonia provide:

- Inflow of capital in the economy.
- Improving the technological level of the economy.
- New knowledge.
- Development of human capital.
- Improving the productivity and competitiveness in the economy.
- Opportunity for changing the economic structure of the county.
- Increase the import.
- Increase the export.
- Higher employment.
- Creating links between foreign companies and domestic companies/suppliers.

This research may be good indicator for the future research related to this topic and guide for developing strategies and politics which will contribute larger FDI inflows in the development countries.

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**QUANTITATIVE ECONOMY /
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MODEL OF STOCK CLASSIFICATION ON FRONTIER CAPITAL MARKET OF BOSNIA AND HERZEGOVINA

MODEL KLASIFIKACIJE DIONICA NA RUBNOM TRŽIŠTU KAPITALA BOSNE I HERCEGOVINE

Abstract

Although there has been extensive research into the empirical and theoretical aspects of stock classification, most of these studies have focused almost exclusively on the well-developed stock markets. Due to its many specifics, such as slow market capitalization, poor liquidity and turnover, missing data and so on, stock classification in case of frontier capital markets can be challenging. One of the criteria for stock classification is liquidity which can be defined as ability to buy or sell significant quantities of a stock quickly, anonymously, and with minimal or no impact on price. Therefore, this paper is designed to explain basic discriminatory variables between highly liquid and liquid stocks traded on the frontier capital market of Bosnia and Herzegovina. As a representative of highly liquid stocks we will use constituents of the Bosnian traded index (BATX) which is made up of the most actively traded and highest capitalized stocks at the Sarajevo and Banja Luka Stock Exchange. As a representative of the liquid stocks constituents of two indices, SASX-30 and BIRS will be used. Based on the fundamental and market variables, stock classification will be done by using discriminant analysis. These variables will be measured by liquidity, profitability, activity and debt ratios, P/E ratio and EPS. Expected results will provide valuable information in decision making of individual and institutional investors.

Keywords: classification, stocks, frontier capital market, Bosnia and Herzegovina

JEL: C38, G10

Sažetak

Klasifikacija dionica do sada je u teorijskom i empirijskom smislu bila predmetom istraživanja mnogih studija, ali koje su se uglavnom odnosile na razvijena tržišta kapitala. Zbog svojih specifičnosti, koje se generalno odnose na nisku tržišnu kapitalizaciju, nedovoljnu likvidnost i promet, te nedostajuće i neažurne podatke, klasifikacija dionica na rubnim tržištima kapitala je poseban izazov. Jedan od kriterija za klasifikaciju dionica je njihova likvidnost, koja se može definisati kao mogućnost kupovine ili prodaje veće količine dionica u relativno kratkom roku bez uticaja na njihovu cijenu. S tim u vezi, osnovni cilj ovog rada je da se objasne osnovne diskriminirajuće varijable između visokolikvidnih i likvidnih dionica kojima se trguje na rubnom tržištu kapitala Bosne i Hercegovine. Kao reprezentanti visokolikvidnih dionica biće korišteni konstituenti BATX indeksa, koji uključuje najlikvidnije dionice kojima se trguje na Sarajevskoj i Banjalučkoj berzi vrijednosnih papira. Reprezentanti likvidnih dionica će biti konstituenti dva indeksa, SASX-30 i BIRS, koji uključuju likvidne dionice kojima se trguje na pomenutim berzama vrijednosnih papira. Klasifikacija dionica će biti izvršena pomoću fundamentalnih i tržišnih varijabli primjenom diskriminacione analize. Kao indikatori predmetnih varijabli biće korišteni pokazatelji likvidnosti, profitabilnosti, aktivnosti i zaduženosti, P/E pokazatelj i EPS. Očekivani rezultati moći će poslužiti kao dobra polazna osnova za odlučivanje, kako individualnih, tako i institucionalnih investitora.

Ključne riječi: klasifikacija, dionice, rubna tržišta kapitala, Bosna i Hercegovina

JEL: C38, G100

1. Introduction

Although there has been extensive research into the empirical and theoretical aspects of stock classification, most of these studies usually examine the well-developed stock markets. Taking into account the specific features of frontier capital markets such as low market capitalization, poor liquidity and turnover, missing data, etc., the examination of stock classification under such circumstances can be quite a challenging issue. So far, various methodological approaches have been used as a tool for stock classification i.e., technical trading rules (Dannet al. 1977, Brock et al. 1992, Mills 1997, Gencay & Stengos 1997, Allen & Karjalainen 1999, etc.), classification and regression tree (Sorensen et al. 2000), and complex neural network approach (Lin et al. 2006, Fernández & Gómez 2007, Yuet et al. 2008, Şenolet et al. 2012, etc.). One of the criteria for stock classification is liquidity, i.e. an ability to buy or sell significant quantities of a stock in a quick and anonymous manner, with minimal or no impact on price. This paper examines basic discriminatory variables between highly liquid and liquid

stocks traded on the frontier capital market of Bosnia and Herzegovina. For the purpose of this paper, the following research question has been defined: *Which variables are considered the best predictors of highly liquid and liquid stocks on the stock market of Bosnia and Herzegovina?* In addition to the research question, the following statement has been defined as central research hypothesis: *Both fundamental and market variables, can be used to discriminate between highly liquid and liquid stocks.* The goal of the paper is to summarize the most important pieces of information which could be relevant to a decision-making process of any individual and/or institutional investor. The limitation of this study is related to the missing data of selected issuers. The paper is organized as follows. After introduction, the following section brings a short overview of some recent literature that is relevant to the main objective of the paper. The next section briefly outlines research methodology, after which follows the section dealing with the presentation of the results and discussion. The last section contains final remarks and conclusion.

2. Literature review

Discriminant analysis, being one of the possible methodological frameworks for stock selection, has been predominantly used to predict corporate failure since the pioneering work of Altman (1968). However, the recent literature witnesses an increasing use of discriminant analysis in order to predict stock price performance. As a result, the stock classification has become a subject of interest to a number of theoreticians and researchers, which has nowadays been confirmed by numerous studies dealing with this topic. Yet, a large number of the empirical research of this kind is usually based on the examination of developed stock markets. Taking into account the above-mentioned, the remaining paragraphs of this section summarize some recent results and studies dealing with underdeveloped stock markets. Kheradyyar et al. (2011) used three financial ratios (dividend yield, earning yield and book-to-market ratio) to predict stock returns in Malaysian stock exchange. The analysis results revealed that the financial ratios can predict stock return, since book-to-market ratio has the higher predictive power than dividend yield and earning yield respectively. Siqueira et al. (2012) developed a method for stock selection and evaluation based on discriminant analysis. During the period 2006 (January) to 2010 (December), Siqueira et al. (2012) were examining (besides the beta coefficient) the cross-sectional relation between fundamental and financial variables, and the average stock returns for stocks traded on Sao Paulo Stock Exchange (BM&FBovespa). The study

results have suggested that beta coefficient has discriminatory capabilities. Vu (2013) examined the Australian Stock Exchange listed companies in an attempt to discriminate between stocks based on their potential value to the shareholders. In order to demonstrate the capabilities and limitations of the discriminant analysis methods, a set of financial ratios was used to test the individual discriminating ability of the variables and their respective contribution to the total discriminating power of the function. The results have shown that earnings and ROA are considered the most important variables in discriminating between high, medium and low value groups. Dutta et al. (2012) identified eight financial ratios (percentage change in net sales, sales/net assets, price/cash earnings per share, price/book value, price/earnings per share, profit before interest depreciation and tax/sales, cash price/earnings per share and book value) which can be used for the purpose of classifying companies (up to a 74.6% level of accuracy) into two categories – ‘good’ or ‘poor’. Focusing on Pakistani market, Khan et al. (2012) showed that financial ratios have significant predictability power for forecasting stock, with book-to-market ratio having higher predictive power in relation to other ratios. Okičić et al. (2014) found that the beta coefficient, market capitalization and realized historical return have discriminatory capabilities in case of the capital market of Bosnia and Herzegovina. Most of these studies have highlighted the existence of different discriminatory variables for different national stock markets. In this paper a new approach as to the classification of stocks is proposed, in accordance with the analysis results obtained by examining the stock market of Bosnia and Herzegovina.

3. Research methodology

Capital market of Bosnia and Herzegovina is not unified, meaning that it comprises two separate stock exchanges located in the two entities, i.e. The Sarajevo Stock Exchange (SASE), located in the Federation of Bosnia and Herzegovina and The Banja Luka Stock Exchange (BLSE), situated in the Republika Srpska. According to the World Bank (2015) basic characteristics of this capital market are as follows: 1) Capital market of Bosnia and Herzegovina is still relatively small and is at a very nascent development stage. Like most other markets in the region, two stock exchanges have experienced a major selloff around the time of the global financial crisis and have remained depressed since. 2) The legal and regulatory framework is relatively sound, but gaps exist in implementation and cooperation between the two entity-level regulators. 3) Despite both entities sharing many common objectives, there has been surprisingly little cooperation to date

between key capital market stakeholders in the Republika Srpska and the Federation of Bosnia and Herzegovina 4) The capital market infrastructure in both entities is strong and the exchanges continue to play an important role in enhancing transparency. 5) The stock exchange platforms and supporting infrastructure in both entities are well established and appear to be working efficiently and effectively. 6) The stock markets in both entities are fairly small in terms of market capitalization but they include a very large number of listed companies. 7) Except for a few large companies, there is very little or no trading today in the vast majority of stocks that are quoted on both stock exchanges. There have been virtually no new issues in the primary market for several years and in practice the exchanges do not really serve as platforms for companies to raise new capital.

3.1 Sample, variables and indicators

A sample of this research consists of two groups of stocks: 1) highly liquid and 2) liquid stocks traded on the frontier capital market of Bosnia and Herzegovina. The Bosnian Traded Index (BATX), made up of the most actively traded and highest capitalized stocks at the SASE and BLSE, is taken as a representative of highly liquid stocks. The following two indices, i.e. SASX-30 and BIRS¹, are taken as a representative of the liquid stocks. The type of the stock (highly liquid or liquid stock) is considered the dependent variable, being also a dichotomous nominal variable.

Based on the previous research of Kheradyar et al. (2011), Siqueira et al. (2012), Vu (2013), Dutta et al. (2012) and Khan et al. (2012), different fundamental and market independent variables (with a possible discriminatory power between the two types of stocks) were used, with the following indicators: current ratio (x_1), quick ratio (x_2), current cash - debt coverage ratio (x_3), debt to equity ratio (x_4), debt to asset ratio (x_5), interest coverage ratio (x_6), accounts receivable turnover ratio (x_7), accounts receivable collection period (x_8), inventory turnover ratio (x_9), average inventory period (x_{10}), accounts payable turnover period (x_{11}), average payment period (x_{12}), operating cycle (x_{13}), cash conversion cycle (x_{14}), gross profit ratio (x_{15}), net profit ratio (x_{16}), return on assets or ROA (x_{17}), return on equity or ROE (x_{18}), earnings per share or EPS (x_{19}) and price earnings ratio or P/E (x_{20}).

These indicators have been calculated (2011 - 2014) from the official financial statements of the companies, in accordance with the reports of LRC Credit Bureau (2015). Indicators related to the market variables (EPS, P/E)

have been collected from the official websites of the SASE and the BLSE. In accordance with the selected variables, the discriminant analysis was used for the purpose of determining whether selected variables discriminate between the two groups of stocks, or not.

3.2 Discriminant analysis: a short overview

Discriminant analysis is the appropriate statistical technique when the dependent variable is categorical and the independent variables are metric. Brown and Wicker (2000) claim that this analysis is a powerful descriptive and classificatory technique developed to: (1) describe characteristics that are specific to distinct groups, and (2) classify cases (i.e., individuals, subjects, participants) into preexisting groups based on similarities between that case and the other cases belonging to the groups. Discriminant analysis involves deriving a linear combination of the independent variables that will discriminate best between a priori defined groups. This linear combination, also known as discriminant function, takes the following general form:

$$D = a + b_1x_1 + b_2x_2 + \dots + b_px_p, \quad (1)$$

where D is the discriminant score, a is the y – intercept of the regression line, b is the discriminant function coefficient, x is the discriminator variable raw score, and p is the number of discriminator variables. Discriminant analysis multiplies each independent variable by its weight and adds these products together. As a result, discriminant score for each independent variable in the analysis is calculated. By averaging these scores we get the group mean, which is referred to as centroid that indicate the most typical location of any independent variable from a particular group, and comparison of the group centroids shows how far apart groups are along the dimension being tested (Hair et al. 1998, p. 245).

4. Empirical results and discussion

First step in discriminant analysis is to examine whether there are any significant differences between groups on each of the independent variables. In other words, if no significant group differences were confirmed, proceeding with any further analysis would not worthwhile.

By using tests of equality of group means, statistical evidence of significant differences between means of highly liquid and liquid stocks from the stock market of Bosnia and Herzegovina has been confirmed in the following cases: 1) year 2011: net profit ratio (p-value = .022), ROA (p-value = .000),

ROE (p-value = .000) and EPS (p-value = .021); 2) year 2012: ROA (p-value = .004), ROE (p-value = .021) and EPS (p-value = .015); 3) year 2013: ROA (p-value = .012) and EPS (p-value = .001) and 4) year 2014: ROA (p-value = .014). Here it is important to outline that at this stage of our research a stepwise method (which removes independent variables that are not significant) was used. Out of initial 20 independent variables (fundamental and market), only a few of them have been left for each year, as illustrated in Table 1.

Table 1. *Variables in the analysis*

Year	Variables
2011	ROA (x_{17})
	EPS (x_{19})
2012	ROA (x_{17})
2013	EPS (x_{19})
2014	ROA (x_{17})

Source: Authors' calculations

The eigenvalues findings are presented in Table 2.

Table 2. *Eigenvalues*

Year	Function	Eigenvalue	% of Variance	Cumulative %	Canonical Correlation
2011	1	1.801	100,0	100,0	0.802
2012	1	0.382	100,0	100,0	0.526
2013	1	0.686	100,0	100,0	0.638
2014	1	0.226	100,0	100,0	0.430

Source: Authors' calculations

In accordance with the data presented in Table 2, the larger the eigenvalue, the more of the variance in the dependent variable is explained by the particular discriminant function. The table data also highlights the canonical correlation that represents the measure of association between the discriminant function and the dependent variable.

This measure is important because its square represents the percentage of variance explained by the dependent variable. In this case, it means that this model accounts for 64.32% (0.802^2), 27.67% (0.526^2), 40.70% (0.638^2) and 18.49% (0.430^2) of the between group variance for year 2011, 2012, 2013 and 2014 respectively. Results of Wilks' lambda are presented in Table 3. Wilks's lambda is an inverse measure of the importance of the functions

where values close to 1 indicate that almost all of the variability in the discriminator variables is due to within-group differences and values close to 0 indicate that almost all of the variability in the discriminator variables is due to group differences (Brown and Wicker, 2000, p. 223). The smaller the value of Wilks' lambda refers to greater discriminatory ability of the function.

Table 3. *Wilks' lambda*

Year	Test of function(s)	Wilks' lambda	Chi-square	df	Sig.
2011	1	0.357	18.540	2	0.000
2012	1	0.724	8.248	1	0.004
2013	1	0.593	11.231	1	0.001
2014	1	0.815	6.019	1	0.014

Source: Authors' calculations

Results presented in Table 3 indicate a highly significant function ($p < .005$). Here, the null hypothesis (H_0 : The function has no discriminating ability) is tested by using the Chi-square statistic. Since there are only two groups, there is only one discriminant function (for each year), so stock classification model is presented as follows:

Table 4. *Stock classification model*

Year	Canonical Discriminant Function Coefficients	
	Standardized	Unstandardized
2011	$DF = 0.911x_{17} + 0.559x_{19}$	$DF = -0.690 + 27.397x_{17} - 0.408x_{19}$
2012	$DF = x_{17}$	$DF = -0.439 + 22.399x_{17}$
2013	$DF = x_{19}$	$DF = -0.532 + 1.564x_{19}$
2014	$DF = x_{17}$	$DF = -0.208 + 0.931x_{17}$

Source: Authors' calculations

Coefficients in discriminant function are interpreted in more less the same way as regression coefficients, meaning that each coefficient reflects the relative contribution of a unit change of each of the independent variables of discriminant function. A small coefficient means that a one-unit change in that particular variable produces a small change in the discriminant function score, and vice versa (Churchill 1999, p. 829).

Good predictors tend to have large weights. In our case, in 2011 ROA (x_{17}) score was the strongest predictor while EPS (x_{19}) was next in importance as a predictor. By looking at 2012, 2013 and 2014 it can be concluded that these

variables stand out as those that strongly predict allocation to the highly liquid or liquid stocks.

Others variables were less successful as predictors. Another way to interpret these results is to describe each group in terms of its profile, using the centroids, i e., group means of the predictor variables, as illustrated in Table 5.

Table 5. *Functions at group centroids*

Groups	Function for each year			
	2011	2012	2013	2014
1	3.127	1.277	2.098	1.070
2	-0.521	-0.278	-0.300	-0.198
Note: 1 denotes ‘highly liquid stocks’ (the ones included in the BATX), while 2 denotes ‘liquid stocks’.				

Source: Authors’ calculations

As can be seen from the table data for 2011, 2012, 2013 and 2014, if stock’s score on the discriminant function is closer to 3.127, 1.277, 2.098, and 1.070 respectively, then this stock is probably highly liquid stock. If, on the other hand, stock’s score on the discriminant function is closer to -0.521, -0.278, -0.300, and -0.198, for years 2011, 2012, 2013 and 2014, respectively, then this stock is probably liquid one. The final classification is given in Table 6.

The overall predictive accuracy of the discriminant function is called the 'hit ratio'. According to the results presented in Table 6, 86.7%, 86.7%, 91.1% and 91.1% of original grouped cases were correctly classified into highly liquid or liquid stocks. Taking into account the obtained results, the following question can be asked: What is an acceptable hit ratio? As Burns and Burns (2008) point out, one must compare the calculated hit ratio with what could be achieved by chance, meaning that if two samples are equal in size then there is a 50/50 chance anyway. Most researchers would accept a hit ratio that is 25% larger than that due to chance.

In this research ROA (as an indicator of fundamental variable) and EPS (as an indicator of market variable) stood out as those that strongly predict allocation to the highly liquid and liquid stock stocks from the stock market of Bosnia and Herzegovina. This is consistent with the previous findings of Vu (2013), as well as the findings of Okičić and Remetic-Horvath (2015).

All of the identified discriminatory variables are very important in creating investment strategy. ROA measures the overall effectiveness of management in generating profits with its available assets. The higher the ROA, the better the management. EPS, on the other hand, generally serves as an indicator of a company's profitability. Although further work is required to gain a more detailed insight into the discriminatory variables between highly liquid and liquid stocks in the selected stock market, the results presented in this paper have confirmed that the highly liquid stocks from the stock market of Bosnia and Herzegovina can be identified by examining ROA and EPS.

5. Conclusion

In accordance with theoretical inferences and empirical evidence presented in this paper, it seems fair to suggest that both market and fundamental variables discriminate between those two group of stocks. The results presented in this paper have revealed that the highly liquid stocks from selected market can be identified by examining their ROA (as fundamental variable) and EPS (as market variable) being the main practical implication of the paper. In other words, when selecting stocks from the frontier capital market of Bosnia and Herzegovina both institutional and individual investors should pay more attention to these variables. Although previously-formulated scientific hypotheses have been confirmed, further research suggests a need for more in-depth analysis of the selected market liquidity.

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Endnotes

- 1 The sample consists of 45 issuers. For more information on composition of BATX, SASX-30 and BIRS see official web sites of the SASE and BLSE.

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USING ECONOMETRICS TO UNDERSTAND INCLUSION OF PERSONS WITH DISABILITIES IN WORKFORCE OF BOSNIA AND HERZEGOVINA

KORIŠTENJE EKONOMETRIJE ZA OBJAŠNJAVANJE UKLJUČIVANJA OSOBA SA INVALIDITETOM NA TRŽIŠTE RADA BOSNE I HERCEGOVINE

Abstract

Persons with disabilities have relevant working capacity. Employers who recruit those persons assume that their disabilities do not decrease the organization's productivity. Persons with disabilities can normally fit into working environment. Studies of the attitude of employers towards persons with disabilities are rare and of limited scope in Bosnia and Herzegovina (BiH). The aim of this multidisciplinary research is twofold: to investigate factors that may influence employment of persons with disabilities, and to examine employer's perceptions of persons with disabilities in terms of potential employment. The research team uses a sample of 101 employers from BiH and performs the logit model maximum likelihood estimation. The results show that the size of organization, in terms of the number of employees, primarily influences likelihood of employment of persons with disabilities. There is an inverse relationship between employment opportunities and the organization size. One possible explanation for this relationship is that large companies already recruit persons with disabilities and therefore have no additional opportunities. Other coefficients in the estimated model are not statistically significant. The research also shows that employers in BiH have positive attitude towards persons with disabilities, but they face issues that can be resolved by government incentives.

Keywords: employment policy, log-likelihood function, logit model, persons with disabilities

JEL: C21, J23, J24, I12, I18

Sažetak

Osobe sa invaliditetom imaju odgovarajuću radnu sposobnost. Poslodavci koji zapošljavaju ove osobe pretpostavljaju da njihova invaliditet ne smanjuje organizacijsku produktivnost. Osobe sa invaliditetom mogu se bez problema uklopiti u radnu sredinu. Istraživanja stavova poslodavaca prema zapošljavanju osoba sa invaliditetom su rijetka i ograničenog obima u Bosni i Hercegovini (BiH). Ova multidisciplinarna studija ima dva cilja: da istraži faktore koji mogu uticati na zapošljavanje osoba sa invaliditetom i da istraži percepciju poslodavaca prema potencijalnom zapošljavanju osoba sa invaliditetom. Autori analiziraju 101 poslodavca iz BiH koristeći metod najveće vjerodostojnosti kako bi ocijenili logit model. Rezultati ukazuju da veličina organizacije mjerena brojem zaposlenika primarno utiče na spremnost poslodavca da zaposli osobu sa invaliditetom. Koeficijent uz ovu varijablu je negativan. Moguće objašnjenje dobijenog rezultata je da velike kompanije već zapošljavaju osobe sa invaliditetom te nemaju mogućnost dodatnog zapošljavanja. Ostali ocijenjeni koeficijenti nisu statistički značajni. Rezultati također ukazuju da poslodavci u BiH imaju pozitivan stav prema zapošljavanju osoba sa invaliditetom, ali se suočavaju sa velikim problemima koji se mogu riješiti uz pomoć države.

Ključne riječi: funkcija najveće vjerodostojnosti, logit model, osobe sa invaliditetom, politika zapošljavanja

JEL: C21, J23, J24, I12, I18

1. Introduction

More than one billion people or about 15% of the world's population live with some form of disability (World Report on Disability 2011, p. 29). Lutz and Scherbov (2000, p. 221) point out that the proportion of persons with disabilities in total population of Europe is also 15%. The same authors estimate that the number of persons with disabilities will continue to increase in the future. The question of employment of such persons is hence quite relevant. Disabled persons expect their full inclusion in the workforce (Inclusion of persons with disabilities through encouragement of employers 2013, p. 5). Employers want to demonstrate their social responsibility through recruitment of persons with disabilities (Disability in the Workplace: Employers' Organizations and Business Networks 2011, p. 37). Government is an important agent in resolving employment problems of persons with disabilities. BiH attempts to create a legal framework in order to fulfill its obligations from ratified international conventions (Disability in the Workplace: Employers' Organizations and Business Networks 2011). Consequences of insufficient government support are high corporate taxes,

which reduce competitiveness of BiH firms, inadequate legal framework, which does not promote the inclusion of disabled persons into the workforce, and constant dissatisfaction of individuals with disabilities.

At global, regional and national levels various measures are taken in terms of professional rehabilitation, training and employment of persons with disabilities. Although there are significant differences among these measures, they have a common goal – to promote anti-discrimination and employment of persons with disabilities. *Americans with Disability Act of 1990* is based on *Model on the Rights of Persons with Disabilities* (Inclusion of persons with disabilities through encouragement of employers 2013, p. 8). This law prohibits discrimination and promotes social integration of disabled persons. The Model is the foundation of the disabled person's training system (Inclusion of persons with disabilities through encouragement of employers 2013). Moreover, the General Assembly of UN introduces *The Standard Rules on the Equalization of Opportunities for Persons with Disabilities* in December 1990 (Inclusion of persons with disabilities through encouragement of employers 2013). These Rules are based on *Americans with Disability Act*. After the amendment of The Standard Rules, *United Nations Convention against All Forms of Discrimination against Disabled Persons* emerges. The Convention is adopted in December 2006. After all EU member states sign the Convention, it takes full effect in 2008 (Inclusion of persons with disabilities through encouragement of employers 2013).

Article 27 of the Convention states that “States Parties recognize the right of persons with disabilities to work, on an equal basis with others”. This article refers to the right to an opportunity to gain a living by work freely chosen or accepted in a labor market. The article assumes open work environment that is inclusive and accessible to persons with disabilities. Since 2009, *UN Convention on the Rights of Persons with Disabilities* also requires BiH to harmonize its legal framework with the standards described in the Convention (Inclusion of persons with disabilities through encouragement of employers 2013). BiH has to respect the provisions concerning the right to employment, accessibility, health, education, training, rehabilitation, independent living, and inclusion in the community by providing accommodation without discrimination to persons with disabilities. By ratifying this Convention, BiH recognizes disabled person as persons with long-term physical, mental, intellectual, or sensory impairments that may influence their full participation in society (Inclusion of persons with disabilities through encouragement of employers 2013). There are many

difficulties in the implementation of the UN Convention. The International Labour Organization (ILO) data shows that about 426 million of persons with disabilities in the World live in extreme poverty (Overcoming invisibility: Making the MDGs inclusive of and accessible for persons with disabilities 2010, p. 1). Key issues that persons with disabilities face include low paid jobs, discrimination, misjudgment of qualifications, transportation constraints, and poor incentives (Overcoming invisibility: Making the MDGs inclusive of and accessible for persons with disabilities 2010).

2. Literature review

Despite increased laws designed to address employment discrimination and provide for workplace accommodations for qualified workers with disabilities, the employment rate of persons with disabilities has increased very little since the late 1980s in the World. A series of studies have been conducted by the National Organization on Disability (NOD) in USA. Unger (2002) reports an actual increase in the unemployment rate from 66% in 1986 to 71% in 1998 in USA. Blanck (1998), King (1993) and Smith (1992) indicate that employers play a critical role in addressing the high unemployment rate of persons with disabilities. These authors have also identified employer attitudes toward persons with disabilities as an important factor in the staggering unemployment rate of persons with disabilities. Although employers' attitudes toward individuals with disabilities have been studied extensively, the existing literature provides conflicting conclusions. For example Blanck (1998), King (1993) and Smith (1992) have identified some factors as positive attributes by some employers (e.g., attendance, safety, productivity). However, these attributes have identified as negative in other studies (Nietupski et al. 1996). Because of inconsistency in methodology it is difficult to compare and derive conclusions based on the results of previous researches. A plausible explanation for these mixed results is that employers were not categorized by characteristics that might influence their perceptions of persons with disabilities in the workforce. Since similar studies were not conducted for BiH, this paper aims to fill this gap.

3. Employment policy background

General employment policy includes analysis of issues concerning disabled person's employment. Governments need to encourage employers to recruit persons with disabilities in order to increase workforce inclusion of persons with disabilities. Governments can provide support in several

ways. First, governments can impose job application and selection process that assures availability of employment opportunities for persons with disabilities. Second, governments should promote special adjustments of workplaces and working conditions. Such adjustments include appropriate telecommunication devices, flexible working schedule, and remote working possibilities. Third, adequate job training for persons with disabilities is also necessary. Fourth, government can promote self-employment options for persons schedule, and remote working possibilities.

3.1 Disabled person's employment policy in the World

There are two types of employment policies concerning persons with disabilities: (1) compensation model and (2) rehabilitation model (Inclusion of persons with disabilities through encouragement of employers 2013, p. 10). The compensation model is dominant in the continental Europe. This model represents the doctrine of segregation. It provides assistance and care for persons with disabilities in segregated environments, such as isolated schools, institutions and homes. The compensation model also maintains this segregated approach in the labor market as special employment category requested in terms of jobs in targeted institutions and jobs created purposely for persons with disabilities. However, this model does not resolve the problem of actual employment of disabled persons. The problem is just temporarily concealed by government aid programs and compensation through social services. The compensation model is difficult to monitor and to measure (Inclusion of persons with disabilities through encouragement of employers 2013).

The other approach to employment policy concerning persons with disabilities is the rehabilitation model. This model supplements and partly complements the compensation model. The rehabilitation model encourages equal opportunities for persons with disabilities and calls for dual adjustment. This approach argues that persons with disabilities need to adjust to labor market needs and conditions, and that employers need to pay attention to requirements of persons with disabilities (Inclusion of persons with disabilities through encouragement of employers 2013). European countries tend to implement employment policies that are tailored for persons with disabilities (i.e., employment protection in low-paid jobs and quota employment through affirmative action). Belgium and Italy opt for sheltered employment. Slovakia, Czech Republic, Austria, and Germany do not provide protectionism in this area of labor market regulation (The

Labour Market Situation of People with Disabilities in EU25 2008, p. 10). Moreover, self-employment can also assist in inclusion of persons with disabilities in workforce. The largest employment rate for persons with disabilities (i.e., the ratio of the number of persons with disabilities employed and the total number of persons with disabilities) in EU is 62% in Sweden while the lowest rate is 2.9% in Romania (Inclusion of persons with disabilities through encouragement of employers 2013, p. 12).

3.2 Employment policies concerning disabled persons in BiH

The BiH legal framework for regulation of employment process for persons with disabilities is guided heavily by international conventions. In fact, this issue is governed by regulations that are adopted and applied at the entity level (both Federation of Bosnia and Herzegovina (FBiH) and Republika Srpska (RS)) and Brčko District (BD). Moreover, standards determined by ILO conventions also steer regulation of employment of persons with disabilities in BiH.

The law regarding Vocational Rehabilitation and Employment (Disabled Persons) recognizes two forms of employment: 1) employment under general conditions, and 2) employment under special conditions. General conditions assume employment in the open labor market. These conditions include employers in both public and private sectors. Special conditions assume employment in institutions, enterprises, organizations with special work place and environment or to self-employment of persons with disabilities. The existing provisions are confusing and do not provide a precise definition of employment under general or special conditions (Inclusion of persons with disabilities through encouragement of employers 2013, p. 16). The employment policy regarding persons with disabilities in BiH promotes recruitment of disabled persons. The law regarding Vocational Rehabilitation and Employment (Disabled Persons) requires that each organization in BiH with 16 or more employees recruit at least 1 person with disability. Still, there has been no evidence that the BiH employers fulfill the recruitment requirement. This research examines behavior of the employers in this matter.

4. Research methodology

Studies that deal with the issue of employment of persons with disabilities in BiH are rare. Little is known about the actual commitment of employers in BiH to employ persons with disabilities. This multidisciplinary research aims

to provide scientific contribution concerning the issue of employment by using a sample of 101 corporate members of the BiH Employers Association. There were two selection criteria: 1) to cover corporate members from all cantons in FBiH, big municipalities in RS and BD and 2) to cover corporate members that belong to sectors of importance for BiH. Selected corporate members employ 24.43% of total number of employees in industry (real sector) in 2012.

The paper looks at the BiH employers' perceptions of the relationship between work productivity and inclusion of persons with disabilities. The paper also examines the employers' expectations regarding government incentives that would motivate them to employ persons with disabilities in BiH. This multidisciplinary research is based on econometric analysis of factors that may affect inclusion of persons with disabilities in workforce of BiH. The paper estimates a logit model with several independent variables. The model is of the following form:

$$P[Y_j = 1|X_{1j}, \dots, X_{kj}] = \frac{1}{1 + \exp(-\beta_1^0 \cdot X_{1j} - \dots - \beta_k^0 \cdot X_{kj})} = \frac{1}{1 + \exp(-\sum_{i=1}^k \beta_i^0 \cdot X_{ij})}. \quad (1)$$

In model (1) β_i^0 represents the real values of the parameters (Wooldridge 2008, pp.457-460). The authors depend on maximum likelihood estimation of the logit model. The log-likelihood function then has the following form:

$$\ln(L_n(\beta_1, \dots, \beta_k)) = - \sum_{j=1}^n (1 - Y_j) \cdot \sum_{i=1}^k \beta_i X_{ij} - \sum_{j=1}^n \ln \left(1 + \exp \left(- \sum_{i=1}^k \beta_i X_{ij} \right) \right). \quad (2)$$

Maximum likelihood estimators β_1, \dots, β_k are calculated by maximizing $\ln(L_n(\beta_1, \dots, \beta_k))$. The next equation shows this step.

$$\ln(L_n(\hat{\beta}_1, \dots, \hat{\beta}_k)) = \max_{\beta_1, \dots, \beta_k} \ln(L_n(\beta_1, \dots, \beta_k)). \quad (3)$$

For a large sample of size n , where $i = 1, \dots, k$, the following is true:

$$\sqrt{n} \cdot (\hat{\beta}_i - \beta_i^0) \sim N[0, \sigma_i^2]. \quad (4)$$

If the consistent corresponding estimators $\hat{\sigma}_i^2$ with variances σ_i^2 are taken into account, then for $i = 1, \dots, k$ it must be true that:

$$\frac{\sqrt{n} \cdot (\hat{\beta}_i - \beta_i^0)}{\hat{\sigma}_i} \sim N[0, 1]. \quad (5)$$

The authors provide estimates of the maximum likelihood coefficients and their standard errors σ_i are represented by the results of (Table 1).

5. Research results and discussion

The objective of this paper is two-fold: 1) to identify attitudes of employers towards employment of persons with disabilities, and 2) to identify measures that could encourage recruitment process of persons with disabilities. The survey consists of 19 questions (Appendix 1). The most relevant questions are included in the logit model.

The survey has several identification questions that classify employers in the sample. For example, these questions ask whether the employer must satisfy a certain threshold of persons with disabilities employed in his/her company, and whether the employer has employed persons with disabilities in the past. Next, the survey includes a series of questions related to the employer's consideration of employment opportunities for persons with disabilities and the employer's understanding of incentives aimed to encourage employment of persons with disabilities. The following logit model is estimated in the paper:

$$Y(\text{question 6}) = \beta_1 + \beta_2 \cdot X_2(\text{question 1}) + \beta_3 \cdot X_3(\text{question 3}) + \beta_4 \cdot X_4(\text{question 4}) + \beta_5 \cdot X_5(\text{question 8}) + \beta_6 \cdot X_6(\text{question 13}) + \beta_7 \cdot X_7(\text{question 17}) + \varepsilon \quad (6)$$

The following series of questions is used as a set of variables in the model. In order to explain variables, research results are presented.

Question 6 – Is your workplace suitable for recruitment of persons with disabilities?

Answers to this question demonstrate that about half of the employers in the sample have opportunities to recruit persons with disabilities while others do not think that there are opportunities in their corporate environment for persons with disabilities. Since the sample only represents employers in BiH with more than 15 employees, the authors conclude that about 50% of the BiH employers who are required by law to recruit persons with disabilities actually do not employ these individuals.

Question 1 – How many people does your organization employ?

Results indicate that 34.6% of the BiH employers recruit between 35 and 100 employees while 23.8% of the BiH employers recruit between 15 and 35

employees. Most of the BiH companies employ up to 100 employees. These companies are considered by law in BiH to be medium size companies.

Question 3– Are you required by the BiH law to recruit persons with disabilities based on quota employment?

This question evaluates whether employers in BiH are required to employ persons with disabilities based on a quota employment rule determined by a particular number of persons with disabilities that need to be employed by each employer. The paper shows that 64.3% of employers are subject to some quota employment rule while the rest are not. Since the sample only represents employers in BiH with more than 15 employees, all companies in the sample are by default required by the BiH law to recruit persons with disabilities. However, around 35% of the BiH companies in the sample obviously do not know that. This result shows that although there are laws and regulations concerning employment of persons with disabilities, getting more persons with disabilities actually employed is quite difficult.

Question 4 – Has your organization employed persons with disabilities in the past?

The paper finds that 71.3% of employers in the sample have employed persons with disabilities in the past while the rest of the employers have never recruited persons with disabilities. The paper also finds that all firms with more than 100 employees have hired persons with disabilities in the past.

Question 8 – What is your personal view on employment of persons with disabilities?

The paper finds that 93% of employers in the sample have positive attitude towards employment of persons with disabilities. It certainly makes sense for employers with positive outlook to cooperate with government sector in order to resolve existing issues concerning employment of persons with disabilities.

Question 13 – Do you think that the current law regulating employment of persons with disabilities encourages employers to recruit persons with disabilities?

More than 50% of employers believe that the BiH law provides benefits that could promote employment of persons with disabilities. Still, more than 30%

believe that these benefits are not sufficient to encourage employment of persons with disabilities. Perhaps, this outlook precludes better inclusion of persons with disabilities in workforce of BiH.

Question 17– Does the BiH government policy through legal framework foster employment of persons with disabilities?

More than 60% of employers in the sample believe that government policies do not encourage employment of persons with disabilities. These employers think that the BiH government (at all levels) needs to change its policies in order to give better support to employers in recruitment of persons with disabilities. The following table provides the results of econometric analysis.

Table 1. *Estimated coefficients*

Question	Coefficient	Stand. error	P> z
<i>question 1</i>	-0.451	0.238	0.058
<i>question 3</i>	-0.197	0.549	0.720
<i>question 4</i>	0.991	0.707	0.161
<i>question 8</i>	-0.814	0.621	0.190
<i>question 13</i>	-0.563	0.451	0.212
<i>question 17</i>	0.082	0.920	0.929

Source: Calculation of author

The estimated coefficient value for the first question is negative and significant at 10% (-0.451). This value implies that the organization's increase in terms of hiring new employers negatively influences persons with disabilities employment opportunities. The conclusion based on these results states there is an inverse relationship between persons with disabilities employment opportunities and the size of organization. Possible explanation of this conclusion could be that large companies already recruit persons with disabilities and therefore have no opportunities of additional recruitment. Coefficients for other questions are statistically insignificant. Answers to questions 3, 4, 8, 13 and 17 do not clearly indicate their influences on persons with disabilities employment opportunities. It can be concluded that the size of organization, in terms of number of employees, primarily influences the persons with disabilities employment opportunities. The obtained results are in accordance with Unger (2002). However, there are differences comparing to Blanck (1998), King (1993) and Smith (1992). After the presentation of logit model results, it is considered important to present the answers of few other questions in order to prove research's multidisciplinary issue. Questions that

are analyzed are related to the number of persons with disabilities that could be recruited by employers as well as employer's perceptions of persons with disabilities.

Question 7 – If your organization has a possibility to employ persons with disabilities, indicate the number of them you would be able to recruit.

The answers to this question show that, according to employer's estimations 80% of employers could recruit between 1 and 3 persons with disabilities, while just 8% could recruit about ten persons with disabilities or more. These percentages are related to employers who have answered this question (40 employers). However, it is important to mention that 61 employers did not answer this question. It can be concluded that 61 employers are not able to recruit persons with disabilities.

Question 11– Can you make difference between persons with disabilities and persons with damage?

According to the answers it can be concluded that just about 30% of employers could not distinguish persons with disabilities from persons with damages. However, about 50% of employers make differences in the case of mental damages (74 out of 105 employers could recognize persons with disabilities).

The last part of the research evaluated employer's attitudes towards the obligatory employment of persons with disabilities. Here are presented results which were considered most important. The first question was whether anti-discriminative regulations could improve persons with disabilities labor market position. Results indicate that 48.5% of employers agreed, 44.5% partially agreed while 7% of employers did not have the attitude. So it can be concluded that anti-discriminative regulations could improve the employment of persons with disabilities. Contrary to anti-discriminative regulations, employers think that the employment of persons with disabilities based on quota system could just have negative effects. More than 80% of employers state that quota system could be efficient just in combination with financial benefits and the training of professional staff that could help employers in persons with disabilities recruitment process. Employers have also stated that those who do not comply with obligations should be punished. Results indicate that 75% of employers agree or partially agree that obligatory employment of persons with disabilities is additional tax and could restrict the employee's selection process. In addition, 80% of

employers agree or partially agree that the obligatory employment of persons with disabilities based on quota system should be addressed to government administration bodies, judicial authorities and other government bodies, departments and public companies.

6. Conclusion

More than 50% of employers already have recruited persons with disabilities. This recruitment was mostly based on employer's own initiatives or caused by obligatory employment of persons with altered working capacity. Employers stated that work environments are mostly unable to adapt to persons with disabilities, which is considered as serious problem. One of the most important conclusions of this paper is positive attitude of employers towards the persons with disabilities recruitment (93 employers expressed their desire to recruit persons with disabilities). The most important selection criteria would be: their qualifications, skills and ability to work. It is important to emphasize that 40 employers have mentioned that benefits and supports could promote the persons with disabilities employment. Almost all employers agreed that government has to improve its efforts in order to resolve this problem. In addition, 53 employers pointed out that benefits defined by laws are stimulating for the employment of persons with disabilities. However, the big problem is low implementation of these benefits as well as the government's intentions to shift their responsibility to employers.

The most important measures that government could implement in order to encourage employers to recruit persons with disabilities are: the compensation of costs related to workplaces adaptation, equipment and other expenses, compensations of salaries in order to resolve the problem of lower productivity, tax and custom duties exemptions, the compensation of salaries during professional rehabilitation and job training as well as self-employment stimulations of persons with disabilities. The estimated logit model shows that the size of organization, in terms of number of employees, primarily influences the employment opportunities for persons with disabilities. There is inverse relationship between persons with disabilities employment opportunities and the size of organization. It can be concluded that persons with disabilities should be recruited not only by big companies but also by SME-s. World experiences show that persons with disabilities employment in SME-s could improve their social inclusion but only with the

adequate government support (SMEs attitudes to employing people who have a mental illness 2012).

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APPENDIX 1. THE SURVEY ON EMPLOYERS' ATTITUDES TOWARD PERSONS WITH DISABILITIES RECRUITMENT

This survey is anonymous and is used for research purposes in order to identify employers' attitudes toward persons with disabilities recruitment in the open market and to identify measures that could encourage employers to support the process. Questions are answered by choosing one of the answers, unless additional instructions indicate otherwise. It is very important to answer each question for the completeness of research. Thank you for cooperation.

Survey - Employers identification					
Q1	How many employees are employed in your organization?	<input type="checkbox"/> Organization with more than 15 employees <input type="checkbox"/> Organization with 16-35 employees <input type="checkbox"/> Organization with less than 100 employees <input type="checkbox"/> Organization with less than 500 employees <input type="checkbox"/> Organization with more than 500 employees			
Q2	Which is your predominant industry?				
Q3	Do you have obligation to recruit persons with disabilities based on quota employment?	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Q4	Has your organization already employed persons with disabilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Q5	How did you employ persons with disabilities?	<input type="checkbox"/> Employer's own initiatives <input type="checkbox"/> Through employment services <input type="checkbox"/> Through institutions for disabled persons employment <input type="checkbox"/> As an obligation due to altered working capacity			
Employers and the recruitment of persons with disabilities					
Q6	Are your workplaces suitable for persons with disabilities recruitment?	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Q7	If your organization has a possibility to employ persons with disabilities, indicate the number of them you would be able to recruit.	Approximate number:			
Q8	What is your opinion about employment of persons with disabilities?	<input type="checkbox"/> Positive <input type="checkbox"/> Negative <input type="checkbox"/> No opinion			
Q9	What affects or could affect your decision to hire persons with disabilities?	<input type="checkbox"/> Work capacity of persons with disabilities <input type="checkbox"/> Necessity of special working aids <input type="checkbox"/> Qualifications, knowledge and skills <input type="checkbox"/> Opinions of workers without disabilities <input type="checkbox"/> Degree of protection at work <input type="checkbox"/> Benefits and supports <input type="checkbox"/> Legal obligations			
Q10	According to your opinion, who is person with disability?	<input type="checkbox"/> Person having a physical, sensory or mental impairment (congenital or due to injury or illness) <input type="checkbox"/> Disabled worker <input type="checkbox"/> Military and civil victim of war <input type="checkbox"/> Individual with significantly reduced possibilities of ensuring and retaining suitable employment due to recognized physical or mental impairment			
Q11	Can you make difference between persons with disabilities and persons with damage?	<input type="checkbox"/> Yes <input type="checkbox"/> Yes, in case of mental damage <input type="checkbox"/> No			
Q12	State the level of agreement with following attitudes. (choose one answer)	Completely agree	Partially agree	No attitude	Not agree at all
Q12.1	The improvement of persons with disabilities labor market position depends on the legislation that prevents persons with disabilities discrimination.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q12.2	The introduction of the quota system (the existence of legislation which obliges employers to employ persons with disabilities) will increase the employment of persons with disabilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q12.3	Quota system could be efficient just in combination with financial benefits and the training of professional staff that could help employers in persons with disabilities recruitment process and sanctions for disrespect.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q12.4	Quota system promotes employment opportunities, generates additional funds that must be used for the employment inclusion of persons with disabilities and raises awareness among employers about the importance of persons with disabilities recruitment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q12.5	Quotes are against of principle of non-discrimination; mandatory employment of persons with disabilities does not promote adequate integration of persons with disabilities into the workplace.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q12.6	Obligatory employment of persons with disabilities is additional tax and could restrict the employee's selection process.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q12.7	Obligatory employment of persons with disabilities based on quota system should be addressed to government administration bodies, judicial authorities and other government bodies, departments and public companies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q13	According to your opinion, could existing benefits defined by law encourage employers to recruit persons with disabilities?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know			
Q14	If you receive benefits for employment of persons with disabilities, indicate which entity supports it?				
Q15	In your opinion, which of the following measures could be the most stimulating for employment of persons with disabilities?	<input type="checkbox"/> The compensations of salaries in order to resolve the problem of lower productivity <input type="checkbox"/> The compensation of costs related to workplaces adaptation, equipment and other expenses <input type="checkbox"/> Tax and custom duties exemptions <input type="checkbox"/> The compensation of salaries during professional rehabilitation and job training <input type="checkbox"/> Beneficial loans for creating adequate jobs for persons with disabilities <input type="checkbox"/> Other measures			
Q16	In your opinion what influences job preservation of persons with disabilities?	<input type="checkbox"/> regulations on termination of employment <input type="checkbox"/> relations between employers and persons with disabilities <input type="checkbox"/> employment policy and the role of the government in persons with disabilities social insurance <input type="checkbox"/> regulations on pension and disability insurance			
Q17	Does "government policy" through legal framework foster the persons with disabilities employment process?	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> don't know			
Q18	In your opinion, what should be the employers' share in social insurance? (regarding the employment of persons with disabilities)	<input type="checkbox"/> 20% <input type="checkbox"/> 30% <input type="checkbox"/> 50% <input type="checkbox"/> ? (Other percentage)			
Q19	What would you change in the existing laws concerning the obligations of employers towards persons with disabilities recruitment?				

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PROBLEMS OF THE PENSION AND DISABILITY INSURANCE SYSTEM IN BOSNIA AND HERZEGOVINA AND POSSIBLE DIRECTIONS OF ITS REFORM

PROBLEMI SISTEMA PENZIJSKO-INVALIDSKOG OSIGURANJA U BOSNI I HERCEGOVINI I MOGUĆI PRAVCI ZA NJEGOVU REFORMU

Abstract

The key indicators of stability/instability such as equal number of insured persons and pension beneficiaries, low rate of income swap rate along with growing cash transfers from entities' budgets to public pension funds undoubtedly prove that the existing system of pension and disability insurance in Bosnia and Herzegovina is economically and socially unsustainable. The first step in overcoming the pension system crisis would be to identify the problems that have caused such situation. For that reason, the paper analyzes both, the current problems in the pension system functioning and those that will in long-term represent an even more serious threat. Resolution of these issues, meaning stabilization of the existing pension system of intergenerational risk sharing, appears to be a necessary precondition for the reform that is opening of the system for private types of pension insurance. The paper also presents the results of primary research on working population attitudes related to different models of the system reform.

Keywords: pension system, unemployment, informal economy, demographic aging, pension reform

JEL: E62, G22, H26, J11

Sažetak

Izjednačen broj osiguranika i korisnika penzijskih naknada, niska stopa zamjene dohotka uz sve veće novčane transfere iz entitetskih budžeta javnim penzijskim fondovima, kao ključni indikatori stabilnosti/nestabilnosti, nedvosmisleno potvrđuju da je postojeći sistem penzijsko-invalidskog osiguranja u Bosni i Hercegovini ekonomski i socijalno neodrživ. Prvi korak u prevazilaženju krize penzijskog sistema jeste identifikovanje problema koji su usloveli takvo stanje. Upravo iz tog razloga, u radu se analiziraju kako dosadašnji problemi u funkcionisanju penzijskog sistema, tako i oni koji će dugoročno gledano predstavljati sve ozbiljniju prijetnju. Rješavanje ovih problema, a time i stabilizacija postojećeg penzijskog sistema međugeneracijske solidarnosti, javlja se kao neophodni preduslov za reformu, odnosno otvaranje sistema za privatne oblike penzijskog osiguranja. U radu su prezentirani i rezultati primarnog istraživanja o stavovima radno aktivnog stanovništva o različitim modelima reforme ovog sistema.

Ključne riječi: penzijski sistem, nezaposlenost, neformalna ekonomija, demografsko starenje, penzijska reforma

JEL: E62, G22, H26, J11

1. Introduction

Bosnia and Herzegovina's (BiH) pension system consists of two independent entity pension systems ran by the Federation of Bosnia and Herzegovina Pension and Disability Institute and Pension and Disability Fund in Republic of Srpska. Generally, there are no significant differences between these two pension systems. Both of them are single pillar public pension systems with mandatory participation of all employed persons. They are based on the principle of intergenerational risk sharing (*pay as you go – PAYG*), which means that all employed persons and employers pay contributions to the fund from which the current pension payments are made. So, instead of being kept on pension funds' accounts, the paid contributions are immediately used for payments to current pension beneficiaries, therefore this method of pension insurance financing is often called a "current concept" or "current financing system". However, such system can be functional just in case of a particularly positive demographic distribution and high employment rate. Since these are not the characteristics of BiH, *PAYG* pension system has run into a serious crisis.

In order to better understand the situation of the pension system in BiH, this paper presents key indicators of sustainability/unsustainability of the

pension system, as well as a detailed explanation of the problems concerning its functioning. Since overcoming of, first of all, demographic problems is not possible without structural reforms, the paper also presents certain alternatives to the current PAYG system, as well as the attitudes of the working population regarding the problem in question, all with the ultimate aim of contributing to the public debate about the choice of long-term sustainable and socially acceptable solutions for the reconstruction of the pension system in BiH.

2. State of pension and disability insurance system in Bosnia and Herzegovina

The key indicators of economic and social sustainability/non-sustainability of any pension system include a dependability coefficient (relation between the number of contributors and number of pension beneficiaries) as well as the rate of income swap (relation between average pension and average net salary). The number of insured persons and number of pension beneficiaries are almost equal in both entities of BiH. This figure raises concerns in sense of *PAYG* theoretical postulates implying that pension of one beneficiary should be financed by contributions of at least three employed persons. The consequence is low rate of income swap, 44% in the Federation of Bosnia and Herzegovina (FBiH) and 40% in Republic of Srpska (RS).

At the same time, the rate of income swap for an employee with average salary from public or private pension system (both mandatory and voluntary) in OECD countries reaches 79.5%, while the rate in EU countries reaches 69.1%, solely from the mandatory public and private pension insurance (OECD 2013, p. 143). If this figure is combined with details on 2014 average pensions of 365.18 KM in the FBiH and 332.95 KM in the RS, it will be another confirmation of BiH pensioners' low living standard, since the 2011 survey on household consumption expenditure sets the standard poverty line for a single household member at 416.40 KM per month (BiH Statistics Agency, 2013). Despite low pensions provided by the system, the crisis in financing BiH public pension funds becomes more obvious, creating deficit even with significant transfers from entities' budgets.

Such misbalances principally derive from disproportion between the revenue from contributions, as a basic source of financing the intergenerational solidarity pension systems, and pension expenditures as shown in Table 1.

Table 1. *Economic and demographic parameters of pension and disability insurance in BiH*

Indicators	FBiH	RS
Proportion of insured persons and pension beneficiaries (dependability coefficient in the system in 2014)	1.14:1	1.13:1
Relation between average pension and average net salary (income swap rate)	43.84%	40.36%
Participation of old age pension beneficiaries in total number of beneficiaries	50%	53%
Participation of disability pension beneficiaries in total number of beneficiaries	20%	16%
Participation of family pension beneficiaries in total number of beneficiaries	30%	31%
Participation of contributions in total revenues	87%	79%
Participation of budget transfers in total revenues	13%	17%
Participation of non-tax revenues in total revenues	0%	4%
Participation of pension expenditures in total expenditures	97%	93%
Coverage of pension expenditures with contribution revenues	88%	82%
Coverage of total expenditures with contribution revenues	86%	77%
Misbalance of pension and disability insurance systems (total expenditures coverage by total revenues)	-0.84%	-3.08%
Participation of pension expenditures in GDP	9.96%	10.22%
Participation of total expenditure of pension and disability systems in GDP	10.19%	10.89%

Source: Made by author according to Institute for Statistics FBiH 2014, RS Institute of Statistics 2014 and BiH Statistics Agency 2015

3. Analysis of reasons for pension crisis in Bosnia and Herzegovina

Present unsustainable state of pension system is primarily result of economic factors, while the population aging trend will continuously create a huge pressure, bearing in mind that sustainability of the PAYG system depends on population's age structure.

3.1. Demographic trends in Bosnia and Herzegovina

As the 2013 census official results are not available yet, all demographic data are based on different assessments. According to assessment made for creation of the *Pension Reform System Strategy*, FBiH have 2,338,277 residents out of which the population of 65 years of age and older makes 14.18%, while working population (15-64) makes 68.71% of total population (Working Group for Development of the FBiH Pension System Reform Strategy, 2013, pp. 9-10). In addition, there are projections for the next period, according to which the share of population 65+ will increase

to 25.25% by 2035, and the share of population of 15-64 will decrease to 63.16% (bearing in mind the option of spontaneous fertility).

Similar, in preparation of the publication *Analysis of Possible Introduction of the "Second Pillar" Pension Insurance in the RS*, the RS was estimated to have 1,277,240 residents, out of which the old population contingent of 65+ makes 17.88%, while functional contingent (18-64 years of age) makes 64.53% (Working Group for Development of the RS Pension System Reform Strategy, 2011, pp. 8-9).

At the same time some detailed projections for the next period had been developed. According to the scenario of constant (unaltered) fertility, total RS population will decrease by 11.6% until 2030, by 29% until 2050 and even 56.5% until 2080. Moreover, age structure of the population is also worsening since the share of 18 to 64 population shall reduce to 59.6% by 2030, to 55.8% by 2050 and to 52.6% until 2080, while the share of population of 65 and older shall increase to 26.2% by 2030, 31.9% by 2050 and finally to 35.5% by 2080.

The reason for progressive increase of the older population share should be looked for in the exclusion of *baby boom* generations (larger in number, born immediately after the World War II) from working contingent and their transfer into inactive population, while simultaneously, due to long term low fertility rate, generation smaller in number compared to *baby boomers* is reaching working active age. Falling trend of total fertility rate (number of newborns delivered by a woman during her fertile period) in BiH is present since 1960. It means that the fertility rate in 1960 was 3.95 children per woman, falling continuously after that, so currently stands 1.276 children per woman (BiH Statistics Agency 2014).

The rate of total fertility in BiH is under the average rate in EU (1.55), but also the lowest in comparison with fertility rates in former Yugoslav republics: Montenegro (1.73), Slovenia (1.55), Macedonia (1.49), Croatia (1.46) and Serbia (1.43) (Eurostat 2014). Bearing in mind that fertility rate of 2.1 children per woman is necessary for simple reproduction (regeneration), it is apparent that all European countries are unavoidably facing with reduction of the population. Unfavorable effects in BiH are already noticeable considering the negative natural growth in both entities (Table 3). Besides „bottom-up ageing” (low fertility rate), increased share of the older population is also affected by “top-down ageing” or expended life expectancy, as a consequence of decreased mortality due to better living and

work conditions and improved health care. Average life expectancy in BiH, according to Statistics Agency, is 73 which represent extension compared with pre-war period. However, life expectancy in BiH is below average of EU countries which according to data for 2012 is 77.5 and has increased for three years compared with 2002 (Eurostat 2013).

Table 2. *Birth and mortality trends for the period 2000-2013*

Year	FBiH			RS		
	Number of newborns	Number of deceased	Natural growth	Number of newborns	Number of deceased	Natural growth
2000.	25,372	17,112	8,260	14,191	13,370	821
2001.	24,018	16,891	7,127	13,699	13,434	265
2002.	23,251	17,175	6,076	12,336	12,980	-644
2003.	23,168	18,259	4,909	10,537	12,988	-2,451
2004.	22,250	18,350	3,900	10,628	13,082	-2,454
2005.	21,934	19,293	2,641	10,322	13,802	-3,480
2006.	21,602	18,678	2,924	10,524	13,232	-2,708
2007.	21,715	19,428	2,287	10,110	14,146	-4,036
2008.	22,920	19,480	3,440	10,198	13,501	-3,303
2009.	22,913	20,022	2,891	10,603	13,775	-3,172
2010.	22,382	20,482	1,900	10,147	13,517	-3,370
2011.	21,228	20,208	1,020	9,561	13,658	-4,097
2012.	21,472	20,859	613	9,978	13,796	-3,818
2013.	20,145	20,465	-320	9,510	13,978	-4,468

Source: Made by author according to Institute for Statistics FBiH 2014 and RS Institute of Statistics 2014

3.2. Economic problems of pension and disability insurance in Bosnia and Herzegovina

As the first economic cause of pension crisis in our country appears to be the high unemployment rate or low employment rate. In fact, year by year smaller number of employed persons pays contributions for pension and disability insurance out of which pensions are paid to increasing number of pensioners.

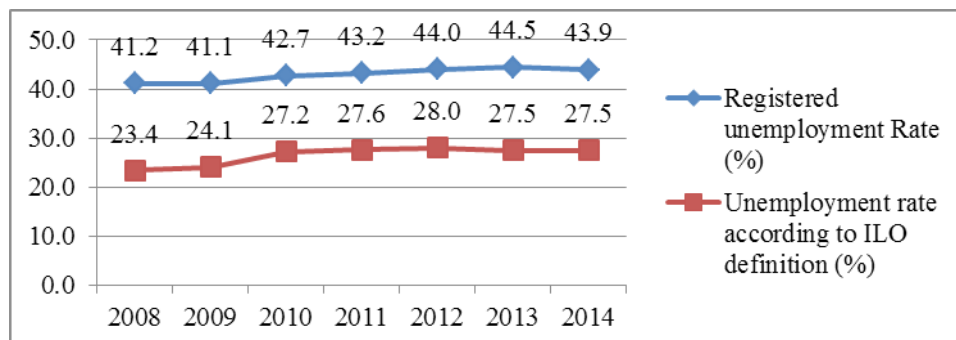
Table 4 shows trends in number of employed and unemployed persons in period of 2008-2014. Obviously the number of unemployed in BiH constantly grows by average rate of 1.8% while the number of employed persons is falling by average rate of 0.09% per year.

Table 3. *Employment rate tendencies in BiH (2008-2014)*

Year	Number of employed				Number of unemployed			
	BiH	FBiH	RS	DB	BiH	FBiH	RS	DB
2008.	705,683	430,745	259,205	15,733	493,441	345,381	135,102	12,958
2009.	712,218	437,501	258,634	16,083	497,526	347,146	139,536	10,844
2010.	700,189	438,949	244,453	16,787	521,400	364,929	145,343	11,128
2011.	696,050	440,747	238,956	16,347	529,689	367,515	150,344	11,830
2012.	691,622	437,331	238,178	16,113	543,456	377,957	153,225	12,274
2013.	690,012	435,113	238,640	16,259	552,494	388,704	151,290	12,500
2014.	701,463	443,587	241,544	16,332	549,607	391,427	145,919	12,261

Source: Made by author according to Institute for Statistics FBiH 2014, RS Institute of Statistics 2014 and BiH Statistics Agency 2015

As a consequence of unfavorable tendencies in number of employed – unemployed the unemployment rate increased from 41.3% in 2008 to 43.9% in 2014. However, this figure should be taken with reserve since the large number of persons is registered in employment agencies just to get the right on social insurance. For this reason, as more reliable information serves the unemployment rate obtained by the Survey on Work Force conducted by the BiH Statistics Agency. This survey is based on standards of the International Labor Organization (ILO) that takes as unemployed just those persons actively looking for a job. In that sense, according to Survey on Work Force the unemployment rate in BiH in 2014 was 27.5% (Figure 1). Unemployment rate presented this way is also internationally comparable although the results of such survey are unfavorable. Unemployment rate in BiH is far above average UN unemployment rate, which was 10.2% in 2014 (Eurostat 2015). Also, former Yugoslav republics have a lower unemployment rate than BiH: Slovenia (9.7%), Croatia (17.3%) (Eurostat 2015), Montenegro (18%) (Monstat 2015) and Serbia (19.7%) (Republic Bureau of Statistics 2015).

Figure 1. *BiH unemployment trends in period 2008-2014*

Source: BiH Statistics Agency 2014

The next problem burdening pension and disability insurance system in BiH is large number of persons employed in informal economy sector („shadow economy“). There is no universal and completely precise definition of shadow economy, but we could mention widely accepted definition: “The shadow economy includes unreported income from the production of legal goods and services, either from monetary or barter transactions, hence all economic activities that would generally be taxable were they reported to the tax authorities” (Schneider & Enste 2000, pp. 78-79). So, it includes legitimate forms of economic activities that are not formally registered. In Europe, there are usually two different categories of such economic activities: non-registered employment representing 2/3 of total gray economy, which includes salaries that employees and companies do not report in order to avoid contribution payments for social insurance, and non-reported revenues by companies (Schneider 2014, p. 3). Unregistered work is particularly important for the pension and disability insurance in BiH since it is widely spread, which is proven by results of the Survey on Work Force according to which BiH had 814 thousand employed in 2014, which is 112.5 thousand more than the number registered. Consequently, 14% of total number of employed persons is informally employed for which pension and disability insurance contributions are not paid, which brings to significant loss of revenues for public pension funds (BiH Statistics Agency 2014). Participation of informal employment is probably even bigger because statistically relevant real unemployment is also hidden within the registered employment. It concerns employees “temporary layoff”, that are registered and counted for as employed but their contributions for pension insurance are not paid. Most of BiH unregistered workers is engaged in agriculture (Rosas et al. 2009, p. 18). Informal sector employs considerable number of low qualified workers since they mostly earn low salaries that would be insufficient to survive if fully taxed. Apart from that, there is no sufficient demand on formal labor market for such workers. Failure to pay contributions for informally employed persons shall result in significant pressure on state budget in the future, besides current influence to reduced revenues of pension funds, because after termination of employment these workers will not be entitled to pensions and will mainly depend on state’s social welfare.

Along with informal employment in BiH, there is also a practice of reporting workers’ salaries less than really earned (usually minimum salary rate), causing minimum contribution payments. The rest of their salaries are paid in cash, with no knowledge of competent government bodies. Reporting

workers' salaries lower than real in BiH is often in construction industry (Miheš et al. 2011, pp. 44-45). In addition, many employers do not pay contributions for their employees on regular basis even if they are formally registered. As the revenues from contributions are the main source of pension system financing, efficiency of its collection has a crucial importance for stability. For that reason the RS in 2010 and in FBiH in 2011 started to apply the Law on Uniform System of Registration, Control and Collection of Contributions. These laws prescribed transfer of authorities for registration of tax payers and collection of contributions for pension-disability insurance from pension funds to entities' tax administrations which had established Uniform System of Registration, Control and Collection of Contributions as a separate administrative technical system. The intent of such changes was to simplify the process of registering employers/contribution payers and insured, accelerate the control process and improve efficiency of collection of contributions through enlarge the range of contribution payers and better control of contribution payments (Salihović 2011, pp. 107-108). However, this solution has not achieved any improvement so far since the percentage of collected contribution for pension and disability fund compared to total amount of registered contribution has decreased in the RS from 90% in 2010 to 64% in 2013. In the FBiH, at the very beginning of the implementation of uniform system there were certain problems in distribution of data on salaries that the Tax Administration was suppose to provide to the Federal Pension and Disability Institute.

Incomplete and inefficient privatization of state owned companies had multiple negative impacts to the pension system with long term consequences. Namely, 81% state owned companies in FBiH and 69% in RS had been partially or fully privatized, but the privatization process has almost died since 2011. Priority given to the massive privatization through certificates in FBiH and vouchers in RS, instead other methods in use, is frequently emphasized as the main reason of unsuccessful privatization. This model included distribution of certificate or vouchers to citizens that could have been used as payment instrument for realization of private share in stated owned assets. Most of certificates/vouchers in FBiH and RS were exchanged for shares in privatization investment funds (PIF). It practically means that there was no any cash flow, only exchange of state capital for certificates/vouchers the market price of which was extremely low. In theory, mass privatization represents only the primary privatization aiming at temporary transfer of state ownership to citizens and investments funds which should further on to take activities in restructuring of companies in

their ownership and, finally, implement secondary privatization, meaning to find strategic investors (Domazet et al. 2008, p. 38). It was not the case in BiH since the mass privatization was implemented without any conditions and ownership limitations, so many companies happened to be privatized by individuals with no managerial capabilities and with no obligation - either to reconstruct the company or to introduce it at the international market or even to keep employees. Although the mass privatization absorbed significant volume of quality capital due to excessive fragmentation of the ownership structure the secondary privatization process was spontaneous without any support and system, and finally, failed. Minor privatization and sale of state owned companies through tenders are also subject of discussions, which leads to a need for implementation of complete revision of privatization process in order to comprehend its final results (for example cases of noncompliance with contractual obligations, bankruptcy, especially for privatization models that had included forms of privileged distribution of state capital by payment of certificates or assignment below the market price if the buyers promised additional investment in privatized facilities or maintenance of existing and creation of new jobs, etc.). Concerning the effects to the system of pension and disability insurance in BiH, results of the privatization process are clear – almost every other work post has been destroyed (number of employees decreased from pre-war 1,054 millions to only 701 thousand) which aggravated the ratio of systemic dependability and jeopardized financing of pension system, while many older workers pronounced redundant, finding “salvation” in disability and early retirement, which, together with crisis caused by war, significantly affect to increased number of pension beneficiaries for 67% (from 379 thousand in 1990 to 635 thousand in 2013).

Financial non-sustainability of the pension and disability insurance in BiH also appeared due to unfavorable economic situation. Economic growth of over 5%, from the period before the crisis, which is required not just to reach living standard in developed or even transition countries, is out of option, and with current insignificant export and huge import, and unsatisfactory economic activity within the country, and without prospect of achieving it in the following years. Under such circumstances, growing allocations from the budget for pension system financing, put at risk economic revival itself. As an alternative to budgeted co-financing of the pension system there is increased contribution rate for pension insurance. However, it is apparent that such solution would cause social dissatisfaction among employees, who would at certain moment refuse to pay larger amount of contribution

because of reduced salary. In addition, huge public debt (34% GDP in FBiH and 53% GDP in RS), as well as public consumption, also imply a need for consolidation of the public finance (Ministry of Finance and Treasury 2014).

4. Is there an alternative to payg pension system in Bosnia and Herzegovina?

Solution of mentioned economic problems would enable stabilization of existing pension system within a short period of time. However, in long term, trend of demographic ageing requires alternative solutions to the current financing of the pension system. In most other countries, pension reforms are going towards introduction of private pension insurance based on capital accumulation system (*fully funded* system). In the capital accumulation system, contributions (allocated by insured or employer or both parties) are paid to individual accounts with pension funds or to mutual fund. Accumulated assets are being placed and generate a yield on that basis. Pension rates depend on paid contribution, time of payment thereof, and contributions to invested assets. Apart from primary goals – elimination of effects of demographic changes to pension system and achievement of its long term financial sustainability, there is a stand that capitalization of pension insurance may achieve certain secondary goals such as capital market development and increase of economic growth. Still, capital accumulation system has certain deficiencies. First, pensions in this system are exposed to investment risk. Second important shortcoming is the impact of macroeconomic (high inflation rate) and political instability (wars) to pension system based on capital accumulation. Private pension system may be organized in various ways, which depends on choice of pension reform model. Some of reform models which could be applied in BiH are:

1) The World Bank Model. The World Bank Model is absolutely dominant form of the pension system reconstruction in transition countries and according to its original idea is based on three pillars (World Bank 1994, p. 16):

- First pillar – public, mandatory pension insurance financed under *PAYG* principle,
- Second pillar – mandatory, capitalized, private pension insurance,
- Third pillar – voluntary, capitalized, private pension insurance.

If the pension system is created from the beginning, the three pillar model would have absolute advantage over the *PAYG* system. However, transition

to the new pension system in BiH would cause significant costs due to redirecting of the certain percentage of the pension insurance contribution to mandatory private pension funds, previously paid to the *PAYG* system, which would further result in insufficient funds for public pensions financing.

2) *The European Commission Model.* The European Pension Model also consists of three pillars and has developed through the practice in European countries with market economy:

- First pillar is basic, public, mandatory, *PAYG* pension system,
- Second pillar includes voluntary funded professional pension figures. Each program covers a group of workers either on company level or sector level, and contributions for this type of pension savings are paid by employers.
- Third pillar consists of voluntary individual pension figures, under insurance contract concluded between an individual and insurance company.

3) *Introduction of the third pillar within the World Bank Model.* This model is applied in Serbia and some other transition countries due to inability of financing transitional costs. In BiH, an important characteristic of the voluntary of pension insurance is its purpose for all adults whether they are employed or not. Contributions for voluntary pension insurance may be paid by any person individually in which case it is individual pension saving in open pension funds, or it could be paid by his employer when it is professional pension insurance in closed type of pension funds. Generally, participants in this component have a higher level of independence in sense that they first decide whether they would insured themselves or not, then they decide on the amount of deposit and saving period, they have option to be insured in two or more voluntary pension funds, choice of pension programs, more freedom in deciding on property into which the contribution would be invested, etc.

4) *Annuity life insurance as supplement to state pension.* Life insurance is a particular type of material protection of individuals and their families against the risk of premature death, risk of insufficient income during old age or working incapability. A key feature of this type of insurance is that it represents a combination of savings and life insurance, or more precisely, a form of long-term purpose savings similar to retirement savings (Kozarevic & Nuhanovic 2009, p. 138).

5. Empirical research on attitudes of the working population regarding the pension-disability system reform

Precondition for implementation of the pension reform under any model is broader public support, which was also the key motivation for conducting empirical research, since any research of public opinion on introduction of private pension insurance into pension system has not been made yet. A questionnaire was developed as an instrument for this research. The questionnaire is standardized, with questions defined in advance. It consists of 15 questions divided into three sections; General Information on Participant, Evaluation of Existing Pension System and Private Pension Insurance. Five point Likert scale is given as an answer to most of questions. Both options (paper and electronic) of questionnaire were used in the survey. E-mail with survey link was passed to 405 addresses, out of which 112 participants fully and correctly filled out the questionnaire, while 611 paper questionnaires were distributed to large number of companies and institutions through a field research, out of which 344 were completely and correctly filled out and returned. Total return rate of conducted survey was 44.88%.

5.1. Sample characteristics

The most of respondents who participated in the survey are mostly employed with Brcko District BiH, among who are insured of both pension funds, depending on choice, due to which this sample is relevant for the BiH level as well. Sample includes 456 participants which presents 3% of total number of 16,332 employees in Brcko District. Following figures present the structure of the sample according the gender, age, employment sector and level of monthly wages.

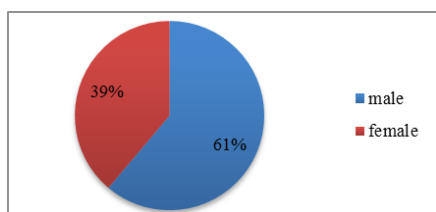


Figure 2. Sample structure according to gender

Source: Authors' research

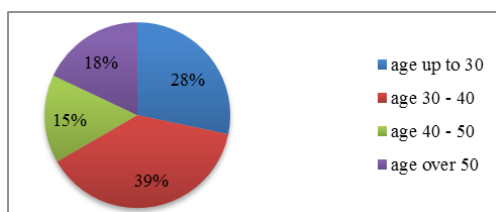


Figure 3. Sample structure according to age

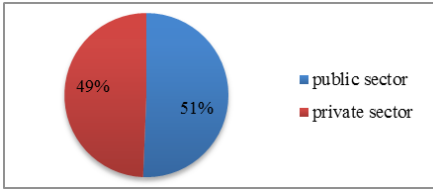


Figure 4. Sample structure according to employment sector

Source: Authors' research

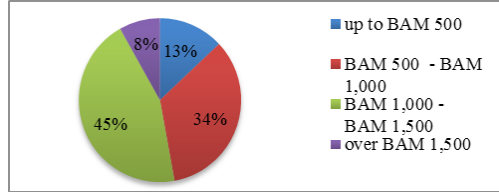


Figure 5. Sample structure according to level of monthly wages

5.2. Results of empiric research

In the part of questionnaire: Evaluation of Existing Pension System, respondents stated on the satisfaction level thereof. In general, participants expressed a low level of satisfaction regarding existing pension system ($A=1.99561$), since that 70% of total number of participants is not satisfied with existing pensions system, while the percentage of satisfied amounts to only 5%.

Considering statements referring to safety of pension system, participants mostly expressed the high level of disagreement. The greatest disagreement was expressed regarding the statement: *"I expect that the pension benefit will provide maintenance of the similar life standard in old age"* ($A=1.75658$). In direct correlation with this statement is inverse statement: *"For secure old age, besides state pension the additional source of income is necessary"* that participants ($A= 4.64254$) agreed with, in high percentage of 75%. Further on, significant disagreement among participants is with statement: *"I have trust in existing state pension system"* ($A=1.96272$), *"Pensions are proportional to paid contributions"* ($A=2.02193$) and *"Contribution rate for pension insurance is adequate"* ($A=2.27632$). Considering crucial problems of the pension – disability system, the evaluation provided by participants did not record any significant dispersion (Figure 6).

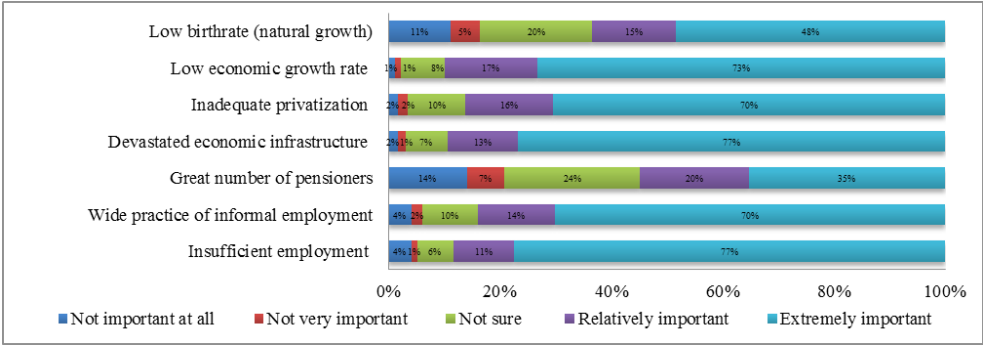


Figure 6. *Crucial problems of the BiH pension –disability insurance*

Source: Authors' research

Awareness of insured persons on private pension and life insurance and their interest in providing additional source of income in old age through this long term mode of saving is shown in Figure 6.

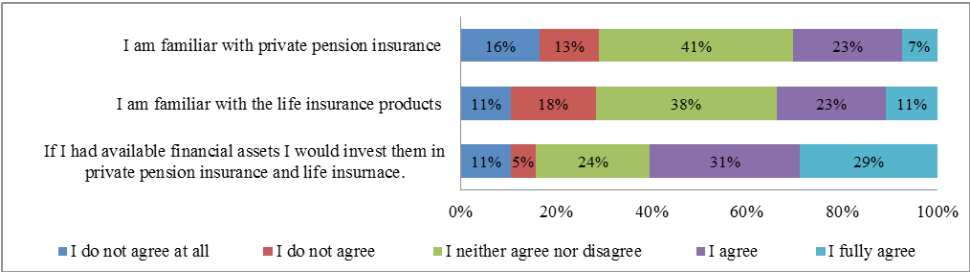


Figure 7. *Awareness and interest in private pension and life insurance (%)*

Source: Authors' research

Respondents have been required by questionnaire to decide on among proposed models of the pension system reform. However, any of models was not absolutely supported by respondents.

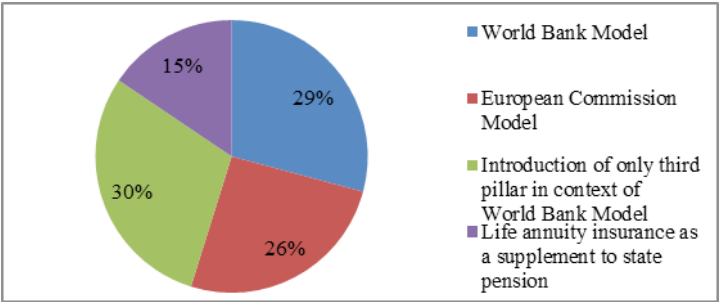


Figure 8. *Reform model of the pension system according to respondents (%)*

Source: Authors' research

Respondents have been required to indicate reasons on which basis they selected certain model. Considering the first model, respondents stated that this model is selected because the radical pension reform is required (71%), then because they consider that population will save in private pension funds only if saving is compulsory (32%) and, there is the state guarantee for payment of pension, decrease of contribution rates is sure for the first pillar, etc. (4%). As the most often reason for selection of the second model is a possibility of each employee to choose between state and private pension insurance (44%), then that each profession should have different conditions of the pension insurance adjusted to the characteristics thereof (42%), non-impairment of the first public pillar (32%) and the need of harmonization with European standards of social safety (3%). Further, participants pointed out that they selected the third model because they are of opinion that only minor changes in existing pension system are needed (43%), that each individual is obliged to take care of his/her own old age (43%) and, as the state has no possibility to provide more benefits, those considering that the state pension is not sufficient can pay funds into private pension fund, etc. (18%). Finally, 16% of respondents decided on the fourth model because they are of opinion that is a high time for the BiH population to be informed on various possibilities of savings and placement of own assets (58%), and that only minimum changes are required in current pension system (34%) and, adequacy of annuity life insurance to the BiH capital market (15%).

5.3. Critical review of survey results

Insured in BiH are mostly not satisfied with existing pension system. Before all, they do not have trust in it in providing adequate pensions in the third age, and thus, according to the most of participants, for the safe old age, besides the state pensions the additional source of income is required. In addition, employees consider that they pay too high contribution rate, primarily because they will not receive an equivalent amount in the future. As a crucial problem of the pensions system, insured persons primarily consider destroyed economic infrastructure, insufficient employment, inadequate privatization, and then widen practice of informal employment. Although the large number of jobs was destroyed in crisis caused by war and transition, it is important to focus at the moment to problems that could be influenced, before all, engagement of population within informal economic sector. Namely, reduction of informal employment could, in combination with increased efficiency in collection of contribution, result in significant increase of income of the public pension funds and in capacity of the

pension system to be reformed. Finally, since the survey results show that the level of knowledge of working population on private pension and life insurance is low, it is necessary to initiate media campaign in order to inform the public on basics of private pension insurance (payment of contributions, calculation model of administration costs, investment possibilities within different pensions plans, tax treatment, calculation model of pension benefits), primarily due to their interest to provide additional income in old age through this type of long term savings. Considering reform of the pension system, insured persons did not express significant consent. Considerable dispersion of answers was in participants of all age groups. Only certain dependence was observed among income and selected model, since the participants with monthly salary up to BAM 500 and from BAM 500 to BAM 1,000 in the large extent decided on introduction of the third pillar only (36% and 37% respectively), while participants with monthly wage in scale from BAM 1,000 to BAM 1,500 considered that is the best implementation of reform in accordance with the World Bank Model (36%), and participants with monthly wage over BAM 1,500 decided on European Model (38%). Therefore, we can conclude that participants with the lowest earnings are not ready for additional allocations to pension insurance, while the participants with higher earnings are aware that the state pension will not provide them to maintain relative life standard in old age, so they support more significant changes in pension system and they are ready to allocate additional funds for it.

6. Conclusion

Key preconditions for functioning of *PAYG* pension system such as in BiH, are high employment rate and favorable demographic trends because the pensions of existing pensioners are financed by contributions of the current generation of employees. Therefore, considering the large number of jobs lost in the privatization process, as well as destroyed economic infrastructure by war activities, it should not be a surprise that the BiH pension system already in 1990's fell in crisis. In following years this crisis was becoming more deepen as the increasing number of old persons met conditions for retirement, while chronic unemployment caused the labor market distortions reflected in the more often non-registration of workers or their registration on the basis of salaries less than real ones. In general, even demographic situation, primarily negative natural growth in BiH does not go in favor to existing pension system of intergeneration solidarity. Bearing above in mind, it is clear that entities' pension systems have to be upgraded

in order to perform the function they had been established for, that is the protection against poverty in old age. However, it is necessary to select the right reconstruction model of the BiH pension system, which, from its side, requires consideration of concrete social-economic situation in the country. Therefore, considering the amount of public debt accumulated until now, as well as increasing share of transfer from budget in the public pension funds incomes, it is clear that BiH entities are not fiscally able to finance transition costs related to introduction of mandatory capitalized pension insurance. We can conclude that voluntary capitalized pension insurance appears as the most reliable starting basis for the pension system reform. However, prior to any intervention is necessary to stabilize existing pension system financially. First of all, it is necessary to improve total life standard of the BiH population through the employment increase. This could be achieved only by revitalization of economic sector developing the small and medium enterprises. The state support is very important here, primarily in providing of support to entrepreneurs in collection of necessary capital to finance quality projects. In addition, state authorities should make significant efforts in improvement of business environment in order to attract foreign investments. In addition, it is necessary to improve collection of the pension-disability contribution as well as to incent employers to register their employees, by introduction of more strict legal regulations and sanctions. Otherwise, the most of the BiH population will remain uncovered not only with additional pension insurance, but with mandatory public pension system, which, will from its side, produce enormous costs of social welfare in the future.

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LIFE INSURANCE AS A METHOD OF MANAGEMENT OF RISKS RELATED TO THE THIRD AGE IN BOSNIA AND HERZEGOVINA

ŽIVOTNO OSIGURANJE KAO METODA ZA UPRAVLJANJE RIZICIMA VEZANIM ZA TREĆU ŽIVOTNU DOB U BOSNI I HERCEGOVINI

Abstract

More evident problems such as population aging and widespread unemployment directly jeopardize functioning of the pension system in Bosnia and Herzegovina. These processes represent the most serious challenge to the pension system of Bosnia and Herzegovina since the consequence is reflected in reduced number of insured persons and increased number of pensioners, which affects sustainability of the pension system in Bosnia and Herzegovina. This paper analyzes the issues of the Bosnia and Herzegovina pension system in the sense of maintaining an appropriate living standard of the third age population in Bosnia and Herzegovina. Basic goal of the paper is to emphasize the importance of risks related to the third age of Bosnia and Herzegovina population due to the existing unsustainable pension system. For that reason, individual responsibility of a person and private savings become more important for a proper financing of living standards in the third age. Voluntary private pension funds and life insurance products are possible answers to a worsen picture of the pension system and provision of additional income in the third age. The paper will present basic characteristics and state of the current pension system in Bosnia and Herzegovina, establish exposure of the population in Bosnia and Herzegovina to risks related to the third age and analyze the potential of financing such risks through the life insurance products.

Key words: pension system, intergenerational risk sharing, life insurance, annuities

JEL: G22, H75

Sažetak

Sve izraženiji problemi kao što su starenje stanovništva i velika nezaposlenost direktno ugrožavaju funkcionisanje penzionog sistema Bosne i Hercegovine. Ovakve pojave predstavljaju najveći izazov penzionom sistemu Bosne i Hercegovine, jer za posljedicu imaju smanjenje broja osiguranika i povećanje broja penzionera, što negativno utiče na održivost penzionog sistema Bosne i Hercegovine. U ovom radu analizirana je problematika penzionog sistema Bosne i Hercegovine u kontekstu održavanja primjerenog životnog standarda stanovništva Bosne i Hercegovine u trećoj životnoj dobi. Osnovni cilj rada jeste da ukaže na značaj rizika vezanih za treću životnu dob stanovništva u Bosni i Hercegovini zbog neodrživosti postojećeg penzionog sistema. Iz tog razloga individualna odgovornost pojedinaca i privatna štednja postaju sve važniji za primjereno finansiranje životnog standarda u trećoj životnoj dobi. Dobrovoljni privatni penzioni fondovi i proizvodi životnog osiguranja su mogući odgovori na pogoršanu sliku penzionog sistema i obezbjeđenje dodatnih prihoda u trećoj životnoj dobi. U radu će se prikazati osnovne karakteristike i stanje postojećeg penzionog sistema u Bosni i Hercegovini, utvrditi izloženost stanovništva Bosne i Hercegovine rizicima vezanim za treću životnu dob i izvršiti analiza mogućnosti finansiranja ovih rizika putem proizvoda životnog osiguranja.

Ključne riječi: penzioni sistem, međugeneracijska podjela rizika, životno osiguranje, osiguranje rente

JEL: G22, H75

1. Introduction

Each individual intends to provide an appropriate standard of living. By aging an individual loses capability to earn a needed income which causes economic uncertainty or lack of resources for a normal life. Such economic uncertainty is the essence of risks of insufficient income in the third age or the risks of longevity. The basic source of income for persons who have retired from the Bosnia and Herzegovina labor market in the third age is received through the public pension insurance system. However, negative economic and demographic trends raise the question of sustainability of the pension system, so individual responsibility and private savings become more important for a proper financing of living standards in the third age. Because of the above mentioned, longevity risk is currently considered the highest risk that requires strategic decisions.

Public pension insurance has been developed within the social insurance system for the purpose of longevity risk financing. In this regard, the basic goal of the pension system is to provide remunerations that enable

maintaining of personal income in the third age. The swap rate, representing a relationship between average salary and average pension, clearly shows to which extent the system achieves its goal. Many authors believe that this rate should be 80%. Due to negative economic and demographic tendencies in the world, pension system's capacity to accomplish its goal continuously weakens. The alternatives to the public pension system are private voluntary pension insurance and life insurance products. Because of undeveloped voluntary pension insurance in Bosnia and Herzegovina, life insurance products as an efficient method of financing risks related to the third age are still available to the people of Bosnia and Herzegovina.

Life insurance is a contract between an insurance company and insurance beneficiary according to which the insurance company, in exchange for certain premium, provides protection from the risk of premature death and/or longevity risk. In regard to longevity risk financing, the concept of need analysis is most frequently used in determination of the appropriate amount to be paid for life insurance. This concept starts from the value of total needs to be satisfied, and then reducing that value by the amount of available funds sufficient to satisfy certain portion of the needs. The remaining amount represents the needs that have not been satisfied and which could be covered by life insurance.

2. Review of previous researches in the field of personal risk management

Personal risk management in the third age is a permanent research subject even in most developed countries in the world due to their population's increasing life expectancy, which consequently leads to significant negative trends in the system of public pension insurance. Apart from longer life expectancy, most of European Union countries face low or negative birth rate, which causes a need to search for solutions in managing the risks to which the population is increasingly exposed due to the above mentioned changes. The main subject of consideration is lack of income in the third age or longevity risk. Therefore, the European Commission passed the so-called Green Paper in 2010, with the subject matter "toward adequate, sustainable and safe European pension" (European Commission 2010). The European Commission emphasizes in the document that expected reduction of pensions in relation to salaries from the working age as well as recent financial crisis are additional threats to amounts of future pensions for the population of the European Union. As potential solutions for lack of

income in the third age, the European Commission proposes extension of the working age, penalizing early retirement and adjustment of pensions according to average income during the entire working age. Importantly, the European Commission explicitly claims that extremely high personal responsibility is required in risk management in the third age.

Asghar Zaidi, with his work “Sustainability and adequacy of pensions in EU countries: A cross national perspective”, made a considerable contribution in addressing the problem of lack of income in the third age and a need for effectively provided protection. Lacking the extension of the working age, the measure proposed by European Commission, will cause frequent poverty among the future generations of old people, higher than for the rest of the population. In order to avoid poverty, it is necessary to generate more individual savings. Current decisions made by individuals in this regard will have the most important influence on the amount of available income in the third age (Zaidi 2010, p. 15). In their research “Adequacy of saving for old age in Europe”, Elsa Fornero, Annamaria Lusardi and Chiara Monticone claim that well structured institutional framework for efficient risk allocation and diversification, as well as reasonable conduct of individuals regarding the scheduled allocation of funds are required for adequate risk management in the third age. This requires complementary conduct by an individual and the state, along with financial education of the population through the market – by promoting demand for life insurance products and public policies – in order to strengthen the attitudes that lead to saving (Fornero et al. 2009, p. 16). The need to support financial literacy and education among the population is also emphasized by Annamaria Lusardi and Olivia S. Mitchell in their work “Financial literacy and retirement preparedness: evidence and implications for financial education”. They point out the fact that most of people in developed countries have no knowledge on basic economic concepts necessary for making decisions on reasonable saving and investments, which has a particular importance in managing the risk of lack of income in the third age. Government, employers and financial institutions must work together on financial literacy and education of the population (Lusardi & Mitchell 2006). In the research on efficiency of incentives for the third age saving “Mind the gap: the effectiveness of incentives to boost retirement saving in Europe”, Boersch-Supan states that the problem lies in the fact that people make decisions on saving for older age when it is already too late (Boersch-Supan 2004), while Moore and Mitchell in their study “Projected retirement wealth and saving adequacy in the health and retirement study” say that people close to retirement should increase their

saving in order to maintain the level of consumption after retirement (Moore & Mitchell, 1997).

Although most countries in the world apply “pay as you go” pension system, there are more frequent voices claiming that such pension insurance system is not sustainable in the long term and has to be modified. Economic, demographic, organizational and problems of political nature deeply affecting economy are marked as main problems of the “pay as you go” pension system. Still, there is a question of directions in which the system should be modified. In his study “Reforming pensions: Myths, truths, and policy choices” from 2000, Nicolas Barr says that the issue of allocation of gross domestic product between active workers and pensioners remains the same regardless of the choice of pension system. Pensioners can spend only what has been produced by active workers, so they always depend on working contingent of the population. Therefore, there are no universal formulas for a healthy pension system that would be resistant to demographic fluctuations, macroeconomic consequences of population aging, negative tendencies on the labor market, manipulative influence of public authorities, whether the system is public or private, capitalized or the current allocation system. Obviously, the old forms of relying on intergenerational risk sharing of state pensions are insufficient and they will remain only as a preliminary or necessary part of the social welfare for the population. Standard of living above that level will depend on various types of personal investments with different combinations of risk (Kirkiš et. al 2011, p.128). In the article “Citizens’ Saving for the Third Age”, Croatian authors Sandra Švaljek and Sunčana Slijepčević set the private investments in life insurance and voluntary pension funds as crucial for mitigation of income reduction after retirement and prevention from poverty among the older population. Annuities are the right choice for covering the longevity risk, able to provide life annuity payments calculated according to actuarial methods. Life insurance is one of small number of insurance branches that has survived and continued to exist despite all the crises. Politicians and high level government officials more often consider specific aspects of life insurance (Wolfgang 2012, p.11). In expert discussions, insurance companies are recognized as important providers of retirement saving through various types of life insurance. Instead of asking whether the life insurance is necessary or not, the question now is what would be the sufficient amount of life insurance? Therefore, we should improve awareness on life insurance products as individual saving instruments, and an important tool of such

saving is information on future pensions from the system of intergenerational risk sharing.

3. Research methodology

Dependent variable of the research represents the efficiency of management of risks related to the third age of Bosnia and Herzegovina population, while independent variable is supply of life insurance as a method of risk management related to the third age in Bosnia and Herzegovina. People of Bosnia and Herzegovina mostly rely on compulsory pension insurance in financing standard of living in the third age. Therefore, the situation in the field of pension insurance is a basic indicator of risk management efficiency in the third age in Bosnia and Herzegovina. Due to unfavorable proportion between the insured persons and pensioners in the country, the pension system of Bosnia and Herzegovina has a serious limitation in proper financing of life expenditures for pensioners, increasing individual responsibility for the risk management efficiency in the third age. One of the methods for provision of additional funds in the third age would be purchasing of life insurance products. Life insurance represents all types of long term insurance contracts for persons with accumulated savings or funds for covering the risk in later years of life. Life insurance is available in Bosnia and Herzegovina and it may provide its people with appropriate financing of living standards in the third age.

Risk management efficiency related to the third age in Bosnia and Herzegovina shall be considered through analysis of the Bosnia and Herzegovina pension system. The state and prospects of the Bosnia and Herzegovina pension system, and by that possibility to maintain proper standard of living in the third age in Bosnia and Herzegovina is determined by economic situation in the country, demographic characteristics of population and legal regulations of pension insurance. Supply of life insurance as a method for risk financing related to the third age of the Bosnia and Herzegovina population shall be analyzed through the supply of life insurance on the Bosnia and Herzegovina market and review of possibilities of risk financing related to the third age by life insurance products in Bosnia and Herzegovina. The concept of need analysis shall establish required funds in the third age maintaining living standards at the level of average paid employed person in Bosnia and Herzegovina, while the use of actuarial models with Croatian mortality tables from 1989 – 1991 and 3% interest rate

shall determine necessary net insurance premiums for provision of desired standard of living in the third age.

4. Research of risk exposure and life insurance

4.1 Analysis of risk exposure related to the third age of the Bosnia and Herzegovina population

Older population in Bosnia and Herzegovina is facing many unresolved issues in almost every sphere of life, particularly exclusion from the society and difficult material position. This is confirmed by results of the Survey on Household Consumption 2011. For evaluation of poverty and material welfare the Survey starts from consumption expenditures. Consumption is a good indicator of living standards since the individuals naturally intend to adjust variation of income with their usual consumption habits. According to the Survey on Household Consumption, average amount of BAM 696 per month is necessary for satisfying basic needs of the older population but average pension in Bosnia and Herzegovina are much lower. Such discrepancy between the needs and potentials for consumption leads to poverty of large number of households with householders of 65 and older. In that sense the crucial problem of the older population in Bosnia and Herzegovina is lack of funds that is supposed to be provided by the pension insurance system (BiH Statistics Agency 2011).

The Bosnia and Herzegovina pension system itself is based on principals of intergenerational solidarity and is composed of two pension figures, Federation of Bosnia and Herzegovina pension fund and Republic of Srpska pension fund. Sustainability of the pension system established this way depends on development of national economy, demographic trends and legislation in this area.

Bosnia and Herzegovina economy in last decade was characterized by generally low level of economic activity. Within economic indicators for the assessment of sustainable pension system the most important would be an analysis of the labor market trends. Bosnia and Herzegovina labor market has low rate of activity, high rate of unemployment and high level of informal employment. The Bosnia and Herzegovina working population activity rate in 2014 was only 43.7%. Out of that number, 27.5% were unemployed. Figures from the Bosnia and Herzegovina Labor and Employment Agency show that registered unemployment rate in December 2014 of 43.6% was even more drastic (BiH Statistics Agency 2014). So,

the high unemployment rate is evident in Bosnia and Herzegovina which is disastrous for the current financing system since there are no contribution payments causing the lack of funds for pensions. Along with difficult situation in economy, Bosnia and Herzegovina is dealing with extremely negative demographic tendencies. For a long period of time the fertility rate in Bosnia and Herzegovina has been extremely low, average of 1.25, which is considerably below the rate required for average reproduction that is the rate that stabilizes the population growth. Such low fertility rate results in negative natural increase or reduction of number of citizens in the country. On the other hand, average life expectancy in Bosnia and Herzegovina is permanently growing; meaning that share of the people of 65 and older in total population of Bosnia and Herzegovina is increasing and using the right from pension insurance in longer period of time, burdening the Bosnia and Herzegovina pension system. Legislation on pension insurance in Bosnia and Herzegovina defines that after 40 years of active service insured persons become dependent on amount of current payments into pension funds and flow of revenues in those funds, which does not allow them normal life in third age.

Such trends in pension insurance have caused extremely difficult situation in the Bosnia and Herzegovina pension system. Proportion between of employed persons and pensioners is an important indicator of the pension system state. Not just that this proportion is negative but there is a tendency of its permanent reduction starting from 2007 and almost reaching a devastating level of 1. In entire Bosnia and Herzegovina number of pensioners in total number of insured persons is extremely high, even increasing during the last several years, reaching 94% in 2013. So, the number of pensioner in Bosnia and Herzegovina is almost equal to the number of insured persons. Large number of pensioners and limited sources of pension funds prevent the pension system to fulfill its goal, which is maintaining income of individuals in the third age. Retirement for the Bosnia and Herzegovina population unavoidably means fall of standard of living considering that pension system of Bosnia and Herzegovina for longer period of time allows the swap rate of only of 40%. Although the situation is somewhat better in Federation of Bosnia and Herzegovina than in Republic of Srpska the swap rate in both Entities is far from desired rate of 80% (Institute for Statistics FBiH, 2011). Therefore, the reform of pension insurance is necessary. However, all previous proposals in this direction have remained nothing more than proposals because of huge impediments. Still, the desired level of living

standards in the third age is individually achievable by purchasing of the life insurance products.

4.2 Analysis of life insurance on Bosnia and Herzegovina market

Life insurance industry in Bosnia and Herzegovina is regulated by series of laws and bylaws. Great concern has been given to the provision of safe operation of these companies. Therefore, certain qualitative and quantitative limitations of insurance companies' investments have been introduced, aiming to provide security. At the moment there are eight insurance companies in Bosnia and Herzegovina providing life insurance: Merkur, Unika, Grawe, Croatia, Triglav, Bosna suncе osiguranje, Sarajevo osiguranje, Jahorina and Dunav osiguranje. Regarding products of these insurance companies, endowment life insurance is dominant one, however they also offer the life insurance in case of death, pure endowment insurance, life insurance for the benefit of child and annuity insurance. It is possible to finance the longevity risk by purchasing endowment life insurance or pure endowment insurance. In order to prove that, the analysis uses data on average salaries and pensions in 2014 considering separately male and female population, and both entities. As previously mentioned for keeping standard of living in third age a person needs 80% of income earned during his working age. Difference between this amount and pensions represents the amount that should be provided by life insurance contract. Besides differences by entities and population, the analysis also includes distinctions in age structure of insured persons or premium payment period.

Table 1. *Initial data for calculation*

Data	Federation BiH	Republic of Srpska
Average salary	833.00	836.00
Average pension	365.00	337.00
Swap rate	43.80	40.30
Required additional monthly funds for swap rate of 80%	301.40	331.80
Required annuity for the swap rate of 80%	3,616.80	3,981.60

Source: Authors' calculation

Proportion between average salary and average pension in 2014 was 43.80% in the Federation and 40.30% in Republic of Srpska. So, in order to achieve the target swap rate it is necessary to provide little over 36% or BAM 301.40 of average salary with an average pensions in the Federation while in

Republic of Srpska it requires additional monthly income of BAM 331.80. These amounts multiplied by 12 months give the amounts of required annuities of BAM 3,616.80 in Federation and in Republic of Srpska BAM 3,981.60 in order to achieve target swap rates.

Coefficients for calculation of single net annuity premiums have been established at 10.4819 for males and 12.4187 for females on the basis of actuarial models and Croatian mortality table from 1989 – 1991 with 3% interest rate, since previously mentioned annuity is required for lifetime starting from 65 years of age. Multiplying these coefficients by desired annuities we get amounts of required payments, in this case BAM 37,910.94 for males and 41,734.73 for females in the Federation of Bosnia and Herzegovina, and BAM 44,915.95 for males and 49,446.30 for females in Republic of Srpska. Such differences in premium amounts derive from disparity in required annuities and gender of the insured since the average life expectancy is higher for women, therefore they will probably enjoy the rights from insurance contract longer and it seems right for them to pay higher insurance premiums.

Above mentioned annuity premium amounts are possible to provide by pure endowment or endowment life insurance when the insured sums become the calculated annuity premiums.

Table 2 shows coefficients for calculation of net premiums required for these types of insurance, assuming that premium payments are made annually for 40, 30, 20 and 10 years or until the insured person turns age 65. Again, there are evident differences depending on the insured persons' age and periods of annual premium payments. Disparities in commutative numbers cause differences in regard to insured persons' gender.

Table 2. *Coefficients for calculation of annual net premiums for pure endowment insurance and endowment insurance*

Insured person's age of	Payment period	Pure endowment insurance		Endowment insurance	
		Males	Females	Males	Females
25	40	0.009348	0.01129	0.01551	0.01394
35	30	0.015313	0.01814	0.02434	0.02201
45	20	0.028559	0.0328	0.04242	0.03866
55	10	0.072933	0.0795	0.094473	0.08852

Source: Authors' calculation

Coefficients calculated this way, multiplied by insured sum give amounts of required annual premium payments.

Table 3. *Immediate annual net premiums for pure endowment insurance and 80% swap rate*

Insured person's age	Payment period	BiH Federation		Republic of Srpska	
		Males	Females	Males	Females
25	40	354.39	507.10	390.14	558.25
35	30	580.53	814.78	639.08	896.96
45	20	1,082.70	1,473.24	1,191.90	1,621.84
55	10	2,764.96	3,570.82	3,043.84	3,930.98

Source: Authors' calculation

Table 4. *Immediate annual net premiums for endowment insurance and 80% swap rate*

Insured person's age	Payment period	BiH Federation BiH		Republic of Srpska	
		Males	Females	Males	Females
25	40	588.00	626.13	647.31	689.28
35	30	922.75	988.60	1,015.82	1,088.31
45	20	1,608.18	1,736.45	1,770.39	1,911.59
55	10	3,581.56	3,975.96	3,942.81	4,376.99

Source: Authors' calculation

Table 3 shows the amounts of required annual net premiums for pure endowment insurance. So, for this type of insurance and for the insured sum that would allow desired swap rate males in the Federation of Bosnia and Herzegovina should pay the annual net premium of BAM 354.39 during the 40 years insurance period, and BAM 390.14 in the Republic of Srpska. For the same type of insurance females in the Federation of Bosnia and Herzegovina would pay BAM 507.10 per year, and BAM 558.25 in the Republic of Srpska. As the premium payment period shortens, net premium amounts increase both on annual level and in total amounts. Second option is endowment life insurance. Required annual premiums for this type of insurance are higher, so males in the Federation of Bosnia and Herzegovina would pay the annual net premium of BAM 588.00 during the period of 40 years, while males in the Republic of Srpska would pay BAM 647.31 per year during the same period of time. These amounts are even higher for females, BAM 626.13 in the Federation of Bosnia and Herzegovina, and BAM 689.28 KM in the Republic of Srpska. Higher premiums for endowment life insurance are caused by the fact that the insured sums for this type of insurance are always paid.

Monthly payments to be made for these types of insurance are considerably lower, from BAM 30 for pure endowment insurance during the period of 40 years for males in the Federation of Bosnia and Herzegovina to BAM 254 during the period of 10 years for males in the Republic of Srpska. Endowment life insurance, depending on the payment period and the insured sum, requires monthly payments of BAM 49 to 329. Female population would pay BAM 42 to 328 for pure endowment insurance on a monthly basis, and BAM 52 to 365 for endowment life insurance. This confirms that life insurance products are available to the people of Bosnia and Herzegovina, especially from the aspect of life insurance as a long term financial planning instrument. Besides protected savings, life insurance allows us to take care of our own and our family future in case of unpredicted events.

We also have to say that net premium amounts increase by insurance companies' operation costs. The policy of setting these costs varies among the insurance companies. While some of them set the costs independently from the insured sum, in other insurance companies the percentage of calculated operational costs considerably vary according to different insured sums. Such differences in insurance costs are frequently compensated by certain additional concessions, usually by insured persons' participation in insurance company's profit.

Future research should be directed towards evaluating the capacity of the population to provide the necessary funds for through life insurance. It is clear that the standard of living of the population in Bosnia and Herzegovina is not at a level that allows a large part of the population to afford this type of coverage. However, it is necessary to determine which segments of the population are able to pay life insurance policy. In addition, it is necessary to determine which marketing approach insurance companies should implement to enhance sales volume, or initiate those who can afford to opt for this alternative for the management of risks related to the third age.

5. Conclusion

Population aging, high unemployment rate and widespread gray economy are crucial problems of the pension system in Bosnia and Herzegovina. Reduction of number of insured persons as well as increasing number of pensioners cause reduced revenues from contributions while the expenditures for pensions grow. This makes the Bosnia and Herzegovina pension system, based on intergenerational risk sharing, financially unfeasible. Pension rates are low and inappropriate, leading to poverty of large number of pensioners.

Cash inflow into pension funds is insufficient for provision of a proper standard of living for the third age population of Bosnia and Herzegovina.

Pay as you go pension systems in the future shall only represent the initial or compulsory part of the people's social welfare. Standard of living above that level will depend on private investments of each individual. Voluntary pension funds and life insurance products are the alternatives to long-term saving for the old age. At the moment, voluntary pension insurance is not available in Bosnia and Herzegovina. On the other hand, insurance companies may provide an important form of capitalized pensions through annuities. By life insurance products insurance companies enable overcoming disparities in revenues or a gap that occurs in individual's revenues once they retire.

Life insurance products, apart from the risk of lacking funds in the third age, allows covering the risk of premature death when life insurance provides financial protection of beneficiaries from the revenue losses in case of early death of the householder. Life insurance contracts are fully adjustable to individual needs, desires, age and income of a person. Analysis of options for risk financing related to the third age population of Bosnia and Herzegovina through life insurance products has shown that such products are available to the people of Bosnia and Herzegovina, particularly if the life insurance is considered as a long term instrument of financial planning. We should bear in mind that conclusion of life insurance contracts allows us to take care of our and our family's future in case of unpredicted events (death, loss of work capacity, etc.), beside the adequate capital saving. This is the way of life insurance releasing every-day pressure and mitigating financial stress we have to deal with. Even more, if the life insurance policy covers disease risk, the insured person is entitled to compensation for treatment costs if a disease occurs. There are many types of life insurance and each person should choose a life insurance policy that fits his/her needs and goals they wish to achieve.

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ENVIRONMENTAL STANDARDS AS A SOURCE OF OPERATIONAL RISK AND COSTS FOR COMPANIES

OKOLINSKI STANDARDI KAO IZVOR OPERACIJSKIH RIZIKA I TROŠKOVA U KOMPANIJAMA

Abstract

Increasingly complex, complicated and demanding environmental regulations continually create higher and higher level of legal risk for businesses and society as a whole. It also puts on the companies the burden of additional costs that have to be included into the price of their goods and services. The legal protection of environment is complicated not only from the standpoint of legislation but also in terms of its implementation and compliance. The system of environmental protection must be the pillar that supports the development of sustainable nature, economy and society. To achieve that goal the system needs to be based on the “polluter pays” principle and it needs to include efficient cooperation between different stakeholders, amongst which companies have an important place. In addition to being an active partner in environmental protection, companies are at the same time the market participants so they must think about relevant costs. They must include into their decision making process all environmental regulations and all relevant financial and fiscal instruments.

Keywords: ecology, environment, economic instruments, companies, operative risks

JEL: Q

Sažetak

Sve kompleksnija, komplikovanija i zahtevnija regulativa zaštite životne sredine neprestano stvara sve veći i veći stepen pravnog rizika za privredu i društvo u celini. Ona takođe opterećuje preduzeća dodatnim troškovima koje ova moraju da uključe

u cenu svojih roba i usluga. Pravna zaštita životne sredine je složena, ne samo iz pozicije zakonodavstva, već i njenog sprovođenja i uvažavanja. Sistem zaštite životne sredine mora biti stub koji podržava održivi razvoj prirode, privrede i društva. Da bi se postigao taj cilj, sistem mora da se zasniva na principu da “zagađivač plaća” i mora sadržati efikasnu saradnju između različitih zainteresovanih strana, među kojima kompanije imaju značajno mesto. Kao aktivan partner u zaštiti životne sredine, kompanije su u isto vreme i učesnici na tržištu, tako da moraju da razmišljaju o relevantnim troškovima. One moraju da u svoj proces odlučivanja uključe sve propise o zaštiti životne sredine, kao i sve relevantne finansijske i fiskalne instrumente.

Ključne reči: ekologija, životna sredina, ekonomski instrumenti, privredna društva, operativni rizici

JEL: Q

1. Introduction

The purpose of this article is to present the relevant Serbian legislation concerning the costs companies are exposed to. The main goal of the article is to put the light on the fact that ecological problems linked to companies are complex and complicated and relevant costs must be carefully calculated and operational risks managed properly. The list of relevant works in Serbian economic and legal literature is not large but some articles deserve to be mentioned (Brnjas, Stošić & Dedeić 2015), (Brnjas, Ćurčić & Dedeić 2015), (Bošković & Radukić 2012), (Belokapić, Bogavac & Ristić 2012), etc.

Today's companies in the European environment suffer, amongst others, a significant normative pressure. Increasingly complex and demanding regulations result in a higher degree of legal risk and generate additional costs for corporations that need to be incorporated into the price of goods and service.¹ The corpus of environmental standards composed of a growing number of increasingly complex regulations is a typical example of this. Companies that do business in the Serbian market share the same fate. Environmental issues that include energy efficiency and relevant costs are of paramount importance for high value investments of the private sector into infrastructure projects and creating partnerships with local government or privatization of companies that fall under the category of polluters (for example, the city of Pančevo).

Environmental standards aim at establishing a sustainable development both in terms of use of natural resources and in terms of sustainability in economic

and social terms (Pešić 2012, p. 8). Companies today are operating within a complex and demanding regulatory framework on environmental protection, and the protection itself represents a complicated process not just in terms of creating regulations but also their implementation. There are several reasons for this, and among the most notable ones is the complexity and multi-disciplinary nature of the object of protection and of instruments of the available legal relief. Such a situation imposes the need for all stakeholders to act in concert and the need for having a set of harmonized regulations that cover a large number of legal areas and disciplines. The complexity of the object of protection stems from numerous natural and social resources that it pertains to. The natural resources include water, air, soil, forests, etc. while the social values include goods created by man with its work. Consequently, effective protection implies the regulation of various physical, social and cultural factors that affect the survival and development of the wildlife (Drašković, Brnjas & Stošić 2015). Thus, relevant legal norms have to protect humans and wildlife from pollution of water, air, forests, etc. and regulate specific issues concerning waste and hazardous substances, incidents, noise and other phenomena that endanger people and the environment. Considering that companies, in the course of their operations, intensively affect the environment it is only logical that they are in the center of the protection system as a target group.

Our environmental law has been formed under the influence of several factors of international character. The first determinant of the content of our regulations is the membership of the Republic of Serbia to the United Nations and our acceptance to follow relevant regulations. Special importance in that corpus of regulations is placed on the Stockholm Declaration of the UN on the Human Environment of 1972, the Rio Declaration on the Environment and Development of 1992. It is worth mentioning the Aarhus Convention that we have joined recently (UN Convention on the Human Environment of 1972). The second relevant fact is the membership of our country to the Council of Europe that implies ratification of conventions that protect human rights and their key segment is the right to a healthy environment (Council of Europe 1950, 1993, 1998, 2004)². And finally the third important moment in our efforts to create contents and principles of the environmental protection in Serbia pertains to our political aspirations to join the European Union. The primary legal requirement in that has been set by the conclusion of the Stabilization and Accession Agreement that requires harmonization of standards that, amongst other things, regulate environmental protection.

2. Basic principles of environmental protection and legal instruments

International influences and reliance of our policy makers on key international documents have resulted in incorporation of certain generally accepted standards into our legislation, regulations and strategic documents. Those are the principles that protect rights such as the right to live in a healthy environment, to biosphere integrity, to the sustainable economic development, rational use of resources, etc. In that sense our regulations are built on principles applied in international legislative and judicial practice crucial for interpretation of the scope and reach of specific rights and obligations that apply to companies in the Republic of Serbia.

The principles (Lilić 2010, p. 22) of environmental protection permeate all activities concerning the object of protection. They are contained in obligation of all levels of government to act in concert, and this action includes measures to act preventively, to guarantee sustainable development, and to stimulate all the subjects covered by the system of protection. Clearly, the state authorities are the backbone of the system of protection and by establishing the principle of subsidiary liability for public authorities their responsibility in this area is further strengthened.

The most important element of the issue of responsibility of companies and other persons is the question of compensation for damage. The system of benefits is based on the principle of polluters' responsibility, or the responsibility of their legal successors –the “polluter pays” principle and the “user pays” principle. Such a system of legal protection that determines the level of responsibility for the state authorities and for those entities whose activity damages the environment or those that violate the right to a healthy environment complement and reinforce the principle of access to relevant information and public participation in the decision-making process. The right to a healthy environment becomes meaningful through the effective protection by the judicial and administrative authorities. The scope of protection anticipated by our regulations imposes a duty upon all entities, those in the public and private domain- the duty of care.

National legislation provides for specific measures of financial and economic nature, which should ensure compliance with regulations and prevent or reduce the consequences of pollution. If the infringements incurred causing damage to the environment repressive measures are applied with the purpose to improve the situation, punish the offenders and award tangible benefits to a person who has suffered damage. In addition to appropriate

regulatory framework, an efficient system implies a clearly defined and solid institutional framework. Successful functioning of the protection system is possible only with joint actions of the central and provincial and local authorities and their harmonized plans and implementation of regulations by means of licenses requiring technical and other standards and norms, adequate financing and incentives, efficient monitoring, etc. (Dedeić & Brnjas 2013).

One of the basic legal instruments of protection is called access to environmental justice. It is the backbone of the Aarhus Convention and together with the right to information and the right to participate in decision-making makes the basis of legal protection. The possibility to challenge the decision in regards to the protection of the environment before a national authority of any administrative or judicial authority is a vital part of the system of environmental protection.

The criminal law protection also represents an extremely efficient and important instrument of legal relief. The supervision over the implementation of the Law on Environmental Protection and other regulations is the task of the Ministry. Inspection supervision is implemented through environmental inspectors. The legal grounds for inspection supervision are contained in the Law on State Administration, as a *Lex Generalis*, and the Law on Environmental Protection, as a *Lex Specialis*. Also, laws adopted based on this basic environmental law (“Official Gazette of the RoS”, No. 36/2009 and 88/2010) are the Law on Environmental Impact Assessment and the Law on Integrated Environmental Pollution Prevention and Control and they also, indirectly regulate inspection oversight in this area.

The supervision system of the Republic includes the Autonomous Province and local self-government units that use their inspection services to control compliance with requirements within their respective remits. The court as a state authority which is called upon to settle any dispute caused by damages will initiate the proceedings based on environmental lawsuit which is a legal instrument available to the person who has suffered damage. The basic legal act that provides environmental protection in the Republic of Serbia is its Constitution. This legal document is the source of all laws, including those that govern environmental protection. Applicable environmental legislation in the Republic of Serbia consists of the following laws: the Law on Environmental Protection (“Official Gazette of the RoS”, 135/04; “Official Gazette of the RoS”, No. 36/09); the Law on Environmental Impact

Assessment (“Official Gazette of the RoS”, No. 135/04; “Official Gazette of the RoS”, No. 36/09); the Law on Strategic Environmental Impact Assessment (“Official Gazette of the RoS”, No. 135/04; “Official Gazette of the RoS”, No. 88/10); the Law on Integrated Environmental Pollution Prevention and Control (“Official Gazette of the RoS”, No. 135/04) and the Law on Environmental Protection (“Official Gazette of the RoS”, No. 36/09; “Official Gazette of the RoS”, No. 88/10). Laws that govern special areas like the Law on Water Protection, the Law on Air Protection, the Law on Protection against Ionizing Radiation and Nuclear Safety additionally build this corpus of general legal norms; the Law on Protection from Non-Ionizing Radiation and a whole series of bylaws (regulations, decisions and rulebooks).

3. Economic instruments in the environmental protection system

The National, provincial and local self-government authorities need to have access to some economic instruments to be able to secure financing and attain the set goals concerning environmental protection. Those are instruments that enable collection of earmarked funds. The Law on Environmental Protection provides for those economic instruments, and regulates the position of the Environmental Fund with particular attention. The main task of the Fund is to secure finances which will be used to foster protection and improvement of the environment in various ways.

Economic instruments provided by the law directly impact businesses exposing them to additional costs that must be included in the price of their products or services. Those instruments are as follows: charges for use of natural resources, charges for pollution of the environment, other charges imposed by local self-government units.

The use of economic instruments may be counterproductive when a polluter has a monopoly position in the market (pollution is reduced, but so is output) (Ilić-Popov 2000, p. 28). Incentives have a special place in the environmental protection system and may be beneficial to companies. For instance, those can be tax, customs and other exemptions for technologies and products with better characteristics in terms of environmental protection. Exemptions may pertain to consumers and may aim at motivating them to build a positive attitude towards environmental protection (e.g. some benefits for those who help treat technical waste).

The basic principle is that the user of natural resources pays for their use. The user also bears the costs of rehabilitation. Both of these user charges are the embodiment of the “polluter pays” or the “user pays” principle. According to the Law on Amendments and Addenda of the Law on Environmental Protection funds generated from charges paid by users of natural resources are shared between the Republic and local self-government under a special law³. When it comes to polluters, according to the Law on Amendments and Addenda of the Law on Environmental Protection, 60% of funds generated from the charge are the share of the republic budget and 40% are the share of the local self-government budget⁴.

Local government units are authorized by law to prescribe a fee for the protection and improvement of the environment. If a local government has the status of endangered environment, it may introduce some special fees, for example, for owners of freight vehicles transporting oil and oil derivatives and the like.

It should be noted that funds collected based on the charge may be used only for specific purposes, that is, for the purpose of protection and improvement of the environment. The charge for pollution of the environment is paid by a polluter. Its amount depends on the degree of hazard to the environment. More specifically, in line with the Law on Environmental Protection (“Official Gazette of the RoS” No. 36/2009 and 88/2010) the charge is calculated based on criteria such as: the type, quantity or characteristics of the emission from a particular source; the type, quantity and characteristics of emissions from disposed waste, the contents of substances harmful to the environment in the raw material, semi products or finished products.

Payers are all natural persons or legal entities that cause environmental pollution. This obligation exist in relation to emissions of harmful substances, trade of raw material, semi products or products that include hazardous substances or in relation to any other form of pollution. The government specifies those criteria for specific calculation of the charge. We will discuss charges in the text below.

All natural persons or legal entities are responsible to care for the environment by obeying general principles of environmental protection while performing their activities. Amongst others, those principles imply the obligation to harmonize one’s business activities with regulations, exercising preventive measures aimed at protecting the nature from potential pollution or reducing it, sustainable use of resources and energy,

use of clean technologies and products that result in less pollution. Also, it is their obligation to implement specific control and maintain records. An entrepreneur or a company carries out environmental protection measures independently or through an authorized organization.

A polluter who causes damage to the environment is held liable on the basis of strict liability. When damage occurs the polluter must immediately carry out measures anticipated in the contingency and remediation plan (Kikić, Stanković & Brnjas 2011). If the damage caused is of such intensity and character that cannot be repaired then the polluter has to pay compensation up to the value of assets destroyed. The polluter bears the costs of appraisal of the damage caused and its removal. Also, the polluter has to provide financial and other guarantees of payment of compensation of costs, in line with the Law on Environmental Protection (“Official Gazette of the RoS” No. 36/2009 and 88/2010) during and after completing his activities. The government specifies the type and the amount of such guarantee. If the risk of pollution is high the polluter is obliged to conclude a contract with an insurance company about insurance from liability.

A project implementer, or a legal entity, an entrepreneur or a natural person who uses natural resources, performs construction works and other works outdoors must act in line with environmental protection measures⁵. Those measures are specified by plans, frameworks and programs and their main goal is to prevent any threat or damage to the environment or, at least, minimize them. If outdoor projects or activities have been implemented without predefined environmental protection conditions or in contravention to the specified conditions which resulted in damage to the environment or protected natural resources, the project implementer or activity implementer or the user of natural resources is obliged to immediately and at his own expense repair detrimental consequences of his own actions (Tomić, Komazec & Delić 2013).

For the use of the protected area a company or other legal entities, entrepreneurs or citizens (users) pay a charge to the operator of the protected area. The amount, the manner of calculation and payment of the charge are specified by the operator in line with the predefined criteria and the act by means of which the operator of the protected area defines the amount and the manner of calculation and payment of the charge is approved by the Ministry.

One of the basic rules of contractual relations is that whoever causes harm to another is obligated to compensate it. A person who suffers damage has the right to compensation and that request forwards to the polluter or insurer or guarantor. Companies have to align their solid waste policy with regulations (the Law on Solid Waste Management, 2009/2010). The basic principle applied is the polluter pays all costs principle. Policy makers require producers or importers to pay special charges on products that once used become part of special waste flows (the Government specifies the list of such products)⁶. The operator pays charges provided under the law (for a license, etc.).

Charges and fees in tourism are provided under the Law on Tourism (“Official Gazette of the RoS” No. 36/2009; 88/2010). Tourism charge is paid for the use of benefits while performing activity in a tourist destination and payers are companies that perform activity connected with tourism. Policy makers anticipated that persons who stay in a tourist destination pay a hotel fee prescribed by the city or municipality according to the category of the tourist destination.

Generally speaking a charge is an administrative cost of use of goods of public interest. Charges may be introduced for water, land, forests, roads, construction land, etc. The Budget System Law cites all the charges that may be introduced (charge for environmental protection, charge for the use of tourism area, etc.). Charges are not introduced or used with a fiscal goal in mind which is best illustrated by environmental charges which are the source of earmarked funds that can only be used for protection and improvement of the environment. Many local self-government units have used their rights to collect revenues on the basis of protection and improvement of the environment and in line with criteria specified in the Regulation on the Criteria for the Determination of the Charge for Protection and Improvement of the Environment and the Highest Amount of Charge⁷ and by relevant decisions of their assemblies introduced specific fees and charges.

In the legal system of environmental protection a regulation that specifically defines all significant elements related to compensation is the Regulation on Types of Pollution, Criteria for Calculation of Charges for Environmental Pollution and Payers, the Amount and Manner of Calculation and Payment of Charges. Charge for produced or disposed waste is calculated according to the type, quantity and characteristics of the waste generated or disposed during the period of one year, which is determined by the used production

capacity and is expressed in units of mass in tons. Charge for substances that deplete the ozone layer is calculated according to the imported amount of these substances for a period of three months, etc. Payers of this charge are all natural persons and legal entities that cause environmental pollution. The Regulation specifies the formula for calculation of the amount of charge (Article 6 of the Regulation) and the annual amount of charge (e.g. charge for CO₂ emissions by ton).

Charge that concerns environmental pollution has been anticipated by the Rulebook on Determining Compliant Charges for Environmental Pollution.⁸ This Rulebook specifies a compliant amount of charge for: emissions from specific sources, for generated or disposed waste, for plastic bags and specific types of motor vehicles.

Charges concerning waste substances have been specified by the Regulation on Products that once Used Become Part of Special Waste Flows.⁹ This Regulation specifies criteria for calculation of the amount and manner of calculation and payment of charges pertinent to specific products. Those are products that contain asbestos, batteries, oils, electrical and electronic products and payers are not only their manufacturers but also their importers. Funds generated by means of this charge are used for covering the costs of solid waste flow management.

Specific incentives are by all means a significant economic instrument of environmental protection. That mechanism is specified by the Regulation on the Amount and the Conditions for the Award of Incentives.¹⁰ This Regulation specifies the amount and the conditions for the award of incentives for reuse and utilization of waste as secondary raw material or for the generation of energy and for the production of reusable shopping bags. Packaging is also an object for which specific charge is calculated. The administration of the charge has also been regulated by norms.¹¹

4. Conclusion

Laws and other regulations in the Republic of Serbia, which govern environmental protection, are, in terms of their contents, dependent on the most important international documents, especially the regulations of the European Union. The legal framework is based on the following basic laws: the Law on Environmental Protection, the Law on Strategic Environmental Impact Assessment, the Law on Environmental Impact Assessment and the Law on Integrated Environmental Pollution Prevention and Control and the

Law on Nature Conservation. Special laws and numerous bylaws are built on this legal basis of the general character.

A large number of branches of law and legal disciplines partake in the protection as a result of multidisciplinary character of the protected object. The environmental protection itself is in the hands of different levels of government (central, regional and local), which imposes the need to harmonize rules and regulations, strategies and plans, and operational activities. One should not forget the supranational level phenomena and relevant regulations. Monitoring compliance of the company with increasingly demanding environmental regulations is imperative for a modern company. Failure to act in this way exposes the company to the high legal and other operational risks. From the standpoint of competitiveness of the company and in terms of cost management, the application of the “user pays” and the “polluter pays” principle is a significant factor which must be taken into account as such. The establishment of economic instruments to collect funds and spend them for specific purposes represents a particularly important segment of the legal protection.

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 - 20) Law on Environmental Protection ("Official Gazette of the RoS", No. 135/04 and the Law on Amendments and Addenda of the Law on Environmental Protection ("Official Gazette of the RoS", No. 36/09)

Endnotes

- 1 The increase in prices as a consequence of the application of specific environmental regulations (charges and fees) directly impacts the competitiveness of the particular company or particular country's economy.
- 2 Council of Europe, European Convention on the Protection of Human Rights and Fundamental Freedoms, 1950; Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment 1993, Convention on the Protection of the Environment through Criminal Law 1998; Convention on the Conservation of European Wildlife and Natural Habitats 1982, European Landscape Convention 2004.
- 3 See Article 49 of the Law on Amendments and Addenda of the Law on Environmental Protection.
- 4 See Article 50 of the Law on Amendments and Addenda of the Law on Environmental Protection.

- 5 In accordance with the Law on Environmental Protection (“Official Gazette of the RoS”, No. 36/2009 and 88/2010).
- 6 Article 79 Parafigure 4 of the Law on Waste Management.
- 7 The Criteria are as follows: area of the property, generated revenues from the activity, load capacity of the transport means, the maximum charge on multiple grounds.
- 8 “Official Gazette of the RoS”, No. 7/2011.
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- 10 “Official Gazette of the RoS”, No. 88/2009, 67/2010 and 101/2010.
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BARRIERS AFFECTING QUALITY MANAGEMENT SYSTEM APPLICATION OF COMPANY PRODUCTIVITY

UTJECAJ BARIJERA U PRIMJENI SISTEMA UPRAVLJANJA KVALITETOM NA PRODUKTIVNOST PREDUZEĆA

Abstract

To manage products and services, companies accepted introduction and implementation of ISO 9001 that lays down the procedures of all business activities in order to establish the standardization of business processes. The purpose of this paper is to identify the key barriers QM face in companies implementing the process of ISO 9001. Data analysis was carried out in the software package SPSS 17.00. Interpretation of the results was performed by the method of analysis and synthesis, inductive and deductive method, comparative method, reliability test, descriptive statistics, principal component analysis, factor analysis, correlation analysis, t-test and ANOVA F-test. The study was conducted on a sample of 68 companies in Bosnia and Herzegovina (BIH) that have introduced quality management system ISO 9001. Study results indicate that the most common reasons for failure to implement procedures of quality management system were two factors; the first factor "it's not my job" and the other factor "I planned to finish that later." By verifying hypothesis it was found that there is insufficient evidence to confirm that the consistent application of ISO 9001 affects company productivity. By verifying the auxiliary hypothesis it was found that managers and employees of BIH companies understand the purpose of ISO 9001. Auxiliary hypothesis, that BIH companies implementing ISO 9001 consistently apply proper procedures of quality management system, is confirmed.

Keywords: quality management system, procedures, productivity

JEL: L23, M11

Sažetak

Kako bi upravljali kvalitetom svojih proizvoda i usluga, preduzeća prihvataju uvođenje i primjenu standarda ISO 9001 kojim se propisuju procedure svih poslovnih aktivnosti sa ciljem uspostavljanja standardizacije poslovnih procesa. Svrha ovog rada je identifikovati ključne barijere s kojim se susreću QM u preduzećima prilikom implementacije procedura sistema ISO 9001. Obrada podataka provedena je u softverskom paketu SPSS 17,00. Interpretacija rezultata provedena je primjenom metoda analize i sinteze, induktivne i deduktivne metode, komparativne metode, testa pouzdanosti, deskriptivne statistike, analize glavnih komponenata, faktorske analize, korelacione analize, t-testa i ANOVA F-testa. Istraživanje je provedeno nad uzorkom od 68 preduzeća u Bosni i Hercegovini koja imaju uveden sistem upravljanja kvaliteta ISO 9001. Rezultati istraživanja ukazuju da su se kao najčešći razlog neprovođenja procedura sistema upravljanja kvaliteta izdvojila dva faktora, prvi faktor „to nije moj posao“ i drugi faktor „planirao sam to kasnije završiti“. Provjerom medela hipoteza istraživanja utvrđeno je da ne postoji dovoljno dokaza kojim bi se potvrdilo da dosljedna primjena normi ISO 9001 utječe na produktivnost preduzeća. Provjerom pomoćnih hipoteza istraživanja utvrđeno je da menadžeri i zaposlenici bosanskohercegovačkih preduzeća razumiju svrhu ISO 9001. Potvrđena je pomoćna hipoteza da bosanskohercegovačka preduzeća koja posjeduju ISO 9001 dosljedno primjenjuju propisane procedure sistema upravljanja kvaliteta.

Ključne riječi: sistem upravljanja kvalitetom, procedure, produktivnost

JEL: L23, M11

1. Introduction

Quality management system ISO 9001 is very powerful tool of continuous improvement of company competitiveness, which is primarily based on meeting the needs of customers better than competition. It is a known fact that the goal of each company is to maximize profits, but the desired goal reach only those companies that manage to make favourable relationship between quality and price of its product or service, that consumers will perceive more acceptable compared to competitor's product or service. Guided by this fact, large number of companies in Bosnia and Herzegovina have introduced or are in the process of introducing quality management system ISO 9001 in their business processes.

After introducing quality management system ISO 9001, majority of employees and management of B&H companies' expectations regarding successful operations have not been fulfilled. Namely, incentives from governmental and non-governmental organizations affected companies

opting introduction of quality management system ISO 9001 without fully understanding its purpose. Today, in many companies, management only declares to have “ISO 9001” while applying it partially or not at all, as a result of misunderstanding the purpose of introduction and consistent implementation of all requirements of quality management system ISO 9001, due to absence of expected effects.

The above issues have prompted this research to find answers to research problem questions as follows: Do management and employees of B&H companies understand the purpose of introduction and application of quality management system ISO 9001? How and to what extent B&H companies apply quality management system ISO 9001? What are the barriers to application of ISO 9001 in B&H companies? Does non-implementation of quality management system ISO 9001 affect the company productivity?

2. Literature review

2.1 Formation, development and purpose of application of quality management system ISO 9001

Emergence of quality management system is linked thousands of years ago in time to the king of Babylon, who in the year 2100 BC, in order to protect their retailers, passed the Law on fraud protection of customers and small entrepreneurs. Although quality management is linked to distant past, scientific approach to quality management was, among the first, established by Walter Shewhart (1930), a statistician who first developed statistical method of process control known as PDCA, acronyms representing English words: P - plan, D - do, C - check, A - act (TQM 2015).

After the Second World War, Edward Deming with Juran and Armand Feigenbaum continued to develop control management on the basis of Walter Shewarta applying various statistical methods. Misunderstanding new quality management approach tilted Deming to present new concept of quality management in 50s to Japanese society of scientists and engineers who have recognized and applied new methods of quality management (Lazibat 2009, p. 10).

Following American managers' rejection to accept the concept of Deming's quality management, it took 30 years after the unattainable dominance of Japanese products on US market, to begin change of consciousness of

American managers about quality. Philip Crosby significantly contributed this change of quality management approach with his book “Quality is Free”.

Dynamic market struggle between car manufacturers produced new approach of US manufacturers to maximally comply with the requirements of consumers in terms of excellent quality and reasonable car price. On the wings of market competition between manufacturers, the International Organization for Standardization in 1987 announced the ISO 9000, under the name Quality System- the model of design quality assurance, development, production, installation and servicing of products. The main purpose of ISO 9000 norm development is based on five key objectives (Evans 2008, p. 87-88):

- a) Achieving, maintaining and searching for continuous improvement of product quality and services in relation to set requirements.
- b) Improving the quality with operations aimed at continuous fulfilment of consumer's and stakeholder's demands.
- c) Providing companies' management evidence of requirement fulfilment.
- d) Providing the evidence to consumers and stakeholders of quality requirements being incorporated in delivered products or services.
- e) Providing the evidence of meeting system quality requirements.

In practice, for many years now, different management systems were applied in which companies seek to improve their business processes by single or integrated application of management systems. This paper is focused on Quality Management System ISO 9001 originating from the family of ISO 9000 within which originate ISO 14000 and ISO 18000, representing the system for achieving defined policies and goals of organization (ISO 9000, v. 3.2 .2.). According to Zgombić (2002, p. 97), Quality Management System is a set of elements documented and tested “step by step” with the aim of organization functioning through standard practice.

Therefore, based on published definitions of quality management system ISO 9001 concept, it can be concluded that quality management system ISO 9001 represents systematic and hierarchically formulated business activities for each organization, whose implementation organization can in the most optimal way manage time, material, human and financial resources. All the above this resulted in standardization of business processes and thus standardizing the quality of products or services, by which company meets the needs of consumers better than their competitors. Full implementation of quality management system according to ISO 9001 (Douglas et al. 2003) is

reflected in the following benefits received by the company: costs reduction, waste reduction, increase of market opportunities, stronger reputation with company's stakeholders, positive perception of company by customers, improvement of business processes management, increase in profit margins, sale increase per employee as well as increase of profit margin per employee. Based on the above, it can be clearly concluded that consistent application of ISO 9001 enables companies to efficiently and effectively manage their business processes that take into account maximum quality requirements and needs of consumers.

2.2 Quality in function of productivity

After Second World War, as quoted by Juran and Gryna (1999, p. 2), two directions which had strong impact on quality have developed: a) Japanese quality revolution, and b) emphasis on quality in public opinion. These two main directions in combination with others have resulted in many companies changing numerous operating conditions associated with parameters of quality. Quality in economic terms is related to the start of human and economic activities. However, there was always some sort of specification (later - norm, standard) in the name of owner (chief, pharaoh, king, entrepreneur, etc.) that was used for control, approval or rejection of product or service by inspectors (Noray 1990, according to: Holjevac 2005, p. 117).

According to ISO 9000, quality is a degree to which a set of inherent characteristics fulfil requirements. Generally accepted definition of quality is: "Quality is customer satisfaction" while alternative definition emphasizes that quality is "Appropriateness of usage" (Juran & Gryna 1999, p. 3). In the last few decades, market globalization has significantly contributed to creation of global needs of consumers who daily move boundaries of their expectations of products and services in terms of their high quality and low price. To satisfy consumers in terms of high quality, it requires companies to increase the cost that will significantly impact price that will negatively affect consumers' decisions while purchasing, certainly.

Aware of these facts, before the company management is a challenge: how to manage costs whose reduction would have positive impact on price reduction on the one hand, but on other hand shouldn't affect the reduction of product or service quality. Manage cost means to manage key economic indicators that are: a) the economy, b) profitability and c) productivity. Economical business is imperative to every company that aims to produce the highest amount of output with minimal investment input (Beus 1989,

p. 237). Calculation of coefficient of economy is conducted as ratio of total revenue generated by its effects and total costs arising from labour, means of labour and other inputs required for production process. Indicators of companies' profitability are expressed through: net profit margin, return rate on assets, return rate on investment and capital return rate. They represent key indicators for strategic decisions on further development of the company. These indicators show company's ability to return invested funds in business activities. Productivity represents an indicator of work rate in relation to performance, or the results of utilized work.

The work of employer is the most sophisticated reproduction factor which creates and implements a process of reproduction to create new values. During reproduction process, work utilisation is conducted through following factors: intellectual abilities, physical abilities, and time spent on employer activities. Utilizing mental capabilities of employees is conducted through management skills and innovative capabilities that employees use in production process (Isaković 2015). Utilizing physical abilities of employees is conducted using motor skills needed for work. Utilizing time as an irreplaceable element of life of every person in business activities of manufacturing process.

How and to what extent employees' factors will be utilized depends primarily on the following factors:

- employees' qualifications, where degree of qualification largely determines employees' ability to organize and use equipment and thus affects time spending required for certain phases of reproduction process;
- employees' experience, as a key factor for skills development in using equipment that reduces time and thus increases employees' productivity;
- working conditions in which business activities are performed, is an important factor that affects time spending of mental and physical abilities of employees;
- Human relations also represent a factor affecting spending of mental and physical abilities.

A common feature of the above factors reflect in the fact that all factors directly affect utilizing mental and physical abilities. As a result of such influence time utilization is efficient or inefficient in business activities in the manufacturing process. Utilized workforce is reproduced by payment of salaries to employees for work performed, which is also value expression of this production element (Beus et al. 1998, p. 89).

Therefore, primary task of management is efficient and effective spending of work that can be individually implemented and adopted with ISO 9001 procedures in every company.

3. Research methodology

The purpose of this paper is to identify the most common barriers to which employees most frequently invoke as a reason of inconsistent implementation of ISO 9001. On the assumption that company productivity is based on the controlling of business processes and company flexibility during performance of business activities (Isaković et al. 2010), dependent variable in this paper will be controlling and flexibility of the company. Independent variable will be a barrier in implementation of ISO 9001, and understanding the purpose of ISO 9001.

To respond to problem questions of this paper, small and medium companies in Bosnia and Herzegovina that have introduced quality management system ISO 9001 in their business processes were chosen for research. By random sample survey, questionnaire was sent to 200 email addresses. Seven out of seventy-two questionnaires received were rejected as unusable, while for further statistical analysis N=68 questionnaires were allocated, composed of small and medium companies, which represent a response rate of 34% compared to the total number of selected samples. Data collection was conducted by survey of structured questionnaire consisting of four open questions and 38 statements, divided into 4 batteries. Battery B consists of 10 particles that represent predictors of barriers in implementation of ISO 9001. Battery C consists of 4 particles that represent predictors of understanding the purpose of ISO 9001. D battery is composed of 12 particles that represent predictors of company flexibility. Battery E is composed of 12 particles that represent predictors of the company controlling. After identifying problem questions and defining the purpose of research, research hypotheses are formulated as follows:

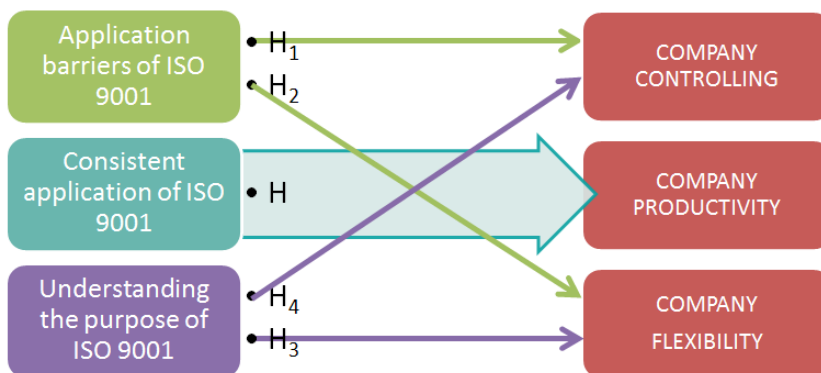


Figure 1. *Formulation of research hypothesis*

Source: Authors' research

- H Consistent application of ISO 9001 positively affects company productivity.
- H_1 Application barriers of ISO 9001 positively affect company controlling. (B-D)
- H_2 Application barriers of ISO 9001 positively affect company flexibility. (B-C)
- H_3 Understanding the purpose of ISO 9001 application positively affects company flexibility. (I-C)
- H_4 Understanding the purpose of ISO 9001 application positively affects company controlling. (I-D)

Data was processed by SPSS 17.00 software package, while data analysis was processed by methods of analysis and synthesis, inductive and deductive method, comparative method, reliability test, descriptive statistics, principal component analysis, factor analysis, correlation analysis and ANOVA F test.

4. Interpretation of research analysis

Research sample consisted of 68 companies, 27 small companies (39.7%) counting 10–49 employees and 41 medium companies (60.3%) counting 50–250 employees. Response to questionnaire amounts to 34% that could be acceptable response. All companies have introduced Quality Management System ISO 9001 in an average 8.26 years ago (standard deviation is 3.06). Reliability check of inner consistency of measuring scale of every battery was calculated in coefficient Cronbach alpha: battery B - .727; C - .872; D - .792; E - .874. Calculated coefficients are above 70 that could be acceptable

and reliable measuring scale (DeVellis 2003). Since the questionnaire contains large number of claims necessary to be reduced for simple and more accurate interpretation, principal component analysis and factor analysis are applied. To apply multivariate analysis, checking of claims of adequacy for all batteries was approached. The critical value below which it is not advisable to use multivariate analysis is when the value of KMO <0.500 (Kaiser-Meyer-Olkin's measure) of sample adequacy (Norušis 1994), or when the coefficient of Bartlett's test of sphericity is statistically significant ($p < 0.05$).

4.1 Application barriers of ISO 9001

In order to verify adequacy of application of multivariate analysis, coefficient KMO was calculated 0.785, while Berttlet's test of sphericity was statistically significant because $p < 0.05$. Having adequacy of the sample for multivariate analysis using Guttman-Kaiser extraction criteria used for considered variables of characteristic root higher than 1 ($\lambda > 1$) confirmed, principal component analysis was conducted.

Table 1 *Principal component analysis of B battery – Application barriers of ISO 9001*

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.309	43.086	43.086	3.720	37.203	37.203
2	1.509	15.091	58.177	2.097	20.973	58.177

Source: Authors' research

Table 1 results show allocated two components explaining 58.17% cumulative of variance. After extracting variables by principal component analysis, factor analysis was approached.

Table 2 *Factor analysis of B battery – Application barriers of ISO 9001*

	Component	
	1	2
B ₃ . That is not my job.	.829	.194
B ₇ . I was planning to finish that later.	.026	.871

Source: Authors' research

Table 2 results show factor analysis results that reduce overlapping of variables by loading factor B₃ by placing 6 variables in the first factor. When the first factor loading .829 squares, it can be concluded that first factor B3

explains 68.7% of other variable variations grouped in the first factor. The second factor places 4 variables of which B₇ has the largest loading factor .871, explaining 75.8% of other variable variations grouped in the second factor.

4.2 Understanding the purpose of ISO 9001

In order to verify adequacy of application of multivariate analysis in C battery, coefficient KMO was calculated .755, while Bartlett's test of sphericity was statistically significant because $p < 0.05$, being satisfactory for the application of multivariate analysis.

Table 3 *Principal component analysis of C battery – Understanding the purpose of ISO 9001*

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.323	58.075	58.075	2.323	58.075	58.075

Source: Authors' research

After extracting variables by principal component analysis, factor analysis was approached.

Table 4 *Factor analysis of C battery – Understanding the purpose of ISO 9001*

	Component
	1
C ₃ . Employees of our company do not know the purpose of ISO 9001.	.827

Source: Authors' research

Table 4 show factor analysis results of battery C variable allocating one factor. Within the framework of this factor, there are 4 variables allocating C₃ variable as a factor with greatest factor loading .827 explaining 68.4% of other variation variables.

4.3 Company flexibility

Battery D represents companies' predictors of flexibility within the framework of 12 particles reduced to an acceptable number by multivariate analysis. After checking the adequacy of multivariate analysis

implementation, KMO coefficient was calculated .0653 and Bartlett's sphericity test was statistically significant because $p < 0.05$.

Table 5 *Principal component analysis of D battery – Company flexibility*

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.983	33.190	33.190	2.538	21.153	21.153
2	1.638	13.652	46.842	2.345	19.541	40.694
3	1.225	10.209	57.051	1.963	16.357	57.051

Source: Authors' research

After extracting variables by principal component analysis, factor analysis was approached.

Table 6 *Factor analysis of D battery – Company flexibility*

	Component		
	1	2	3
D ₇ . Our tools and equipment are adjusted for quick change of work program.	.793		
D ₈ . Our employees, if necessary, can take different jobs.		.702	
D ₁₁ . In our organization, employees readily accept different duties and obligations.			.725

Source: Authors' research

After factor analysis of predictors of company flexibility, three factors were allocated as shown above Table 6.

The first D₇ factor is factor loaded .793 explaining 62.8% of other three variance listed in this factor. The second D₈ factor is factor loaded .702 explaining 49.3% of remaining 5 variables variances listed in second factor. The third D₁₁ factor is loaded .725 explaining 52.5% of the remaining two variables variances listed in the third factor.

4.4 *Company controlling*

Verifying the adequacy of claims of battery E, KMO is calculated amounting to .744 and Bartlett's sphericity test was statistically significant because $p < 0.05$. After verifying the adequacy of battery claims, multivariate analysis was applied.

Table 7 *Principal component analysis of E battery– Company controlling*

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.148	42.899	42.899	3.110	25.915	25.915
2	1.629	13.575	56.473	3.069	25.575	51.490
3	1.299	10.824	67.298	1.897	15.808	67.298

Source: Authors' research

After extracting variables by principal component analysis, factor analysis was approached.

Table 8 *Factor analysis of E battery – Company controlling*

	Component		
	1	2	3
E ₇ . Our organization has clear standards of behaviour.	.823		
E ₁₂ . Profitability is analyzed by segments of production and utility.		.793	
E ₆ . Frequently, we compare actual versus planned.			.798

Source: Authors' research

After factor analysis, three battery factors of company flexibility were allocated. The first E₇ factor is factor loaded .823 explaining 67.7% of other three variance variables. The second E₁₂ factor is factor loaded .793 explaining 62.8% of remaining 4 variables variances listed in second factor. The third E₁₁ factor is loaded .309 explaining 63.6% of the remaining two variables variances listed in the third factor.

4.5 Hypothesis testing

To verify statistically significant correlation between the independent and dependent predictor of hypothesis, correlation analysis between the selected predictor factors of ISO 9001 application was conducted with separate predictor factors of company controlling and company flexibility, as well as correlation analysis between distinct predictor factors of understanding the purpose of ISO 9001 and allocated predictor factors of company flexibility and company controlling.

Table 9 *Correlation analysis results of selected factors of independent and dependent variables*

1. D ₇		Company flexibility			Company controlling		
		2. D ₈	3. D ₁₁	1. E ₇	2. E ₁₂	3. E ₆	
Application barriers of ISO 9001	1. B ₃	-.177 .148	-.007 .956	-.178 .147	-.327 .006	-.200 .102	.026 .831
Application barriers of ISO 9001	2. B ₇	.098 .429	-.091 .461	-.219 .072	-.112 .362	-.121 .325	.261* .032
Understanding the purpose of ISO 9001	1. C ₃	-.042 .733	-.195 .112	-.243 .046	-.340 .005	-.442 .000	-.249* .040

Source: Authors' research

According to the correlation analysis results shown in Table 9, statistically significant negative slight correlation between factor C₃ and E₁₂ can be concluded because the correlation coefficient $r=-0.442$ while $p=0.000$ which is less than the eligibility $\alpha=0.05$. These two factors explain 17.6% of the common value indicating a very low level of correlation of these two factors.

Based on the correlation analysis results shown in Table 9 it can be concluded that there is no statistically significant, moderate to good, correlation between factors of independent and dependent variables because all coefficient correlation factor values $r<0.51$.

Therefore, established hypotheses predictors do not have strong enough correlation for eligibility $\alpha = 0.05$ to conclude correlation strong enough for $r\geq 0.51$ coefficient correlation to confirm the influence of independent to dependant variables of set research hypothesis.

Verification of the significance of hypothesis was performed with multiple linear regression used for calculation of F statistics with an acceptable error of $\alpha = 0.05$ and 95% of confidence interval. The zero testing hypothesis is: *In the population, there is no linear relationship between productivity as dependent variable on the one hand and linear combination of barriers in the implementation of ISO 9001 and understanding the purpose of ISO 9001 as independent variable on the other hand.*

Table 10 *ANOVA results of research hypothesis testing*

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	8.219	3	2.740	2.983	.038 ^a
Residual	58.781	64	.918		
Total	67.000	67			

Source: Authors' research

Based on the Table 10 results, it is clear that value of F statistics is 2.983 with significance of $p=0.038$ that is less than acceptable error of reasoning $\alpha = 0.05$ drawing to a conclusion that there is not enough evidence to accept zero hypothesis. Therefore, the alternative hypothesis is accepted to the effect that there is a linear relationship between productivity as the dependent variable on the one hand and a linear combination of barriers in the implementation of ISO 9001 and ISO 9001 understanding as independent variables on the other hand. To check the auxiliary research hypothesis H_5 *Managers and employees of BIH companies do not understand the purpose of application of ISO 9001*, testing using t-test of confidence interval of 95% and an error α 0.05 was conducted.

Table 11 *t – test results of understand the purpose of ISO 9001*

Understand the purpose of ISO 9001	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Diff.	95% Confidence Interval of the Diff.	
					Lower	Upper
C ₁ . Company management is satisfied with the results achieved by applying ISO 9001.	7.327	67	.000	1.29412	.9416	1.6466
C ₂ . Company management does not know the purpose of ISO 9001 application	-9.398	67	.000	-1.70588	-2.0682	-1.3436
C ₃ . Employees of our company do not know the purpose of ISO 9001 application	-6.442	67	.000	-1.27941	-1.6758	-.8830
C ₄ . Does ISO 9001 company management know the purpose of application	9.902	67	.000	1.63235	1.3033	1.9614

Source: Authors' research

Table 11 shows the results of t - test testing auxiliary hypotheses H_5 with 95% of confidence interval and faulty reasoning $\alpha = 0.05$, rejecting null statistical hypothesis $H_0: \mu = \mu_0$. Alternative statistical hypothesis is accepted $H_a: \mu \neq \mu_0$ because the value of t statistics of all particles C battery (Table 11) is high with statistical significance $p=.000$ which is less than the accepted value of error of reasoning $\alpha = 0.05$. Based on the statistical hypothesis testing results, auxiliary hypothesis is rejected: H_5 *Managers and employees of BIH companies do not understand the purpose of ISO 9001 application*, and the alternative hypothesis that *managers and employees of BIH companies understand the purpose of ISO 9001 application* is accepted. Testing auxiliary research hypotheses H_6 *BIH companies do not consistently implement quality management system ISO 9001* was implemented by t - test interval of confidence of 95% and faulty reasoning of $\alpha=0.05$.

Table 12 t – test results of applying quality management system ISO 9001

Application of ISO 9001	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Diff.	95% Confidence Interval of the Diff.	
					Lower	Upper
We implement ISO 9001 procedures and apply them accordingly.	10.914	67	.000	1.60294	1.3098	1.8961

Source: Authors' research

Statistical zero hypothesis testing results $H_0: \mu = \mu_0$ in Table 12 show that the value of t statistics 10.914 whose statistical significance $p = .000$ which is less than the accepted error of reasoning $\alpha 0.05$, based on which we can conclude that there is not enough evidence to accept the statistical zero hypothesis that makes the alternative statistical hypothesis accepted $H_a: \mu \neq \mu_0$. Based on the results of statistical zero hypothesis, it can be concluded that there was insufficient evidence to accept auxiliary research hypothesis H_6 *BIH companies do not consistently implement quality management system ISO 9001*, therefore the alternative hypothesis that *BIH companies consistently implement quality management system ISO 9001* is accepted.

5. Conclusions

This section of paper represents the most important conclusions based on the results of theoretical and empirical research and provides answers to the research questions that prompted this research.

- What barriers QM of BIH companies face during the ISO 9001 implementation?

QM in charge of consistent application control of prescribed procedures of ISO 9001 in practice are faced with a variety of excuses why employees fail to fully implement proper procedures of ISO 9001. By applying multivariate analysis, two factors that usually occur as a barrier to consistent application of ISO 9001 in BIH companies singled out. The first factor is B_3 - *It's not my job* with loading factor .829 explaining 68.72% of the variance of other particles, grouped in the first factor. Another factor is B_7 - *I was planning to finish that later* with loading factor .871 explaining 75.86% variance of other particles grouped in the second factor.

- Does quality management system ISO 9001 implementation affect company productivity?

In order to verify the model hypothesis composed of independent variables represented by two batteries: B - application barriers of ISO 9001, C - understanding the purpose of ISO 9001 on the one hand, and dependent variables represented by two batteries: D – company flexibility, E – company controlling on the other hand, multivariate analysis was performed to reduce variable factors that largely explain battery predictors followed by the correlation analysis with Pearson's coefficient correlation calculating the strength of association between factors. According to correlation analysis shown in Table 9, it can be concluded that all correlation intensity value of the correlation coefficient of all variables is $r < .51$ based on which it can be concluded that there is insufficient evidence to establish the existence of strong link between the factors. To verify the significance of set hypothesis, multiple linear regression was applied calculating the value of F statistics and the significance of faulty reasoning $\alpha = 0.05$. Table 10 shows the results of F-test on the basis of which it can be concluded that statistically significant hypothesis value is $p = .038$ that is less than acceptable error reasoning $\alpha = 0.05$.

- Does the management and employees of BIH companies understand the purpose of ISO 9001?

According to the results of the hypothesis testing using the t-test shown in Table 11 it can be concluded that managers and employees of BIH companies understand the purpose of ISO 9001 because the t value of the statistics of all particles (C_1 , C_2 , C_3 , C_4) is significantly high in all particles $p=.000$ that is less than acceptable error reasoning $\alpha 0.05$.

- How and to what extent the BIH companies apply quality management system ISO 9001?

According to the t-test testing results of hypothesis shown in Table 12, it can be concluded that BIH companies significantly apply quality management system ISO 9001 because the t value of the statistics is significantly high since $p=.000$, that is less than acceptable error reasoning $\alpha 0.05$. Although opinions about the role and importance of the application of the quality management system ISO 9001 of different authors are divided, it is important to point out that the consistent application of ISO 9001 is only one of the factors by which the company transforms its business activities into measurable results in terms of objectives fulfilment. Mainly, research in terms of role and importance of ISO 9001 of the company are observed in isolation for certain activities or indicators of the company in relation to other factors, which is why the results of such research and the results of this research are different than the expected. Due to the importance of consistent application of ISO 9001 which provides standardization of business processes in organizations, it would be important for some future research on impact of ISO 9001 on the results of business activities to include other factors that with their synergetic effects make complementarity of good business practice.

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CHALLENGES OF INTRASTAT IMPLEMENTATION IN CROATIA IN CHANGING ENVIRONMENT

IZAZOVI IMPLEMENTACIJE INTRASTATA U REPUBLICI HRVATSKOJ U MIJENJAJUĆOJ OKOLINI

Abstract

Paper investigates importance of project management procedure in process of implementing Intrastat in Republic of Croatia. Since joining European Union, Republic of Croatia needed to implement several different new Customs procedures and procedures for monitoring foreign trade between Croatia and other countries within EU and outside of EU. Terminology of foreign trade has changed from moment when Croatia joined EU. Therefore when there is goods transaction between member states terms of sending and receiving are used while when the goods are going to other countries terms of export and import are being used. In order to be able to monitor transaction between member states of EU it is necessary to have Intrastat implemented. Intrastat is basically system of acquiring statistical data of trade between member states. This procedure is of extreme importance for looking upon trade balance between Croatia and other EU member states. Therefore Republic of Croatia started with implementation of Intrastat through project approach a year before it joined EU and project was finished and started working from June 1, 2013. Paper investigates project methodology in dealing with important goals – Intrastat implementation and is trying to show importance of project management in company's business activities and in this case in government as well. In the first part of paper Intrastat will be introduced, second part will deal with project approach of Intrastat implementation in Croatia. In the last part importance of Intrastat for foreign trade information in Republic of Croatia will be shown and recommendations for further research on this matter will be given.

Keywords: Intrastat, project management, foreign trade, importance of Intrastat

JEL: E01, F31

Sažetak

Rad istražuje važnost projektnog pristupa procesu implementacije Intrastata u Hrvatskoj. Nakon pristupa Europskoj Uniji, Hrvatska je morala implementirati nekoliko novih postupaka vezanih za carinsko poslovanje i praćenje međunarodne trgovine između Hrvatske, zemalja članica EU te trećih zemalja. Značenje pojma međunarodna trgovina se značajno primijenilo ulaskom Hrvatske u EU te se za razmjenu roba s članicama EU koriste riječi primitak i otprema, a za razmjenu roba s trećim zemljama se koristi uvoz i izvoz. Kako bi se promatrala robna razmjena između zemalja članica EU potrebno je implementirati Intrastat. Intrastat je sustav prikupljanja statističkih podataka o trgovini između zemalja članica EU. Ova je procedura od iznimne važnosti za praćenje vanjske trgovine Hrvatske s drugim zemljama članicama. Samim time je Hrvatska počela s provođenjem projekta implementacije Intrastata godinu dana prije nego li je postala zemlja članica EU. Projekt je završen i Intrastat praćenje se primjenjuje od 01. srpnja 2013. godine. Rad promatra projektni pristup implementaciji Intrastata i nastoji ukazati važnost upravljanja projektima u poslovnim aktivnostima tvrtki te kao u ovom slučaju državne uprave. U prvom dijelu rada prezentiran je Intrastat, drugi dio promatra projektni pristup implementaciji Intrastata u Hrvatskoj. U zadnjem dijelu prezentira se važnost Intrastata za dobivanje podataka o vanjskoj trgovini Republike Hrvatske s zemljama članicama EU te se daju preporuke za daljnja istraživanja.

Ključne riječi: Intrastat, upravljanje projektima, međunarodna razmjena, važnost Intrastata

JEL: E01, F31

1. Introduction

When Croatia entered European Union (EU), it became a part of integral European market and free transfer of goods and services with all other member states was established. After joining EU possibility of obtaining statistical data on foreign trade with other EU member states from customs declarations (import and export) stopped. Therefore a statistical system – Intrastat – for collecting and monitoring data for a foreign trade with EU member states had to be implemented. This system for data collection and reporting has been applied in EU since 1993, when the single EU market was created.

The purpose of the Intrastat implementation is monitoring of trade and financial exchange and taxation in the European Union. All EU member states had to introduce instruments for foreign trade monitoring and reporting. The data collected through the Intrastat can be used for business

analysis and decision making at the company level as well as on the levels of socio-political decision making with the aim of creating a framework for strategic and tactical planning. Each member state according to their resources, decided upon the organization of collecting and disseminating data. For instance, in Finland, Spain and France all tasks regarding Intrastat are performed by the Customs administration, in UK by tax authorities and Customs administration while in other EU member states tasks are performed by statistical institutions. In the countries that became members in the last two expansions, duties and responsibilities for Intrastat are shared by statistical institutions, customs and tax authorities.

After joining EU, Croatia has been obliged to adapt EU legislation and ways of monitoring international trade of goods and services that takes place between the Croatian and other EU member countries and the exchange with third countries. The Intrastat implementation process was a complex problem and it had required involvement of different stakeholders, financial, material and technical resources, infrastructure and time. Solving complex problems that have more participants, which are different in their characteristics, goals and abilities to solve problems, in the limited time frame and limited resources (human, financial, material) are best accessed through a project approach. Project is a temporary activity, which indicates that it has a beginning and an end and creates a unique product. The prospects for success of complex projects are far greater if in their planning, execution, coordination, monitoring, control and closure are applied proven methodologies and tools.

The paper gives Intrastat overview, its meaning for the EU and the legal framework for its implementation. Intrastat implementation project in Croatia will be presented - through the project stages, project participants and the challenges which have arisen during its implementation. Main paper goal is to show the importance of the project approach in making significant changes, especially in changing environment, not only for the country and government as is the case here, but also for the businesses because careful planning and approach to the small and large projects can significantly affect the performance of their execution.

2. Intrastat in EU

Foreign trade statistics in EU member states consists of Extrastat and Intrastat data. Intrastat is a data collection system for trade between EU member states, while Extrastat monitors the trade with third countries (non-member

EU states). This system was introduced by Council Regulation (EEC) No 3330/91 and is in force since 1993 when EU single market was established. Special data collection system - Intrastat, is applied in the preparation and exchange of statistical information on dispatches and arrivals of goods originating in the EU. Goods recipients and senders have an obligation to submit information on the delivery and/or dispatch in prescribed manner at least once during one month. In accordance with its definition Intrastat has the following features: management of detailed statistical information on trade between EU member states; direct collection of information from companies that are sending monthly reports; connection between VAT and trade in the EU, in order to control and compare data and reduce the burden of enterprises with the use of a system of exemption or simplification thresholds. New Intrastat legislation was introduced on January 1, 2005 and it has been part of efforts intended to improve the statistical system taking into account needs of users and desire to reduce the workload of data providers.

2.1. Legal framework

The Intrastat regulations are based on EU legislation and have transnational nature - each country has to accept them before becoming EU member. The provisions on trade statistics in EU are determined by regulations of the European Parliament and Council 638/2004 and 222/2009 and Commission Regulation 1982/2004 and complementary Commission Regulations 1915/2005, 91/2010 and 96/2010 with national significance. Each member state is obliged to collect data on trade within EU for national and European requirements. Regulation 638/2004 establishes the essential rules governing statistics related to the trade of goods while Regulation 1982/2004 lays down rules for special areas under the jurisdiction of the Commission on the basis of the Basic Regulation, to determine the procedures for the establishment, collection and reporting trade statistics. Member states collaborate and agree during the process of legislation adoption in terms of trade statistics at different levels. The Commission (Eurostat) has the right to initiate proposals for EU legislation. After that Eurostat is preparing legislation related to the trade statistics, together with experts from the relevant national authorities in technical working groups.

2.2. Data collection

Foreign trade statistics data collection is a dynamic process that requires coordination and periodic regulations amendments. Because of government

administration diversity, economic and fiscal peculiarities of each member states and particular requirements regarding obtaining the necessary data on international exchange of goods, legal acts on the national level are necessary to determine the statistical threshold, optional data in reporting form and criminal liability. Each member state defines the procedures in which the responsible party submits data to Intrastat system. It is important to state that the Commission and the member states proclaim and encourage the application of automatic data processing and electronic data transmission. Statistical information on shipping and delivery to the EU are collected through Intrastat. There are four ways of reporting that are in use: paper forms, magnetic media (CD-ROM), a web application and electronic data interchange (EDI) (Đurdek & Ozimec 2009). The reference period for data collection is calendar month in which goods were shipped or delivered. Regulation 1982/2004 defines the reference period as the calendar month during which the taxable event occurred and during which the customs authorities accepted the declaration. Intrastat reporting unit (company) has to submit data once a month within period that is determined by countries' national legislation. Reporting units are legal and natural persons involved in trade between EU member states which exceed a certain amount (exemption threshold) and are liable to VAT calculation. The collection, processing and dissemination of statistics on intra-Community trade can be organized in one or more national institutions. Collected statistical data is necessary for recognition of integration course on EU market and adopting different measures like formulation of agricultural policies among others (Presova et al. 2008).

3. Intrastat implementation in Croatia

Data collected through Intrastat provide information on trade flows between EU Member states and, together with information collected through Extrastat are important source of data for the countries balance of payments. Collected foreign trade data is indicator of economic performance and development and is used as a basis for decision making process concerning the European, national economic and monetary policy, for the various macro-economic analyses of the Croatian National Bank, the Government and the EU. In addition Intrastat data is important for companies that collect and report them for their analysis and planning of production, procurement and sales, market research and strategic business management.

3.1. Intrastat in Croatia – legal framework and reporting units

The legal basis for the Intrastat implementation in Croatia are Official Statistics Act and Customs Service Act together with several other Regulations dealing with statistical activities in Croatia. In accordance to signed Agreement on mutual cooperation for implementation of Intrastat research into Croatian statistical system (Đurdek & Ozimec 2009) cooperation in research and the introduction of the Intrastat system between Croatian Bureau of Statistics and the Customs administration was defined. Croatian Bureau of Statistics is responsible for the methodology, statistical analysis, and dissemination of data, while the Customs administration is responsible for the collection and control of data received from companies. This work distribution is result of previous practice. Croatian Bureau of Statistics has the necessary knowledge and experience in the monitoring of legislation and methodological principles of the EU and in the processing, analysis and dissemination of foreign trade, through cooperation with Extrastat which monitors trade with third countries. On the other side Customs administration has a long-standing practice of data collection and classification of goods according to the harmonized Customs Tariff.

Reporting units are obliged to send reports to Intrastat system for a flow of goods (arrivals and/or dispatches) when the annual value of their trade with EU member states in the previous period (year) exceeds a threshold value. Threshold value and reporting units are determined separately for arrivals and especially for dispatch, which means that the company may be liable to report data for Intrastat only for arrivals, only for dispatches or for both trade flows - arrivals and dispatches (Table 1).

Table 1. Number of companies reporting for Intrastat in Croatia

	July – December 2013	January – December 2014	January – June 2015
Arrivals	3611	5036	4286
Dispatches	1168	2064	2137
Total	4058	5798	5090

Source: Croatian Bureau of Statistics 2015

As it can be seen from Table 1 the number of companies reporting to Intrastat is different every year due to the set threshold value. The threshold value for including companies in Croatia for arrivals and dispatches in 2013 was amounted to 1,7 million HRK, in 2014 1,2 million HRK, and in 2015 for the arrivals amounted to 1,8 million HRK and for dispatches 1 million

HRK. The threshold value is changed every year, because, according to the EU legislation, collected data must cover countries 97% of the total dispatches value to other EU member states and 95% of the total arrivals value from other member states (Polančec & Grgurić 2011). The purpose of the inclusion threshold value is to reduce the number of companies that have to send Intrastat forms and thus relieve smaller businesses from this requirement. Reporting obligations lasts at least until the end of the reporting year and is effective until the receipt of the obligation notification or cancellation. Intrastat reporting covers all dispatches of goods from the Croatia to other member states as well as arrivals of goods from other member states to Croatia. This implies purchasing, sales, return of goods, goods sent for processing and return of goods from processing (excluding repair and maintenance).

3.2. Intrastat implementation project

Intrastat implementation project in Croatia was completed in several phases from 2008 to 2013. The project began in 2008 as part of the project initiated by the Croatian Bureau of Statistics (CBS). Main project participants were Croatian Bureau for Statistics, Customs administration and number of companies in the Varaždin County who were part of Intrastat pilot project reporting. Intrastat implementation project was part of a project within IPA 2008 - Technical assistance in development of selected areas of statistics, Component 1 - Establishment of Intrastat survey (Lastavec 2012). The project lasted until 2012 and one of the most important activities was the Intrastat pilot research project in Varaždin County.

During initiation and planning project phase basic rules of the Intrastat implementation project in Croatia were set. Project initiation and planning were done in accordance with the objectives, vision and the reasons for the Intrastat implementation in Croatian statistical system. Before joining EU Croatia realized almost 60% of its international trade with EU member states (Polančec & Grgurić 2011). After joining Croatia joined EU, border controls and customs formalities with EU were abolished so customs declaration ceased to be a source of information on foreign trade with EU member states. Therefore, the Croatian Bureau of Statistics initiated the Intrastat implementation project in Croatia in order to remain able to provide statistics on Croatian foreign trade which will serve as a tool for monitoring international trade balance and making strategic decisions on national level.

After review of the project objectives, focus and variables have been set and the project implementation planning based on each party's obligation was performed. In this project both leading parties had certain obligations. Customs administration had following tasks: development and maintenance of applications for Intrastat registration, collecting, input and editing Intrastat data, collection, recording and verification of data and timely sending reports to the Croatian Bureau of Statistics. Among other things Croatian Bureau of Statistics had to develop a Intrastat methodology in Croatia, follow methodology and legislation of the European Union regarding foreign trade, submit data to the Customs administration on business entities for Intrastat register, ensure macro-control of the received information and to organize seminars and workshops for Intrastat research participant education in cooperation with the Customs administration.

Second project phase was implementation phase which was divided in several parts due to the project complexity: a pilot study of Intrastat implementation, the development of Customs applications for submitting Intrastat data, education of entrepreneurs and other stakeholders about Intrastat, work of Customs applications for the Intrastat data submission in the test conditions and finally work of Intrastat applications for data submission in the production environment. Figure 1 shows a Gantt figure for the Intrastat implementation project in Croatia.

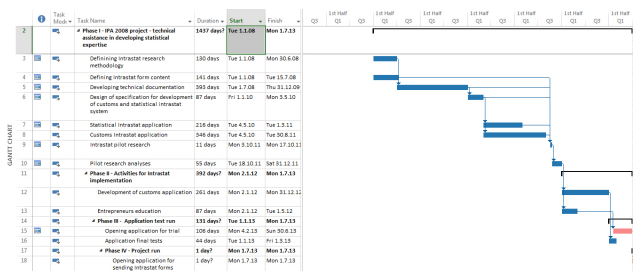


Figure 1. *Gantt figure for the Intrastat implementation project in Croatia*
Source: Adapted from Croatian Customs administration 2015

In the first part of implementation phase an Intrastat pilot research was conducted in Varaždin county. During September 2011 more than 170 companies were sending information about goods arrivals and dispatches from and to EU. Information on dispatches and arrivals have been submitted to the Customs by electronic messages through Government-to-business services (G2B) using Electronic Data Interchange (EDI) system. The electronic exchange has been realized through e-Customs application. This

was possible if the company's own applications were in compliance with business and technical rules of Intrastat information subsystem (Polančec & Grgurić 2011). Since Intrastat report is delivered electronically it needs authentication certificate which is for legal entities issued by the Financial Agency (FINA). Intrastat forms which were sent during pilot research were made in two ways: reporting units were using their own applications to create and send information through G2B system of Customs administration, and second was by using and sending Excel forms created by Customs administration with Intrastat information (Polančec & Grgurić 2011). The pilot research was conducted to develop, test and improve IT, organizational and methodological solutions necessary for the collection and removal of potential problems so the implementation of Intrastat and sending Croatian foreign trade data after the accession of the European Community was as accurately as possible (Vostrel Šafran & Ozimec 2011). Research goals were to test and confirm IT methods introduced by Croatian Bureau of Statistics and Customs administration and to determine company's willingness in adopting data collection and data delivery methodology required for Intrastat (Lastavec 2012). During research most of the forms were sent timely while technical readiness caused the delays in sending for some companies. Most forms were sent correctly and those which contained errors had some of following: improperly completed forms, wrong customs tariff codes, incorrect country of destination/delivery and incorrect expression of statistical and invoice values for declared goods. Research results showed that at the time of joining EU, Croatia will be ready to collect and send monthly foreign trade data to Eurostat.

During second part of implementation phase in early 2013 Customs Intrastat application has been launched and companies were allowed to use it and test if for trial sending of Intrastat forms. Customs administration organized seminars and workshops intended for companies that will have to report for Intrastat. Final part of Intrastat implementation phase included activities such as the maintenance of Intrastat register, accepting and processing Intrastat forms, monthly reporting monitoring, monthly reporting and sending data to the Croatian Bureau of Statistics. Implementation phase had two milestones: creation of Customs application for Intrastat data delivery and also Excel form for the companies that don't have their own software solution for creating Intrastat report, and series of educational seminars for companies that will create and send a Intrastat reports. These two milestones were of great importance for project work. Proper education of future users was of great importance for the project success. Further work during

implementation phase included more significant work on designing and putting into operation Customs applications for Intrastat data submission. Third milestone was fully functional web application for submitting Intrastat reports which was fulfilled at the time Croatia joined EU.

By reaching third milestone the project of Intrastat implementation in Croatia was finished and project result was functional reporting about Croatian foreign trade with other EU member countries as well as trade with third countries. If the project is observed from the three main points - time, quality and budget it is possible to conclude that the project is completed within the desired time and with desired quality. Since we did not have information on project budget, we were unable to determine the third determinant of Intrastat implementation in Croatia. Nevertheless, it may be said that the project is completed successfully. As a result of Intrastat implementation project Croatia was ready for the obligation of collecting foreign data trade with EU countries and monthly sending foreign trade data (with EU member states and with third countries) to Eurostat - the EU Statistical Office.

4. Challenges in Intrastat implementation

The possibility of problems occurring during project is always there in spite of careful planning phase. It is necessary to predict potential problems project team can encounter during the execution of the project. Problems which project team may face during the course of the project can be one of the three main points of the project - time, quality and budget. Careful planning and management of potential risks can reduce occurrence of problems during the project to a minimum.

During Intrastat implementation project in Croatia project team faced certain challenges. During trial phase of customs application for sending Intrastat report companies faced challenges and problems. Those challenges can be divided in following groups: purchase of FINA authorization card and/or USB stick, FINA authorization card installation, signing to G2B system, G2B client installation, preparing Intrastat report form, sending xml message with report, and other smaller challenges and problems (Polančec et al. 2012). Biggest challenge was helping companies with G2B client installation and sending xml messages i.e. adapting companies to e-way of doing business since for some of them this was novelty as they didn't have experience in e-commerce environment.

In order to prevail this challenges Customs administration created technical manual which contains all necessary information companies may need in order to create and send Intrastat report. After the technical manual was published most of the problems and challenges were solved since it was easier for companies to send report and accordingly it was easier for Customs administration to accept the report.

It is important to state that companies which were already involved in some of the e-Customs systems (NCTS, EMCS, etc.) had less challenges in implementing Intrastat reporting. Lastavec (2012) pointed out that all the companies which participated in the pilot study have gained significant experience in e-commerce, got to know the Intrastat data collecting methodology and how they need to adapt their current business to new legal obligation of Intrastat reporting from moment Croatia becomes EU member. E-commerce inexperience was probably the biggest challenge in Intrastat implementation project for most companies since they didn't have such an obligation before. This challenge was prevailed with series of workshops and seminars that were organized in whole Croatia and where representatives of Customs administration presented Intrastat reporting system.

Besides the challenges in solving problems with sending and receiving reports that companies had during trial phase, there were challenges during the implementation of the project related to the deadlines of certain projects phases and related to the availability of resources and harmonization of the budget for the project execution. These challenges were successfully resolved during the course of the project with careful project preparation and work done in project planning phase.

After project completion and commissioning Intrastat applications, Customs administration continued its activities for improving and enhancing web applications. In the daily work with companies that are submitting Intrastat reports there are smaller challenges which are related to the data sending, data accuracy and non-compliance of goods statistical and invoice values. Challenges are appearing on both sides – Customs administration and companies that are sending data either through Internet application or by using Excel form. These challenges are prevailed in daily contacts of Customs administration with companies so reports are sent in timely and accurate transmission patterns.

5. Closing remarks and recommendation for further research

If we analyze the company in general and in particular the economy, we can differentiate organizations that have just started with the project approach in introducing changes from organizations in which project management has become standard way of work that has ensured them leading position on the market. It was in these leading organizations in which the project management is fully integrated with business objectives and therefore no longer just the responsibility of project managers rather than the entire system and management of the organization. High quality project management is extremely important for society as a whole, whether it is building of a new road, creating new educational program at the college or certain changes in monitoring economic activity. Each project activity takes place at a particular time, asking for specific resources and should give a result that is within the qualitative requirements for which the project has started.

Over the past few years, Croatia has launched a significant number of processes to adapt legislation and other activities of the European Union. Unfortunately, only some of them were conducted in accordance with the project implementation approach like it was Intrastat implementation that lasted from 2008 to 2013. Almost all significant social changes should be implemented with project approach, since it is theoretically and empirically proven that a quality project approach has a large impact on the success and achievement of the objective. The project approach which was used in Intrastat implementation in Croatia significantly influenced its successful implementation and dissemination of information about foreign trade for which Croatia has obligation to send to Eurostat after the EU accession. Careful planning and access to project further helped its successful completion despite the challenges that were present during project implementation.

Success and in particular failure of government project is always subject of public analyses which represents an excellent opportunity for learning. Challenges that project team faced and steps they used to solve them should be put in project evaluation. The value of the project evaluation is in lessons learned which offer the possibility of identifying how to improve future project management. It is therefore of great importance after the implementation of each project (successful or unsuccessful) to make a report, which will briefly present the progress of the project and to help future

project teams to make better and more successful in the implementation of projects.

As result of the research for this paper further research should be conducted in two directions. One is to determine influence of good project planning for success of future government projects and especially projects that are going on in a changing environment. Second is to follow received Intrastat data and see how it influences Croatian economy and potential government decisions about foreign trade policy, monetary policy, etc.

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Umjesto zaključka

Četvrta internacionalna naučna konferencija „Ekonomija integracija“, na temu „Izazovi ekonomije u kriznom okruženju“, organizovana je na osnovu iskazanog interesa velikog broja učesnika (istraživača, praktičara i naučnika iz polja ekonomije i biznisa) na sada već tradicionalnim, prethodnim ICEI konferencijama.

Radovi iz osam tematskih područja, prezentovani kroz dvije odvojene sesije, kao i Microsoft studentsku sesiju, rezultirali su konkretnim naučnim i pragmatiskim spoznajama, koje mogu poslužiti kao konkretni odgovori odnosno rješenja na izazove ekonomije zemalja Jugoistočne Evrope u aktuelnom, kriznom okruženju. U tom kontekstu, učesnici Konferencije apostrofirali su, između ostalog, važnost:

- Uloge države u rješavanju problema nezaposlenosti, što može voditi prema rješavanju ostalih društvenih problema i prema redukciji širih društvenih posljedica ekonomskih kriza (kao što su siromaštvo i nejednakost, politička kriza i promjene kulturoloških obrazaca, ali i konflikti različitih vrsta).
- Saradnje svih nivoa vlasti zemlje sa postojećim subjektima poduzetničke infrastrukture i akademske zajednice u svrhu unaprjeđenja cjelokupnog poslovnog ambijenta, kao i poboljšanja finansijske potpore države i/ili finansijskih institucija, mentorske podrške poslovnih inkubatora ili centara za edukaciju te otvaranja mogućnosti za sticanje poslovne prakse i umrežavanja mladih ljudi iz regije Jugoistočne Evrope i šire.
- Reforme sistema penziono-invalidskog osiguranja u zemljama gdje je refomski proces još u toku (kao što je BiH), odnosno uvođenja privatnih oblika penzionog osiguranja korištenjem nekog od afirmisanih modela Svjetske banke i/ili Evropske komisije.
- Razvoja strategije zadržavanja ljudskih potencijala (posebno iz oblasti informacionih tehnologija) putem ciljanog usvajanja i implementiranja odgovarajućih obrazovnih, omladinskih i drugih politika. Potrebno je kod mladih razvijati poduzetničku kulturu i poduzetničku svijest kroz formalne, neformalne i informalne sisteme obrazovanja. Uopštenije, potrebno je kreirati društvo šansi i prilika, kako bi mladi svoju zemlju percipirali kao društvo koje treba razvijati, a ne kao ono koje treba napustiti.
- Profesionalizacije razvoja nevladinih organizacija radi jačanja

civilnog društva i doprinosa ekonomskom razvoju.

- Harmonizacije računovodstvenih sistema zemalja, u kontekstu EU integracijskih procesa, kao i poštivanje principa korporativnog upravljanja.
- Podizanja svijesti o potrebi oslanjanja održivog ekonomskog razvoja na upotrebu alternativnih izvora energije, kako zbog ekonomskih efekata tako i zbog zahtjeva regulatornog okruženja na tržištu električne energije u EU.

Na Microsoft studentskoj sesiji poentirano je, takođe, da je neophodno jačati poduzetničko obrazovanje, sa posebnim fokusom na uvođenje poduzetničkog obrazovanja u osnovne i srednje škole, ali i poticati prihvatanje poduzetništva kao moguće karijere, još iz kuće, pa preko škole, do visokoobrazovnih institucija. Mlade je neophodno motivisati za bavljenje poduzetništvom, promovirajući uspješne poduzetnike i prednosti koje poduzetnička karijera sa sobom nosi (npr. kroz mentorske programe).

Na kraju, za nadati se da će ako ne svi, onda barem većina zaključaka i preporuka radova sadržanih u ovom zborniku, poslužiti nosiocima različitih nivoa vlasti, kreatorima ekonomskih politika, privrednim subjektima i svim drugim interesentima, kako u BiH tako i zemljama Regiona, u pravcu što konkretnijeg unaprjeđenja ukupnog društveno-ekonomskog ambijenta.

Urednice

Instead of a conclusion

The Fourth International Conference “Economy of Integration”, with the title “Challenges of Economy in Environment under Crisis”, was organised on the basis of the interest shown by the large number of participants of the previous ICEI conferences: researchers, practitioners, and scholars from the fields of economics and business.

The research submissions were associated with eight thematic areas and presented in two separate sessions as well as the Microsoft student session. The Conference facilitated the exchange of significant scientific and pragmatic knowledge, which can serve to develop some concrete answers and solutions to the challenges of the economy of Southeast European countries in the current, crisis environment. Among other findings and conclusions, the Conference attendees emphasised the importance of the following:

- The role of the government in solving the unemployment problem, which can lead towards the solution for other social problems as well as the reduction of larger social consequences of the economic crisis such as poverty, inequality, political crisis, change of cultural patterns, various conflicts *etc.*
- Cooperation of all levels of government with the existing subjects of entrepreneurial infrastructure and the academic community, aimed at improving the overall business environment, including financial, mentoring, and training support as well as creating opportunities to build professional business practices and active networks for young people from the region of Southeast Europe and beyond.
- Reforms of the pension and disability insurance in the countries where the reform process is still ongoing (such as BiH) and introduction of private pension insurance types based on the existing World Bank and/or the European Commission models.
- Strategy development for human resources retention (particularly in the area of IT) through development and implementation of appropriately targeted educational, youth, and other policies. It was recognised that young people need to develop entrepreneurial culture and awareness through formal, non-formal, and informal education methods. Overall, it is necessary to create a society full of opportunities, so that young people perceive their country as a society where they can develop and succeed instead of leaving.

- Professionalisation of the development efforts related to non-governmental organisations, needed to strengthen the overall society and contribute to economic development.
- Harmonisation of national accounting systems within the context of the EU integration processes as well as respect for corporate governance principles.
- Higher awareness of the need to rely on sustainable economic development and the use of alternative energy sources. This is needed not only for the economic effects but also for the alignment with the regulatory requirements associated with the EU electricity market *etc.*

Also, Microsoft student session emphasized the importance of stronger entrepreneurship education, with particular focus on the introduction of entrepreneurial education in primary and secondary schools. Encouragement for students to see entrepreneurship as a career option should start early, both at home, at school and then later at higher educational institutions. Young people need to be motivated and encouraged to engage in entrepreneurship – this is strongly supported by promoting successful entrepreneurs and entrepreneurial career benefits, especially through various mentoring schemes.

In the end, we hope that most of the conclusions and recommendations resulting from this Conference and included in this collection would be useful to decision makers in the government, creators of economic policies, businesses leaders, and all other interested parties, as well as BiH and other countries of the region moving towards concrete improvements of the overall socio-economic environment.

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