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A "TIME SERIES" APPROACH ON THE CHINESE EXCHANGE RATE REGIME

Abstract

This paper deals with the issue of the exchange rate regime that China has established since 2005, when it announced a move away from the US dollar peg. In fact, from that date, the RMB was managed with reference to a basket of currencies rather than being pegged to the dollar; the exchange rate, therefore, became more flexible.

But, though in the presence of basket peg, early econometric analysis (Shan-2005, Frankel & Wei-2006, Ogawa-2006, Yamazaky-2006) found that the assigned basket gave overwhelming weight to the dollar, and that the degree of flexibility had hardly increased at all.
Almost all those studies used a technique introduced by Frankel in 1994 to estimate the weights in a currency basket: on one side regressed changes in the value of the local currency, in this case the RMB, while on the other one changes in the values of the dollar, the euro, the yen and other currencies that may be in the basket.

Though there are numerous econometric techniques for estimating the exchange rate system, the technique proposed by Frankel is still the most widely used. However, in our opinion, this model has an error of autocorrelation among the variables, a factor that could lead the analysis to different results.
Therefore, this work proposes a study on the Chinese exchange rate regime through an alternative econometric technique.

JEL Classification: *C22,E42, E44;*

Keywords: *Exchange Rate, China, Econometric ARMA model.*

1 INTRODUCTION

The dollar for more than sixty years has taken on the role of being an international reference, not to mention the value for many countries which have anchored their foreign exchange rate to the dollar.

Nevertheless, the presence of many inequalities in the present time at a global level, the return to an expansive monetary policy by the Federal Reserve that from the end of the 1990's has sought to ensure a trend of growth, characterized by an internal support of the question and

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even finally this expansion as an answer to the financial crisis, together have all been factors that have destabilized the role of the dollar as a value of international reference.
In fact, according to declarations of the International Monetary Fund, at least forty countries of the fifty five belonging to the organization have diversified their reserves to the advantage of a more stable currency, that being the Euro.

In the past few years, at the end of checking these actual exchange regimes, many studies have been conducted using different techniques of estimation, notably, those that concern countries that use the anchor for currency regime peg (the Central European Bank, for example, uses models based on brownian motion geometry). Among these studies Frankel and Wei (1994) proposed an original technical regressive.
Taking a logarithmic equation of the type:

$$\ln homecurrency_{t+1} - \ln homecurrency_t = a+\sum w(j)\ln x(j,t,s)-\ln x(j,t) \qquad \textbf{(1)}$$

If the national value (home) dependent variable of the model is linked to a series of values x_1, x_2, …, x_n for the corresponding weight w_1, w_2, …, w_n it would be possible to estimate through a general OLS, the weight of each value of the considered basket peg.
Nevertheless, the impossibility of defining the effective value of each currency, especially in the absence of a rigid basket peg induces the model of consideration of a chart of numbers in presence of which it will present itself regressively:

$$\Delta \ln y_{home/k} = \alpha+\beta_1\Delta \ln e_{USD/k}+ \beta_2\Delta \ln e_{JPY/k}+\beta_3\Delta \ln e_{Euro/k}+\mu_t \qquad \textbf{(2)}$$

Returning to the method of ordinary minimal quadratic equations, it is possible to estimate the weight of each single value (measured by coefficients) that multiply the logarithmic variations of the corresponding exchange rates using a numeraire k respecting two simple criteria of analysis: error standard next to zero and R squared near to one.

The simple application of such an econometric model means that it was used for numerous studies by various authors[ii]. Nevertheless, in the presence of data distributed in historic series, the return to simple logarithmic differences between the variables-whether they are dependent or independent, would seem in our view a rather basic method of estimation. Nothing excludes the self correlation of such a regression to skew the results towards inaccuracy.

On that account, in face of a possible depreciation of the dollar: the consequences of the actual lack of equilibrium and American financial affairs, would impel the principal holder of reserves based in dollars, that is China, to review their exclusive link to the American currency and in the following basket peg we will attempt to prove through an econometric model based on that of Frankel and Wei (1996) modified according to the ARMA approach-the actual weight of three currencies in the Chinese basket peg.

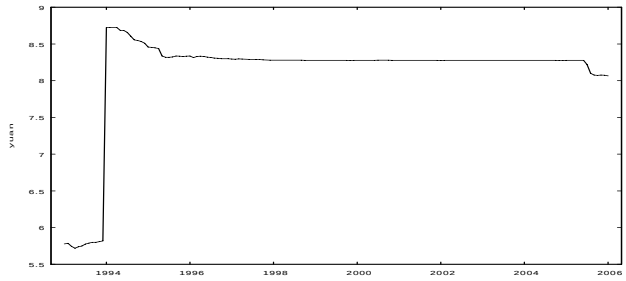
[ii] Ogawa (2006), Eichengreen (2006), Yamazaky (2006) e Yoshimi (2008).

2 THE APPLICATION OF ECONOMETRIC MODELS FOR THE STUDY OF THE CHINESE EXCHANGE RATE REGIME.

The renminbi (RBM) legal tender for the People's Republic of China has been tightly linked to the American dollar with a reference value to the fixed exchange rate of 8.28 renminbi to the dollar. (fig.1)

Fig 1.

Progress of the Chinese renminbi relative to the American dollar 1993-2006



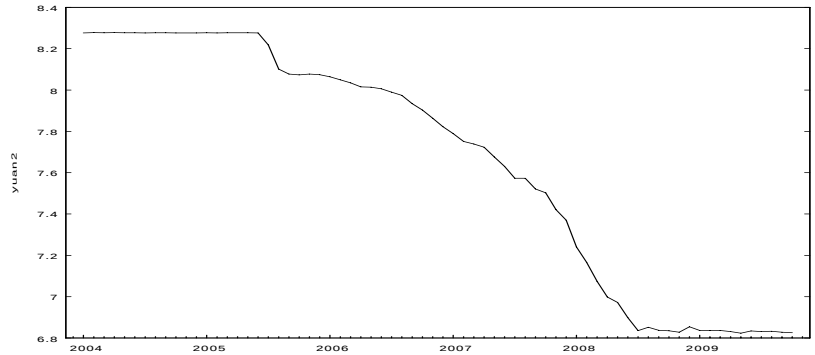
Source: our econometric processing with Gretl. Ver. 1.8.4 software on RBA data

On the 21st of July, 2005 as a response to the international debate on the fact that the Chinese currency was excessively undervalued (therefore favouring national exports) the Chinese Central Money Authority declared the re-evaluation of the renminbi to an exchange of 8.11 renminbi to the American dollar, not to mention the adoption of a new exchange rate regime focussed on the abandonment of the dollar, preferring instead an exchange rate based on a basket of international currencies.
The abandonment of an exchange rate system, such as the dollar peg, although this had permitted a type of inflation control over the years in a country with low income- that is China, could be interpreted as the first step towards a fluctuating exchange rate regime. A situation of this type, in fact would permit the Chinese authorities to pursue the objective of external equilibrium and monetary sovereignty, impossible with a de facto link to a foreign currency.

Therefore, from 2006 the Chinese, started to register rises in the value of the RBM with respect to the dollar, this consequence deriving from the reduction of the weight of the American dollar in favour of the currencies present in the Chinese basket peg. (fig.2)

Fig 2.

Progress of the Chinese renminbi relative to the American dollar 2004-2009



Source: our econometric processing with Gretl. Ver. 1.8.4 software on RBA data

With reference to the Asian area, and particularly the Chinese exchange rate regime, various empirical analyses have been conducted from the nineties to today, aimed to check if the Chinese governing authorities and other Asian countries had adopted a regime of the type basket peg.

Between these, Shan (2005), Frankel&Wei (2006), Ogawa (2006), Eichengreen (2006), Yamazaky (2006), Yoshimi (2008) and Zeleis (2009) have proposed interesting results based on econometric model (2), therefore preferring this ultimate model to the approach of equilibrium models with systems of partial equations which are those used by CEPII or BIS.

The majority of these studies also differentiate themselves in the number of observations and the characters used, presenting as dependent variable, the renminbi, while as regressors, the summary of the exchange rate of the three or more currencies in the basket with a dummy currency (the Swiss franc), at the end to check the presence of variations in the weight of the currencies used in the basket. The model used is therefore shown below with the expression:

$$\Delta \ln y_{RBM/k} = \alpha + \beta_1 \Delta \ln e_{USD/FRsv} + \beta_2 \Delta \ln e_{JPY/FRsv} + \beta_3 \Delta \ln e_{EURO/FRsv} + \mu_t \qquad \textbf{(3)}$$

Taking a time series from the month of December 2006 to the month of March 2008, almost all of the works they have chosen share the method of estimation used in technique 2, this final result, being the fact that though officially unlinked, the Chinese currency is still linked significantly with the American currency.
It is relevant to point out the fact, that even if they are formally present in the basket, the other currencies do not emerge as significant from the p-values (figs 3,4,5).

Fig.3

Chinese Evolution Basket peg 2006-2008-Frankel-

	2006	2007	2008
dollar	1,005***	0,973***	0,972***
euro	0,006	0,01	0,003
yen	-0,023	-0,019	0,026
const.	0,00**	0,000***	0,001**
obs.	61	63	64
R^2	0,95	0,94	0,97

Fig.4

Chinese Evolution Basket peg 2005-2006 -Ogawa (p.47)-

	2005	2006
dollar	0,9998***	1,004***
euro	0,0001	0,0166
yen	0,0002	-0,004
won	-0,0003	0,0220*
const.	0**	0**
R^2	1	0,9982

Fig.5

Chinese Basket peg 2005-Zeileis (p.9)-

	2009
dollar	0,9809***
euro	0,008
yen	-0,007
pound	0,0085
const.	0,001
R^2	0,9979

Nevertheless, these results are at odds with economic reality. More precisely in the case of the European currency, the countries belonging to the European Monetary Union (EMU) for short, have intensified their commercial exchange with China in the last ten years. Whether it is imports or exports from or to China, the European trade volume has almost tripled, the Chinese being the second trading partner only to Japan for the European market. (Eurostat 2009).

Therefore, the results of the econometric studies show a heavy growth of the presence of the Euro in the exchange system of China. In addition, a relevant role of the European currency in the Chinese basket peg would find justification even from an appreciation of the yuan with respect to the dollar, conditioned by the absence of the dollar peg, or if we consider an exchange rate intersected to three currencies (euro, dollar, yuan) an appreciation of the euro on the dollar registered in real terms from 2002-2008.

3 AN ALTERNATIVE APPROACH

The results obtained through Frankel's econometric methodology, would skew the results in real terms towards one explanation only: although in the presence of a basket-peg, the Chinese currency is still tightly linked to the American dollar. Nevertheless, as we have stressed previously, the euro's role has grown in the course of these last few years as an intermediary in exchanges both as a medium in the real market, as for capital markets, placing the euro as the second most important currency in the exchange markets.

Basing ourselves on such results, one may ask why the econometric model proposed in these last few years is today widely used, on the contrary to limit the role of the euro. An explanation could be hidden itself in the same model: not in its formulation-genuinely original and economically plausible- but in the method of estimation used.

In particular, each variable -even the dummy variable itself- could be subject to non stationary trends, not to mention self correlations between the explicatives. Therefore, pushed by necessity to analyze the effective weights of the currencies considered in the Chinese basket, we will try to estimate (2) with a regressive technique in a time series.

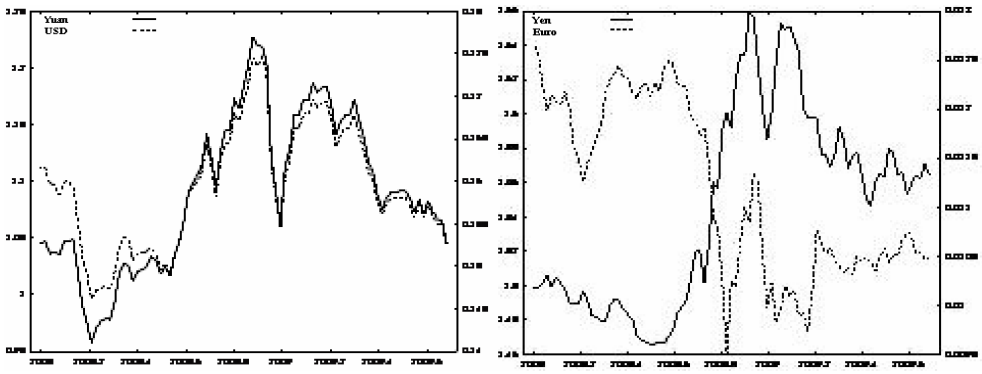
3.1 ECONOMETRIC METHODOLOGY

Moving ourselves from Frankel-Wei's basic analyses and assuming that the econometric model (2) could present distortions owing to estimations of the type 'time series', we will try to test the importance and the value of three currency coefficients –the dollar, the euro and the yen -present in the Chinese basket peg, with respect to the dependent variable- the Chinese yuan. If a time series is considered, from 01/01/2008 to 20/09/2009, with weekly data provided by the "Pacific Exchange Rate Service, 2009" and consequently estimated through the model "Auto-Regressive Moving Average" reinforced through Kalman's filter.

Before estimating (2), it is preferred to carry out the Dickey-Fuller test prefixed to seven delays necessary to test if the historic series relative to the three currency explicatives, to the dependent currency (Renminbi), and the Swiss franc being proposed as dummy variable being little present or less stationary.

Fig. 6

Graph of the historic series relative to two currencies (yuan/dollar)/(yen/euro)

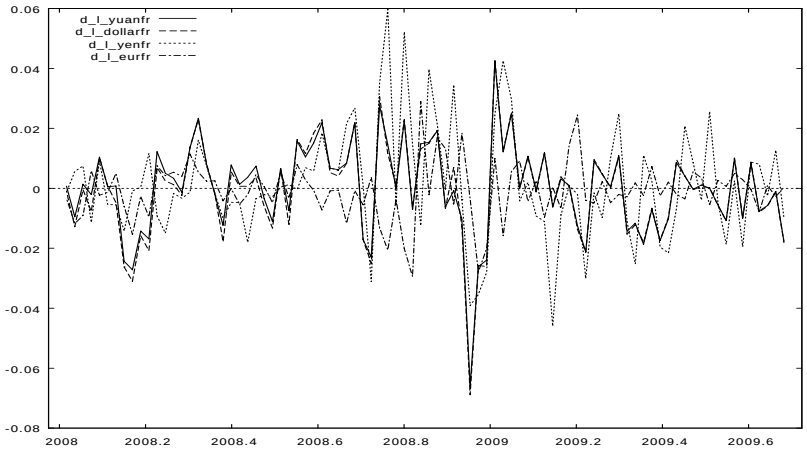


Source: our econometric processing with Gretl. Ver. 1.8.4 software.

The results obtained confirm the necessity of a logarithmic differentiation of the variables, like that suggested by Frankel (1996).

Fig. 7

Analyses of the stationary movements in prime logarithmic difference



Source: our econometric processing with Gretl. Ver. 1.8.4 software.

Nevertheless, although stationary, the outcome of the correlogram provides proof, instead, of the presence of self-correlation between the three explicatives.

A result of this type requires the application of a model different from the generic OLS (instead, it is used by various works which regard it), and more precisely, of an estimation in historic series of the type AR-MA with the object of eliminating for each value, the influence of the one preceding it.
Therefore, from our analyses that we have carried out , though still widely used, fig 2 presents a methodology of regression spoiled by the error of self correlation.

The regression with Kalman's filter for our purposes will therefore be:

$$\Delta d.\ln y_{RBM/FRsv} = \alpha + \beta_1 \Delta d.\ln e_{USD/FRsv} + \beta_2 \Delta d.\ln e_{JPY/FRsv} + \beta_3 \Delta d.\ln e_{EURO/FRsv} + \mu_t$$

whose decomposition in time series for each explanatory is:

$$\alpha_{0,t} = \alpha_{0,t-1} + \eta_{0,t}$$
$$\beta_{1,t} = \beta_{1,t-1} + \eta_{1,t}$$
$$\beta_{2,t} = \beta_{2,t-1} + \eta_{2,t}$$
$$\beta_{3,t} = \beta_{3,t-1} + \eta_{3,t}$$

4 THE RESULTS

Model: ARMAX, using the observations
01/01/2008 to 20/09/2009 (T = 88)
Estimated using Kalman's filter (exact MV)
Dependent variable: d_l_yuan
Standard errors based on Hessian

	coefficient	***std.err.***	***t***	***p-value***	
Const	0,00087	0,00085	1,093	0,2742	
phi_1	0,7806	0,02626	37,33	5,50E-305	***
theta_1	-0,8729	0,0581	-15,02	5,80E-51	***
d_l_dollar	0,81317	0,0148	63,37	0,000	***
d_l_yen	0,00062	0,0012	0,4969	0,6193	
d_l_euro	0,3991	0,0192	1,91	0,0501	**

**** Levels of significance 1%;** significance level 5%*
Average dependent var. -0,000012; SQM dependent var. 0,015133
Average innovations -0,000160; SQM innovations 0,001605
Log-verisimilitude 440,9779; Akaike's criterion -867,9558
Schwarz's criterion -850,6145; Hannan-Quinn -860,9694
R-square 0,986089.

From the results of the informative criteria, it is shown that the ARMA-"Kalman" model (1,1) present for its similar values, therefore, doesn't differentiate itself. The model, moreover, doesn't demonstrate common factors, confirming the reliability of the data obtained: an estimation of the robust initial type, it has permitted moreover to limit the effect of the heteroschedasticity of the model, therefore avoiding an ARCH analysis.

From tests on the residues, though some disperse themselves according to a Gaussian normal curve, an anomalous value (outlier) has shown itself on the date of the 17th of September, 2008 with such results as to influence the progress of the same results, consequently requiring the analyses of the "dummy stabilizer" application to data for historic series.

Such a phenomenon can find economic explanations in the failure of "Lehman Brothers" on that date, an event that caused instability to the world financial system and the sudden fall of the indexes of the principal international stock exchanges. In conclusion, from the residues correlogram graph, one derives the absence of self-correlations.

If we move the observation, to the value of the co-efficients of each regressor, one concludes straight away, comparing the output results of the research on page 6, that the European currency emerges significantly, with an error standard roughly equivalent to 0.019 and a co-efficient value of approximately 0.40.

The dollar, even if it is significant has a co-efficient value equal to 0.81, the yen, instead doesn't change the significance of its currency position in the Chinese basket peg.
Therefore, one can deduce, that with respect to the considerable weight of the dollar, the euro is acquiring relevance in the Chinese basket peg, in comparison with other currencies officially declared part of the basket but especially in comparison with the American dollar.

5 CONCLUDING CONSIDERATIONS

The continual current trade balance disadvantages of the United States of America, the uninterrupted growth of Southeast Asian countries pushed by commercial surpluses, the financial crisis explosion that has persuaded the monetary authority to effect a policy of expansive monetarism, have all created an atmosphere of global distrust towards the US dollar as an international currency. In particular, the great fear of a sudden collapse of the American currency is ever present, so much as to precipitate the world economy into a great new crisis. For this reason, it is not surprising that already many countries such as Brazil, Russia and even those who are stronger like Kuwait have abandoned their current regime of exchange rate dependence on the American dollar.

Therefore, pushed by necessity to demonstrate their currencies' strength as countries strongly linked to the dollar, the first among all being China; these countries are gradually substituting the dollar with other international reserve currencies, we proposed an econometric study that succeeded in harmonizing through a time series approach, the data of economic sources (Eurostat, ICE) with the resulting quantitative statistics.

China has emerged as fearing a sharp fall of the dollar with an immediate effect being the loss of value of its currency reserve (approximately 2 thousand billion US dollars); in light of the vulnerable drama of the US trade balance, China is diversifying its reserve in favour of an international currency- the euro- that despite its youth- seems to assume the role of international currency.

Such a phenomenon finds ample evidence in our results. In fact, before a regression in historic series, in which only two independent variables are significant results- the percentages of the dependent explained (using partial quadratic co-efficients) that result respectively-redefining the values in partial percentages- 71 percent the dollar, 28 percent the euro and around 1 percent for the remaining currencies hypothetically present in the basket and not considered in our model.

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PRISTUP «VREMENSKE SERIJE» REŽIMU KINESKOG VALUTNOG TEČAJA

Sažetak

Ovaj se rad bavi pitanjem režima valutnog tečaja kojeg je Kina uvela 2005. kad je najavila odmak od veze s američkim dolarom. Doista, otada se RMB (CNY) veže za košaricu valuta osim za dolar te je tako tečaj postao fleksibilniji.

No usprkos tome, prve ekonometrijske analize (Shan-2005, Frankel & Wei-2006, Ogawa-2006, Yamazaky-2006) pokazale su da je odlučujuća valuta u košarici još uvijek dolar i da je stupanj fleksibilnosti jedva povećan.
Gotovo su sve te analize koristile tehniku koju je uveo Frankel 1994. kako bi procijenio važnost pojedinih valuta u košarici: s jedne strane RMB a s druge promjene u vrijednosti dolara, eura, jena i ostalih valuta koje se mogu naći u košarici valuta.

Iako postoje brojne ekonometrijske tehnike za procjenu sustava valutnog tečaja, još uvijek je najraširenija Frankelova tehnika. Ipak, po našem mišljenju taj model ima grešku u autokorelaciji varijabli što je faktor koji bi analizu mogao odvesti do drugačijih rezultata.
Stoga ovaj rad predlaže proučavanje režima kineskog valutnog tečaja pomoću alternativne ekonometrijske tehnike.

***JEL klasifikacija**: C22, E42, E44;*

***Ključne riječi**: Valutni tečaj, Kina, ekonometrijski ARMA model*

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UDK 658.14:334.71
Preliminary paper
Prethodno priopćenje

FINANCING GAP FOR SMES AND THE MEZZANINE CAPITAL

Abstract

Mezzanine capital is a hybrid instrument which combines the benefits of debt and equity and represents an alternative source in financing the start-up and expansion of SMEs.

The paper analyzes the mezzanine financing instruments that include private placement instruments (private mezzanine) and capital market instruments (public mezzanine) and the level of development in the market for mezzanine financing that varies across Europe: while SMEs in some countries can choose from a wide range of different products, other countries still have ground to make up in this area.

Taking into consideration the financing gap of the SMEs in EU, the mezzanine capital represent an important option for covering this gap. This instrument should be considered in the context of the international financial crisis which affects dramatically the possibilities of financing for the SMEs. Thus, the paper presents the main features and advantages offered by this hybrid financing instrument from the firms and investors' perspective but also the main challenges.

Keywords: *financing, SMEs, mezzanine capital, gap, equity, debt, EU*

I. INTRODUCTION

SMEs are key players for the development of local and regional communities being at the heart of the Lisbon Strategy, whose main objective is to turn Europe into the most competitive and dynamic knowledge-based economy in the world.

SMEs offer special advantages that generate some unique contributions to the economy such as: SMEs create an important part of the new generated jobs and therefore contribute to the reduction of unemployment and poverty. As well, SMEs are considered main actors for industrial growth (Acs, Carlsson, Thurik, 1996), (Thurik, 1996), (Nooteboom, 1994); SMEs add dynamism and flexibility to business activity and improve economic performance; SMEs are considered a source of considerable innovative activity and contribute to the development of entrepreneurship (Johnson and Cathcart, 1979), to the increase of competitiveness (Song and Parry, 1997).

The ability of SMEs to grow depends highly on their potential to invest in restructuring, innovation and qualification. But all of these investments need capital and therefore access to finance.

However, access to finance often remains one of the key factors in setting up and developing SMEs. Thus, despite specific global efforts to strengthen the SME sector, these

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businesses face a number of financial and regulatory barriers, particularly in developing and emerging countries (Newberry, 2006). In the same time, the SMEs are the emerging private sector in developing countries and form the base for private sector-led growth (Hallberg, 2000). It is also recognized that these actors in the economy may be underserved, especially in terms of finance (Beck, 2007), (Ayyagari, Demirgüç-Kunt, Maksimovic, 2006), (Berger and Udell, 2005).

Financing is necessary to help the SMEs to set up and expand their operations, develop new products, and invest in new staff or production facilities. But the motivations and criteria of different funding parties vary according both to the type of product presented and the level risk linked to it. Also, for the entrepreneurs, it is important to understand that all forms of finance do not have the same aims.

Many small businesses start out as an idea from one or two people, who in general, invest their own money. At a next stage, the developing SMEs need new investment to expand or innovate. At this moment, the SMEs begin to face the financing problems, because the access to financing resources (banks, capital markets or other suppliers of credits) is more difficult than in a case of larger enterprises.

At present the firms have to face the increasing competition, difficult economic conditions and an increasing need for major investments. Moreover, the effects of the international financial crisis become more and more obvious and in these circumstances, even the well managed and highly profitable businesses have limited options for financing growth or strengthening their equity resources. Therefore, alternative forms of financing such as *mezzanine capital* are becoming more and more a supplement to the traditional forms of corporate financing for SMEs (Brokamp, Hollasch, Lehmann, Meyer, 2004). It typically involves a mix of debt and equity financing, which allows investors to achieve gains through capital appreciation and interests on debt-repayment.

Mezzanine finance is not new, it has been developed for more than two decades. In the 1980's, the business was dominated by insurance companies and savings and loan associations. By the 1990's, limited partnerships (LPs) had entered the arena. Today, investors include pension funds, hedge funds, leveraged public funds, LPs and insurance companies, as well as banks that have established standalone mezzanine efforts (Silbernagel and Vaitkunas, 2006).

II. ACCESSING FINANCE - A PRESENT PROBLEM FOR SME

The difficulties that SMEs encounter when trying to access financing can be due to an incomplete range of financial products and services, regulatory rigidities or gaps in the legal framework, lack of information on both the bank's and the SME's side. Banks may avoid providing financing to certain types of SMEs, in particular, start ups and very young firms that typically lack sufficient collateral, or firms whose activities offer the possibilities of high returns but at a substantial risk of loss. In addition, SMEs often have a weak equity position, which is further undermined by the late payment culture in Europe. In fact, depending on the country, SMEs have to wait between 20 and over 100 days on average to get their invoices paid and accordingly to the statistics, one out of four insolvencies is due to late payment (EU, 2008).

In fact, one fundamental problem in dealing with the SME financing gap is lack of basic information about just how big such a gap may be. Often the only evidence is in the

form of complaints from SMEs themselves and this is difficult to use for analysis or comparison. Moreover, the definition of an SME varies between countries and financial institutions, some only compile figures by size of loan and some do not keep regular statistics of SME lending at all.

SMEs tend by their very nature to show a far more volatile pattern of growth and earnings, with greater fluctuations, than larger companies. Their survival rate is lower than for larger companies – for instance, manufacturing firms with fewer than 20 employees are five times more likely to fail in a given year than larger firms (OECD, 2006). Thus, SMEs are at a particularly severe disadvantage when trying to obtain financing relative to larger and more established firms. It can also be difficult for potential creditors or investors to distinguish the financial situation of the company from that of its owners.

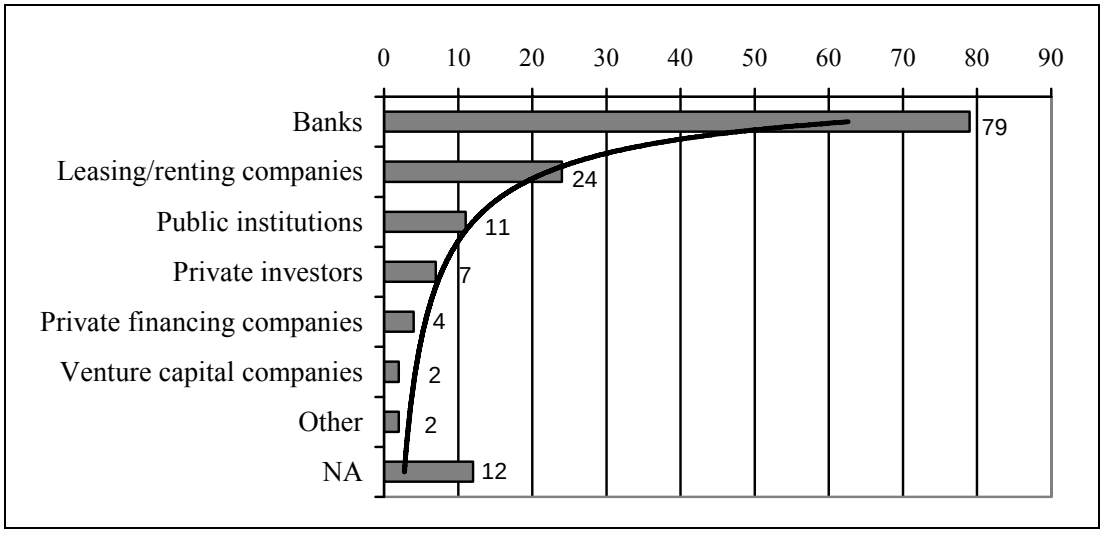
Therefore, there is a very different set of financial circumstances faced by banks when dealing with large well-established firms, so the whole risk assessment is different. Banks and other traditional sources of credit may decide that SMEs represent a greater risk than larger companies, and respond by charging higher interest rates. This makes it more difficult for SMEs to borrow than for bigger companies, and may make it effectively impossible for many SMEs to borrow money because the price of credit is too high.

If entrepreneurs cannot gain access to finance through the regular system, they may not start up a business or simply go out of business which means a potential loss to the economy. But the other danger is that they will abandon the formal system altogether and operate in the informal economy, sidestepping taxes and regulations, and thus not making a full contribution to economic growth and job creation.

In most EU countries, commercial banks are the main source of finance for SMEs (Figure 1), so if the SME sector is to flourish it must have access to bank credit.

Figure 1.

Sources of financing for EU SMEs



Source: European Commission, SME Access to Finance", Flash Eurobarometer 174, EOS Gallup Europe October 2005

Countries have launched a number of programs to use public funds to facilitate SME lending, and the available official surveys suggest that banks' efforts to develop the SME market, supported in some cases by a moderate amount of government guarantees, have resulted in a situation where a large share of SMEs have access to bank financing.

Nonetheless, EU governments are convinced that there are still enough instances of market failure in SME finance to justify focused government intervention.

On the other side, the banks replaced their traditional risk assessment models with new techniques to distinguish high-risk and low-risk SME borrowers, and to identify those likely to expand and survive. Banks are also altering the nature of their products, with an increasing proportion of their revenue coming from fees for services rather than interest on loans, which favors lending to entities such as SMEs. But the new financial crisis imposes new restriction in bank financing and the SMEs are one of the most affected by this situation.

The overall SME financing gap is particularly pressing in emerging countries, since most of them report a widespread shortage of financing for all categories of SMEs. Even though SMEs account for a large share of enterprises and represent potential employment and economic growth in emerging economies, they receive a very low share of credit. Indeed, most of them are denied any access to formal financial markets.

The characteristics of the banking system in emerging markets frequently inhibit SME lending. Many banks are state-owned, their credit may be allocated on the basis of government guarantees or in line with government targeting to develop specific sectors. Often banks are subject to ceilings on the interest rates they can charge, which make it difficult to price credit in a way that reflects the risk of lending to SMEs.

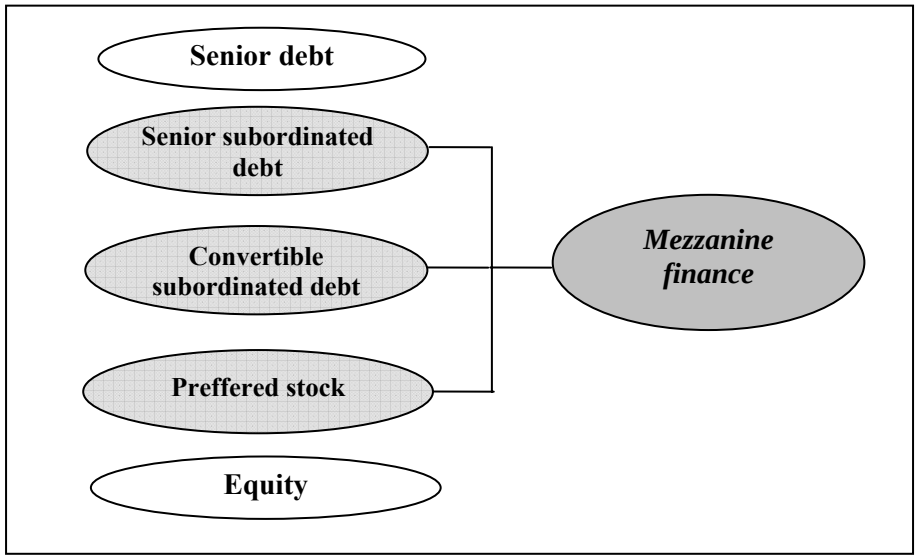
Therefore, the SMEs have to find new financing alternatives and the new hybrid instruments and mezzanine finance could be one of these.

III. MEZZANINE FINANCE INSTRUMENTS AS ALTERNATIVE FOR SMES FINANCING

Mezzanine finance is a collective term for hybrid forms of finance which forms a bridge between the two main types of finance: senior debt and pure equity financing (figure nr. 2).

Figure 2.

Mezzanine finance – filling the gap between senior debt and equity



Source: Silbernagel, C., Vaitkunas, D., Mezzanine Finance, Bond Capital, Jan. 2006

Structurally mezzanine capital is subordinated in priority of payment to senior debt, but senior to common stock or equity used to fund a growth opportunity, such as an acquision,

new product line, new distribution channel or plant expansion (Silbernagel and Vaitkunas, 2006).

The gap in funding between senior debt and equity is common for the following reasons:

- accounts receivable, inventories and fixed assets are being discounted at greater rates than in the past for fear that their values will not be realized in the future;
- many balance sheets contain significant intangible assets;
- as a result of defaults and regulatory pressure, banks have placed ceilings on the amount of total debt a company can obtain.

Additional liquidity can be obtained from equity investors but equity is one of the most expensive source of capital. Besides, equity capital, by its nature, dilutes existing shareholders. As a result, mezzanine capital can be an attractive alternative way to get the needed capital and it can be helpful in financing the start-up, expansion of SMEs, innovation and business transfers.

The requirements for mezzanine financing for firms are the followings:

- insufficient/unaivable possibilities for funding from own resources or loans;
- healthy financial position, stable cash flows and steady profit growth;
- focused business strategy and long-term development prospects;
- appropriate finance and accounting function, open information policy.

The most important mezzanine financing instruments include private placement instruments (private mezzanine) and capital market instruments (public mezzanine) (Figure 3).

The private placement instruments are the followings:

- *subordinated loans (junior debt)* are the most common form of mezzanine financing and they are unsecured loans with a lower ranking in case of bankruptcy compared to senior debt;
- *participating loans* are normal loans, but rather than being fixed, their remuneration is contingent upon the results of the business;
- the *"silent" participation* - the distinguishing feature of this form of financing is that one or more persons take an equity stake in a company, but without assuming any liability to the company's creditors.

The capital market instruments (public mezzanine) are the followings:

- *profit participation rights* are equity investments under company law that entitle the holder to rights over the company's assets but not to the right to be consulted on business decisions.
- *convertible bonds*. In addition to the usual right to fixed interest payments and repayment of principal, holders of *convertible bonds* have the right to acquire shares or other equity instruments of the company instead of accepting repayment of the bond.
- *convertible bond with warrants*, when the warrants (subscription rights) are separate from the bond and can therefore be traded separately.

A common feature of these various mezzanine financing instruments is that they can be structured flexibly in many different forms, and combined in almost any way desired, in order to provide tailor-made solutions for the specific financing requirements of private and listed companies. (Credit Suisse, 2006).

For the SMEs, mezzanine finance instruments have been gaining in importance but remain little used compared to classic loan financing. In general, the option of mixed

financing including subordinated mezzanine loans enables financing to be undertaken in situations which would not be possible using traditional financing instruments. But in these circumstances, should be taken into consideration the advantages and disadvantages of the mezzanine financing instruments.

Mezzanine finance products usually have the following positive features:

- improves the balance sheet structure;
- offer a better access to additional loans or equity (leverage effect);
- greater entrepreneurial freedom for the company and limited right of mezzanine investor to be consulted. SMEs can retain control over the company and avoid surrendering ownership rights, using the appropriate form of mezzanine finance;
- strengthens economic equity capital without the need to dilute equity holdings;
- stability of financing given its long-term availability;
- offer tax-deductible interest payments and flexible remuneration structure;
- flexible structure: flexible terms to better match borrower requirements and business risks; financing with little concern for collateral; long term, fixed rate structure;
- it can be a very useful financial tool in the cases of business expansion, business transfer, innovation and public to private transactions.

From the investors' perspective, mezzanine financing have also some advantages, as follows: access to a new investment segment; returns similar to those on equity; investment platform independent of stock and bond markets; optimal opportunities for diversification; lower exit risk and better protection of capital compared with private equity investments.

But mezzanine finance provides also some challenges for SMEs:

- the understanding of mezzanine finance by SMEs is limited: SMEs are often not aware of the opportunities and the requirements;
- mezzanine finance is often difficult to obtain by small firms because there are more stringent transparency requirements to meet in order to obtain this type of finance;
- mezzanine finance is more expensive than debt financing;
- the interest component and the debt-like characteristics of mezzanine finance make it difficult for suppliers of mezzanine finance to small firms to arrange an early exit;
- mezzanine finance is in principle unsecured. The level of control by the finance provider is dependent on the mezzanine product chosen and this gives SME owners the option to retain control of the company, which is one of their main concerns;
- in contrast to equity capital, mezzanine funds are generally made available for a limited period of time, until the business can generate sufficient "genuine" equity capital from retained profits;
- this form of financing is not appropriate for particular types of company and business phases such as financing restructurings; the companies with a weak market position and negative development prospects; with inadequate finance and accounting function; with high leverage, low equity resources.

There are also few disadvantages of mezzanine finance for investors such as: the difficulty to exit early and the wrong assessment of creditworthiness leads to lower returns. Besides, the mezzanine provider cannot rely on real security in making an investment decision because mezzanine capital is subordinated and unsecured.

IV. EVOLUTIONS ON THE EUROPEAN MEZZANINE FINANCE MARKET FOR SME

The European mezzanine finance market has shown considerable growth over the past decade. Traditionally, commercial mezzanine finance has been used as a (short-term) bridging loan. Nowadays, it is increasingly used as an instrument to improve the balance sheet structure and in cases of transfer of ownership, business succession and company expansion.

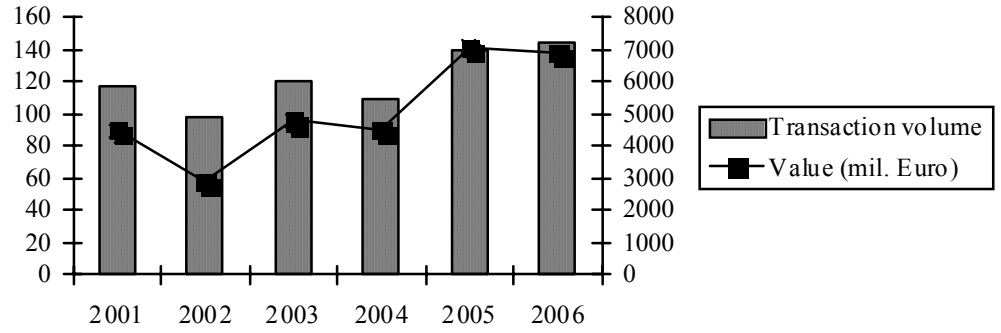
A major factor influencing the development has been the growing number of management-buy-ins, management-buy-outs, mergers and acquisitions. Other driving forces have been competitive pressures on traditional lending rates and the growing demand for tailor-made products.

Despite the growing importance of mezzanine finance for financial institutions and SMEs, statistical data is incomplete and rather vague due to the unclear definition of "mezzanine finance" but some development trends can be observed (figure 3).

The level of development in the market for mezzanine financing varies across Europe, especially where SMEs are concerned. While SMEs in some countries can choose from a wide range of different products, other countries still have ground to make up in this area. For instance, 50% of mezzanine finance is invested in the UK and Ireland but its share in continental Europe is rising (Suhlrie, 2005).

Figure 3.

Evolutions of Mezzanine finance market



Source: Mezzanine Monitor: Mezzanine investors pause for breath?, Private equity Europe, Issue 76, Q1 May 2006

But mezzanine transactions usually involve larger companies and larger deals; access to mezzanine finance for SMEs has been very limited so far.

Also it should be taken into consideration that mezzanine capital can be used in a wide range of situations and business phases (figure 4). Therefore, this applies first to the financing of start-ups or early-stage companies. But mezzanine capital can be used in a wide range of situations, particularly given the fact that the purpose is not specified in the financing agreement. Thus, companies have the greatest possible degree of flexibility in terms of how they use the subordinated mezzanine capital as a complement to traditional loan financing.

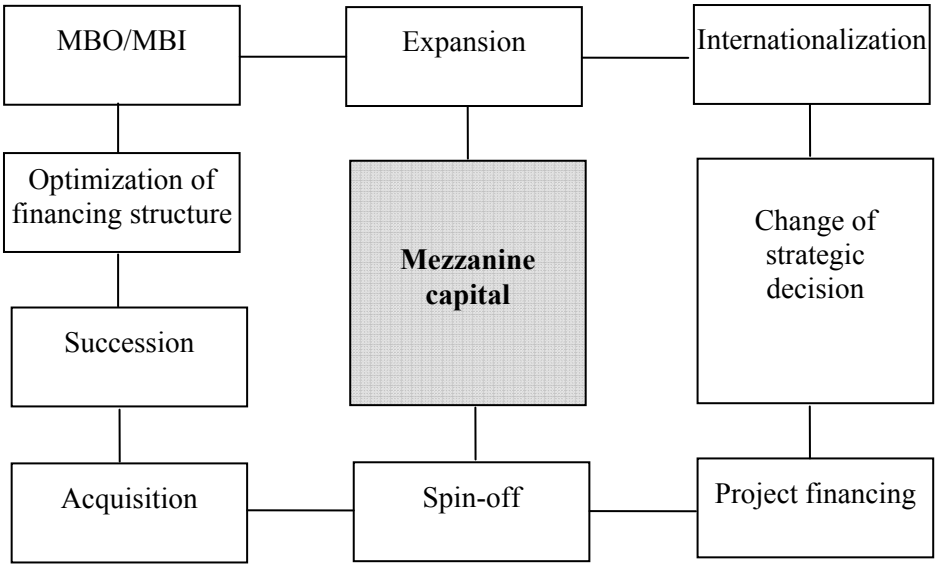
In terms of a company's development phase, the focus of mezzanine finance is on financing growth and expansion projects, and in particular management buyouts or

management buyins in the context of company succession arrangements or spin-offs of parts of the business (figure 4).

Mezzanine capital is a particularly suitable financing solution for such cases, since the management team normally does not have sufficient security available to satisfy the requirements for traditional loan financing. But hybrid forms of financing can also be employed in less dynamic periods (maturity phase) in order to optimize the financing mix.

Figure 4.

Situations of using mezzanine capital



Source: Credit Suisse, Factsheet CSA Mezzanine, 2006

Bridge loans and refinancing are also suitable for the use of mezzanine capital. In these business phases, mezzanine financing constitutes a valuable addition to classic debt and equity financing, and represents an attractive option for companies with appropriate cash flows and growth prospects. Also, qualitative factors such as the track record and quality of the management, as well as appropriate accounting systems, play an important part in the investment decision. As a result, established businesses with stable, healthy cash flows and the prospect of long-term positive business development are the prime candidates for mezzanine financing.

On the other side, the mezzanine is unsuitable for financing restructurings or turnarounds as cash flows are usually volatile during these phases and difficult to forecast; for companies with a weak market position and negative development prospects; with inadequate finance and accounting function, with high leverage or low equity resources.

Some closely held companies, particularly those that are family controlled, are reluctant to consider mezzanine financing because it requires relinquishing a certain amount of ownership. In fact, a typical mezzanine transaction has the mezzanine fund as a minority equity holder, with buyout terms to remove the mezzanine fund at the appropriate time. It is also important for a business owner to analyze the difference in value between an ownership interest in a stagnant or underperforming business and an ownership in a growing company. Moreover, having mezzanine debt in place actually can help a company secure more total capital and avoid the small business pitfall of being under capitalized.

CONCLUSIONS

Mezzanine loans are a hybrid form of financing which by definition combine characteristics of equity and debt. As the third form of growth capital alongside private equity and venture capital, mezzanine provides economic capital (subordinated capital with equity characteristics). Mezzanine loans therefore enable smaller and medium-sized companies with a good and promising earnings position to obtain finance for expansion, a management buyout or succession. Therefore, this financing instrument should gain a better position in the capital structure of the SMEs.

In order to improve the mezzanine financing for SME, supplementary measures and actions should be taken by the European Commission and the member states.

The EU public support such as the Competitiveness and Innovation Framework Programme (CIP), provides over €1 billion to support SMEs' access to finance. Moreover, by 2013, Cohesion Policy will provide some €27 billion explicitly dedicated to the support of SMEs and around €10 billion will be contributed through financial engineering measures, including JEREMIE and some €3.1 billion through venture capital. The European Agricultural Fund for Rural Development also benefits SMEs as it promotes, among other things, entrepreneurship and encourages the economic diversification of rural areas (EC, SBA, 2008).

The following measures should be taken in EU member states (EC, 2007):

- Member States should encourage the expansion of the market for mezzanine finance. They should avoid crowding out private financing and support schemes from public;
- Member States should their tax systems and to address existing disincentives for private investors to provide finance to SMEs directly (e.g. business angels) or indirectly (investments funds);
- Member States should consider the possibilities for a more neutral taxation of the different forms of financing including hybrid products;
- More transparency by banks regarding the criteria used for the classification of mezzanine products could help SMEs choose the appropriate mezzanine finance;
- Introduction of some simplified products within programs and increased transparency by SMEs could help the development of the mezzanine finance market;
- Public promotional financial institutions are encouraged to develop programs which improve SMEs' access to mezzanine finance. Such programs have to be in line with the existing state aid regulations and should foster the development of the market for mezzanine finance products.

Besides, as recognition of the role of SMEs for economic growth, European Commission elaborated in June 20008 a new law: „Small Business Act for Europe" (SBA) which creates a new environment for the development of these firms in EU. The main objective of the SMA is to define principles and measures in order to improve the environment of the European SMEs, taking into consideration their diversity.

A special attention is paid to the principle which regards the access of the SMEs to financing sources (especially, venture capital, micro-credits and mezzanine finance) and the development of a simulative legal and business environment. Concerning mezzanine finance and venture capital the Small Business Act should give priority to "down sizing" which would mean giving access to these instruments also to smaller enterprises. Also, the programs on mezzanine and venture finance should not be solely concentrated on innovation but should also support the financing of business.

Accordingly with the SBA, the member states are also invited to: develop financing programs that address the funding gap between €100 000 and €1 million; tackle the regulatory and tax obstacles that prevent venture capital funds operating in the Single Market from investing on the same terms as domestic funds; ensure that the taxation of corporate profits encourages investment; make full use of funding available in cohesion policy programs and the European Agricultural Fund for Rural Development, in support of SMEs.

Despite the favorable trends registered last years and the new European support initiatives, the context generated by the international financial crisis is not an optimistic one and this adds new concerns regarding the access to financing sources for SMEs. Therefore, the market for commercial mezzanine finance, expressed in numbers of SMEs, is expected to remain relatively small.

Possible market failures in SME finance provision must be identified and corrected to further develop the European risk capital markets, to improve SMEs' access to micro-credit and mezzanine finance and to develop new products and services. Furthermore, many entrepreneurs need guidance and education on the advantages and disadvantages of different forms of finance and on how to best present their investment projects to potential financiers.

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FINANCIJSKI JAZ ZA MALA I SREDNJA PODUZEĆA I MEZZANINE KAPITAL

SAŽETAK

Mezzanine kapital je hibridni instrument koji kombinira koristi duga i kapitala i predstavlja alternativni izvor za financiranje osnivanja i širenja malog i srednjeg poduzetništva.

Rad analizira instrumente mezzanine financiranja koji uključuju instrumente privatnog plasmana (privatni mezzanine) i instrumente tržišta kapitala (javni mezzanine), kao i stupanj razvoja tržišta za mezzanine financiranje koji se razlikuje diljem Europe: dok mala i srednja poduzeća u nekim zemljama mogu birati iz široke ponude raznih proizvoda, druge zemlje na tom polju još uvijek imaju puno prostora za poboljšanja.

Uzimajući u obzir financijski jaz malog i srednjeg poduzetništva u EU, mezzanine kapital predstavlja važnu opciju za pokrivanje deficita. Taj bi se instrument trebao razmatrati u kontekstu međunarodne financijske krize koja dramatično utječe na mogućnosti financiranja malog i srednjeg poduzetništva. Stoga ovaj rad predstavlja glavne čimbenike i prednosti koje nudi ovakav hibridni financijski instrument s gledišta tvrtki i investitora, kao i glavne izazove koje donosi.

Ključne riječi: *financiranje, malo i srednje poduzetništvo, mezzanine kapital, jaz, kapital, dug, EU.*

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Ana Težak*
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Preliminary paper
Prethodno priopćenje

MEDIA IN COLLECTING INFORMATION ON TOURISM DESTINATIONS AND SOCIODEMOGRAPHIC CHARACTERISTICS

ABSTRACT

Media choice is an element of promotion mix. Its purpose reflects in creation of first impression i.e. image of a tourism destination and is directed toward a certain profile of tourists. Media and sociodemographic characteristics of tourists are among the most important elements in creating image of a particular tourism destination. The main purpose of this paper is to determine relationship between sociodemographic characteristics of tourists and media choice in obtaining information on tourism destination. The data on media choices was collected as a part of a research on tourists' interests for consumption of organic food, which was conducted from August through September 2008. Data was processed using chi-square test.

JEL: M31, O18

Keywords: *media choice, tourism destination, sociodemographic characteristics of tourists, Istria County*

1. INTRODUCTION

Tourism is one of the economic activities characterized as being largely dependent on the discretional decision of their consumers i.e. tourists. Consumers have a wide range of choices among the possibilities of maximizing their personal satisfaction 1) by choosing among various tourism destinations available or 2) by choosing vacation and entertainment outside the tourism consumption domain, for example, by buying a TV set or by participating in cultural or other events (Croy, 2004). Present consumers are strongly aware of the efforts made by advertising agents and the result of that is difficulty in accepting promotional messages. Moreover, when planning tourism promotional campaigns, "what has to be stressed is a series of issues as to which factors influence customers' opinion, how familiar customers are with the trademark and how they relate to promotion activities" (Morgan, Pritchard, 2001:21). In such a situation the accent is on the importance of image and perception as factors defining the final choice of the consumer among the whole spectrum of options offered. In this process, what should be taken into account is the growing role of the media in creating and spreading among the customers i.e. tourists the image and the perception of a tourism destination, an aspect which is very important for tourism management within both a tourism destination and a company (Croy, 2004).

The literature on tourism destination image indicates three the most important factors which appear when tourists do not visit a particular destination nor experience it previously: tourist motivation, sociodemographic characteristics and different information sources. According to Baloglu and McCleary, "information sources represent stimulus variables, whereas motivations and sociodemographic stand for consumer characteristics", (1999:870).

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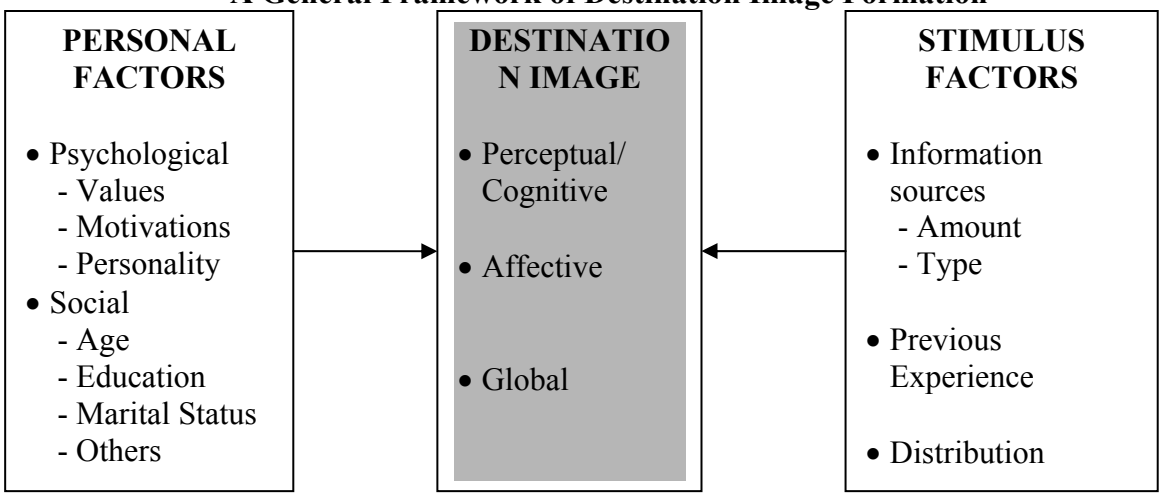
Stimulus factors are those deriving from external stimulation sources, physical objects and previous experiences, while personal factors are consumers' social and psychological characteristics (see Figure 1).

Figure 1

A General Framework of Destination Image Formation



Source: Baloglu, McCleary, 1999:870

The theoretical model of choosing a tourist destination treats marketing variables and information sources as the force which influences perceptual/cognitive evaluations of the image construct. Perceptual and cognitive evaluations of characteristics and beliefs concerning the destination are carried out through external factors: 1) symbolic stimuli which comprise various information sources and 2) social stimuli, i.e. friends' or relatives' recommendation or oral recommendation, (Woodside, Lysonski, 1989).

Promotion through various media is aiming at consumer's different emotional and cognitive processes, which is why it is important that the influence of various communication channels are understood by tourism marketing organizations, so that high-quality strategic decisions can be made concerning promotion development and choice of information channel, (Kim, Hwang, Fesenmaier, 2005).

The image of certain tourism destinations is related to choosing of a particular tourism destination, so destination and tourism managers must understand the significance of a destination's image and the role of media in it. Strategies for a tourism destinations must be develop and implement by making image management theirs integral part. In order to obtain the best possible image management, it is necessary to identify possible information sources through which tourists perceive the image, as well as the level of influence each source has on the same tourists to choose the most efficient ones (Croy, 2004).

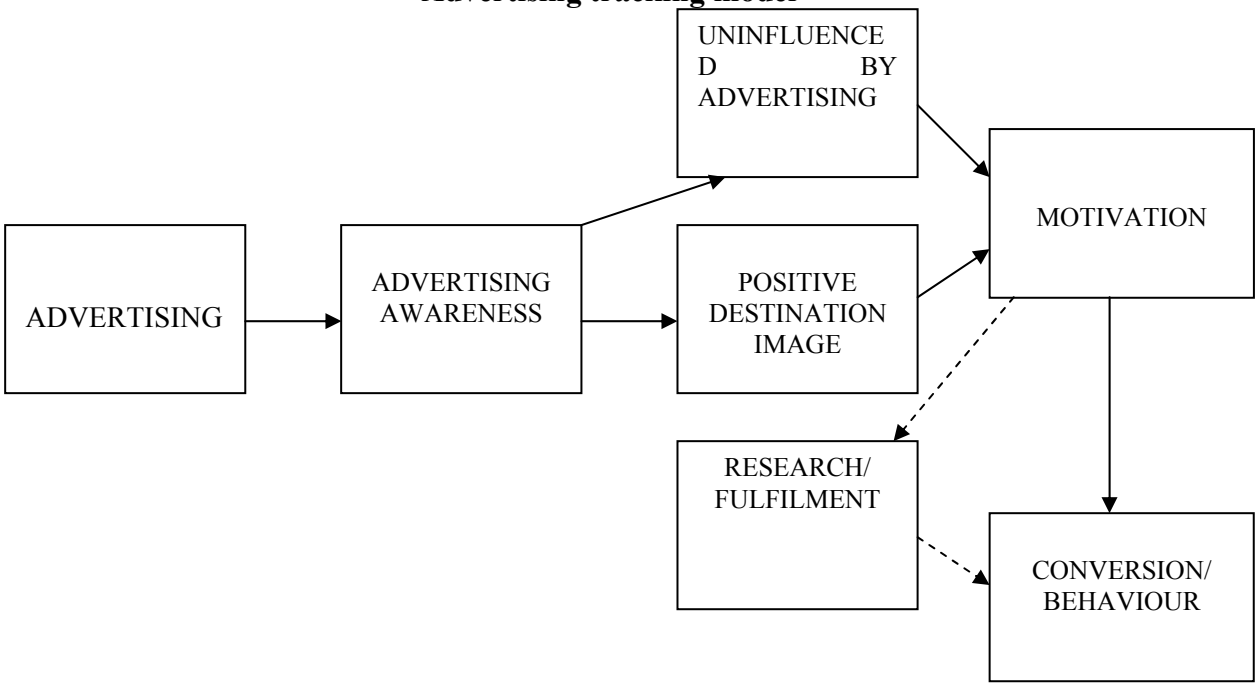
2. LITERATURE REVIEW

Many research studies on effects of promotion in tourism are based on the connection between different attitudes and behavioural components opposed to visits, without taking into consideration relations between indirect variables (Butterfield, Deal, Kubursi, 1998). Other research studies on tourism promotion proved that the promotional effect is not restricted to only the present visits but expanded to a number of psychological effects and changes in the consumers' behaviour, including the creation of a positive image of a destination and the stimulation of preferences concerning the same destination, which may in the long term lead

to paying a visit to the destination (Bojanic, 1991; according to Kim, Hwang, Fesenmaier, 2005). Seigel and Ziff-Levine (1990, in McWilliams and Crompton, 1997) defined the advertising tracking model in order to show the influence of media on the choice of tourism services. The model assumes that potential visitors can change their mind/can be converted and choose a tourist service only because exposed to ads and to the promotion of the image (see Figure 2).

Figure 2

Advertising tracking model



Source: Seigel, Ziff-Levine, 1990; according to McWilliams, Crompton, 1997:129

Tourism global market varies according to certain elements, as geographic area, social and demographic characteristics etc. (Pike, 2008), so when planning the promotion of a tourism destination, it is necessary to choose adequate information sources i.e. media. This refers to those information sources that are the most commonly used. Choosing the channel as medium of information is one of the most critical moments in tourism promotion since different channels and media have certain advantages and disadvantages in delivering various types of promotional messages. Even the best promotion performance will not be efficient if the wrong medium is chosen, (Morgan, Pritchard, 2001: 55). Marketing communication in tourism uses different information sources, depending on the type of the product, the purpose of the campaign, the market's characteristics (Horner, Swarbrooke, 2007). For successful marketing communication appropriate media must be used.

Information sources presenting tourism destination can influence the consumers' decision-making process starting for the choice of the very tourism destination to the consumption within the destination. Promotion of tourism destination must be effective and the evaluation of its effects has, so far, focused mainly on how much a promotional campaign "stimulates" visits to a certain destination.

Information sources can be divided into organic and induced, (Gartner, 1993; according to Croy, 2004). Organic are those sources that do not involve personal interests in promoting a tourism destination (for example, books, news, films or visits to the destination), while in the category of induced sources there are different instruments for spreading the tourism destination promotional messages intended for the target group of tourists (for example,

brochures, ads, flyers, catalogues, video clips, Internet, etc.). The image of a tourism destination is formed through induced factors if potential tourists have not visited previously a given destination (Gartner, 1989; according to Križman Pavlović, Belullo, 2008).

In gathering information printed materials have been used for centuries. In the computerisation era there have been some changes in the process (Nazim, 2008). Today Internet is becoming a very important information channel for promotion of tourism destinations (Govers, Go, 2003). This is reimbursed by the fact that websites are a convenient medium for uploading photographs that are considered the most important means for the promotion of a tourism destination taking more than 75 per cent of total space in brochures (Jenkins, 1999; according to MacKay, Smith, 2005). However, there are some disadvantages of using the Internet: there is too much irrelevant information, as well as the possibility of finding unwanted or awkward information, (Bubaš and Kermek, 2000), the necessity of having certain skills, the absence of personal contact and communication, the lack of possibility of recognizing consumers' reactions and the possibility of facing distrust among some tourists concerning online payments and possible stealing of personal data.

The individuals' personal characteristics, such as gender, age, occupation, education and social class, are internal inputs that influence the perceptions of destinations (Baloglu and McCleary, 1999; Woodside, Lysonski, 1989; Um & Crompton, 1990; Stabler, 1995). According to Baloglu and McCleary, «most image formation and destination selection models have incorporated sociodemographic variables as conventional consumer characteristics influencing perceptions of objects, products, and destinations. Although such variables as age, education, income, gender, occupation, and marital status have all been suggested as influencing perceptions and images, age and education appear to be major determinants of image», (1999:875). Beerli and Martin summarized the results of previous empirical researches and came to the conclusion that the tourist's country of origin, gender, age and social class significantly influence the perceptual/cognitive and affective components of the perceived image of the tourism destination (2004:627). Sociodemographic characteristics influence the way in which one searches for, evaluates and uses information sources (Uysal, Fesenmaier, 1993). Information sources and sociodemographic characteristics of individuals both influence formation of image, so it can logically be assumed that there is an interaction between information sources and sociodemographic characteristics of tourists.

The aim of this paper is to establish if the selected information source is independent from sociodemographic characteristics.

3. METHODOLOGY

A study focused on tourists' behaviour and organic food was conducted from August through September 2008. In this study the target population included those tourists who visited six tourism towns in Istria County: Rabac, Pula/Medulin, Rovinj, Poreč and Umag. These sites were visited by more than 50% of tourists visiting Istria County in 2007 (Istria Tourist Board, 2007). Survey was carried out in 18 hotels and luxurious villas through a self-administered questionnaire. Tourists were approached by trained researcher and asked to participate in the survey. Researcher then explained the purpose of the survey and stressed the fact that the survey was anonymous. Tourists younger than 16 years of age were excluded from the survey. Convenient sample was used.

For the purpose of gathering data, the questionnaire was constructed. It consisted of 16 questions divided in three sections. The first set comprises questions concerning the purchase of ecological food in the country of arrival and aimed at establishing the habit of buying ecological food. The second set of questions was focused on tourists' stay in Istria County and their interest in purchasing ecological food while on vacation. The last set of questions

comprised tourists' sociodemographic characteristics (country of origin, age, gender, education, profession, income), their interest in staying in rural areas during their vacation, and ways of gathering information on Istria County as tourism destination. Questionnaire was originally designed in Croatian and then translated into following languages: English, German, Italian, Russian and Slovenian.

Chi-square test was applied to determining whether the used media and sociodemographic characteristics of tourists are statistically independent.

Sociodemographic characteristics taken into analysis were: age group, gender, education level, profession, country of origin and income. Information sources were classified as follows: 1) travel agencies, 2) Internet, 3) printed publications, newspapers and TV, 4) catalogues and brochures, 5) on the spot, 6) friends'/relatives' recommendations.

4. RESULTS

A total of 1300 questionnaires were distributed and collected. The final number of usable questionnaires was 1028 reaching a full response rate of 79% (excluding the cases with missing answers). Table 1 illustrates the sociodemographic and travelling characteristics of the responders.

Table 1

Sociodemographic and travelling characteristics of the responders

Social and demographic indicator		Interviewees	
		Frequency	*%*
Age group	16-24	99	9.63
	25-34	196	19.07
	35-44	268	26.07
	45-54	266	25.88
	55+	199	19.36
Gender	Female	591	57.49
	Male	437	42.51
Education level	Elementary school	92	8.95
	Secondary school	308	29.96
	College/BA	501	48.74
	MA/PhD	127	12.35
Profession	Private entrepreneur	144	14.01
	Manager	191	18.58
	Clerk	314	30.54
	Worker	65	6.32
	Student/pupil	55	5.35
	Pensioner	80	7.78
	Unemployed	10	0.97
	Other	169	16.44
Country of origin	Austria	143	13.88
	United Kingdom	126	12.30
	Italy	164	15.93
	Germany	152	14.83
	Russia	305	29.65
	Other	138	13.41
Income	Up to €500	40	3.92
	€500 – 1,000	143	13.4
	€1000 – 2000	225	21.89
	€2000 – 5000	203	19.72
	over €5000	63	6.10
	No specification	354	34.44

Source: Institute of Agriculture and Tourism, Department of Tourism, Questionnaire – Ecological food 2008, authors' analysis.

More than half of interviewees were 35 to 54 years old, while the majority of them were between 35 and 44 years of age. Most interviewees were female. Almost half of the people interviewed have a two-year or a traditional four-year Bachelor degree. Most interviewees were clerks, followed by those who work as managers. Most interviewees were from Russia,

whereas there was almost no difference in the number of tourists from Austria, Italy, Germany and the UK. Most interviewees earn between 1000 and 2000 Euros.

There are different ways to obtain information about a tourism destination. The very choice depends on sociodemographic characteristics of individuals. It is necessary to determine which sociodemographic characteristics are statistically significant related to media choice so that adequate promotional activities can be applied.

Age, education level, income, country of origin and profession were significantly related to different kind of information sources while gender proved not to be significantly related to different types of media (Table 2). Country of origin was significantly related to every media choice, while other significantly related sociodemographic variables were related to certain media.

Table 2

Media choice and tourists' social and demographic features

Variable	χ^2	df	CC	P
Travel agency				
Age	17.563	4	0.118	0.002
Education level	13.645	3	0.106	0.003
Income	19.099	4	0.175	0.001
Country of origin	91.471	5	0.259	0.000
Internet				
Age	32.522	4	0.160	0.000
Profession	23.649	7	0.139	0.001
Country of origin	21.291	5	0.129	0.001
Catalogue/brochures				
Age	23.222	4	0.135	0.000
Education level	9.652	3	0.089	0.022
Income	12.893	4	0.145	0.012
Country of origin	162.539	5	0.337	0.000
Printed publications, TV				
Age	10.311	4	0.091	0.036
Country of origin	33.403	5	0.160	0.000
At destination – on the spot				
Age	10.996	4	0.094	0.027
Education level	14.066	3	0.108	0.003
Country of origin	37.085	5	0.169	0.000
Information from relatives and friends				
Country of origin	15.037	5	0.108	0.010

Source: Institute of Agriculture and Tourism, Department of Tourism, Questionnaire-ecological food 2008, authors' analysis

Travel agency as an information source was chosen by half of the responders from Russia and every fifth tourist from the UK, and by half of the responder between 16 and 24 years of age. The majority of responders with obtained higher level of education decided to use travel agencies as a way of obtaining information. Two-thirds of responders with an income of €500 obtained information in a tourist agency, and so has half of that responder who earned between €500 and €1000. With the increase in income, there is a decrease in the number of persons who decided to obtain information about their tourism destination in a travel agency.

Internet as a source of information was the most frequently chosen by responders between 25 and 34 years of age. Internet usage decreased by increase in age. More than 38% of responders who stated that they were managers as well as more than 36% of employees used Internet for obtaining information about Istria County. German tourists were more likely to choose Internet than others.

Catalogues and brochures were mainly chosen by responders older than 54 (23%). Responders with lower education level i.e. primary and secondary school (21%) and with an income over €5,000 were more likely to choose catalogues and brochures than those with higher education level and lower levels of income. Britons (38%) were more likely to choose this kind of media.

In general responders did not prefer to use printed media and TV as well as obtaining information at the destination. Printed media and TV was mostly used by German tourists (12%) and those tourists older than 54 (9%). Obtaining information at the destination was mostly preferred by responder between 35 and 44 years of age (8%) and those tourists who obtained the most high school degree (8%). Tourists arriving from Austria (10%) or Germany (9%) were more likely to obtain information about Istria at the arrival at the destination compared to other nation.

Recommendation from relatives and friends were important for tourists coming from Germany (37%) and Austria (35%).

5. DISCUSSION AND CONCLUSION

Russian and UK tourists, younger responders, responder who obtained higher level of education and those tourists with personal net income up to 1.000€ per month were more likely to use travel agency as a way of getting the information about tourism destination. These results suggest that promoting Istria County at the tour operators and travel agencies may result in the increase of these segments of tourists.

Internet was mostly used by younger responders, managers and employees as well as those responders arriving from Germany. It may be concluded that Internet will play an important role in the process of choosing tourism destination in the future so it is advisable to use Internet in promotion activities.

Catalogues and brochures were more frequently chosen by older tourists and responders with lower level of education. These results suggest that this form of media is getting obsolete which can be expected in age of computerisation.

Printed media and TV as well as getting information in the destination were not preferred ways of obtaining information. Printed media and TV was mostly chosen German responders and older tourists, while middle-aged and lower educated responders, mostly from Austria and Germany decided on getting information at the destination. These results suggest printed media and TV are not important media in choosing Istria County as tourism destination and it is advisable to invest less in this kind of channel than others. Tourists like to know where they are going and what they can expect there, so getting information at the destination was probably important to those responders who already visited this tourism destination.

Recommendations from relatives and friend were mostly important to responders coming from Austria and Germany, suggesting that good recommendations can result in the increase of tourists' arrivals from these countries which have the highest proportion in total tourists' arrivals in Istria County.

Marketing communication and types of media play a vital role in selecting tourism destination. Tourists like to be informed about the offer in a certain tourism destination. Thus it is possible to obtain information about marketing influence and return on promotion spending, in addition to details concerning channels and sources of information that change

over time and according to trends. The obtained results of the research can be useful for the organization of certain promotional activities according to tourists' sociodemographic characteristics and market segments. The conclusions of this paper can help tourist organizations, hospitality management, tourist boards and travel agencies as a useful data source on the basis of which it is possible to try to improve, by planned corrections of promotional actions in chosen information media, the perception of their promotional messages and the image of the tourism destination of Istria within all relevant market segments.

There are some limitations of this study. Since convenient sample as a method of collecting data was used obtained results may not be generalized to the overall Istria County's tourism market. This paper examined only usage of certain kind of media, but not their importance. It was assumed that those types of media that were more frequently selected were more important form those that were not. Further research on determining importance of certain kind of information sources should be conducted.

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NAČINI INFORMIRANJA O TURISTIČKOJ DESTINACIJI SA SOCIODEMOGRAFSKOG ASPEKTA

SAŽETAK

Odabir medija je element promocije. Svrha mu je stvaranje prvog utiska, odnosno imidža turističke destinacije te je stoga usmjeren na određen profil turista. Mediji i socio-demografske karakteristike turista su među najvažnijim elementima u stvaranju imidža određene turističke destinacije. Osnovni cilj ovog rada je određivanje veze između socio-demografskih karakteristika turista i odabira medija pri dobivanju informacija o turističkoj destinaciji. Podaci o odabiru medija su prikupljeni u sklopu istraživanja interesa turista za konzumiranjem organske hrane koje je provedeno u kolovozu i rujnu 2008. Podaci su obrađeni hi-kvadrat testom.

***Ključne riječi**: odabir medija, turistička destinacija, socio-demografske karakteristike turista, Istarska županija*

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FRAMEWORK FOR PERFORMANCE MEASUREMENT IN HOSPITALITY INDUSTRY – CASE STUDY SLOVENIA

Abstract

Hotel organizations in transition economies must create effective competitive methods for survival, since they exist in an environment where both customer and investor are demanding more from every organization. In search of solutions they should use performance measurement system that meets the requirements of a changed environment.

The aim of this paper is to present how developed is performance measurement in hotel organizations in Slovenia. The article is based on the research carried out in Slovenia in hotels with over 100 rooms. First the necessary information for various decision-making levels will be introduced together with the criteria for efficiency measurement and then the basic hypothesis will be tested by relevant statistical methods.

Key words: *Performance Measurement, Financial and non-Financial Measures, Hotel industry,*

1. INTRODUCTION

Outdated performance measurement systems were found to produce misleading cost numbers and performance measures. Radical changes in manufacturing technology and philosophy, combined with intensified global competition and more demanded customers, have made many traditional systems obsolete. In response, significant efforts have been made in both industry and academe to conceive and apply new performance measurement system, needed for making decisions.

The idea is substantiated by the fact that companies and other organisations also have social responsibility, which reaches beyond generating money for shareholders. If the interests of all the stakeholders (management, employees, customers, suppliers, the government and wider communities) are not taken into consideration, such groups could turn away from co-operating with a company, which could threaten its future performance. The operating circumstances on the one hand, which have changed in the past decade because of advances in technology - particularly IT - and the political changes on the other, brought about the globalisation of business (Kavčič and Ivankovič, 2004b: 134).

An adequate performance measurement system helps the management to meet their customers' demand and achieve business objectives (Damonte et al., 1997). Chenhall and Morris (1986) and Mia and Chenhall (1994) state, that information are strongly needed, since it helps the management to pass valuable decisions, thus contributing to better achievements (cf. also Downie, 1997). Performance measurement system must therefore supply information that the management is asking for (Dent, 1996; Govidarajan, 1984; Mia and Chenhall, 1994; Simons, 1990).

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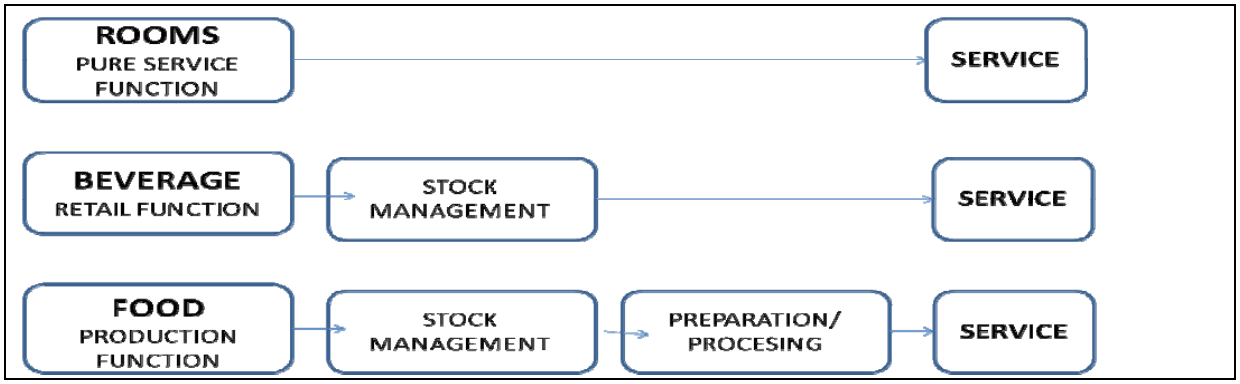
2. THE CHARACTERISTICS OF HOTEL BUSINESS

Hotel business is a multifaceted sector, which product and service elements are interrelated and complex. Services in the hotel industry are complex, personal, intangible, heterogeneous and simultaneous. (Jones and Lockwood, 1989; Fitzgerald et al., 1991). The same can be said about the products, which summarize elements of services, as well as those of retail and manufacturing. (Harris, 2006) An idea gaining ground (Brander Brown and Atkinson, 2001: 130) is that the key factor of success in the hotel industry is focus on people: employees and guests.[4]

Harris defines the accommodation or rooms department of a hotel as pure service. The Beverage department encompasses restaurants and bars of various types and involves service, retail function comprising the merchandising and stock management. The Food department similarly constitutes a service industry product, but in addition to stock management, also comprises a production function, involving the purchase and conversion of raw materials into finished products, i.e. dishes and meals for distribution and service to guests. (Harris, 2006).

Figure 1

The hotel Product



Source: Harris, P., The profit planning framework: applying marginal accounting techniques to hospitality services, in: Accounting and Financial Management, Elsevier, 2006, p.139

Business decisions in hotel companies are of very special nature and different from those in other business organizations, due to the special character of their activities. Hotel companies usually work in a very competitive environment. Competition brings about threats, as well as opportunities. Proactive companies study their environment very carefully and take into consideration all the economic, social and technological changes, accepting them as opportunities and challenges (Rolfe, 1992: 33). As hotels prepare a new product on the basis of the opportunities perceived, the new idea is often copied by competitor hotels, which shortens the useful life of such product or service. Hotels that are market leaders must therefore constantly progress if they want to keep their cutting edge. New competitors can easily enter the hotel industry, since almost every hotel is able to manipulate prices through special discounts and packages. Managements are aware that hotels need to catch the interest of customers, turning customer satisfaction into a priority. If they want to be successful at it, they have to know their competition well and know which differentiated products or services (at low costs) can be their competitive advantage. Hotels will be able to ensure long-term success, if they have satisfied customers that keep returning and thus contributing to hotels' good performance. Another key factor for every hotel are the business strategy adopted, alongside with Strategic Management Accounting (SMA), which supplies information for monitoring the implementation of the business strategy.

[4] Also rising is the belief that hotels need a higher level of information among employees, since the employee's morale and customer satisfaction are two key areas.

The business environment in the hotel industry is characterised by fierce competition and constantly changing circumstances. Each hotel is in direct or indirect competition with every other hotel. Strong competition forces the management to try to get closer to their guests' wishes, since it is the only way to achieve success. Numerous authors claim that the lodging industry lacks a sufficiently developed management accounting system (MAS) (Phillips, 1999; Mia and Patiar, 2001; Banker et al., 1999; Brander Brown and McDonnell, 1995 and others), which could offer valid information for adopting relevant decisions.

3. DEFINING PERFORMANCE MEASUREMENT

Performance measurement is the process of quantifying action, where measurement is the process of quantification and action leads to performance (Neely et al, 1995). It has been in existence in hospitality industry for a long time as an important component of the decision-making process. Performance measurement offer hotel managements the possibility to make decisions that could ensure the best possible results, taking into account the special characteristics of the hotel business. Such special features show in the high share of fixed costs in overall expenses and in the need to be focused on marketing (Brander Brown and Harris, 1998; Kotas, 1975; Harris, 1995). Traditional performance measurement has been criticized for creating single focus and short-term orientation, lacking strategic focus, discouraging continuous improvement.

The starting point for creating an adequate performance measurement system is to know the objectives of an individual hotel and the strategies to achieve them (Geller, 1985a, b, c[5]; Brotherton and Shaw, 1996, Croston, 1995; Jones, 1995; Brander Brown, 1995) and the recognition of the factors that are of critical importance for the achievement of the objectives. If we equal success with achieving goals, we can say that the critical factors for achieving objectives are the same as the CSFs.

Since the demand for computerised information needed for budgeting, making decisions, supervising and comparing, performance measurement system proves to be an important reason for introducing a high-quality IT system. Such a system will not ensure the results wanted if the responsibilities for making decisions are not clearly divided among the various levels of management before the introduction of an IT system. Hotels usually have different decision-making levels. Managers at each level make decisions within their areas of competence and responsibility. Performance measurements must supply information to each decision-making level that is customised for the purpose and the subject of decisions. We believe that performance measurement information is useful as much as the management are satisfied with them. If the information is not supplied on time, the management will not use it, even if it would like to do so. The opposite is also true: If the management are not satisfied with the information supplied, they will not use them (Kavčič and Ivankovič, 2004a: 550).

Kaplan and Norton (1992) have proven that organisations operating in today's dynamic circumstances need to resort to different criteria (financial and non-financial indicators and indices) and also take into account multiplication performance measures. Only by taking into account both financial and non-financial measures, such as profitability, customer satisfaction, response time, team work and productivity, we are able to create a consistent performance measurement system that will also offer a more effective system of supervision. The lodging industry is a people-oriented industry. The economic and financial success of a hotel therefore depends on the attitude and behaviour of employees, the development of new products and services, as well as on customer satisfaction. Hotel companies must think of their performance in a wider sense (from the point of view of

[5] By taking into consideration the characteristics of individual companies, Geller identified the goals that are typical of the entire industry, such as critical success factors (CSF) and criteria.

employees, customers, suppliers, management etc) and not only from a merely financial perspective, which is only the epitome of all the aspects of success. Hotel General and Department Managers must recognise equal importance to the goals of all the stakeholders and not only of their shareholders. The achievement of the objectives of all the stakeholders (i. e. guests, employees, strategic partners, community) can be measured by both financial and non-financial measures.

After having taken into consideration the theoretical assumptions, we have formulated our basic hypothesis that hotels with an adequate Performance measurement system perform better than those without one.

In order to test our hypothesis, we first had to define what an adequate performance measurement system should look like. We have made the claim that a company has an adequate performance measurement system, if it meets the following requirements:

1. General Managers (GMs) and Department Managers (DMs)[6] of the hotel:
   - 1a) use the performance measurement information frequently;
   - 1b) both management levels are satisfied with the timeliness and usefulness (contents) of the information.
2. When evaluating their performance, top management and heads of units of a hotel pay equal attention to monetary and non-monetary measures.
3. The hotel:
   - 3.a) has a well-defined business strategy - measured by its mid-term budget (3 years or more); and
   - 3.b) uses Strategic Management Accounting for making decisions - measured by its own market share and the market shares of its main competitors and their prices.

We were also aware that Slovenian hotels may fulfil one, two or all the conditions above. For this reason, we had to counter balance some of the conditions. Having made a thorough analysis of the importance of individual factors, we agreed that it would be better to compare factors with comparable importance. The next step in our analysis was to check whether Slovenian hotel companies have performance measurement system. This would enable us to conclude whether inadequate performance measurement systems are to be blamed for the poor performance of some Slovenian hotels. The analysis of such verification is given below.

4. METHODOLOGY

The questionnaire for hotel managements was divided into eight chapters: general information on the hotel, use of performance measurement information at various level of decision-making, marketing information, information about the employees, company owners and IT systems, implementation of SMA and methods used for budgeting. Questionnaires were sent to 51 hotels, which accounts for all the hotels in Slovenia with more than 100 rooms. The questionnaires were filled out by 39 hotels or 76% of the entire section of the industry.[7] Of all the hotels included, 61% have three stars, the others have four.

[6] Food & Beverage Departments and Rooms Department

[7] Hotels who did not answer are located in different parts of Slovenia and differ in size. This means that the unanswered questionnaires do not imply that hotels of a certain size or in a certain region in Slovenia have been left out .

4.1 CRITERIA FOR EVALUATING VARIABLES

Consistently with the definition of the development level of performance measurement system and their importance for the performance of a company, we also had to define our relative and absolute variables.

4.1.1 Definition of independent variables

1) We measured the importance of performance measurement information in making business decisions separately in the case of hotel General and Department managers through:

a) Frequency of use of performance measurement information[8] in taking short- and long-term business decisions (condition 1a)
b) Satisfaction with the timeliness and usefulness of performance measurement information[9] (condition 1b); and

2) Evaluation of the importance of goals[10], which we adapted from Kaplan's and Norton's BSC (1992) (condition 2).
3) The hotel has a well-defined business strategy and SMA, if it has a long-term strategy, a consequent strategic plan for three or more years, and if it follows its own market share and the market shares of its main competitors, as well as their prices (condition 3).

4.1.2 Definition of dependent variables

We have defined the business performance of a hotel to be a dependent variable, measured by financial and non-financial measures.
1) In order to guarantee comparability, we have chosen two financial indicators in the period of the preceding five years and we have de-flationed the figures: average net sales revenues per room (USALI, 2006; Kwansa and Schmidgall, 1999: 90) and average profit or loss per room.
2) Among the non-financial criteria we have taken into consideration: the number of new products in the preceding two years, the average share of return guests in the preceding five years (Foster et al., 1996) and the average number of employees per room in the period of the preceding five years (USALI, 2006).

5. RESULTS

We started by verifying the first condition to be met by a hotel, if we are to say that it has a developed performance measurement system. So, we first checked how frequently performance measurement information is used in Slovenian hotels by directors and heads of units for taking short- and long-term decisions. By applying the reliability rate of a measuring scale (Cronbach's alpha), we first verified the internal consistency of the measuring scale, composed by the variables used to check the frequency of use of performance measurement

[8] The frequency of use of performance measurement information was measured by using a five-degree scale of importance (ranging from 1-never to 5-very often), previously used by Mia and Patiar (2001); ibid. also Chenhall and Morris (1986); Mia and Clarke (1999); Simons (1990). We measured the use of information in five different units separately: effectiveness of advertising and marketing, prices of products and services, booking systems and marketing strategies, customer satisfaction and profitability of units.

[9] The level of satisfaction with information was measured with a five-degree scale, ranging from 1-not satisfied to 5-very satisfied.

[10] We have grouped the goals in financial (monetary achievements and results compared to the budget) and non-financial goals (customer complaints, fluctuations in staff numbers and quality of services).

information. We obtained a high value for the rate (0.92), which proves that the variables have been chosen correctly.

Table 1.
Use of performance measurement information for taking short- and long-term decisions

VARIABLES	Decision-making level	AM-S	AM-L	AM-Total
Effectiveness of promotion and sales	GMs	3.9	4.1	4.0
	DMs	3.1	3.2	3.1
Costs of goods and services	GMs	4.5	4.5	4.4
	DMs	3.7	3.7	3.7
Booking system and marketing strategy	GMs	3.7	4.0	3.9
	DMs	3.2	3.2	3.3
Guest satisfaction	GMs	4.5	4.6	4.5
	DMs	4.2	4.1	4.1
Profitability of department	GMs	4.3	4.6	4.5
	DMs	3.5	3.6	3.6
TOTAL	GMs	4.2	4.4	4.3
	DMs	3.6	3.6	3.6
TOTAL (GM + DM)		3.9	4.0	3.9

Legend:
GMs = General Managers; DMs = Department Managers of Food & Beverage and of Rooms
AM-S = arithmetic mean of a short-term decision; AM-L = arithmetic mean of a long-term decision

Table 1 shows that (condition 1a), on average, General and Department Managers of hotel use the information for taking decisions with the same frequency, which is above average, since the arithmetic mean was 3.9 on a five-degree scale. General and Department Managers do not show considerable statistic differences in using information on customer satisfaction ($t = 0.96$; $p>0.5$) for making short- and long-term decisions.

Table 2 shows the levels of satisfaction with the performance measurement information, in terms of timeliness and usefulness (contents) of the information supplied to General and Department Managers (condition 1b)

Table 2.
Satisfaction of hotel management's with the timeliness and usefulness of MAS information

VARIABLES	Decision-making level	AM
Timeliness of MAS information	GMs	3.9
	DMs	3.4
Usefulness (contents) of MAS information	GMs	4.0
	DMs	3.5
TOTAL	GMs	3.9
	DMs	3.5
TOTAL	(GM + DM)	3.7

The table shows that General Managers tend to be more satisfied with the timeliness and usefulness of information than the Department Managers. Both groups show a combined rate of 74%.

The second condition for having an adequate performance measurement system, is to pay the same level of attention to financial and non-financial goals when General and Department

Managers evaluate the performance of their hotel. When checking the difference between General and Department Managers in terms of goal importance, we see a considerable statistical difference between General and Department Managers in giving more importance to financial goals than to non-financial ones ($t=3.97$; $p<0.5$), while there are no statistically relevant differences between the treatment of non-financial goals by General and Department Managers ($t=-0.176$; $p>0.5$) The arithmetic mean of the answers on a five-degree scale is shown in Table 3.

Table 3.
Importance of financial and non-financial goals for hotel General and Department Managers

VARIABLES	Decision-making level	AM
Financial goals	GMs	4.2
	DMs	3.4
Non-financial goals	GMs	4.2
	DMs	4.2
TOTAL	GMs	4.2
	DMs	3.8
TOTAL	(GM + DM)	4.0

The data show that top management, i.e. General Managers, pay the same amount of attention to financial and non-financial goals, while heads of units tend to be more focused on non-financial than on financial objectives. The results make sense, since Department Managers are faced with non-financial issues (customers' complaints, fluctuations of staff and quality of services) on a daily basis, while financial questions are more remote to them.
The third condition is composed of a well-defined business strategy and the use of SMA. Business strategy was defined as the adoption of a long-term strategy, while SMA meant that the management knew their market share and the market shares of their main competitors along with their prices.
The analysis of the answers received is shown in Table 4.

Table 4.
Use of SMA and definition of business strategy

VARIABLES	AM
Long-term strategy	3.8
Knowing one's own market share	3.5
Knowing the market shares of the major competitors	3.0
Knowing the prices of the main competitors	4.6
TOTAL	3.7

The figures show that most Slovenian hotels meet the third condition for a good performance measurement system. The level of compliance with the three conditions is shown in Table 5.

Table 5.
Level of development of performance measurement system in Slovenian hotels

Condition	AM
Frequency of use of information (1a)	3.9
Utility of information (1b)	3.7
Use of monetary and non-monetary measures (2)	4.0
Long-term strategy and SMA (3)	3.7
TOTAL	3.8

If we consider the presence of all the conditions, we can conclude that 74% of hotels have a well-developed performance measurement system. The level of development in Slovenian hotels indicates that they should be successful.

The following step was to verify whether the hotels with a good performance measurement system perform better than those that do not. In order to answer this question, we gathered information on the average performance of the hotels surveyed in the preceding five years. In line with the definition of performance measures, the financial and non-financial measures are shown in Table 6. We have divided the hotels in coastal, thermal-spa and others.

Table 6.
Hotel performance measures

Type of hotel	Net revenue per room (in €)	Net profit per room (in €)	Number of employees per room	Portion of return guests	Number of new products
Thermal baths	17,283	1,933	0.68	0.15	10
Coastal	16,233	2,004	0.54	0.04	8
Other	12,142	-1,104	0.37	0.15	1

The data indicate that thermal-bath hotels are the most successful in terms of net sales revenues per room, while the others do not perform that well. Thermal-bath hotels also tend to have a larger number of new products. In terms of profit or loss and a lower number of employees per room, the coastal hotels are more successful than the thermal baths. Other hotels tend to achieve the worst financial results, in spite of having, on average, fewer employees per room.

According to our hypothesis that hotels with a good performance measurement system tend to perform better, the figures would indicate that thermal-bath and coastal hotels have good performance measurement system, while the others have not. Therefore, the next step was to verify the level of development in the different types of hotels. We have discovered that thermal-bath hotels have comparably developed systems (3.82 on a five-degree scale), followed by coastal hotels (3.80 on a five-degree scale), while the other hotels are in the last position (3.23 on a five-degree scale). The result proves that the hotels with better developed performance measurement system do perform better than those without one.

Since several equally important factors have been taken into consideration in defining an adequate performance measurement system, we had to verify the connections between individual factors of performance measurement system development with result. For this purpose, we have calculated the Pearson's correlation rate. The results have shown that none of the measurement factors can considerably affect the level of success. Neither rate that we have calculated has exceeded the value of 0.0368. The only factor to achieve this value was the correlation rate between net sales revenues per room and the frequency of use of a performance measurement system for making long-term decisions by hotel General Managers. The rates calculated therefore have no explanatory value. The results have

confirmed our expectations, since figures on the business result of Slovenian hotels show that most of them perform poorly, in spite of having relatively well-developed performance measurement system.

6. DISCUSSION

Figures show that in most cases Slovenian hotels show poor economic performance. This could lead us to say that they have inadequately developed performance measurement systems. The analysis of the answers showed that the average level of development is comparably good, since it reaches 3.8 on a five-degree scale.

The fundamental assumption of our paper was that the hotels with better developed performance measurement system perform better than those without one. The hypothesis has been only partially proven. Thermal-bath hotels have the highest net sales revenues per room and the largest number of new products. Coastal hotels have the highest profit per room and the lowest number of employees per room. Both types of hotels have performance measurement system at similar levels of development, while the other hotels, with less developed system, also tend to perform worse. When we verified the correlations between individual factors of system development against business result, we did not find any. We have to conclude therefore that the development of performance measurement system does not affect the performance of Slovenian factors as other factors do. This conclusion has also been proven in the case of thermal-bath hotels. The reason for their success is mostly their monopolistic position in the market, since most of their guests are supplied by the government's Health Insurance Institute. The hotels have agreements stipulated with the Institute, on the basis of which they have better occupancy rates, revenues and cash flows. The agreements also guarantee prices and timely payments. For this reason, the thermal baths pay less attention to costs and achieve lower profits in spite of higher revenues. The opposite can be said about the coastal hotels, which operate in market conditions and therefore have to be more focused on managing costs. For this reason, they have better profits per room in spite of lower revenues per room. Thermal-bath hotels use their performance measurement system mostly to define the prices for their services that can be charged to the Health Insurance Institute.

The results of our research of Slovenian hotels failed to confirm our hypothesis, which is something unusual. There have been many researches published in the world about the issue that we have investigated in Slovenia and their conclusions were that performance measurement system development levels affect the business results of hotels. (Brander Brown and McDonnell, 1995; Mia and Clarke, 1999; Mia and Patiar, 2001; Brander Brown and Atkinson, 2001; Phillips, 1999; Denton and White, 2000; Huckestein and Duboff, 1999; Collier and Gregory, 1995; Dunn and Brooks, 1990; Noone and Griffin, 1997; Brotherton and Shaw, 1996; Croston, 1995; Jones, 1995). One reason for different results in Slovenia is probably due to the fact that in the system of self-management socialism - in force in Slovenia up until 1990 - there was no global competition, which would force companies to weight the positive and negative sides of individual business decisions. The need for considerate decision-making based on adequate information only made its appearance in Slovenia once the economic system has been changed in all the companies, including hotels. Hotels, as other companies as well, gather information for making decisions. The question remains, whether such pieces of information are relevant and whether they are being used. An answer to this question will have to be given by future studies.

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OKVIR MJERENJA UČINKOVITOSTI U HOTELIJERSTVU – SLUČAJ SLOVENIJE

Hotelske organizacije u tranzicijskim gospodarstvima moraju stvarati efikasne konkurentne metode preživljavanja jer se nalaze u okruženju u kojem i klijenti i investitori traže sve više od svake organizacije. U potrazi za rješenjima trebali bi koristiti sustav mjerenja učinkovitosti koji je u skladu s izazovima izmijenjenog okruženja.
Cilj ovog rada je prezentirati koliko je razvijeno mjerenje učinkovitosti u hotelskim organizacijama u Sloveniji. Rad se zasniva na istraživanju provedenom u Sloveniji u hotelima s više od 100 soba. Prvo uvodimo potrebne informacije za različite razine odlučivanja zajedno s kriterijima za mjerenje efikasnosti a potom se relevantnim statističkim metodama testira osnovna hipoteza.

***Ključne riječi**: Mjerenje učinkovitosti, financijske i ne-financijske mjere, hotelijerstvo*

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EXPLORATORY RESEARCH OF ACTIVITY-BASED COSTING METHOD IMPLEMENTATION IN SERBIA

ABSTRACT

The successful organization is the one that is able to improve quality, lower costs and increase efficiency of operations, and eliminate different activities and products that incur losses. To achieve this, organizations implement different costing systems. A costing system is a system that helps the management of an organisation with planning and decision making. This system plays an important role in providing accurate cost information about the products and services provided for clients. Many organizations shift their focus from conventional or traditional costing systems to an increasingly popular costing methodology system that is Activity Based Costing system. This article specifies characteristics and reasons for implementation of this method, and defines establishment of this method in Serbia.

Key words*: quality, costs, costing systems, management, data.*

1. INTRODUCTION

Economic and financial crisis has led Serbia, and many other far more developed countries in situation in which companies and entrepreneurs carefully analyze their investment options. Now, more than ever, investors need to decide which investment is profitable and which is not, and therefore needs to be terminated. In the process of making such decisions, investors compare costs with benefits that will eventually be achieved with such capital investment. It is very helpful to use different methods, techniques and instruments that will produce useful information (in proper time) about the exact amount of historical costs, their relevance and possible projection of their amount in the future. Costing systems play an important role in overhead costs allocation on results of production, providing in the same time the management of one company with important information about: production price of product or service; the sale price (pricing strategy); information that assists in business planning and controlling; and information that help managers in process of alternative decision-making.

Traditional costing systems allocate production overhead costs to products and services according to the volume-based cost drivers. In production companies cost drivers are usually machine-hours, the time that worker spend using a machine in order to produce one product, or direct-labour hour which is the employee's time spent in production of specific product. Those drivers are correlated with amount of working hours of employees and machines that are directly engaged in production of products. The greater amount of costs will be allocated to the products or service that requires more labour or machine hours to be completed. This is logical and practical solution of a very complex problem, but it cannot be applied in service providing organisations without sacrificing precision in cost allocation.

There was great inflow of foreign capital in Serbia during 2005, and in later years, that increased foreign investment on domestic market. Additional capital inflow has been injected by different commercial banks, and it has been mainly focused on service-providing companies that do not require expensive equipment and advanced technology, but only initial investment. These new trends shifted the domination of production companies to service-providing entities. For example, new financial and educational institutions are being established; also the government emphasizes on development of domestic tourism.

But the question is how well the managers and accountants in Serbia do know the relatively modern methods and techniques that can help them in control and analysis of costs and activities. The first part of this paper gets the reader familiar with advantages of Activity-based costing system. The second part presents the results of research on the application of this method in real life in Serbian companies.

2. BASICS OF ACTIVITY-BASED COSTING SYSTEM

Robert S. Kaplan introduced in 1988 new costing system (classic model) as a response to disadvantages and shortcomings of traditional costing methods.[1] Activity based costing system (ABC) quickly found its way to production companies. The main difference between this method and traditional costing methods is in the treatment of indirect costs. There is a direct connection between the results of production and directs costs (such is the price and quantity of wood used in production of chairs or tables), making its allocation simple. The problem lies with indirect costs; such is the cost of electricity used for lighting in production plants, because they have no direct causal connection with results of production. Total costs could be also classified to costs of production and period costs. Product cost is a cost assigned to goods that were either purchased or manufactured for resale, while period costs consist of costs recognized as expenses during the period in which they incurred and therefore will be covered with periodical result. Overhead production costs are not easily traced to the results of production, since these costs often have no direct relationship with one individual product/service or activity. In average, production costs, in production companies, measure from 40% to 60% of total costs. However, in service-providing entities, such as commercial banks, indirect costs make up the largest part of total costs. In such situations, accurate cost accounting is required, and Activity-based costing suits this requirements the most.

But what cause the appearance of costs in one organisation? Production (or service providing) company starts its business in order to realise income by selling products and services. To do so, it has to purchase materials and other factors of production and organise and execute production process. Results of production cause the existence of costs; this is basic assumption of traditional costing systems. But this doesn't mean that every purchased factor of production will be directly expensed in production of every product or service, on the contrary. Example, after the production process in food industry takes place, machines and other equipment have to be cleaned and disinfected. These expenditures are more connected (and could be easily

[1] *Traditional costing systems can be divided in two traditional forms: full absorption and variable costing. Full absorption costing system in costs of production includes all variable and fixed costs. This means that cost of a unit of product includes direct labour, direct material, and fixed and variable overhead production costs. On the contrary, variable costing in cost of a product includes only variable production costs. Based on this, period costs are consisted of total fixed costs, variable overhead costs, and expenses that belong to the period in which they appeared and cannot be directly or indirectly connected with production process*

distributed) to activities than to products-results of production. Activity-based costing system assumes that results of production consume activities, and activities spend purchased factors of production.

There are many definitions of the word - activity. Activity is every repeated action, movement or order of operations, carried out in order to execute the business function; and it can be described with a verb or noun, for example starting the machines or unloading of raw materials. (Rainborn and others, 1996) According to Brimson, activity can be defined as appropriate combination of people, technology, raw materials, methods and environment necessary for the production of certain products or services, which describes what one company does and how it uses its time and resources in order to achieve its goals. (Brimson, 1991) From these definitions it can be concluded that activity is a very small part of the business of one company that employs and spend its resources, and can be divided into smaller fractions. When implementing Activity-based costing system for the first time, it is very important to develop suitable activity dictionary which is the list of activities that company perform in its business. While composing activity dictionary, organisational structure and size of a company can be helpful. When defining activities, complex business is divided into basic operations and activities that can be perceived and managed. Different data collection methods and techniques can be used here, such as conducting interview with key staff, using diaries or notes of employees and direct observation of activities. Nevertheless, the basic principles of efficiency and materiality should not be ignored[2].

Traditional costing systems have four very complex stages in cost allocation; Activity-based costing system has only two. In the first phase of cost allocation, according to Activity-based costing method, total indirect costs are determined on company or business unit level. The next step is to define the activities that have to be accomplished in order to provide a service or to have a product being finalized. Activity-based costing system assumes that the execution of a certain activities drives the creation of production costs opposing to the assumption of traditional costing systems that suppose that results of production (products and services) cause the existence of these costs. Therefore, indirect costs are allocated on activities or activity cost pools[3] in the first stage of this method based on pre-defined cost drivers[4]. The second stage of Activity-based costing method distributes total amount of allocated costs of activity centers to cost objects[5].

Cost drivers are associated with the nature of activity performed. As example, in trading company, where one activity can be purchasing of goods to be sold, the number of suppliers and/or the number of purchase orders could be recognized as cost drivers. All costs calculated in order to get one purchase order to be accomplished will be allocated to that activity. In second phase of Activity-based costing method, allocated costs are being distributed to cost objects (in this example the good to be sold) according to cost driver - number of purchase orders accomplished for purchase of that good to be sold. Therefore, inventory that has been purchased in greater amounts or several times more than the others groups of inventories will

[2] *It is very important to have a limit when dividing business into activities, because the costing systems have to be economical. The costing system should no longer produce information that has higher costs of production than the benefit of its use*

[3] *Activity centre is a cluster of related activities*

[4] *Cost driver is a factor used to assign cost from an activity enter to other activity cost pools or cost objects*

[5] *Cost object is the ultimate goal for performing an activity, and in ABC it represents the final cost assigned to a product or service.*

be allocated with higher amount of indirect overhead costs, or the more the activities are performed the higher will be the overhead cost applied to cost object.

The previous paragraph described classic model of Activity-based costing method, however in 2004 Kaplan introduced more up to date model: Time-driven Activity-based costing. This model is even more suited and adapted for application in service-providing companies, though it can be applied in manufacturing companies as well. Time-driven Activity-based costing can successfully implemented in commercial banks. As an example, we can analyse one sector within the bank – credit department. Activities centres could be defined as: loan approval, customer complaints processing and other requests. The main difference between classical and modern model is the inclusion of new dimension: the capacity utilization. Namely, it is estimated practical capacity at the level of one sector or company, which represents the approximate number of working hours provided by employees that will be exploited in certain period of time. Unused capacity includes the time employees spend on breaks, arrival and departure from work and time that is not directly linked to the performance of the operations or activities. Furthermore, allocated indirect costs at the level of sector can be divided with number of working hours in order to calculate the amount of costs needed for execution of one unit of time – hours or minutes. Previous calculation is needed for cost allocation to activities. By multiplying working hours needed for one activity to be accomplished with cost per working hour, indirect costs are being allocated to activities or activity centres. The second stage of Activity-based costing method distributes allocated indirect costs of activities to cost objects (single client, or group of clients), by recording all activities conducted for each group of customers[6]. Using this calculation, the total indirect costs for each group of clients could be calculated, by adding all distributed costs for each client. This information is necessary for pricing strategy. Still, there is a portion of indirect costs that cannot be allocated, no matter which costing method company implies, and has to be covered with periodical result. Sometimes this amount of costs can be sufficient to turn positive periodical result to negative. Therefore, it is necessary to strive for thorough and complete indirect costs allocation.

Proponents of this method discuss its shortcomings, as well. To determine the practical capacity of one company or sector it is necessary to conduct interviews with employees, or to observe them while they perform activities and operations. Sometimes this is expensive, requires additional resources and it is definitely time-consuming. Also, employees may be motivated to provide subjective answers in order to increase their productivity.

3. LITERATURE REVIEW

Activity-based costing was developed by Cooper and Kaplan in 1988. Ever since, numerous authors have advocated the benefits of Activity-based costing, and a number of researches have given empirical evidence to support those benefits. They noted that besides providing more accurate product costing, this system also improves the base upon which strategic decisions are made, resource allocation, product mix, pricing and marketing are performed. It is also noted that when Activity-based costing system is used in this way, customer profitability profiles and analysis are possible. There are many research papers proofing that Activity-based costing is not a theoretical method, but practical, since it is implemented in numerous companies. Although the Activity-based costing method is superior

[6] *One commercial bank uses following client classification: retail, micros and corporate clients*

compared to traditional costing methods, there is still a great world domination of traditional costing systems[7].

An on-line survey (2005) was completed by 528 participants from companies across various industries, sizes and job levels in US. Survey respondents were asked whether they actually use Activity-based costing method in their companies, or they consider its' implementation. It is interesting to notice that, besides communications[8], 46% percent of respondents that actively use Activity-based costing belong to financial services. 33% of all financial service respondents use ABC for costing and cost control, and 31% for process improvement. Over the half of all respondents uses Activity-based costing outputs to support organization performance management. Also, only 28% of all respondents include capacity in their ABC implementation. It is noted that USA have the highest adoption rate of Activity-based costing method in the financial sector.

The rate of adoption of Activity-based costing method constantly rose since its introduction, but slightly falls during past few years. Several studies have been conducted trying to explore implementation rate, in different countries. As example, in New Zealand corporate sector of Charted Accountants reported the implementation rate of 20.3%, similar survey in US revealed an 18 percent implementation rate. Also, a study of Canadian businesses presented 14 % had implemented Activity-based costing system.

The results of surveys in European countries on this subject are similar to previous one. A survey of Activity-based costing practices in United Kingdome is done by Innes and Mitchell (1995). 251 UK companies have been participated in this survey, and it is found that 19.5% of the respondents had adopted Activity-based costing method. 27.1% were considering its adoption. The extent of ABC adoption in the non-manufacturing sector has been similar as the one found in manufacturing concerns.

Innes (2000) survey of activity-based cost management practices of 177 of the largest companies in the UK found that ABC adoption/under consideration rate had fallen to 17.5% and 20.3%; from 21% and 29.5% respectively. However, the highest adoption rate was in the financial sector. The Activity-based costing system rejection rate had increased from 13.3% to 15.3% during this period (from 1995 to 2000).

Kennedy and Affleck-Graves (2001) examined the link between Activity-based costing method implementation and the creation of shareholder value. They have been surveyed 47 ABC users and 187 non-ABC users, and found that choice of management accounting system such as Activity-based costing had a significant impact on company value. From the beginning of the year in which Activity-based costing method was first introduced, there was 27% increase in shareholder value over three years. Though, it has to be considered that there was relevant impact of other variables on this result. Majority of authors emphasize the superiority of activity-based costing over standard traditional costing system, nevertheless the use of standard costing is still popular worldwide. Cornick (1998) noted that more than 75% of the companies use it in the USA, UK, Ireland and Sweden. Scarbrough (1991) find 65% usage of standard costing in Japan. In India, almost two-thirds of the respondents use standard costing as a costing system.

[7] *Approximately 60% of companies worldwide use traditional costing methods*
[8] *58% of respondents from this group actively use Activity-based costing method*

When discussing real life implementation of activity-based costing, there are numerous companies that have been used Activity-based costing method in profitability studies to help them decide which products or clients to cut or keep. But ABC system helps in decision making in so many other ways. Thousands of firms have adopted or explored the feasibility of adopting Activity-based costing, but many have given up, or their programs are stagnating. Two well known companies that have been very successful in Activity-based costing system integration in their organizations are Chrysler and Safety-Kleen Corporation. The Chrysler had benefits 10 to 20 times greater than the company's investment in the program, and saved 50 to 100 times the implementation cost. Safety-Kleen is smaller company in size than Chrysler, but had more than $12.7 million in cost savings, cost avoidance, and increased revenues.

The need to measure more precisely how different services and products use resources has led companies such as American Express, Boeing, General Motors, and Exxon Mobil to refine their costing systems introducing Activity-based costing system. Other examples of successful Activity-based costing integration are service providing companies such as The Cooperative Bank, Braintree Hospital, BCTel in the telecommunications industry, and Union Pacific in the railroad industry. Also, many retail and wholesale companies like Supervalu (a retailer and distributor of grocery store products) and Owens and Minor (medical supplies distributor) have used Activity-based costing method, alongside with giant Hewlett-Packard. Finally, the initial cost of Activity-based costing system implementation is either insignificant or less than 1% of the sales (in most companies) and accordingly the payback period is less than one year, which concludes that integrating new costing model in company doesn't have to be expensive.

4. DATA COLLECTION AND THE RESULTS OF A SURVEY

Collecting data for the research is of great importance for the relevance of the outcome of the problem solving or making conclusions and predictions. Relevant research data can be obtained from variety of sources, but this research is based on primary data. A survey instrument was developed to collect data to provide evidence about the current status of Activity-based costing method adoption and implementation in Serbia. The survey was anonymous. In attempt to cover most of the companies across the Serbia (geographically), a questionnaire has been distributed to participants of accounting conventions in the biggest towns. The following towns have been subject of survey: Belgrade, Nis, Krusevac, Kragujevac, Novi Sad and Zlatibor. The response rate was 63% or 121 responses, 5 responses were excluded from the analysis because of too many blank variables. The questionnaire included demographic questions about respondent's position in the organization and about the size of the company, and the economic sector in which it operated. Respondents were also asked about their familiarity with ABC. The versatility in the characteristics of respondents and firms enriches this research.

There are advantages and disadvantages of this traditional „paper-and-pencil" format in comparison to web-based surveys. The greatest advantage is that resulting sample is extremely representative, since in web-based surveys it is unknown whether representative respondent did complete questionnaire or not. Self selection bias occurs because people who feel strongly about a subject are more likely to respond to survey then persons who are not interested about the topic; this error is especially often with self administered surveys conducted by e-mail. Self selection biases in our research are minimised since it hasn't been conducted by e-mail, and

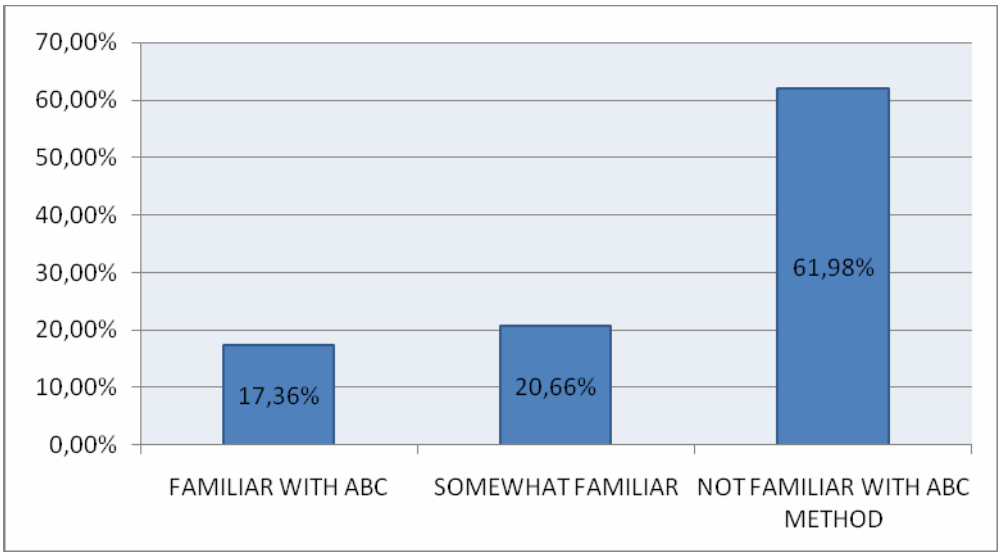
response rate is at very high level which means that there haven't been too many unrepresented indifferent respondents. Also, all respondents are very competent to provide thoughtful responses to the survey questions. Response bias is a survey error when respondents tend to answer questions in a certain direction. These errors are often with surveys conducted in companies since employees tend to give socially desirable answers or answers that aren't opposite to organisation culture or vision. Sometimes some people deliberately give false answers in order to appear intelligent, or to conceal personal information, or to avoid embarrassment. It could be anticipated that our respondents will answer questions in order to prove their skills and knowledge of their specialisation, but as it will be seen results show different situation. However, even though occasionally respondents try to be truthful and cooperative, response bias can arise from question format or question content in a way that respondents do not understand the question or what is the subject of the question. These errors could appear in almost every research and should be considered when analysing the results. Surveys are used to portray a representative cross-section of a particular target population, but even with technically proper random probability samples, statistical errors will occur and unless sample size is increased, random sampling errors are unavoidable.

Another limitation of this method is that whatever the respondents have said is believed to be their true response and hence, no statistical test has been performed as the research of non response bias and the consistency of individual's responses. However, responses that contained too many blank variables were excluded from the analyses. Also, this methodology measures beliefs and not necessarily actions, meaning respondents could have said that they use ABC method and reality could have been very different.

Summarized respondent's answers are presented on following pages. The respondents have been questioned whether they are familiar with Activity-based costing system or not. Overall, less than one-fifth of the respondents claimed that they were familiar with Activity-based costing method. It is concerning that 62% of respondents were not familiar with this method, although it has been introduced 20 years ago; the remaining 20% indicated some degree of familiarity. It can be concluded that overall familiarity with Activity-based costing system in Serbia is on quite low level, since more than eighty percent of respondents weren't completely introduced with this method.

Figure 1.

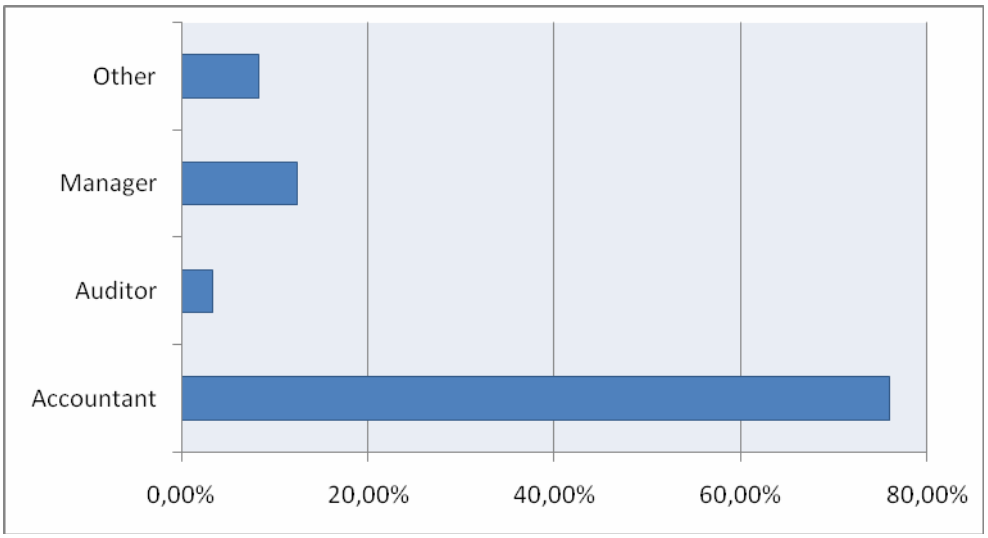
Familiarity with ABC method



Familiarity with ABC was not significantly related to industry sector, but it is also worthy of note that a surprisingly large portion of the manufacturing respondents indicated that they were unfamiliar with ABC. Since almost 76% of respondents were accountants, it can be anticipated that more than 66% of respondents familiar with ABC are accountants. ABC method is covered in almost every accounting publication aimed at practicing accountants, and has been rapidly integrated into managerial and cost accounting textbooks which explains relatively good familiarity of managers with this method. Figure number 2 shows job function of respondents.

FIGURE 2.

JOB FUNCTION



In table 1 presented below, we can see familiarity with Activity-based costing of respondents and their job function. Most familiar with ABC are accountants (14), but comparing this information with their total number, we can conclude that their familiarity is not on the highest level. The smallest number of respondents is auditors (4), and they are quite familiar with this method (3 out of 4 are somewhat familiar with ABC).

Table 1.

Familiarity with ABC by job function

Job function	*Familiar with ABC*	*Somewhat familiar*	*Not familiar with ABC*	*Total*
Accountant	14	19	59	92
Auditor	2	1	1	4
Manager	5	3	7	15
Other	0	2	8	10
Total	21	25	75	121

Figure 3 shows the relationship between firm sizes, according to previously given definition[9], and familiarity with ABC method. As presented and maybe supposed, large companies were the most familiar with this method. This is not a surprise since large companies tend to implement more up-to date technology and methods, and advantages of Activity-based costing become more prominent. Over 70 % of respondents employed in both, small and medium sized companies are completely unfamiliar with this method. This can be explained with the fact that owner-managers are more generalist than a specialist, and may run a small company based more upon experience and intuition than upon the use of sophisticated managerial methods and tools. Also, larger companies having more available assets at disposal can afford getting subscriptions to accounting publications from individual publishers or standard setters.

Figure 3.

Familiarity with ABC and firm size

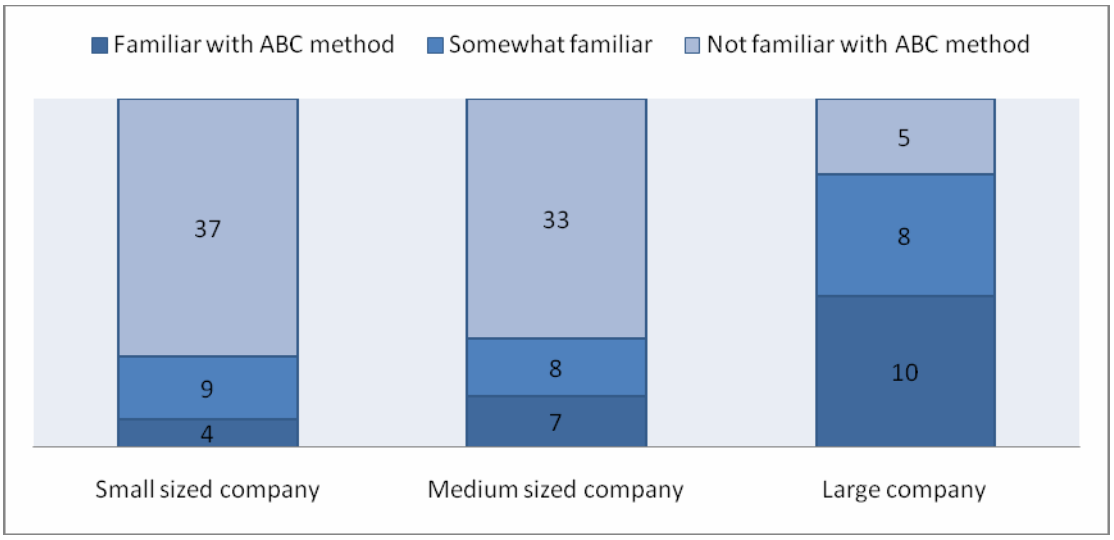
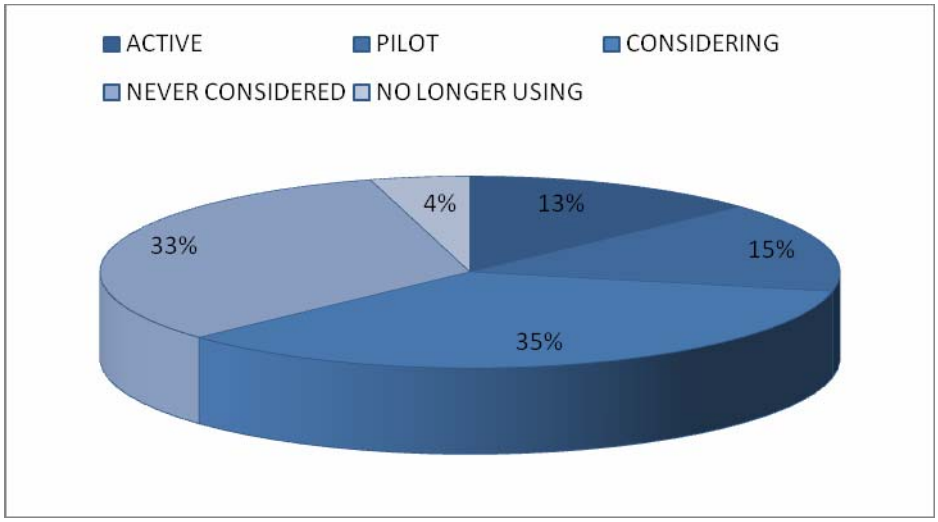


Figure 4 shows the status of ABC method in companies. Only respondents familiar with this method were included in this analysis.

[9] *In this research, classification based on republic Law on accounting has been used where all legal entities are divided in three groups: small, medium and large companies. Medium company is the one that fulfils at least two out of three following criteria: - it has average number of employees in current year between 50 and 250 ;- it has revenue per year between €2,500,000 and €10,000,000 - average assets (at the beginning and at the end of year) are between €1.000.000 and €5.000.000. The use of this classification simplifies gathering data since it avoids asking to many general questions about firm's revenue and number of employees.*

Figure 4.

Implementation of ABC

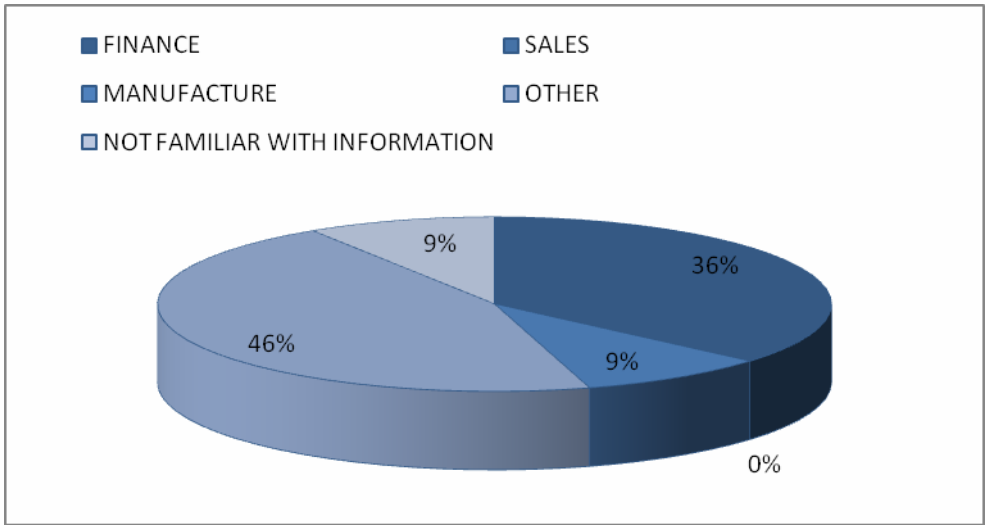


Surprisingly, 33 % of respondents never considered using ABC, probably not knowing all positive aspects and advantages of this method, but 35% actually considered or planed implementation of this method. One number is very important and is ultimate goal of this data collection. 13% of all companies familiar with this method, actively use Activity based method. Compared to data presented previously in literature review, this implementation percentage is acceptable. However, this information can be deceivable, since only 6 respondents actively use ABC, out of 46 respondents familiar with this method. There are 121 interviewed respondents in total, so less than 5% of all interviewed respondents actively use Activity based costing method. This is an extremely low rate of Activity-based costing system implementation.

Half of the companies that participated in survey claim that some other group (organization and development sector, or strategic management) within company is responsible for ABC implementation (Figure 5). However, finance area is the most dominated group within companies that initiated ABC implementation (36%). This is rather expecting, since finance sector tend to get a hold of unnecessary spending and use of firm's assets. Production sector was responsible in almost one of ten cases (9%). Sales division didn't initiate ABC in any company, and 9% of respondents haven't been familiar with the information which functional group initiated ABC implementation. Figure number 5 presents respondents answers on question: Which functional group initiated implementation of Activity-based costing.

Figure 5.

Functional group that initiated implementation of ABC



The main obstacle in ABC implementation should be designing and introducing the model in company, since it requires great amount of effort in planning and organizing its integration. There is always internal resistance of employees and sometimes even mangers. But, based on this survey, half of the respondents consider that the main challenge company face when implementing ABC is gathering data (49%). This is because everyone probably suspects that it considers performing new amount of operations and activities. Every forth respondent didn't know what was the main obstacle in ABC integration. A quarter of the respondents suggested that their greatest challenge is: reporting information (15%), designing and building the model (3%) and 9% claimed that some other unlisted challenge was the most important.

Figure 6.

The main challenge in implementing ABC

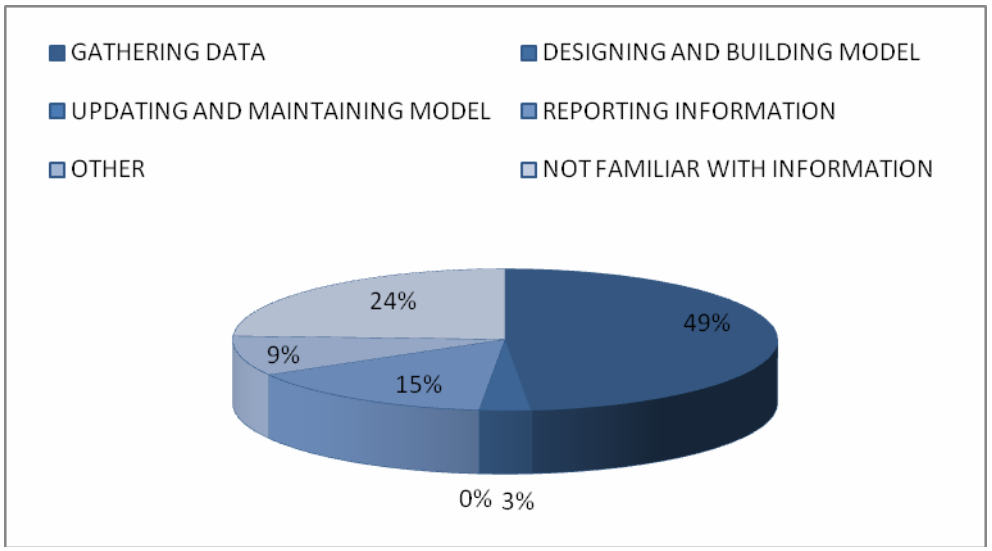


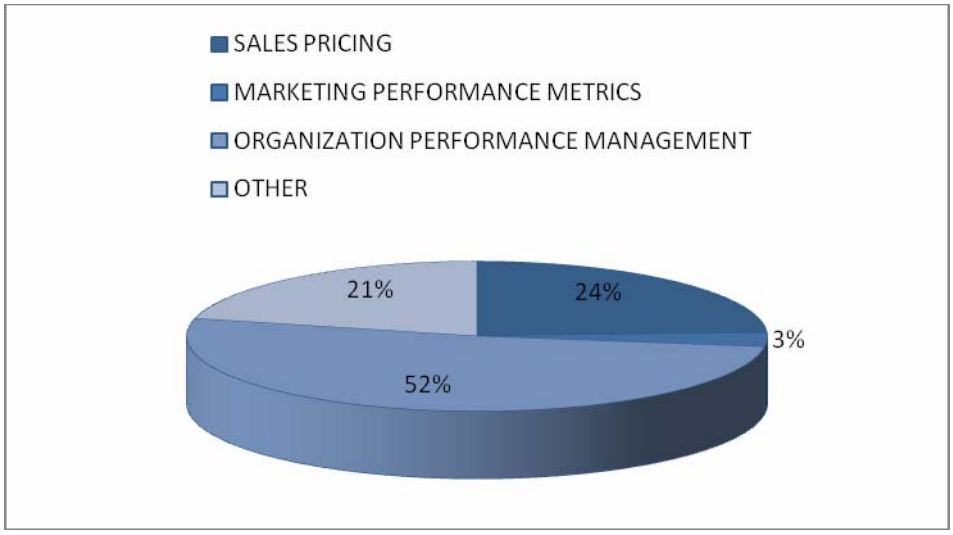
Figure 7 presents respondents answers on question what their ABC outputs currently support and they were given the opportunity to provide one response. Half of respondents (52%)

indicated that their ABC output supports organization performance management, which correlates with the use of ABC for costing and cost control. It is evident that ABC helps management in process of performance control, since its information is the base for cost control.

The remaining half divides its opinion on two and indicates that sale pricing (24%) and some other ways of using ABC information (21%) is equally important. Fewer companies reported that the primary output supported was marketing performance metrics (3%).

Figure 7.

ABC outputs usage



In many companies, top management delegates the implementation of ABC to the accountants; this means that managers are responsible for choosing which method will be implemented and accountants are assigned for actual implementation. If managers had the greatest share in respondent's total number, they would give more biased and more subjective answers, since they have a personal stake in ABC implementation. In this survey accountants prevail in number and their answers should be less biased.

4. CONCLUSIONS AND RECOMMENDATIONS

Global competition requires that companies continually improve and innovate by developing and introducing new products, technologies, techniques and models. Companies are realizing, that producing different products and providing various services, places varying demands on their resources. However, using inaccurate averages to uniformly spread the cost of resources across different services and products results in imprecise and misleading product costs. Although having perfect accounting system implemented in one company is virtually impossible, some industries have specific characteristics that can be matched by few accounting methods.

Service companies in general are ideal candidates for ABC, even more than manufacturing companies, because virtually all the costs for a service company are indirect and appear to be

fixed. Service companies have few or no direct materials, and many of their employees provide indirect, not direct, support to services and costumers. This is an excellent playground for Activity-based costing system. We could assume that economies with mainly service providing industry are even more expected to have higher rate of ABC implementation than the others, but this is not the case in Serbia.

Using the data collected in first part of this research, it can be concluded that companies in Serbia are yet to be fully introduced with Activity-based costing system and all of its positive aspects. Implementation rate is relatively small, but general knowledge of interviewed employees is rather low. Implementing Activity-based costing in one company requires major organizational changes. Collecting all the necessary data is just the begging of ABC implementation; managers have to be prepared for this task. It has been noticed that when implementing any method, employee resistance is the single biggest obstacle. Educating employees at all levels about principles of ABC may be the most difficult task, since they have to realize what the company is trying to achieve through ABC, as well as how to use it in their jobs. There is fear of unknown in human nature, and when implementing new model that may change organizational structure, employees feel threatened. Besides, ABC may reveal inefficient practices and activities that had been hidden by the traditional cost accounting system. Employees may be afraid of new amount of work, as well. Both managers and workers have to be educated on cost behaviour and cost management subject. This can be primarily done by providing different seminars, symposiums and especially courses related with this subject. This role and good financial opportunity should take universities.

Most interviewed companies acknowledge the need of efficient costing system; they accept new methods and delegate the obligation of their implementation in their sectors and dependent companies. By doing this, implementation rate of Activity-based costing in Serbia will probably increase in the future.

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ISTRAŽIVANJE PRIMJENE METODE OBRAČUNA TROŠKOVA PREMA AKTIVNOSTIMA U SRBIJI

SAŽETAK

Uspješna organizacija je ona koja je u mogućnosti poboljšati kvalitetu, sniziti troškove i povećati učinkovitost poslovanja, te eliminirati razne aktivnosti i proizvode zbog kojih nastaju gubici. Da bi postigla navedeno, organizacija primjenjuje različite obračune troškova. Obračun troškova je sustav koji pomaže menadžmentu poduzeća u planiranju i donošenju odluka. Ovaj sustav ima važnu ulogu u pružanju točnih informacija o cijeni proizvoda i usluga za klijente. Mnoge organizacije pomiču fokus s konvencionalnih ili tradicionalnih obračuna troškova na sve popularnije suvremene metode obračuna troškova kao što je obračun troškova prema aktivnostima. Ovaj članak opisuje osnovne karakteristike i razloge za primjenu ove metode, te definira zastupljenost ove metode u Srbiji.

Ključne riječi: *kvaliteta, troškovi, obračun troškova, menadžment, podaci*

Denisa Krbec [1]
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UDK 378.633-057.87:159.953.5>371.388
Review
Pregledni rad

ADVANTAGES OF EXPERIENTIAL LEARNING IN DEVELOPMENT OF INTERNATIONAL ECONOMICS AND BUSINESS STUDY PROGRAMS[3]

Abstract

The processes of internationalization especially in higher education should respect the uniqueness of individual societies and culture, and - in the face of the forces of globalization – should also urge understanding and cooperation at academic level. In this context, the international dimension can be elaborated as a perspective, activity or program which integrates an intercultural outlook into the major functions of a university.

The Global Business Practicum at Rollins and the collaboration between Rollins College and University of Pula provide numerous illustrations of what can be learned about international business by students participating in work-directed projects, and how projects of international cooperation can be evaluated both according to the ECTS and USA grading system's requirements.

Keywords*: experiential learning, students' experience, economics&business education, practicum, Croatia*

1. INTRODUCTION

Among basic features of the Bologna process the introduction of a structure that facilitates comparability with the other higher education systems is certainly an important one. In terms of internationalization, several researches' results stressed that the Bologna process forces the European HE institutions to restructure their degrees **even** they are moving at different speed which is not always easy to follow mainly for non-European's partners (e.g. Charon Wauters, 2006; Currie, Krbec & Higgins, 2005; Matulich, 2003). Based largely on research cooperation and its productivity, diverse forms of existing tools could be appropriately introduce as *matrix* in which opportunities, exploration, differentiation and ranking/grading can occur. In addition, current developments in quality assurance may provide nearly simultaneous mechanisms for the comparison of teaching and learning outcomes alongside research outputs (ESF, 2008:17).

Trying to find the best model of an international recognition in higher education accross the world, institutions are encouraged to develop and pursue their own distinct internationalization profiles. Based on choices that fit their strengths, particular

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[3] This paper contains some research results of international cooperation in the field of tourism higher education and educational competencies, which are the subject of scientific research on „Sustainable Tourism in Croatia: A Taste of Istria" (Project No. 303-0000000-2451, MSES RH). Auhors are particulary gratefull to participants of the International Conference on „Internationalisation and the Role of University Networks", held from September 25-26, 2009 in Portorož, Slovenia for their discussion.

characteristics, environment and their own steering models, they often extend theoretical approaches and forced practices that improve the quality of higher education internationally. Among many practices of educational development, experiential learning enhance the learning experiences. The learning outcomes from an international business practicum additionally complement the traditional class setting and give the students perspectives which are difficult to bring into the classroom.

Since the academic year 1999/2000, the Faculty of Economics and Tourism (FET) in Pula, Croatia (now the Department of Economics and Tourism, Juraj Dobrila University of Pula; further: OET UniPu) has actively participated in a global practicum in which students from FET collaborate with students from the Crummer Graduate School of Business of Rollins College, Winter Park, Florida, USA. The practicum "*Collaborative Student and Faculty Experiential Exchanges*" is partially supported by a grant from the Fulbright Foundation and co-financed by Ministry of Science, Education and Sport Republic of Croatia.

The program consists of two parts: 1) students and faculty from Rollins College travel to Pula to conduct a global business practicum for Istria County, and 2) students and faculty from UniPu travel to Winter Park to study and observe tourism. Winter Park is adjacent to Orlando, one of the world's major tourist attractions and the site of numerous theme parks.

The Global Business Practicum at Rollins (further: GBP) and the collaboration between Rollins and University of Pula provide numerous illustrations of what can be learned about international business by students participating in work-directed projects. Following the World Conference on Higher Education's (1997) statement about the unequal distribution of high level training and research, the practicum was based on a firm academic foundation at both institutions from its beginning in 2000. After completing the first ten years of both academic and professional experiences of this unique program's collaboration, it's confirmed that this form of collaborative activity provides insight into the problems facing the Croatian academic community as it attempts to modernize the system of higher education and to innovate teaching and learning experiences as well.

This paper aim is to elaborate current practices of this unique international university cooperation based on a true internationally-based program. The paper is divided into four parts. After presenting the theoretical basis underlying development of international collaborations in Part 2, Part 3 focuses on the internationalization of business education. Part 4 analyses development of the Global Business Practicum (GBP) as an international cooperation's program, and elaborates the GBP as an innovative international collaboration from a Croatian perspective. We also suggested a complex method of evaluating collaborations such as the Global Business Practicum taking into the consideration sides involved in – students, faculty, institution and government. Before concluding remarks, we propose several highlights to be discussed in a near future.

2. THEORETICAL BASIS FOR THE GLOBAL BUSINESS PRACTICUM

The Bologna process forces the European HE institutions to restructure their degrees but the institutions are doing so at different speeds, which is not always easy to follow mainly for non-European's partners. While the current practices are based mainly on access to programs offered by well-known universities, a true internationally-based program is much more adapted to local conditions and needs. These practices include the following reflection questions:

1. What are the models of international university cooperation?
2. Is the "collaborative learning" strategy useful in economics and business education?

Current reform initiatives are primarily oriented toward the needs of the economy. Additionally, by defining of useful knowledge at a social level as "the *union of all the sets of individual*
knowledge of the members of this society" (Mokyr, 2003:3), contemporary economic theory differs two main elements: „social" and „useful". Consequently, a central feature of the sociological approach should be directed towards definition of the most important basic goals of reforming the higher education system. Education as a public and a private good is both a subtle and a complex process of *production.* At *the international level*, the perception of the (higher) education *functionality* can result in improving their social role for a specific country on the global platform, indirectly giving the same benefits as at the national level (Krbec, 2002, 2004).

European as well as EU's accession countries are currently reorganizing their educational systems to enable individuals to learn continuously, acquiring that way new skills in the application of knowledge throughout their entire working times. Following the rationales of new higher education policies, HE institutions are constantly forced to change their traditional, passive role in transmitting knowledge, and use more competence-based methods of *producing* and *applying* knowledge. Namely, HE institutions should be encouraged and enabled to develop and pursue their own distinct internationalization profiles, based on choices that fit their strengths, particular characteristics, environment and their own steering models (e.g. more or less centralized, more or less competitive approaches) (EC, 2006).

The GBP is an international consulting project that allows students *to earn credits* and gain *international experience*. Students work on real-world projects whose success depends on their intellectual and practical application of key business concepts.

The GBP is **experiential** in nature. More than 20 years ago a number of scholars, such as Burnard (1989), Joplin (1981), and Kolb (1984), have already argued that experiential learning is superior to traditional methods. Experiential learning requires *active participation*; it is *student-based*; it allows students to build on *subjective evaluations and perceptions*; it is *inductive* and *explorative*.

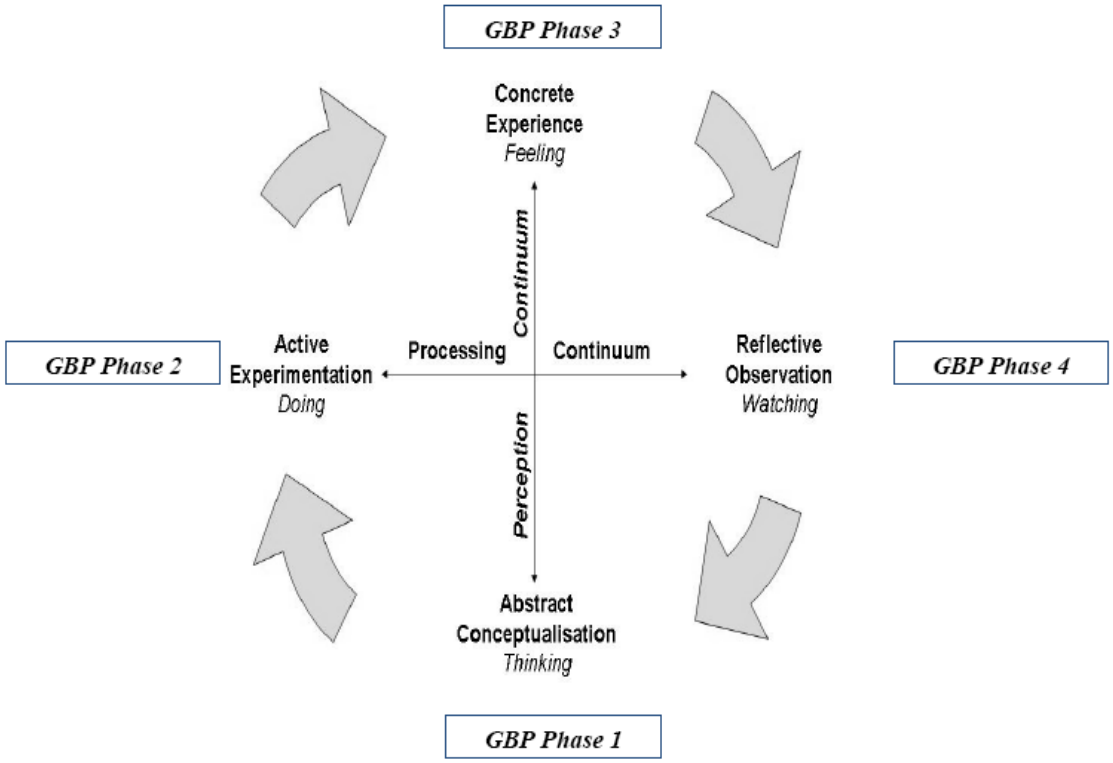
After the historical influence of John Dewey's "learning by doing" philosophical approach, current experiential learning models were mostly developed in late 1980's. Experiential learning theory (further: ELT) defines learning as "the process whereby knowledge is created through the transformation of experience (Kolb, 1984:41). The ELT model portrays two dialectically related modes of grasping experience: *concrete experience* (CE) and *abstract conceptualization* (AC), and two dialectically related modes of transforming experience: *reflective observation* (RO) and *active experimentation* (AE). According to the original Kolb's four-stage learning cycle depicted in Figure 1, immediate or ***concrete experiences*** are the basis for observations and ***reflections***. These reflections are

assimilated and distilled into ***abstract concepts*** from which new implications for action can be drawn. These implications can be ***actively tested*** and serve as guides in creating new experiences (Kolb, Boyatzis and Mainemelis, 1999:3). The stage of Kolb's experiential learning cycle is sequential and mutually reinforcing no matter of which an "experience" is starting.

More recently, Kolb and Kolb (2008) describe the ELT as a useful framework to design and implement management education programs in higher education and management training and development. They analyzed the key concepts from ELT—the learning cycle, learning style, learning space, deep learning and development - can be used to examine management as a learning process at the level of the individual, the team and the organization.

Figure 1.

Experiential Learning Cycle and its Implementation



Teamwork is now prevalent in organizations, yet it has pitfalls such as social loafing, groupthink, overdependence on a dominant leader, overcommitment to goals, and diffusion of responsibility (Kayes, Kayes & Kolb, 2005:330).

In terms of the GBP program's structure, the cycle is designed to foster learning capabilities of business students involved in a project (Figure 1). Upon completion of the simulation based on models and theories from past and present experiences (GBP Phase 1), the team has knowledge about the functions of teams in general (GBP Phase 2), experience about the functions of its team specifically (GBP Phase 3), and awareness of learning and progress through the learning cycle modes (GBP Phase 4). The students' team work experiences from previous projects positively influenced on learning capabilities of students currently participated in the project improving both management and business practices' usage by facilitating learning in the same time.

Consequently, experiential learning assignments in business classes (as the GBP at international level) are more likely to:

- ❖develop students' interpersonal and communication skills,
- ❖lead to an understanding of course concepts,
- ❖promote teamwork and team building,
- ❖improve listening skills, and
- ❖improve critical-thinking and problem-solving skills.

According to proponents of experiential learning, the expected net effect is that students become more interested and engaged, retain the information better and for longer periods, and learn how to apply otherwise elusive theoretical constructs.

3. INTERNATIONALIZATION OF ECONOMICS & BUSINESS EDUCATION

Bilateral internationalism creates opportunities for exchange visits between students in different countries (McConnell, 2000; Alon & McIntyre, 2004; Gilin & Young, 2009). While the current practices are based mainly on access to programs offered by well-known universities, a true internationally-based program is much more adapted to local conditions and needs. Regardless of the importance that curriculum contents should have in an academic sense, international programs are justified mainly on the basis of their outcomes, which sometimes are quite varied.

A framework for considering outcomes needs to include impacts on students, impacts on schools, and impacts on the broader society. The most frequently cited reasons for education re-form programs have to do with impact on **students**, with the most common outcome measure being some form of assessment of students' skill or knowledge in the various curriculum areas. However, a variety of outcome measures beyond academic achievement have also been used to assess the impact of education policies.

Students' benefits. Learning cannot be forced, it can only be assisted. From the constructivist perspective, learning occurs by the individual learner interacting with knowledge rather than processed from information received from an external source. So the process comes about through individual involvement in the construction of meaning.

The benefits of team experiences for undergraduate students are well documented (for a concise review, see: Williams, Beard & Rymer 1991). Students in teams learn not only content-specific skills, but also highly transferable skills related to communication, time management, and cooperative action (McCorkle et al., 1999). Experiential learning via in-course teams is clearly the *modus operandi* in most business school curricula. Although teams do present administrative and social hurdles in their exercise, those teams can provide very relevant, real-world experience to students.

However, the student's attitudes toward the project and subsequent involvement in the team are a function not just of the scope of the project and the relevance of the task; the team formation process itself has an appreciable effect on student attitudes in the team. Nicholson, Oliphant and Oliphant (2002) are not the first to suggest this link between team formation and team outcomes. Their analysis allows us to respectively examine how important are team formation methods. In order for students to reap the fullest potential of these team exercises, they need to be fully engaged in the experience – intellectually and socially involved in the team and its outcomes.

Investigating the overall satisfaction with the team formation, Nicholson, Oliphant and Oliphant also explored several other outcomes: the degree to which the method mimics "real-world" job selection processes, the likelihood that students would get along with team members using this process, whether or not the process created an interesting learning

situation, whether the process demonstrates that the instructor cares about student learning on the task, and perceived fairness of team formation results.

Results of their study suggest very different patterns of student responses regarding perceived fairness and their satisfaction level. Students' self-selection (perhaps the most common team formation method) performed well in terms of overall satisfaction but did not perform as well on other outcomes except the ability to get along with team members. Nicholson and Oliphant's conclusion suggests that satisfaction is strongly affected by the rapport and interpersonal dynamics within the work project team.

Students' assessments of the quality and value of their school experience are an important, if seldom evaluated outcome indicator, if only because they say something about motivation, which is absolutely critical to all other outcomes. Life-chance indicators are also very important, since the most important purposes of schools often have to do with what happens to students after they leave the institution.

Impact on schools. A surprisingly large proportion of the research on reforms activities focus on the impacts on schools rather than students. One of the most frequently assessed aspects is program's impact on teachers' work and their attitudes towards their work. Outcomes related to work might include:

- hours, time in and out of the classroom;
- attention to individual students;
- professional development activities, and
- skill levels or teaching practices.

International programs have been found to have different effects on administrators than on teachers, partly because governance changes have altered the work of administrators in important ways. However, the relevant measures for administrators are generally similar to those used for teachers.

Some reforms are intended to affect school programs. Curriculum changes or graduation requirements are obvious examples. Many reform programs have not given very much attention directly to teaching and learning practices per se, with the possible exception of efforts to extend the use of educational technologies.

However, improved teaching and learning practices are clearly central to the achievement of all school outcomes and so should be a key part of assessing any reform. Although changes in school organization such as diminution of authority are usually argued as means to achieve other more important ends, they could also be considered as outcomes in themselves.

Impact on society. In the past decade, higher education has become increasingly international as more as students choose to study abroad or enroll in foreign educational programs and institutions in their home country. According to various analyses (e.g. OECD, 2004; CHEMS, 2004 or CDESR, 2007), one of the most common reasons of this growth is the need to build a more educated work-force in the home country, particularly in emerging economies.

In their review on business international programs – as the GBP is too - Doh and Vachani (2004) pointed out that experiential exercises can be particularly effective in creating an appreciation of developments in global business and political economy, such as those associated with transformations underway in emerging markets.

Experiential exercises are currently accepted as effective tools for making students' learning and – more largely – learning organization more advanced.

4. EMERGING OF AN INTERNATIONAL COOPERATION'S PROGRAM
4.1. THE CASE OF GBP AT CRUMMER GRADUATE SCHOOL OF BUSINESS

Nature. Rollins College is a private, liberal arts university in the United States. One of its academic units is the Crummer Graduate School of Business, which offers the Master of Business Administration (MBA) degree. The Crummer MBA programs offer two optional ways for students to obtain exposure to international business practices. The International Study Trip and the Global Business Practicums (GBP) are offered to provide hands-on international experience that will help students prosper in the global marketplace (Rollins MBA Brochure 2010). The International Study Trip is designed for large groups (30 or more students) and offers an opportunity to meet one-on-one with high-ranking executives of premier multinational corporations in different countries. The goal is to observe first-hand the effects of *cultural influences on business.* Students on the International Study Trip are required to write a paper describing their experiences and relating their observations to the core curriculum of the MBA program.

The GBP is designed much like a practicum in a medical school, where students work directly with patients and make their diagnoses under the supervision of a clinical physician. In *a business environment*, the GBP becomes an international consulting project that allows students to deal directly with managers of a host firm, observe business practices, and provide advice about solving a problem that the manager faces. Students work on real-world projects whose success depends on their intellectual and practical application of key business concepts.

Each GBP consulting project is **unique** and the deliverables are defined jointly by the company manager, the students, and the professor. For example, in 2002, Crummer MBA students worked on a project to help internationalize the operations of a small electronics manufacturer of capacitors from Upstate New York – Custom Electronics Incorporated (CEI) – in establishing additional business in Germany. The student group focused on Germany because sales have dropped to almost nothing in the country over the last couple of years. To achieve this purpose, specific objectives were developed prior to departure for Europe, which allowed the students to better understand the electronics market in Germany. Five MBA students and their professor traveled to Germany to investigate the situation, interview experts, meet with the distributor, examine alternative distributors, and explore other ways to market into Germany.

In 2008, Crummer students and UniPu students collaborated on a project to establish analytical tools for tracking sustainable tourism development for Croatian tourism associations (tourism offices at local and regional level). The GBP "Crummer '08" was designed to create the surveys that measure consumer and local satisfaction with tourism for Istria County according to the United Nations World Tourism Organization's core indicators for sustainable tourism development in tourism destinations. Seven Crummer students and a professor traveled to Pula, where they worked with six students and two assistant professors from UniPu. The group developed two surveys (one for visitors and one for locals) that provided valuable data that could be used by tourism officials and managers. It was one of the first efforts at collecting data relating to visitor satisfaction.

Learning objectives. A number of learning outcomes can be directly attributed to the GBPs as they relate to international business education.

First, students learned to *interact and communicate in a cross-cultural international setting with top governmental officials and business constituents*. Meetings include discussions with various officials and business people.

Second, the *students developed intimate knowledge, both tacit and explicit, of a foreign market*, namely Croatia. In structuring the report to the company, the students had to

develop an understanding of the drivers of Pula's economy, and then write a summary of the Pula economy and culture in addition to analysis of the tourism market in Istria which was the primary goal of several analyses from 2002 to 2008.

The third student outcome is *learning how to work as a team on an international project.* The total involvement in each others' lives, the day-in day-out interaction with one-another, is a source of additional stress not encountered in a classroom setting, but it also brings awareness and education beyond what is obtained in the classroom. This immersion requires from the students and the supervising faculty a greater level of flexibility, patience and maturity.

Finally, students *learn how to write a professional business report that is presentable to top managers* in a real company.

The report writing stage begins prior to the international trip through background research and ends after several iterations are completed after students return and are able to digest the materials that were collected during the trip (see: Matulich, 2003.; Alon, 2004).

4.2. GLOBAL BUSINESS PRACTICUM: EXPERIENCE FROM THE CROATIAN PERSPECTIVE

From the Croatian perspective, the starting idea for creating a similar mutually benefit relationship was to design a short business education practicum. Under the project title **"Collaborative Student and Faculty Experiential Exchanges"**, Global Business Practicum was designed to strengthen the relationship between the Faculty of Economics and Tourism (FET) "Dr. Mijo Mirkovic" University of Rijeka at Pula, Croatia and the Crummer Graduate School of Business, Rollins College, in Winter Park, Florida. The goal was accomplished in the first two years (2000-2002) beyond original expectations (the Fulbright Foundation grant was for two years). In each of the two years a group of Croatian students and faculty spent two weeks in Florida hosted by the Crummer School, and a group of Crummer students and faculty spent two weeks in Pula hosted by FET.

The relationship between the participating schools has been strengthened as a result of this program. From year 2000 to 2008, a total of over 60 Croatian students and faculty visited the Crummer School to become familiar with its faculty, staff, and students, its methods of teaching, and its relationship with the local business community. In the same period, 57 Crummer students and faculty spent two weeks working closely on GBPs with students and faculty of Department of Economics and Tourism (OET UniPu) in Pula. In addition, four Crummer Faculty members were (one is now) Fulbright Fellows at FET/UniPu, a direct result of his introduction to the school as part of this program.

In 2008, the GBP "Crummer '08" under the title "Sustainable Tourism in Istria" was organized and realized as an original interactive contribution to the major UniPu Department of Tourism's strengths:

- as a part of mandatory class "Practicum" (P100) (Module: Tourism; ECTS: 3), the GBP was
- actively directed by the scientific research "Sustainable Tourism in Croatia: A Taste of Istria" (Scientific Project No. 303-0000000-2451, the Ministry of Science, Education and Sport Republic of Croatia).

The GBP 2008. The visits to Croatia by Crummer faculty and students were organized to satisfy the needs of Crummer students, all of whom are graduate students working toward their MBA degrees. A requirement of the program was that these students must have completed a minimum of one year of their graduate studies, and must enroll in a Crummer elective course (INT 604, Global Business Practicum). While in Pula, they must work on a

project, the research and preparation for which are typically done in the semester prior to departure is scheduled. Upon arriving in Pula, the Crummer students are paired with Croatian students with whom they work. The projects on which the students work are designed to offer a valuable educational experience and to provide benefits for the Croatian community, which depends largely of foreign tourism.

At the end of the project, the Crummer students were required to prepare a written report on the project they completed, and they receive three hours of academic credit toward their MBA degree.

To expose the Crummer students to Croatian culture and way of life, they were housed with families of FET students, usually those assigned to work on the project. This enables the visitors to develop a close relationship with their hosts, and interact with them at meals and outings. In addition to working on the project, the program in Croatia includes a number of cultural and educational activities. The visitors take escorted tours of local businesses, visit points of interest, and have free time available with their hosts.

Crummer faculties who accompany the students to Pula are also active during their visits. They interact with OET/UniPu professors and administrators, and because acquainted with the school and area, so that they can lead future groups of students to Croatia. They also participate in the development of UniPu, such as the planning of a future graduate program or joint research projects.

Croatian visit to Florida. The 2008 itinerary included attending several lectures at Rollins College, meetings and discussions with students, faculty, and administrators, and visits to businesses with which the Crummer School has a close relationship. Along with these activities, the visit was to emphasize the cultural development and understanding of the guests, which was accomplished by housing them in the homes of Rollins students, faculty, and friends, and allowing sufficient time with their hosts to become acquainted with the American way of life. As members of a school of tourism, the Croatian visitors were also introduced to some of the unique tourist attractions in Florida, which coincidentally are businesses with which the Crummer School has close relationships. Visits to many of these businesses resulted not only in behind-the-scenes tours of operations, but also in substantial amounts of in-kind financial support which was not anticipated in the original budget submitted with the grant proposal. Without exception, the Croatian visitors were enthusiastic about their visit, highly satisfied with its educational and cultural achievements, and delighted with their experiences.

4.3. EVALUATION OF THE COLLABORATION

The fundamental criterion was how well the program fulfills the educational mission of that constituent. At the student level the mission was to allow the student to develop skills in critical thinking, to think across disciplinary and national boundaries, and to apply principles learned in the classroom. The educational mission for faculty was to broaden the classroom environment beyond lecturing, to enhance teaching skills and to learn to teach in English. The institution's educational mission was to broaden and modernize its curriculum, to develop a degree of autonomy as allowed by the ministry, and to build a quality graduate program by attracting foreign and domestic students. The government through the Ministry of Science was modernizing the higher education system in Croatia in an effort to improve the quality of education. It also wanted to encourage alternative pedagogical approaches, disseminate the use of technology and empower local institutions to be creative within the general educational policy of the government.

One measure of the collaboration's success was whether each of the parties uses what it learns. Students developed a skill set that they didn't have before, which will enable them to become better managers. Faculty learned new pedagogy that they can use in the classroom. FET could use the collaboration as a recruiting tool in attracting students and faculty. The collaboration benefited the local economy because the results of the projects are implemented by the tourism industry. The government benefited from a paradigm that can be replicated at other universities.

Cost was an important consideration because the goal is to develop a program that couldn't be generalized throughout the curriculum. If the program has been provided educational benefits that justify its costs, it might be possible to require such experience.

5. DISCUSSION

1. For Crummer Graduate School of Business's students, the international business consulting trip is a high-level preparatory experiential class that requires a high level of coordination and preparation by the students and faculty alike. When comparing the experiences' level between Crummer MBA students and the OET UniPu undergraduates, it is probably more appropriate for an MBA program than an undergraduate program. Even within an MBA program, it is more appropriate for students who have some training in international business and who have a certain level of maturity and business experience. In both cases, an application process is highly recommended and the team makeup should be examined in detail prior to departure and/or to collaborate in the host institution.
2. The Practicum counts as 3 credits (both 3 USA/MBA credits and 3 ECTS) and students receive a grade at the end. The consulting project is a semester long project, out of which one week is used for field research, usually during the mid-semester break. For Crummer MBA it is an elective international business course, and the school runs these consulting projects twice a year. According to the licenced adacemic programs the OET UniPU is offering, Practicum class it is a mandatory undergraduate (P100) and/or graduate (P200) course performing each academic year.
3. There are also differences in the selection procedure between institutions. Crummer students are chosen by examining their academic and professional background. Oftentimes, these students are identified by the professor while they are taking his/her class. This way, the professor can better assess their academic qualifications and interpersonal skills. About five students participate in each consulting project. Most students that participate in the consulting project have some work experience, but students with no work experience that are in the second year of their MBA are also allowed to participate. The OET UniPu undergraduate and graduate students actively participate at chosen activities leading by their professor and faculties (mandatory class), while – because of the academic year project requirements - some of them are chosen to participate in particular project according to their knowledge, affiliation, and overall excellence (team-working readiness, communication skills, and sufficient knowledge of Business English).
4. The learning outcomes from an international business practicum complement the traditional class setting and give the students perspectives which are difficult to bring into the classroom. The students value these experiences because they provide an element of realism which is difficult to emulate in the classroom and allow the students to synthesize and apply the courses they have already taken. Given the positive outcomes that are possible, MBA programs are advised to develop experiential

international business education curriculum to their students in order to prepare them for managerial positions in the global business environment of the future.

6. CONCLUDING REMARKS

Work-directed team projects such as the Global Business Practicum, shaped and evaluated as an international economics and/or business education program for students with different educational experiences and possibilities to learn from businesses, promote mutual understanding and (knowledge) competence. Working on diverse project themes, students are forced gradually to experience business practices in different social contexts.

Regardless of whether a broader higher educational reform is at work (as it is in Croatia presently) or it concerns the reconstruction of a specific part of educational process, organizational and also technological solutions yet applied in schools/faculties are able to influence qualitative shifts in "producing" education. The introduction and the implementation of mutually beneficial programs certainly contribute to a different, *reform-oriented* type of learning.

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PREDNOSTI ISKUSTVENOG UČENJA U RAZVOJU MEĐUNARODNIH STUDIJSKIH PROGRAMA EKONOMIJE I POSLOVNE EKONOMIJE

Sažetak

Procesi internacionalizacije u visokom obrazovanju moraju poštivati jedinstvenost pojedinih društava i kultura, te – u okolnostima sveopće globalizacije – moraju poticati razumijevanje i suradnju u okvirima međunarodne akademske suradnje. U tom je kontekstu moguće razumijevanje međunarodne dimenzije visokog obrazovanja kao perspektive, aktivnosti ili programa koji uključuju interkulturalni pristup temeljnim funkcijama sveučilišta.

Global Business Practicum na Rollins College-u i suradnja između Rollins-a i Sveučilišta Jurja Dobrile, Odjela za ekonomiju i turizam "Dr. Mijo Mirković" u Puli pružaju brojne poučne primjere o obrazovanju studenata ekonomije i poslovne ekonomije uz sudjelovanje u poslovnim projektima, te mogućnostima evaluacije međunarodne suradnje kroz sustav ECTS-a i - jednako tako - sustav vrednovanja koji se primjenjuje u SAD-u.

***Ključne riječi**: iskustveno učenje, iskustva studenata, ekonomsko i poslovno obrazovanje, praktikum, Hrvatska*

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EXTENDING THE TOURISM DESTINATION IMAGE CONCEPT INTO CUSTOMER-BASED BRAND EQUITY FOR A TOURISM DESTINATION

Abstract

This paper explores the demand-side perspective on tourism destination phenomenon and investigates whether more comprehensive measure for its evaluation could be applied to the destination brand. Unlike many previous studies dealing mostly with a tourism destination image concept, the approach employed in this paper proposes a more comprehensive measure of destination image and includes the dimensions of tourism destination awareness, quality, and loyalty. The theoretically proposed model was empirically verified for two competitive European tourism destinations (Slovenia and Austria) from the perspective of two culturally heterogeneous tourist markets (Germans and Croatians). The results imply that the traditionally investigated image concept represents the most important dimension in a destination's evaluation. However, for a more comprehensive evaluation the dimensions of tourism destination awareness, quality and loyalty should be added. Drawing on the results, the paper also offers some implications for tourism organizations in developing and implementing destination marketing strategies in foreign markets.

JEL classification: M31, M39

Key words: brand, destination, image, tourist, customer-based brand equity

1. INTRODUCTION

There is no doubt, among academics and practitioners alike, that the investigation of a demand-side perspective on the tourism destination is of strategic importance for destination in order to obtain a competitive and sustainable position in the market (Konecnik Ruzzier, 2010; Uravić and Šugar, 2009). The concept of demand-side perspective on tourism destination has not, however, been uniquely defined and operationalised in the literature. Most tourism destination studies investigate it through the concept of tourist destination image, which has a dynamic and fruitful research history (Hunt, 1975; Echtner and Ritchie, 1993; Gartner, 1993; Baloglu, 2001; Gallarza, Gil and Calderon, 2002; Konecnik, 2004).

Latest research literature suggests, that tourism destination can be treated as a brand (Cai, 2002; Morgan and Pritchard, 2002; Olins, 2002; Konecnik and Gartner, 2007; Konecnik and Ruzzier, 2008; Konecnik Ruzzier, 2010). The question arises whether its evaluation, from the customer's perspective, can be similar to what is proposed in the branding literature. The demand-side perspective on the branding concept has mostly been introduced through the concept of customer-based brand equity (hereafter: CBBE) (Aaker, 1991; Keller, 1993) which has been viewed as comprising several dimensions. Within these studies, brand image represents one dimension but it is not the only one.

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The main purpose of this paper is to examine whether a more comprehensive approach to a tourism destination brand's evaluation is necessary. In the process of doing so the subject of an appropriate measurement instrument for analyzing the tourism destination brand is also addressed. During this investigation we seek to confirm the role of the tourism destination image dimension, as the most critical for the CBBETD concept, as indicated by previous studies. Therefore, a theoretically proposed model is tested via an empirical investigation of two competitive European tourism destination brands (Slovenia and Austria) from the perspective of two culturally heterogeneous tourist markets (Germany and Croatia).

2. LITERATURE REVIEW

2.1. TOURISM DESTINATION IMAGE

A significant amount of effort has been devoted to presenting and analyzing the complex nature of the tourism destination image concept. The concept has been intensively investigated over the last three decades (Gunn, 1972; Hunt, 1975) and today remains one of the prevalent topics among tourism researchers (Baloglu and McCleary, 1999a and 1999b; Baloglu, 2001; Pike, 2002; Gallarza, Gil and Calderon, 2002). While various authors have been unable to accept a common definition, they do share a common opinion, namely that a tourism destination image plays an extremely important role in tourists' destination evaluation and selection processes. This important role has not been confined to the academic community but also involves many destination practitioners who in their investigations have sought answers to support further destination marketing strategies.

Although, so far, there has been no consensus on a general theoretical and empirical conceptualization of the destination image concept (Gallarza, Gil and Calderon, 2002), much work has been done in the area of its conceptualization (Gartner, 1993; Gallarza, Gil and Calderon, 2002) and operationalization (Echtner and Ritchie, 1993; Gallarza, Gil and Calderon, 2002). Especially the latter, making the concept operational, has been the subject of many tourism destination image studies, which have utilized an empirical perspective (Pike, 2002). Empirically-based destination image studies offer numerous attribute-based variables for image operationalization, which have already been systematically reviewed by many authors (Echtner and Ritchie, 1993; Mazanec, 1994; Gallarza, Gil and Calderon, 2002).

Unlike the systematic overview of attribute-based image variables (Mazanec, 1994; Gallarza, Gil and Calderon, 2002), none of the recent analyses explicitly mentioned that previous image investigations could also have possibly included a quality dimension. This argument was proposed by Baker and Crompton (2000:788), who stated that 'much of the image research reported in tourism measures perceptions of quality of a destination's attributes'. This argument is partly supported by the image concept investigation conducted by Baloglu and McCleary (1999a:881), where the 'quality of experience' represents one of the factors in conceptualizing the image construct. Another quality indicator is also evident from examining the influence of price on image evaluation. Price has been included as one of the attribute-based variables in many destination image investigations (Crompton, 1979; Echtner and Ritchie, 1993; Baloglu and Mangaloglu, 2001; Konecnik, 2002). The marketing literature has treated the price category as one of the important quality extrinsic cues (Olson, 1977).

2.2. CUSTOMER-BASED BRAND EQUITY

The marketing literature has investigated the demand-side perspective on the branding phenomenon through the customer's evaluation of brand equity (Aaker, 1991; Keller, 1993; Yoo and Donthu, 2001). As a relatively newly developed construct, the concept of CBBE has

attracted great interest in the last fifteen years (Barwise, 1993; Vazquez, del Rio and Iglesias, 2002). One of the most commonly accepted definitions of the CBBE concept was introduced by Keller, who defined it 'as the differential effect that brand knowledge has on consumer response to the marketing of that brand' (Keller, 1998: 45). Following the same author, brand knowledge is conceptualized according to an associative network memory model in terms of two dimensions**,** brand awareness and brand image. During this time, many valuable contributions regarding CBBE have been made, but several authors still recognize the absence of a general theoretical framework (Vazquez, del Rio and Iglesias, 2002) and agreement on how it should be measured (Yoo and Donthu, 2001). Unlike the previous level of versatility of measurement instruments, some efforts leading to an adjustment of brand equity measures are recognized. These steps are evident in analyses (Faircloth, Capella and Alford, 2001; Yoo and Donthu, 2001 and 2002) based on Aaker (1991) and Keller's (1993) categorization. Combining both approaches of the leading CBBE authors, we follow the line of researchers (Aaker, 1991; Yoo and Donthu, 2001) who claim that the customer's evaluation of a brand comprises awareness, image, quality, and loyalty dimensions.

All the presented measures are categorized in the so-called indirect approach (Aaker, 1991; Keller, 1993), which attempts to assess the potential sources of CBBE. On the contrary, the direct approach attempts to measure CBBE by assessing the impact of brand equity on the consumer's response to different marketing elements. The most useful approaches for directly assessing customer-based brand equity are 'blind' tests or conjoint or tradeoff analysis. Although the indirect and direct approaches are, for Keller (1993), complementary and should be used together, in our work we shall limit ourselves to the indirect approach, which fulfills all the criteria in which we are interested.

2.3. CUSTOMER-BASED BRAND EQUITY FOR A TOURISM DESTINATION

Contrary to numerous studies dealing with the tourism destination image concept (which also include a quality dimension), the other two dimensions have been less intensively studied. Tourism destination awareness has mostly been investigated within the topic of the destination selection process (Goodall, 1993). These studies argue that awareness is a first and necessary step leading to destination visitation, but it is not a sufficient one (Milman and Pizam, 1995). Destination loyalty has only attracted little interest within the volumes of tourism destination research. Oppermann (2000) shares the same opinion in his seminal work on tourism destination loyalty in which he argues that the loyalty dimension should not be neglected when examining tourism destination selection and performance. Some previous studies about tourism destination customer performance have only partly incorporated the loyalty dimension (Gitelson and Crompton, 1984; Bigne, Sanchez and Sanchez, 2001; Kozak, 2001).

However, not all recent tourism destination studies have employed all the proposed dimensions, although all dimensions have been the subject of some (i.e. loyalty) or numerous (i.e. image) previous tourism destination investigations. Many authors have combined the other proposed dimensions with the most investigated concept, destination image. For example, Milman and Pizam (1995) combined the concept of destination image with the awareness dimension. Tourism destination awareness has mostly been investigated within the topic of the destination selection process (Goodall, 1993; Sirakaya, McLellan and Uysal, 1996). These studies argue that awareness is a first and necessary step leading to destination visitation, but it is not a sufficient one (Milman and Pizam, 1995). Further, Bigne, Sanchez and Sanchez (2001) combined image with a quality dimension and added some variables investigating attitudinal loyalty. Other studies about tourism destination customer performance have partly incorporated the loyalty dimension (Gitelson and Crompton, 1984;

Fakeye and Crompton, 1991). In addition studies have investigated the relationship between image and attitudinal or behavioral loyalty variables (Milman and Pizam, 1995; Chen and Kerstetter, 1999; Woodside and Dubelaar, 2002) and Oppermann (2002) argues that the loyalty dimension should not be neglected when examining tourism destination selection and performance.

Studies, that combines more dimensions of the brand equity concept for a tourism destination, have been published just recently (Pike, 2007; Konecnik and Ruzzier, 2008; Boo, Busser and Baloglu, 2009; Pike, 2009).

3. METHODOLOGY

3.1. RESEARCH HYPOTHESES AND CONCEPTUAL MODEL

What these previous tourism destination studies indicate is that a relationship between the proposed dimensions does exist, although the influence of each dimension on CBBE may not be the same. Therefore the following hypotheses were proposed to guide the direction of this study.

Hypothesis 1: There is a positive and significant relationship between the proposed dimensions of the CBBETD concept.

Hypothesis 1a: There is a positive and significant relationship between tourism destination awareness and tourism destination image.

Hypothesis 1b: There is a positive and significant relationship between tourism destination awareness and perceived quality.

Hypothesis 1c: There is a positive and significant relationship between tourism destination awareness and loyalty.

Hypothesis 1d: There is a positive and significant relationship between tourism destination image and perceived quality.

Hypothesis 1e: There is a positive and significant relationship between tourism destination image and loyalty.

Hypothesis 1f: There is a positive and significant relationship between perceived quality and loyalty.

Hypothesis 2: The level of the CBBETD is positively related to the extent to which dimensions are perceived by tourists.

Hypothesis 2a: The level of the CBBETD is positively related to the extent to which a tourist is aware of a tourism destination.

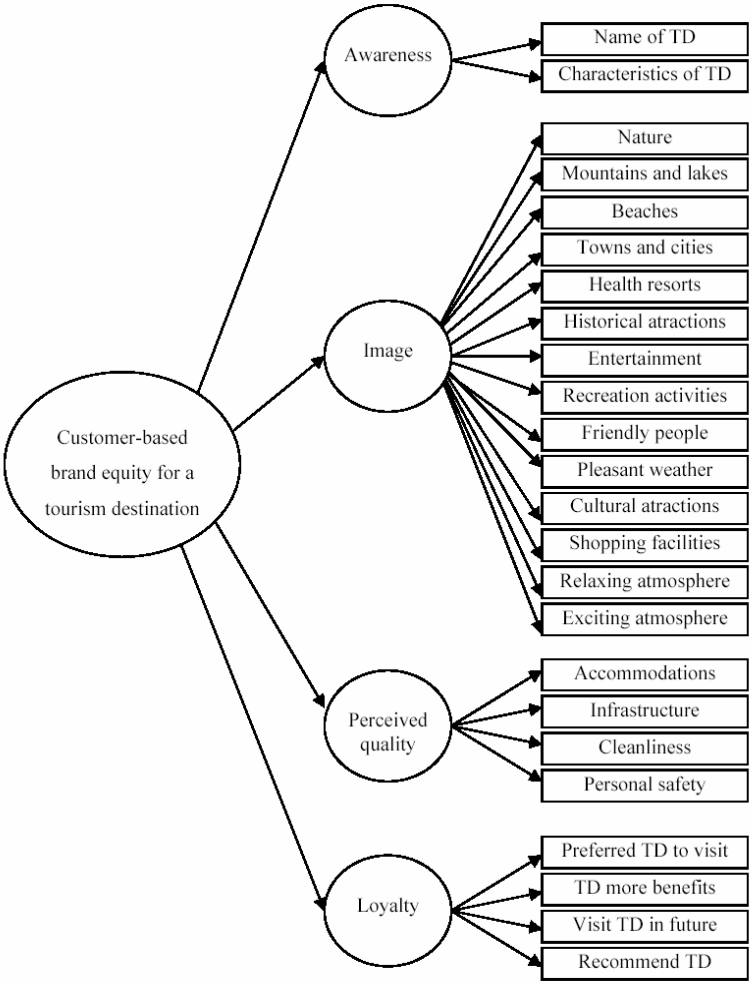
Hypothesis 2b: The level of the CBBETD is positively related to the extent to which a tourist has a positive image of a tourism destination.

Hypothesis 2c: The level of the CBBETD is positively related to the extent to which a tourist's perception of the quality dimension is positive.

Hypothesis 2d: The level of the CBBETD is positively related to the extent to which a tourist is loyal to a particular destination.

Hypothesis 3: Tourism destination image represents the core dimension of the CBBETD.

Figure 1.
Conceptual model of the customer-based brand equity of a tourism destination



We propose a conceptual model of the customer-based brand equity for a tourism destination, consisting of four dimensions: awareness, image, perceived quality and loyalty, which represent first-order factors, whereas the CBBETD represents a second-order factor (Figure 1). The conceptual model proposed that relationships between dimensions exist and that the importance of each dimension for the second order factor, CBBETD, is not the same. The estimated values between measured variables and latent factors (so called first order factors, which are named as CBBE dimensions in our paper) and between first-order factors (CBBE dimensions) and second-order factor (CBBE) are for all four sub samples presented in Table 3 and Table 7.

3.2. OPERATIONALIZATION OF THE VARIABLES

For operationalisation of the awareness variables authors from marketing (Yoo and Donthu, 2002) and tourism area (Milman and Pizam, 1995) were considered. The tourism destination image, which also included the quality dimension, has been the subject of many empirical studies in tourism research (Hunt, 1975; Echtner and Ritchie, 1993; Gartner, 1986 and 1989; Baloglu and McCleary, 1999a and 1999b; Gallarza, Gil and Calderon, 2002; Konecnik, 2002 and 2004). Operationalization of the brand loyalty dimension was achieved according to the suggestions of leading author in the marketing area (Oliver, 1996) as well as authors, who investigated this dimension within tourism destination studies (Gitelson and

Crompton, 1984; Fakeye and Crompton, 1991; Oppermann, 2000; Bigne, Sanchez and Sanchez, 2001). The detailed review of source of scale development is presented in Table 1.

Table 1.
Source of scale development for the customer-based brand equity dimension for a tourism destination

DIMENSION	SOURCE OF SCALE DEVELOPMENT
Tourism destination awareness	Milman and Pizam (1995) Yoo and Donthu (2002)
Tourism destination's image	Hunt (1975) Echtner and Ritchie (1993) Baloglu and McCleary (1999a and 1999b) Gallarza, Gil and Calderon (2002) Konecnik (2002 and 2004)
Tourism destination's perceived quality	Hunt (1975) Echtner and Ritchie (1993) Baloglu and McCleary (1999a and 1999b) Baker and Crompton (2000) Gallarza, Gil and Calderon (2002) Konecnik (2002 and 2004)
Tourism destination's loyalty	Gitelson and Crompton (1984) Fakeye and Crompton (1991) Oliver (1996) Oppermann (2000) Bigne, Sanchez and Sanchez (2001)

Content analyses from a preliminary qualitative research exercise was an additional source used for operationalisation of the variables. First, in-depth interviews with potential tourists from the generating markets was conducted. Twelve potential tourists were encouraged to participate in the interviewing process in April 2003. The interviews were recorded and subsequently transcribed. Content analysis was conducted independently by two researchers. The main purpose of the research was to identify the dimensions (awareness, image, quality, loyalty) Specifically, the research helped us with dividing traditionally proposed image attribute-based variables into variables presenting both the image and quality dimensions (Konecnik, 2010). Second, in-depth interviews were conducted with destination managers and marketers. Final variable selection was performed after both in-depth interview exercises were completed. Finally, scale refinement in line with experts' opinions, was performed to prepare the survey instrument for delivery. After careful review of all the previously mentioned information sources the final CBBETD scale consisting of five awareness, sixteen image, ten quality and seven loyalty variables for investigating each of the four proposed dimensions was developed.

3.3. THE STUDY INSTRUMENT

The study instrument was developed in English. Its wording and the face validity of the questions were examined by three other marketing and tourism destination area researchers. After that, the study instrument was translated into the German language by two bilingual experts fluent in both English and German. The verbal equivalence between the German and English versions was checked through a back-translation with another bilingual translator

(Brislin, 1976). Some adjustments were made for the final version of the study instrument. The same procedure was repeated for the Croatian version of the questionnaire.

The study instrument had four parts. In the first and second parts, questions about proposed CBBE dimensions for both investigated tourism destinations (Slovenia and Austria) were posed. Since a primary objective was to obtain the opinions of respondents who have at least some minimal knowledge of the investigated country, a filter question was employed at the beginning of the questionnaire. Only those respondents who were familiar with the countries of Slovenia and Austria were asked to continue. In the third part, questions comparing both destinations were included. The fourth part of the study instrument dealt with the socio-demographic characteristics and travel profiles of the respondents.

The study instrument only employed closed questions. For each proposed dimension (awareness, image, perceived quality and loyalty) a separate set of variables was used. The variables were measured using a 5-point Likert type scale anchored by the statements 1 = 'strongly disagree' and 5 = 'strongly agree'.

3.4. DATA ANALYSIS

With the aim to verify the theoretically proposed model and test the separate hypotheses, structural equation modeling (SEM) was selected as the most appropriate method of analysis (Bollen, 1989; Zabkar, 1999). As a prior step to the SEM technique, exploratory factor analyses were conducted. EQS software was used for conducting confirmatory factor analysis. Because the primary goal was to estimate relationships among dimensions and among variables, second-order confirmatory factor analysis was employed (Byrne, Baron, Larsson, Melin, 1995).

4. RESULTS

4.1. SAMPLE

Because the CBBE concept is analyzed for two tourism destination brands (Slovenia and Austria) from the viewpoints of two potential groups of tourists (German and Croatian), all our analyses are made on four sub samples: CBBE for Slovenia as a tourism destination involving German respondents (hereafter: CBBE SLOG); CBBE for Slovenia as a tourism destination involving Croatian respondents (hereafter: CBBE SLOC); CBBE for Austria as a tourism destination involving German respondents (hereafter: CBBE AUSG); and CBBE for Austria as a tourism destination involving Croatian respondents (hereafter: CBBE AUSC).

The final sample consisted of 806 respondents, including 402 respondents in the German market and 404 respondents in the Croatian market. Telephone interviews were performed by a professional research agency in the German and Croatian markets at the end of June and beginning of July 2003. Individuals aged older than 18 years were invited to participate in the survey. These individuals represent the potential tourist population of both analyzed destinations – Slovenia and Austria. Simple random samples in both markets were ensured. Therefore, it is assumed that the socio-demographic characteristics of respondents reflect the characteristics of the whole population in the German and Croatian markets (Table 2).

Table 2.

Socio-demographic characteristics of German and Croatian respondents

GERMAN RESPONDENTS	Percent	CROATIAN RESPONDENTS	Percent
GENDER		GENDER	
Male	46.3	Male	48.0
Female	53.7	Female	52.0
AGE		AGE	
18-24 years	6.7	18-24 years	17.3
25-34 years	18.9	25-34 years	22.8
35-44 years	27.6	35-44 years	20.8
45-54 years	21.1	45-54 years	18.8
55-64 years	14.4	55-64 years	10.9
More than 65 years	10.7	More than 65 years	9.4
No answer	0.5		
EMPLOYMENT STATUS		EMPLOYMENT STATUS	
Employed	58.5	Employed	55.0
Self-employed	5.7	Self-employed	3.7
Student/scholar	5.0	Student/scholar	8.4
Retired	15.9	Retired	15.6
Housewife/Unemployed	13.9	Housewife	5.2
No answer	1.0	Unemployed	12.1
EDUCATION		EDUCATION	
Primary school (9 years)	25.9	Unfinished primary school	0.2
Secondary school	29.9	Primary school (8 years)	6.4
Grammar school	21.6	Secondary school (3 years)	19.1
University degree	22.1	Grammar school (4 years)	42.3
No answer	0.5	University degree	31.2
		Master's or PhD degree	0.7
PERSONAL INCOME		PERSONAL INCOME	
To 500 EUR	8.2	To 1200 kn	5.7
From 500 to 1000 EUR	15.4	From 1201 to 2000 kn	11.1
From 1000 to 1500 EUR	15.7	From 2001 to 4000 kn	31.2
From 1500 to 2000 EUR	16.9	From 4001 to 6000 kn	20.3
From 2000 to 2500 EUR	8.2	More than 6000 kn	9.9
From 2500 to 3000 EUR	4.0	Without personal income	19.1
From 3000 to 3500 EUR	1.2	No answer	2.7
From 3500 to 4000 EUR	2.2		
More than 4000 EUR	2.7		
Without personal income	10.0		
No answer	15.4		

German respondents (n=402)
Croatian respondents (n=404)
EUR – German currency (Euro); Kn – Croatian currency (Kunas)

Because it was decided to employ in the analysis only those respondents who had heard of the investigated destination, data analysis was conducted on the four sub groups of the sample population: SLOG (n=376), SLOC (n=401), AUSG (n=395) and AUSC (n=404).

4.2. EXPLORATORY FACTOR ANALYSIS

In all four exploratory factor analyses, principal axis factoring (PAF) and the Oblimin rotation method were used. The number of CBBETD dimensions to be extracted was determined *a priori* on the basis of the theoretical background – four. We were able to explain 55% (AUSC) to 61% (AUSG) of the variance according to the initial eigenvalues and somewhat lower percentage of variance were explained (44% to 50%) after the Oblimin rotation. The appropriateness of exploratory factor analyses was determined by examining the correlation matrix of CBBE variables. Barlett's test of sphericity showed that the correlation matrix has significant correlations (significant at 0.000 for all variables as well as retained variables in all four samples). The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy indicated similar results. This measure varied from 0.84 (AUSC) to 0.90 (SLOG and SLOC), which indicates good or even very good sampling adequacy.

The four-factor solution was consistently found in each sample. Except in a few cases, the previously suspected variables loaded on the right factors. This was consistently repeated for all samples. The final list of variables for proposed factors was based on a consideration of the variables communality index and its factor loadings. Following the suggestions of previous authors, variables with a factor loading of at least 0.4 were retained for further investigation. In selecting the variables we also followed the rule that the difference in loading (between the right factor in comparison to another factor) should be at least 0.2. The number and list of retained variables is identical for awareness (three variables), quality (five variables) and loyalty (four variables) dimensions, whereas the number of important variables varied for the image dimension varied depending on the sub sample (i.e. from five variables in the sample AUSC, to ten variables in the samples SLOG and SLOC).

4.3. MEASUREMENT MODEL

A confirmatory factor analysis was made on all four investigated sub-samples. All CBBETD variables had positive, high and significant coefficients (Table 3).

The results suggest that the CBBETD consists of tourism destination awareness, image, quality and loyalty dimensions. The revealed dimensions in the four investigated sub-samples confirmed that both the German and Croatian markets held similar perceptions of Slovenia and Austria for the awareness, quality and loyalty dimensions. Destination awareness in the minds of potential tourists mostly involves destination name recognition, as well as the ability to recall some characteristics of the destination. In addition, the CBBETD is strongly influenced by the quality dimension, especially with respect to cleanliness, accommodation opportunities, infrastructure and personal safety. Further, the loyalty dimension consists of all the proposed four attitudinal loyalty variables, which described the investigated destination as one of the preferred destinations to visit, as a destination that provides more benefits than others, intention to visit the destination in the future and intention to recommend it to friends or relatives. Although the same variables were recognized for each sub-sample, their relative impact on each sub-sample's dimensions was not the same.

Unlike the perception of the awareness, quality and loyalty variables in the minds of German and Croatian respondents, the image variables perception, especially for Slovenia, was not the same. Slovenia's image in the minds of the German market is a combination of natural attractions (i.e. beautiful nature, mountains and lakes, good beaches, good opportunities for recreation activities) and its 'active' image component (interesting historical and cultural attractions, nightlife and entertainment, and people's friendliness) in lovely towns and cities. Further, the 'active' image component in Slovenia's towns and cities was also perceived highly by Croatian respondents and was, contrary to its natural attractions,

combined with Slovenia's affective component (pleasant weather, relaxing and exciting atmosphere). In a similar way the Germans' and Croatians' image perceptions of Austria are built on the variables of Austria's lovely towns and cities, its interesting historical and cultural attractions, as well as its good nightlife and entertainment opportunities. The 'active' image component (excluding people's friendliness) was again perceived similarly by both groups of respondents. In addition, health resorts represent an important image perception of Austria in the eyes of German and Croatian respondents. The sole difference existed with respect to the perception of Austria's good opportunities for recreation activities, which only had a strong influence on Croatian respondents.

Table 3.

Standardized solution for the variables

VARIABLE	DIMENSION	Standardized solution			
		SLOG	SLOC	AUSG	AUSC
Name of TD	AW	0.78	0.81	0.81	0.76
Characteristics of TD	AW	0.57	0.59	0.70	0.76
Beautiful nature	IM	0.70			
Beautiful mountains and lakes	IM	0.67			
Good beaches	IM	0.58			
Lovely towns and cities	IM	0.73	0.72	0.80	0.63
Modern health resorts	IM			0.66	0.58
Interesting historical attractions	IM	0.65	0.68	0.65	0.56
Good nightlife and entertainment	IM	0.44	0.51	0.51	0.59
Good opportunities for recreation	IM	0.67	0.60		0.66
activities	IM	0.68	0.65		
Friendly people	IM		0.63		
Pleasant weather	IM	0.59	0.64	0.71	0.62
Interesting cultural attractions	IM		0.55		
Good shopping facilities	IM		0.75		
Relaxing atmosphere	IM		0.58		
Exciting atmosphere					
High quality of accommodation	Q	0.76	0.68	0.70	0.72
High quality of infrastructure	Q	0.73	0.75	0.76	0.72
High level of cleanliness	Q	0.78	0.69	0.71	0.68
High level of personal safety	Q	0.64	0.66	0.56	0.52
One of the preferred destinations to	LO	0.75	0.78	0.76	0.62
visit	LO	0.80	0.82	0.74	0.73
Destination provides more benefits	LO	0.78	0.80	0.83	0.80
Visit destination in the future	LO	0.87	0.86	0.92	0.74
Recommend destination to friends					

All standardized solutions (standardized loadings) were statistically significant at 0.01 or a better probability level

Fit statistics for SLOG: χ^2 = 274.9*(df=146); χ^2/df = 1.88; NFI = 0.95; NNFI = 1.03; CFI = 1.00; IFI = 1.03; MFI = 1.11; GFI = 0.98; AGFI = 0.98; SRMR = 0.05; RMSEA = 0.00

Fit statistics for SLOC: χ^2 = 446.9*(df=164); χ^2/df = 2.72; NFI = 0.94; NNFI = 1.00; CFI = 1.00; IFI = 1.00; MFI = 1.01; GFI = 0.98; AGFI = 0.98; SRMR = 0.05; RMSEA = 0.00

Fit statistics for AUSG: χ^2 = 165.9*(df=84); χ^2/df = 1.98; NFI = 0.96; NNFI = 1.01; CFI = 1.00; IFI = 1.01; MFI = 1.02; GFI = 0.99; AGFI = 0.98; SRMR = 0.04; RMSEA = 0.00

Fit statistics for AUSC: χ^2 = 240.6*(df=98); χ^2/df = 2.45; NFI = 0.91; NNFI = 0.97; CFI = 0.97; IFI = 0.97; MFI = 0.94; GFI = 0.97; AGFI = 0.96; SRMR = 0.06; RMSEA = 0.04

*Probability value for the χ^2 statistic is 0.00000

The fit indexes (Table 3) indicate an excellent level of fit for all four models. Except for the measure of the χ^2 statistic, where the significance level was no greater than 0.00 in all proposed models, all other investigated indexes reached the level needed for their acceptance. However, the results of further investigated indexes: Bentler-Bonett normed fit index (NFI), Bentler-Bonett nonnormed fit index (NNFI), comparative fit index (CFI), Bollen fit index (IFI), McDonald fit index (MFI), goodness-of-fit index (GFI) and adjusted goodness-of-fit index (AGFI) exceeded the suggested threshold of 0.90. In addition, the models are also accepted due to measures of standardized root mean square residuals (SRMR) and the root mean-square error of approximation (RMSEA), with values less than 0.05.

The correlations among CBBE dimensions were all significant and ranged from 0.37 to 0.75, demonstrating convergence but not redundancy of the dimensions (Table 4). The highest correlations were recognized between image and quality dimensions (ranging from 0.58 to 0.75). The relationship between awareness and image dimensions as the highest correlation in the AUSC sample was the only exception.

Table 4.

Correlations among dimensions

	SLOG				SLOC				AUSG				AUSC			
	AW	IM	Q	LO	AW	IM	Q	LO	AW	IM	Q	LO	AW	IM	Q	LO
AW	1	0.52	0.46	0.58	1	0.46	0.38	0.42	1	0.49	0.49	0.52	1	0.63	0.42	0.37
IM		1	0.66	0.59		1	0.75	0.74		1	0.58	0.44		1	0.55	0.49
Q			1	0.63			1	0.63			1	0.48			1	0.50
LO				1				1				1				1

All correlations were statistically significant at 0.05 or a better probability level

Internal consistency measures were calculated with the aim of confirming the model's reliability and validity. On average, the CBBETD dimensions demonstrated good reliability (Table 5), which exceeded the threshold of 0.70. We calculated Cronbach alpha and composite construct reliability as our measures for checking the model's reliability. The suggested minimum criterion was not reached when examining Slovenia's awareness from both the German and Croatian market's point of view. However, this situation can be partly explained due to the small number of variables (two) included in the awareness dimension. For those scales consisting of a small number of items some authors have suggested (i.e. Pedhazur and Schmelkin, 1991) that the acceptable alpha limit is as low as 0.60 or 0.50.

Table 5.

Internal consistency measures of dimensions of the customer-based brand equity of a tourism destination

DIMENSION/SAMPLE	SLOG			SLOC			AUSG			AUSC		
	α	CRR	VE	α	CRR	VE	α	CRR	VE	α	CRR	VE
Awareness	0.64	0.64	0.47	0.67	0.68	0.50	0.73	0.74	0.57	0.73	0.74	0.58
Image	0.86	8.88	0.41	0.87	0.88	0.41	0.80	0.82	0.45	0.78	0.79	0.38
Quality	0.79	0.80	0.49	0.76	0.78	0.44	0.74	0.76	0.42	0.73	0.75	0.41
Loyalty	0.84	0.85	0.57	0.86	0.86	0.60	0.86	0.87	0.60	0.79	0.81	0.48

α – Cronbach alpha
CCR – composite construct reliability
VE – variance extracted

The measure of variance extracted (Table 5) was found to be satisfactory (over the threshold of 0.50) in the awareness and loyalty dimensions and somewhat below the expected

level for the image and quality dimensions. Because this criterion of construct validity was not satisfactory for the image and quality dimensions, we compared the measures of variance extracted for the image and quality dimensions with the squared correlation between suspected dimensions and any other dimension. In comparisons of variance extracted and squared correlation between the image and quality dimensions, the higher measure of variance extracted was confirmed in a comparison with at least one suspected correlation, which indicates the acceptance of the model's discriminant validity. The only exception in this case was found in the sample of Slovenia's evaluation by Croatian respondents, where the measure of squared correlations between the image and quality dimensions (0.56) was greater than either the variance extracted for image (0.41) or quality (0.44) dimensions.

In addition to confirming the construct's multidimensionality and especially in confirming the discriminant validity of the four-factor model, we performed tests on the significant χ^2 differences between the two models. The significant χ^2 differences between the models confirmed the multidimensionality of the construct in each sample (Table 6). Further, χ^2 differences were also statistically confirmed in the three-factor model in comparison to the four-factor model (χ^2 difference is presented in column M2-M4). In our three-factor model, the dimensions of image and quality were combined. However, the results indicated that the improvement in the χ^2 difference according to degrees of freedom is substantial in the four-factor model in comparison to the three-factor model in all four examples. The appropriateness of the four-factor model was also confirmed in the sample of Slovenia's evaluation by Croatian respondents (χ^2 difference 91.8; df=3).

Table 6.

Measures of construct validity

χ^2 (df)/SAMPLE	SLOG	SLOC	AUSG	AUSC
M1	650.9*(df=152)	783.3* (df=170)	768.0* (df=90)	583.9* (df=104)
M2	274.9* (df=146)	446.9* (df=164)	165.9* (df=84)	240.6* (df=98)
M3	252.1*	395.2* (df=150)	147.0* (df=75)	181.5* (df=88)
M1-M3	(df=133)	388.1 (df=20)	624.0 (df=15)	402.4 (df=16)
M2-M3	398.8 (df=19)	51.7 (df=14)	18.9 (df=9)	59.1 (df=10)
M4	22.8 (df=13)	538.7* (df=167)	321.5* (df=87)	357.1* (df=101)
M5	413.2* (df=149)	418.3* (df=150)	164.9* (df=75)	200.6* (df=88)
M1-M5	270.3*	365.3 (df=20)	603.1 (df=15)	383.3 (df=16)
M4-M5	(df=133)	120.4 (df=17)	156.6 (df=12)	156.5 (df=13)
M2-M4	380.6 (df=19)	91.8 (df=3)	155.6 (df=3)	116.5 (df=3)
	142.9 (df=16)			
	138.3 (df=3)			

M1 – one-factor model

M2 – four-factor model
M3 – model with a common factor and 4 dimensions
M4 – three-factor model (image and quality are combined)
M5 – model with a common factor and three dimensions
M1-M3 and M1-M5: contribution of dimensions
M2-M3 and M4-M5: contribution of the common factor
M2-M4: contribution of the four-factor model
*Probability value for the χ^2 statistic is 0.00000

4.4. STRUCTURAL MODEL

The previous analysis revealed the presence of high correlations between the proposed dimensions, which often suggests the presence of a second-order general factor (Byrne, Baron, Larsson, Melin, 1995). The appropriateness of second-order factor analysis (fit indices, reliability and validity measures) remains the same as in the previously presented measurement model (Table 3 and 5). The second-order factor analysis represents the structural model because the first-order factors (awareness, image, quality and loyalty) are related to the higher-order factor (CBBETD). In this analysis, all covariations among awareness, image, quality and loyalty were considered as being explained by the common factor – CBBETD (Byrne, Baron, Larsson, Melin, 1995). In our analysis, all causal paths of the CBBETD measure to the dimension of awareness, image, quality and loyalty were significant at the 0.001 probability level and are presented in Table 7 in a standardized solution.

Table 7.

Standardized solution for dimensions

		Standardized solution			
DIMENSION	2OF	SLOG	SLOC	AUSG	AUSC
Awareness	CBBETD	0.66	0.49	0.71	0.68
Image	CBBETD	0.78	0.93	0.72	0.82
Quality	CBBETD	0.82	0.80	0.76	0.70
Loyalty	CBBETD	0.78	0.80	0.64	0.63

All standardized solutions (standardized loadings) were statistically significant at 0.001 or a better probability level
2OF – second-order factor

Image as the most important dimension of the CBBETD measure (Table 7) was confirmed in the Croatian evaluations of both investigated destinations. However, the quality dimension was recognized as the most important one in the eyes of German respondents. This relationship was confirmed for both tourism destinations Slovenia and Austria. Generally we can conclude that the relatively small differences between the standardized loadings or path coefficients for the CBBETD dimensions indicate the importance of all the proposed dimensions in the general factor of the CBBETD measure.

5. DISCUSSION AND IMPLICATIONS

Consistent with our expectations, the correlations among CBBETD dimensions were all significant and positive. Further, the highest correlations were recognized between the image and quality dimensions (except in the sample AUSC). At the same time, the high correlations between the proposed dimensions of awareness, image, quality and loyalty revealed the presence of a second-order factor, namely the CBBETD. The results indicate the importance of all the proposed dimensions in the CBBETD concept (Table 8).

Table 8.

Relationship between dimensions

HYPOTHESES		SLOG	SLOC	AUSG	AUSC	RESULTS
H1	Significant and positive relationship between CBBETD dimensions					
H1ab	AW ↔ IM (+)[a]	0.52[b]	0.46	0.49	0.63	Supported
H1ac	AW ↔ Q (+)	0.46	0.38	0.49	0.42	Supported
H1ad	AW ↔ LO (+)	0.58	0.42	0.52	0.37	Supported
H1bc	IM ↔ Q (+)	0.66	0.75	0.58	0.55	Supported
H1bd	IM ↔ LO (+)	0.59	0.74	0.44	0.49	Supported
H1cd	Q ↔ LO (+)	0.63	0.63	0.48	0.50	Supported
H2	Dimension of CBBETD related positively to CBBETD					
H2a	AW → CBBETD (+) [a]	0.66[b]	0.49	0.71	0.68	Supported
H2b	IM → CBBETD (+)	0.78	0.93	0.72	0.82	Supported
H2c	Q → CBBETD (+)	0.82	0.80	0.76	0.70	Supported
H2d	LO → CBBETD (+)	0.78	0.80	0.64	0.63	Supported
H3	Tourism destination image core dimension of CBBETD					
	Core dimension	Q	IM	Q	IM	Supported

AW – awareness; IM – image; Q – quality; LO – loyalty; CBBETD – customer-based brand equity of a tourism destination

a. Hypothesized direction of effect

b. Completely standardized estimates. All were significant at 0.05 or a better probability level.

Tourism destination image was recognized as the most important dimension in the investigated CBBETD concept. These results support previous research findings from numerous tourism destination image studies which treated tourism destination image as a pivotal factor in a tourism destination choice. In addition, the proposed model suggested that a tourism destination image plays an important role in destination evaluation, but it is not the only factor. For more complete perceptions of tourism destination phenomena in tourists' minds, the dimensions of awareness and loyalty should be taken into consideration.

In our empirical investigation of the CBBETD we separated the traditionally investigated concept of tourism destination image into image and quality dimensions. However, although the so-called traditionally investigated concept of a tourism destination image represents the core dimension in the CBBETD concept, our analysis of the four samples confirmed the differing importance of these two dimensions. Image as the most important dimension was found in Croatians' evaluations of the CBBETD concept, whereas quality was recognized as the core dimension in Germans' evaluations of the destinations Slovenia and Austria. When interpreting these results, we can speculate that this finding may also be connected with Germans' cultural specifics because Germans generally stress the importance of quality. At the risk of stereotyping it does appears that commonly held cultural beliefs may actually be warranted in some cases. At the very least cultural differences should be investigated when analyzing the CBBETD concept. Drawing on these research findings a further conclusion can be made. It is possible that tourists from less developed countries (in our example Croatians) still evaluate and choose a tourism destination primarily on their

image perception, whereas quality is becoming the most important dimension in tourism destination evaluations in more developed countries, especially when the developed country has a history of being a long haul market (e.g. Germany).

The concept of the CBBETD therefore suggests that (national) tourism organizations as well as other organizations responsible for destination marketing in foreign markets should bear in mind that a tourist's opinion of a destination consists of awareness, image, quality and loyalty dimensions. Strategic tourism destination marketing campaigns should be employed in order to increase tourist destination awareness, its image and quality perceptions, and consequently also the loyalty dimension. The awareness dimension should be carefully considered, especially when we dealing with unknown tourism destination brands. In this study it was revealed that awareness was behind the other dimensions in terms of importance. However it must be emphasized that no destination can succeed without market awareness and the countries investigated in this study share the same geographical space thus awareness was a given and would not be expected to be the most important dimension in the CBBETD concept for the two markets studied. This points out one of the benefits of using dimensional analysis for studying the CBBETD concept and that is customization of the marketing strategy for different generating markets.

For example promotional campaigns should emphasize tourism identity characteristics with an aim to have an impact on tourists' destination image and quality perceptions. Tourists' positive perceptions can lead to visiting a destination but only if awareness precedes image and quality.

The hypotheses that were presented as guiding this research must all be accepted as the evidence indicates all dimensions are important in customer evaluation of a destination the four dimensions are related and do combine to create the concept of the CBBETD. Further all dimensions do not necessarily have equal importance to the customer. Each market has its own characteristics and each destination has its own ratio of repeat/renewal visitation. Both are instrumental when deciding what dimensions of the CBBETD concept to emphasize in the destination promotion strategy.

6. CONCLUSION

The paper introduced the concept of CBBETD and in doing so addressed the literature on a destination's evaluation from a customer's perspective. From an empirically verified model, at least two further conclusions can be drawn. First, consistent with previous findings, it was confirmed that tourism destination image plays the most important role in a destination's evaluation. In addition, some insights into the separation of the traditionally investigated image concept into image and quality dimensions were provided. The results imply that, although general image attributes are the most important variables in a destination's evaluation, tourists in different countries may find different dimensions of the CBBETD concept important to them. In this study quality represents the most important criterion in the destination evaluated for the German market. Image was the most important dimension for the Croatian market even though both destinations (i.e. Slovenia, Austria) were the same for each. Second, although the traditionally investigated image represents the most important dimension in a tourist's destination evaluation, for a more comprehensive evaluation the dimensions of tourism destination awareness and loyalty should be added.

While the results of the empirically verified model imply that a comprehensive measurement instrument which contributes to previous findings on a customer's evaluation of a tourism destination has been developed, this study is not free of limitations. First, the measures of the CBBETD dimensions could be more refined and developed. Further studies should increase the number of awareness variables and thereby improve the reliability test for

the awareness dimension. At the same time additional investigations are needed in the area of separating the traditionally investigated image concept into the proposed image and quality dimensions. Second, for improved generalizability of the proposed model additional tourism destinations as well as target groups of tourists should be investigated. It would be particularly interesting to investigate the different types of tourism destinations from the perspective of even more heterogeneous groups of tourists. Finally, and most importantly, although the extensive literature review undertaken for this study led to the development of four dimensions of the CBBETD concept their may be more. The emergence of four was predicted as the operational variables chosen all related to one of the dimensions. Further study may reveal the existence of even more dimensions than those revealed in this paper.

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Maja Konečnik Ruzzier

ŠIRENJE KONCEPTA IMIDŽA TURISTIČKE DESTINACIJE U ROBNU MARKU TURISTIČKE DESTINACIJE U OČIMA POTROŠAČA

SAŽETAK

Ovaj članak istražuje fenomen turističkih destinacija s persepktive potražnje i proučava da li bi iscrpniji postupci ocjenjivanja mogli biti primijenjeni na robnu marku destinacije. U usporedbi s prijašnjim studijama, koje su se uglavnom bavile konceptom imidža turističke destinacije, u ovom su članku postupci ocjenjivanja imidža destinacije iscrpniji i uključuju dimenziju svjesnoti, kvaliteta i odanosti turističkoj destinaciji. Teoretski predložen model empirički je provjeren na dvjema konkurentnim Europskim turističkim destinacijama (Sloveniji i Austriji) s perspektive dviju kulturno heterogenih turističkih tržišta (njemačko i hrvatsko). Rezultati su pokazali da tradicionalno istraživanje koncepta imidža predstavlja najvažniju dimenziju pri ocjeni destinacije. Ipak, za što iscrpniju ocjenu ne smijemo zaboraviti na svjesnost, kvalitet i odanost turističkoj destinaciji. Naslanjajući se na rezultate, članak nudi nekoliko implikacija turističkim organizacijama glede razvoja i primjene tržišnih strategija turističke destinacije na stranim tržistima.

JEL: M31, M39

***Ključne riječi**: marka, destinacija, imidž, turist, robna marka u očima potrošača*

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THE ESTIMATE OF THE MARKET RISK BY THE APPLICATION OF HISTORICAL SIMULATION METHOD IN THE PERIOD OF GROWTH OF STOCK EXCHANGE INDICES ON BELGRADE STOCK EXCHANGE

ABSTRACT

In Serbia there existed a period of investment growth, which reflected itself on the growth of stock market indices. The aim of this paper is to evaluate market risk at the Serbian market in period of investment growth, applying the method of historical simulation to a portfolio consisting of shares that are continuously traded at the Belgrade Stock Exchange, for which the data existed, since the Serbian stock exchange market is a young one, practically beginning. Method verification was carried out at different confidence levels, which demonstrated that the method underestimated the risk for the confidence level of 99%.

KEY WORDS: *market risk, Value-at-risk (VaR) model, historical simulation method, financial market*

JEL CLASSIFICATION: C51, C52, G21

1. INTRODUCTION

Risk management represents the core activity for companies operating in the financial market. Whether the companies are passively accepting financial risks or trying to achieve a competitive advantage by exposing themselves to financial risks within reasonable limits, these risks should be carefully appraised due to their potential danger of causing losses.

To facilitate the analysis and to understand the risk that financial institutions are exposed to, it is common practice to classify risks into several basic risk types according to their main causes. According to their origins, the financial risks are thus classified into market, credit and operating risks. Broadly speaking, market risk refers to changes in the value of financial instruments or contracts held by a firm due to unpredictable fluctuations

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in prices of traded assets and commodities as well as fluctuations in interest and exchange rates and other market indices. However, when the core activity of a business is to hold portfolios of assets, it would be dangerous to ignore their potential change in value. (Koenig, 2004).

Various models are used when analyzing such risks. One of the models used for market risk evaluation is the Value-at-Risk (VaR) model.

Value-at-risk (VaR) measures the worst expected loss over a given time interval under normal market conditions at a given confidence level (Dowd, 1998). Based on firm scientific foundations, VaR provides users with a summary measures of market risk. VaR is method of assessing risk that uses standard statistical techniques routinely used in other technical fields (Jorion, 1997). For instance, a bank might say that the daily VaR of it trading portfolio is $40 million at the 99% confidence level. In other words, there is only 1% probability from 100%, under normal market conditions, for a loss greater than $40 million to occur. VaR measures risk using the same measurement units as banks – e.g. $. Shareholders and managers may thus decide whether they consider a given risk level appropriate. In case they are not comfortable with the preffered risk level, the very process leading to VaR calculations may be utilized to make a decision on risk mitigation. Although it virtually always represents a loss, VaR is conventionally reported as a positive number. A negative VaR would imply the portfolio has a high probability of making a profit, for example a one-day 5% VaR of negative $1 million implies the portfolio has a 95% chance of making $1 million or more over the next day (Crouhy, Mark, Galai, 2001).

Financial institutions developed VaR as a general measure of economic loss, which may correspond both to the risk of individual items and the aggregate portfolio risk. The VaR approach originated as a methodology for market risk measurement, but the possibility of wider application was soon perceived. Besides the mentioned primary function, VaR methodology may also be used to make investment decisions by reevaluating the yield to risk relationship, ensuring a more consistent and integrated risk management. It was likewise understood that VaR methodology may be implemented to measure and manage other kinds of risk such as: liquidity risk, credit risk, cash flow risk, and even some of the operating and legal risks. In short, VaR creates possibilities for new approaches to comprehensive risk management.

During the eighties, large financial institutions (Bankers Trust, Chase Manhattan Bank, Citibank and others) began publishing the application of VaR in risk management systems. To implement this concept, a large amount of mutually interchangeable data was required, which was a huge problem until the appearance of RiskMetrics[1]. It consists of detailed technical documentation, as well as the covariance matrix for several hundred key points, which were updated daily. Since J.P. Morgan's RiskMetrics were published in 1994, there was a swift expansion of research into VaR methodology. Although the zone of evaluating and analyzing market risk exposure remained the main field of VaR implementation, applications were expanded to other types of risk as well.

In the last few years, many financial institutions have accepted VaR as an instrument for evaluating information on their portfolio positions. The regulatory authorities of most countries have recognized and acknowledge the VaR approach as one of several methods for

[1] RiskMetrics is a free service offered by JP Morgan in 1994, to promote VaR as a risk measurement tool.

measuring the market risk of financial institutions. Apart from its conceptual appeal, its popularity was promoted by the Basel Committee[1], which allowed banks to calculate their capital requirements for market risks using VaR methodology. In order to calculate VaR, banks may choose between the historical simulation method, analytical method and Monte-Carlo simulation.

The idea of the historical simulation method is to estimate VaR values without creating serious assumptions on return distribution. Recent empirical return distribution is used for VaR values assessment. This type of approach is based on the assumption that the near future is very much like the recent past and that recent past data may be utilized for near future risk assessment. This assumption might be valid in any given context, however it is not necessarily so.

Historical simulation methods are intuitive and conceptually simple, providing results that are easy to communicate to senior managers or bank supervisors or rating agencies. Since they do not depend on parametric assumptions about the behavior of market variables, they can accommodate heavy tails, skew ness, and any other non-normal features that can cause problems for parametric approaches, including Monte-Carlo simulation. Historical simulation approaches can be modified to allow the influence of observations to be weighted (e.g. by season, age, or volatility). They use data that are readily available, either from public sources or from in-house data sets.

The weaknesses of historical simulation stem from the fact that results are completely dependent on the data set. If the data period was unusually quiet (or unusually volatile) and conditions have recently changed, historical simulation will tend to produce VaR estimates that are too low (high) for the risks we are actually facing. Similarly, historical simulation approaches are sometimes slow to reflect major events, such as the increases in risk associated with sudden market turbulence. In general, historical simulation estimates of VaR make no allowance for plausible events that might occur but did not actually occur in the sample period (Koenig, 2004).

In practice, main concerns are usually to obtain a long-enough run of historical data. Many practitioners point to the Basel Committee's recommendations for a minimum number of observations, requiring at least a year's worth of daily observations (i.e. 250 observations, at 250 trading days to the year). However, such a small sample size is far too small to ensure that an historical simulation approach will give accurate and robust results. In addition, as the confidence level rises, with a fixed length sample, the historical simulation VaR estimator is effectively determined by fewer and fewer observations and therefore becomes increasingly sensitive over time to small numbers of observations. At the Basel mandated confidence level of 99%, the historical simulation VaR estimator is determined by the most extreme two or three observations in a one-year sample and in this case four or five observations in a one-year sample, and this is hardly sufficient to give as a precise VaR estimate.

[1] Basel Committee on Banking Supervision of Bank for International Settlements.

2. GENERAL SAMPLE INFORMATION

In this section, the estimation of market risk through application of the historical simulation Value-at-Risk calculation method is presented. A portfolio consist shares of 27 companies that are continuously traded at the Belgrade Stock Exchange (Portfolio). The data analyzed belong to a year-long period, between 22 May 2006 and 21 May 2007, for shares from the following companies: *Agrobačka a.d. Bačka Topola* (AGBC), *AIK banka a.d. Niš* (AIKB), *Alfa plam a.d. Vranje* (ALFA), *Bambi Banat a.d. Beograd* (BMBI), *Banini a.d. Kikinda* (BNNI), *Čačanska banka a.d. Čačak* (CCNB), *Dunav Grocka a.d. Grocka* (DNVG), *Energoprojekt holding a.d. Beograd* (ENHL), *Galenika Fitofarmacija a.d. Zemun* (FITO), *Imlek a.d. Beograd* (IMLK), *Novosadska mlekara a.d. Novi Sad* (MLNS), *Metalac a.d. Gornji Milanovac* (MTLC), *Napred GP a.d. N. Beograd* (NPRD), *Planum GP a.d. Beograd* (PLNM), *Progres a.d. Beograd* (PRGS), *Pupin Telecom a.d. Zemun* (PTLK), *Putevi a.d. Užice* (PUUE), *Radijator a.d. Zrenjanin* (RDJZ), *Ratko Mitrović a.d. Beograd* (RMBG), *Soja protein a.d. Bečej* (SJPT), *Srbolek a.d. Beograd* (SRBL), *Messer Tehnogas a.d. Beograd* (TGAS), *Tigar a.d. Pirot* (TIGR), *Telefonkabl a.d. Beograd* (TLKB), *Univerzal banka a.d. Beograd* (UNBN), *Univerzal - holding a.d. Beograd* (UNVR), *Zorka Pharma a.d. Šabac* (ZOPH).

The initial assumption was that on 22 May 2006, 10.000.000 dinars were invested into Portfolio. It was additionally assumed that the same amount was invested into each company.

Let *Vo* be the initial 10.000.000 dinar investment. Since the same amount was invested into each of the 27 companies, it means that was invested into every company:

$$10.000.000 / 27 = 370.370{,}370 \text{ dinars.} \quad (1)$$

If $p_{1,1}$, $p_{1,2}$, ..., $p_{1,27}$ are the share prices as of 22 May 2006, and q_1, q_2, ...,q_{27} are the numbers of purchased shares, then:

$$p_{1,1}\, q_{1,1} = p_{1,2}\, q_{1,2} = ... = p_{1,27}\, q_{1,27} = 370.370{,}370 \text{ dinars,} \quad (2)$$

$$\text{and } q_{n,n} = 370.370{,}370 / p_{n,n}. \quad (3)$$

The number of purchased shares in this example does not change, i.e. it remains constant during the observed analysis period, so only market price fluctuations and their impact on the portfolio value are being followed.

When the market prices of the shares $p_{2,1}$,$p_{2,2}$,.....,$p_{2,27}$ change, in this case, the following day the portfolio value was reduced to 9.930.981,340 dinars. The relative portfolio value change amounts to (9.930.981,340 – 10.000.000) / 10.000.000 = -0,00690 = -0,690 %, which means that a loss of 69.018,66 dinars was made.

A year later, in this case 249 working days, the portfolio value amounted was 24.521.567,951 dinars, i.e. a gain was made of 14.521.567,951 dinars. In this case the investment paid off because a profit of 145,22% was made.

3. CALCULATING VAR VALUES BY APPLYING THE HISTORICAL SIMULATION METHOD

After creating a portfolio and establishing daily portfolio value changes for the observed period of analysis (249 working days), the VaR value is determined for a specific confidence level.

When applying the historical simulation method, it is essential to designate the manner of weighting historical data (market prices). According to the basic method of historical simulation, an equal weight is assigned to all data, and thus, for the above mentioned stock portfolio, it amounts to 1/249 = 0,0040160643. It is well known that prices have different volatility in different periods of time (for instance, the natural gas price is usually more volatile in the winter than in the summer), thus the basic historical simulation approach, which unifies different volatility levels of historical data, tends to average out the volatility of aggregate returns. As a result of assigning an equal weight to all historical data, the actual risks are being underrated during certain periods and overrated during some other periods, creating potential for false effects - it is possible to get an unjustifiably high (low) VaR value due to a short period of high (low) volatility. These problems may be solved by having the historical data weighted in a suitable manner.

It is assumed herein that more recent historical data contains more information than less recent data and in that case data may be weighted according to the date of occurrence, so in this example of historical simulation less recent data are assigned smaller weight values than the more recent ones. The method used for weight determination is EWMA (*exponential weighted moving average*) method with the decay factor λ = 0,94 (suggesting how much the value of each observation reduces on a day-to-day basis). Weights are established by the following formula:

$$\omega_i = \frac{\lambda^{i-1}}{\sum_{i=1}^{T} \lambda^{i-1}}, \tag{4}$$

where ω_i is the weight associated with the *i*–th observation, *i* = 1,2,3,...., and *T* is the number of observed daily rates of portfolio value change (T = 249 working days).

In the following step, the rates of change in portfolio value (return rates) are ranked from the smallest to the largest, and the sequence of weights based on the date of occurrence is also changed accordingly. Cumulative weights are subsequently calculated:

$$\omega_{i,cum} = \omega_{i-1} + \omega_{i-1,cum} \tag{5}$$

where ω_i is the weight associated with the *i* – th observation, *i* = 1,2,3,.... , and $\omega_{i,cum}$ is the cumulative weight associated with the *i* – th observation.

The confidence level for each *i* - th return rate is determined on the basis of the cumulative weights, by assigning a confidence level of 1- $\omega_{i,cum}$ to each return rate.

The last step is the calculation of portfolio VaR for a specific confidence level. In this example the VaR values are calculated on the basis of one-day and ten-days forecast periods, for the confidence levels of 90%, 95% and 99%, as the absolute values of return rates for

given confidence levels (Table 1, Figure 1, Figure 2, Figure 3), by applying the basic historical simulation method and the following results were obtained:

Table1.

VaR values calculated for the portfolio consisting of shares that are continuously traded at the Belgrade Stock Exchange, by applying basic historical simulation method

Historical simulation	*1-day*	*10-days*
VaR (90%)	0,729%	2,31%
VaR (95%)	0,9333%	2,95%
VaR (99%)	2,4002%	7,59%

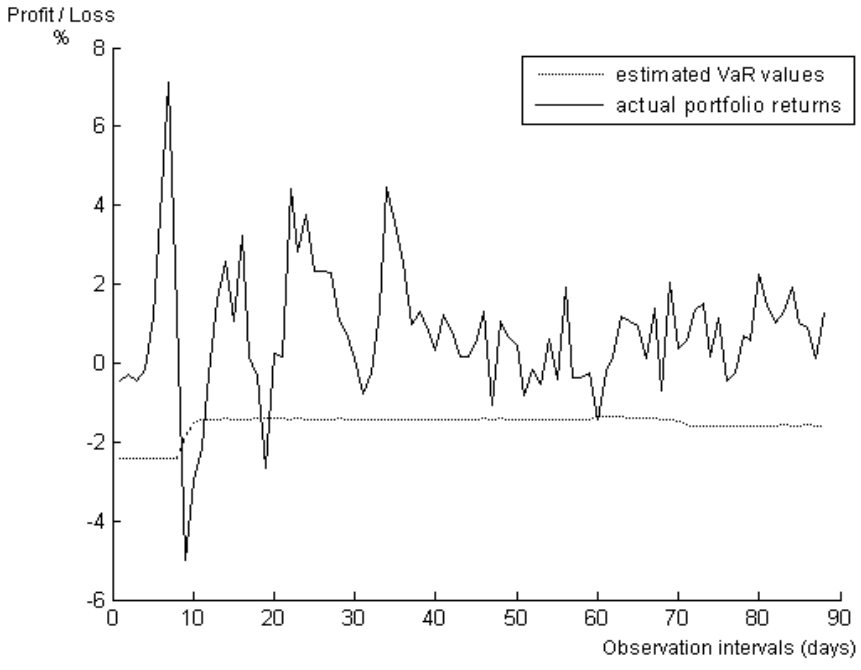
Source: Obadović, M. (2008).

The broken line in the figures 1 - 6 represents data on 88 consecutive VaR values, estimated on the basis of data on 249 value changes for the portfolio consisting of 27 shares that are continuously traded at the Belgrade Stock Exchange.

The black line in the figures 1 - 6 represents data on 88 consecutive actual portfolio returns to which VaR evaluations are compared.

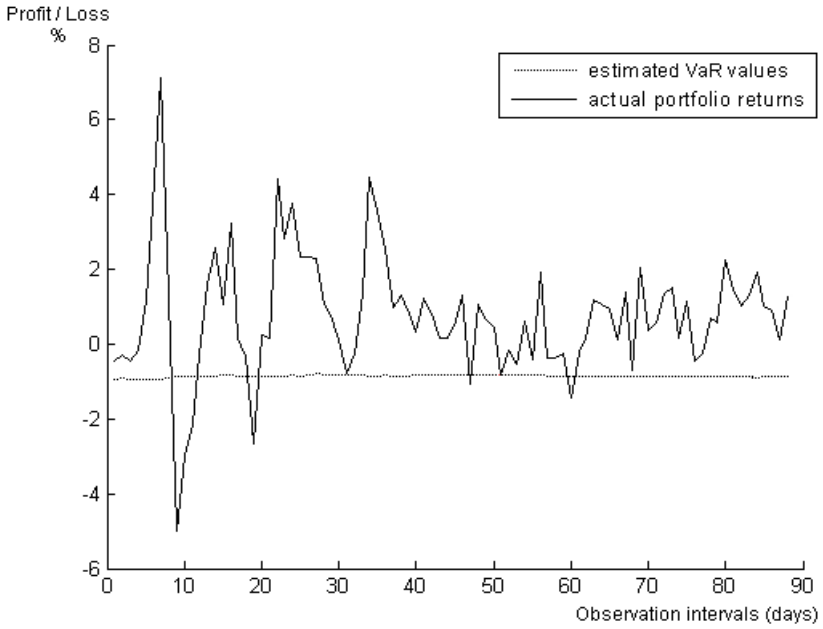
Figure 1.

Graphic of VaR values obtained by the basic historical simulation method, for the portfolio consisting of 27 shares that are continuously traded at the Belgrade Stock Exchange with the error risk of 0,01 and decay factor λ = 1



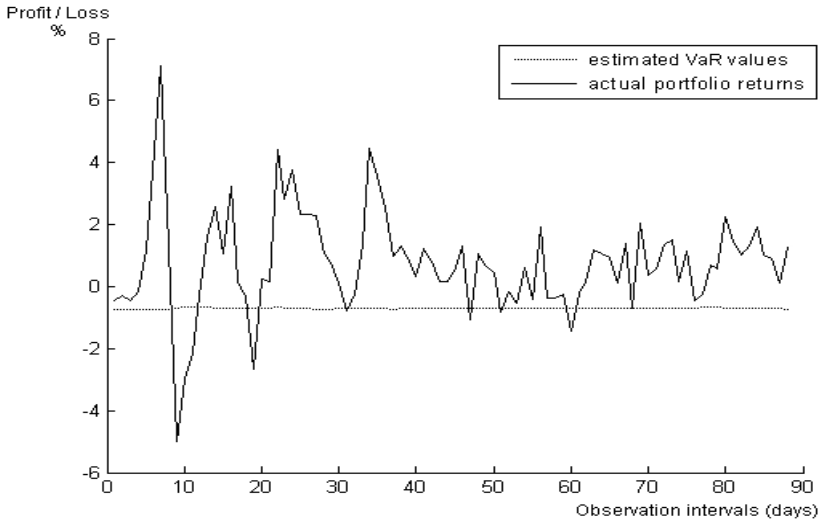
Source: Obadović, M. (2008).

Figure 2.
Graphic of VaR values obtained by the basic historical simulation method, for the portfolio consisting of 27 shares that are continuously traded at the Belgrade Stock Exchange with the error risk of 0,05 and decay factor λ = 1



Source: Obadović, M. (2008).

Figure 3.
Graphic of VaR values obtained by the basic historical simulation method, for the portfolio consisting of 27 shares that are continuously traded at the Belgrade Stock Exchange with the error risk of 0,1 and decay factor λ = 1



Source: Obadović, M. (2008).

In this example the VaR values are calculated on the basis of one-day and ten-days forecast periods, for the confidence levels of 90%, 95% and 99%, as the absolute values of

return rates for given confidence levels (Table 1, Figure 1, Figure 2, Figure 3), by applying the EWMA (*exponential weighted moving average*) historical simulation method and the following results were obtained:

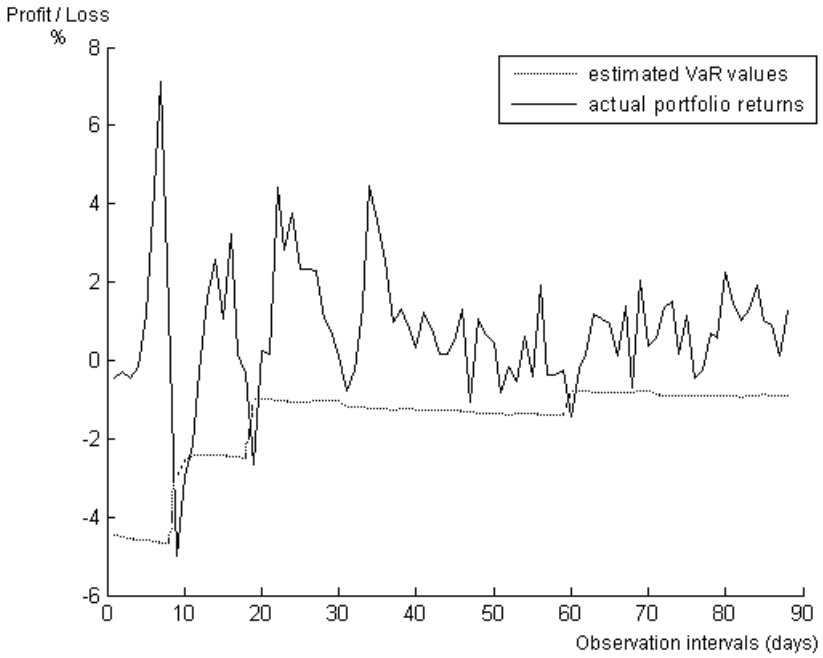
Table2.

VaR values calculated for the portfolio consisting of shares that are continuously traded at the Belgrade Stock Exchange, by applying EWMA historical simulation method

Historical simulation	*1-day*	*10-days*
VaR (90%)	2,0592%	6,51%
VaR (95%)	2,8913%	9,14%
VaR (99%)	4,4754%	14,15%

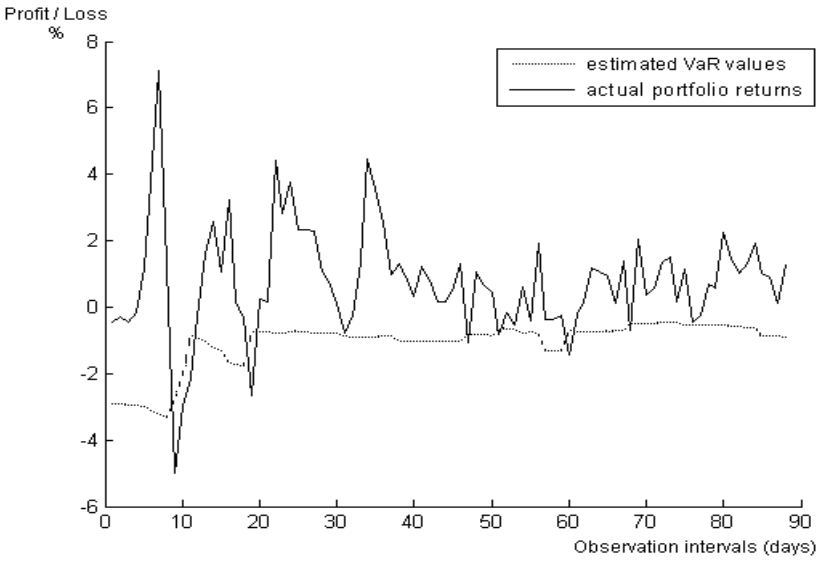
Source: Obadović, M. (2008).

Figure 4.
Graphic of VaR values obtained by the EWMA historical simulation method, for the portfolio consisting of 27 shares that are continuously traded at the Belgrade Stock Exchange with the error risk of 0,01 and decay factor λ = 0,94



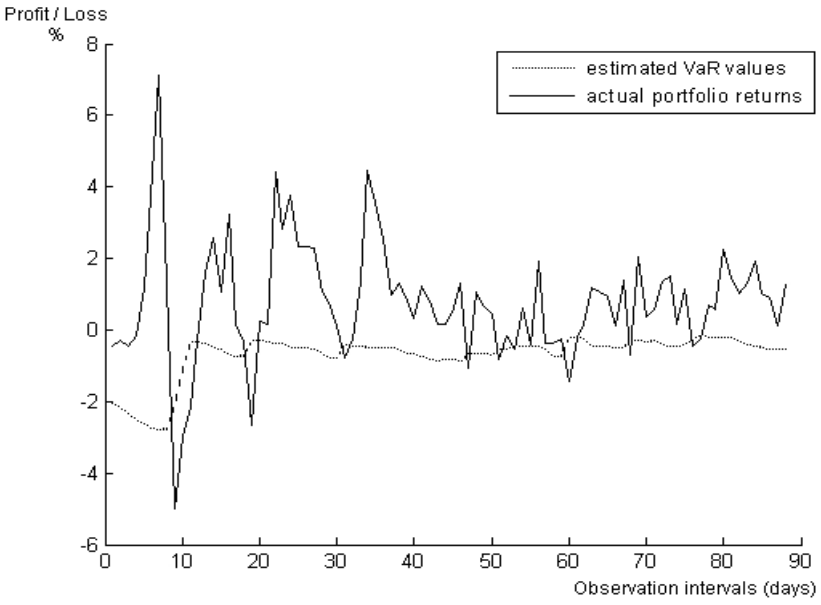
Source: Obadović, M. (2008).

Figure 5.
Graphic of VaR values obtained by the EWMA historical simulation method, for the portfolio consisting of 27 shares that are continuously traded at the Belgrade Stock Exchange with the error risk of 0,05 and decay factor λ = 0,94



Source: Obadović, M. (2008).

Figure 6.
Graphic of VaR values obtained by the EWMA historical simulation method, for the portfolio consisting of 27 shares that are continuously traded at the Belgrade Stock Exchange with the error risk of 0,1 and decay factor λ = 0,94



Source: Obadović, M. (2008).

4. MODEL VERIFICATION BASED ON THE FAILURE RATE

The simplest way of verifying model accuracy is to record the *failure rate,* which gives the proportion of how many times VaR has exceeded the expectations in a given sample.

In order to determine whether these models predict risks well, VaR is evaluated for 88 consecutive days, for Portfolio. The following tables demonstrate how many times the loss was larger than predicted by VaR:

Table3.

Review of the calculated values – how many times the actual loss exceeded the previous day VaR for Portfolio using the historical simulation method (T = 88)

Historical simulation	**λ = 1**	**λ = 0,94**
p = 0,01	N = 5	N = 4
p = 0,05	N = 7	N = 8
p = 0,1	N = 9	N = 12

Source: Obadović, M. (2008).

where T – total number of consecutive VaR predictions, and N – number showing how many times the actual loss exceeded the VaR from the previous day.

Subsequently, at the given confidence level, we need to know whether N is too small or too large, under the null hypothesis that p is a true probability. Once the failure rate is calculated as N/T and compared to the left tail probability, e.g. p = 0,01, which is used to determine VaR evaluation, if they match the VaR evaluation was correct, and if they differ significantly the model has to be rejected.

For the sake of illustration, the confidence level is set at 95%. This number does not refer to the quantitative level *p* that was selected as the VaR, which might be *p* = 0,01 for instance. This confidence level refers to the decision on whether to reject the model or not. It is generally set at 95% because this corresponds to two standard deviations under a normal distribution (Jorion, 1997).

Kupiec (1995) developed the confidence regions for such a test. These regions are defined by the tail points of likelihood ratio:

$$LR= -2\ln [(1 - p)^{T- N} p^{N}] + 2\ln [(1 – (N/T)^{T - N} (N/T)^{N}], \quad (6)$$

which is distributed through χ^2 test with one degree of freedom under the null hypothesis that p is a true probability.

For example, with data for the portfolio consisting of local shares (T = 88) it could be expected that N = pT = 10% × 88 = 8,8 deviations will be observed. However, the regulator will not be able to reject the null hypothesis as long as N is within the confidence interval [2 < N < 15]. Values of N greater or equal to 15 suggest that VaR model represents the probability

of large losses lower than they actually are; values of N that are less than or equal to 2 suggest the VaR model is too conservative. The following table shows the regions in which the model is not rejected on the basis of significance $\alpha = 0,05$.

Table4.

Model verification: Regions in which the model is not rejected at the significance level of 0,05

Historical simulation	Portfolio (T = 88)
p = 0,01	N < 4
p = 0,05	N < 9
p = 0,1	2 < N < 15

Source: Obadović, M. (2008).

However, this table still shows the disturbing fact that for small values of VaR parameter *p*, it becomes harder to verify the deviations. For example, the rejection region of 95% for p = 0,01 and T = 88 is [N < 4]. Therefore it is impossible to state with certainty whether N is abnormally small or the model systematically overestimates the risk.

It should also be emphasized that this interval, expressed as the N/T ratio, decreases with larger samples, i.e. with more data it should be easier to reject a faulty model.

Revealing systematic ambiguities becomes harder with lower p values, because they correspond to rare occurrences. This explains why some banks prefer higher values for p, e.g. 5% (which translated as the confidence level c = 95%), in order to be able to observe a sufficient number of deviations to validate the model.

The following table presents whether a model is acceptable or not, on the basis of Kupiec likelihood ratio.

Table5.

Model verification for Portfolio using the historical simulation method (T = 88)

Historical simulation	λ = 1	λ = 0,94
p = 0,01	rejected	rejected
p = 0,05	accepted	accepted
p = 0,1	accepted	accepted

Source: Obadović, M. (2008).

5. CONCLUSIONS

In this paper, the estimation of market risk through application of the historical simulation Value-at-Risk calculation method for portfolio that consist of shares of 27 companies that are continuously traded at the Belgrade Stock Exchange is presented. In order to determine whether these models predict risks well, VaR is evaluated for 88 consecutive days, for this portfolio. This paper presents whether a model is acceptable or not, on the basis of Kupiec likelihood ratio.

Using the historical simulation method on the portfolio consisting of shares traded in the local market, it has been shown under null hypothesis that $p = 0.05$ is an accurate probability, based on the Kupiec likelihood ratio distributed through $\chi 2$ test with one degree of freedom, so this method is accepted in all cases except when applying the historical simulation method to the portfolio at the confidence level of 99%, wherein this model shows the probability of larger losses to be smaller than it actually is.

Applying this method in local market conditions is risky at a confidence level of 99%, because that level corresponds to extremely rare events. This explains why some banks prefer lower confidence levels, in order to be able to observe a sufficient number of deviations for the purpose of model validation. A multiplication factor is thus applied to transform VaR into secure capital to be set aside for protection from market risk.

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PROCJENA TRŽIŠNOG RIZIKA PRIMJENOM METODA POVIJESNE SIMULACIJE U PERIODU RASTA BURZOVNIH POKAZATELJA NA BEOGRADSKOJ BURZI

SAŽETAK

U Srbiji je postojao period rasta investicija, koji se odražavao i na rast burzovnih pokazatelja. Cilj ovoga rada je da procijeni tržišni rizik u periodu rasta burzovnih pokazatelja na srpskom tržištu, primjenom metoda povijesne simulacije, na portfolio koji se sastoji od svih akcija kojima se kontinuirano trgovalo na Beogradskoj burzi a za koje su u danom trenutku postojali potrebni podaci, obzirom da je srpsko burzovno tržište bilo mlado tj. praktično u nastajanju. Izvršena je verifikacija modela na više nivoa pouzdanosti koja je pokazala da je model podcijenio postojeći rizik na nivou pouzdanosti od 99%.

KLJUČNE RIJEČI: *tržišni rizik, Model vrijednosti rizika (VaR), metoda povijesne simulacije, financijsko tržište*

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Preliminary paper
Prethodno priopćenje

NEW REALITIES OF THE SME INTERNATIONALIZATION: A CAPABILITY PERSPECTIVE

Abstract

This paper deals with an analysis of the internationalization process of Croatian SME exporters. The traditional theory of internationalization suggests that the firm gradually develops an international presence. On the contrary, born global approach indicated that firms can internationalize instantly on a full scale by avoiding incremental steps. However the born global approach to internationalization confirmed that, besides informational and resource based perspective, intangible assets (capabilities) should be assessed. Global mindset represents a viable latent capability of exporting firm, especially the SME. The findings suggest that a significant relationship between global mindset and export market orientation exists suggesting that managerial cognition fosters effective export marketing activity.

Keywords: Global mindset, Export market orientation, SME internationalization

INTRODUCTION

The internationalization has been subject of many studies in international marketing (business) literature. SME Internationalization is relatively new phenomenon in international business and marketing research (Lu, & Beamish, 2001; Bell, Mcnaughton, Young, & Crick, 2003; Lu, & Beamish, 2006). Its conceptual domain is placed within the domain of gradual stages model (Johanson & Valhne, 1977; Cavusgil, 1980; Johanson, & Valhne, 1990) and born global approach (Oviatt and McDougall, 1994). In Croatian context, there has not as yet been much of the research in the area of internationalization (as well as factors which influence it), especially in the SME context. It must be noted that the internationalization, from the strategic viewpoint, is of the crucial importance for the SMEs. While the expansion into new geographic markets presents an important opportunity for growth and value creation, the implementation of such a strategy involves many unique challenges in addition to the common ones associated with the domestic growth of SMEs. Exporting has been traditionally regarded as the first phase to entering the international markets, serving as a platform for future international involvement (Kogut, & Chang, 1996). This entry strategy is particularly applicable to the internationalization of SMEs because the SMEs frequently lack the resources, for direct investment (Dalli, 1995; Zahra, Neubaum, & Huse, 1997). The born-global approach offered rather unique perspective outlining the importance of latent and cognitive antecedents (e.g. mindset and orientation) in the SME internationalization. Earlier, Leonidou, Katiskeas, and Samiee (2002) confirmed the growing importance of the managerial characteristics in the firm's internationalization process.

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Notably, the idea of the paper is built around valorization of global mindset, as a capability which influences the internationalization process of SMEs. As Bird and Osland (2004) noted, to be effective, global mindset must foster marketing activities of the firm (export market orientation in this context). Export market orientation is concerned with the information based capabilities of the SME in the export context. Earlier research has suggested it to be an important driver of the export performance (Cadogan, Diamantopoulos, and de Mortanges 1999; Cadogan, Diamantopoulos, and Siguaw 2002; Akyol, and Akerhurst 2003; Murray et al. 2007; Miocevic and Crnjak-Karanovic, 2009).

So the agenda of the paper is as follows: First, the traditional and born global internationalization approaches are revised. It is followed by the conceptual model and hypothesis. Furthermore, research design is proposed along with the operational definitions and analytical issues. Methodology section is followed by the results regarding measurement properties and structural model. The discussion of research results is strengthened by the managerial implications. Eventually, limitations and suggestions for further research are presented.

THEORETICAL BACKGROUND OF SME INTERNATIONALIZATION: CAPABILITY PERSPECTIVE

Internationalization presents involvement process of business activities in the international arena. Research in the area of internationalization is rooted in the work of Perlmutter and Heenan (1975) who had discussed the strategic alternatives of MNEs which are involved in complex international business activities. This approach was based on the analysis of attitudes (orientation) which MNE adopts and latter was upgraded by the aspect of strategic market planning (Chakravarthy, & Perlmutter, 1985). As the result of these efforts, the EPRG model was developed in which the MNEs are divided into the strategic groups based on attitudinal (orientational) level (ethnocentric, polycentric, regiocentric and geocentric. Internationalization does not occur instantly; moreover the firm goes through a several stages (incremental steps) of involvement as identified by the Uppsala model (Johanson, & Wiedersheim-Paul, 1975; Johansson, & Vahlne, 1977; Cavusgil, 1980). Whatsoever, traditional models of internationalization have been subdued to a major criticisms in the international business academia because they were made to fit for MNE in the first place. However, as noted before, nowadays there is an intense and evident penetration of SMEs, and in most economies (as well as in Croatia), SMEs represent more than 90% of industrial structure. As Anderson (1993) observed, more and more SMEs are directed towards international markets without a phase by phase process proposed by the traditional stages model. International business academia has several times criticized the stages model because of its deterministic approach, and many research results do not provide evidence of firms fitting in the conceptual foundations of stages model (Oviatt, & Mcdougall, 1994).

As today more and more SMEs are penetrating onto the international stage seeking possibilities for a growth and profit, there is a great obligation and importance to review the traditional theory of internationalization. Intangible resources are gaining respectable focus in SME internationalization research. Nowadays, researchers are more and more familiar with the born global concept (Andersson and Wictor 2003; Rialp, Rialp, and Knight 2005; Luostarinen, and Gabrielsson 2006). Contemporary international marketing (business) literature has applied the “born global” concept in the case of fast growing SMEs. A main

premise of this approach is that firms enter international markets soon after the firms' inception and they are not, however, dependent on the domestic market (Moen, & Servais, 2002). Moreover, SMEs follow somehow turbulent approach to internationalization so it is justified to define the "state of SME internationalization" rather than the "stage of SME internationalization" (Bell, Mcnaughton, Young, & Crick, 2003). Literature and research has identified the ICT sector as the most propulsive one in which SMEs act by the "born global" pattern (France, & Collins-Dodd, 2000). SMEs fitiing into the "global born" domain observe the world as a one global marketplace. The concept of "born globals" deviates from traditional theories of internationalization. Initially, they seek opportunities on the worldwide basis taking the advantage of development on new ICT technologies which in the end have an impact on the standardization of marketing strategy. This approach facilitates the new look on the international markets, not as the option because of limitations in a domestic market. Rather it is an opportunity to improve the overall business performance. Moreover, the key drivers from born global approach could be well utilized in defining the plausible framework of SME internationalization.

Although, the "born global" approach cannot become generalized framework for the SME internationalization, the ideas arising from that approach could well be utilized in defining the framework for the SME internationalization. Born global approach suggests that, besides the tangible resources required for internationalization, other latent resources and capabilities should be valorized. Managerial mindset, focus and orientation can be attributed as a capabilities that drive the firm's international involvement. More recently, Knight and Kim (2009) have validated the crucial role of intangible capabilities in the SME internationalization.

2. ESTABLISHING A LINK BETWEEN GLOBAL MINDSET AND EXPORT MARKETING ACTIVITIES

Contemporary theory recognizes two conceptual traditions of global mindset concept – cultural and strategic. Cultural is rooted in the cosmopolitanism ideology (Merton, 1957; Vertovec and Cohen, 2002), and a strategic is based upon cognitive complexity (Levy et al, 2007). The goal of strategic approach is to achieve management and coordination of all necessary activities (mostly knowledge-based) in order to overcome the gap between domestic and foreign business environment by pursuing innovative management of international market opportunities (Prahald and Doz, 1987). In line with this, Bartlett and Ghosal (1992) state that managerial mentality is in a function of overcoming the gap between domestic and foreign business environment. These theoretical propositions stand as the vital building blocks which validate the role of cognitive managerial mindset in the internationalization process of firms, especially the SMEs (because the emphasis is on the seizing of international marketing opportunities). Nummela et al (2004) identify global orientation as the core concept regarding manager's international behavioral and attitudinal involvement. In the SME context, they propose that international entrepreneurial orientation (IEO) is the most viable and operative form of SME international orientation because it precisely defines what are the international market opportunities that fulfill their profit and export objectives. SMEs involved in export marketing activities implement managerial mindset as a form of cognitive capability, which determines their orientation and attitudes towards international venture opportunities.

Cognitive complexity, as the platform for strategic perspective of global mindset concept, directly influences enhanced managerial capabilities in processing the market intelligence. Processing of export information and intelligence is conducted with an aim to valorize the complexity and dynamics of foreign business environment (Tichy et al. 1992; Barr, Stimpert, and Huff 1992). In that case, global mindset, as a cognitive mechanism, enables export managers to seek and target markets that best fit with their company's strategic objectives. Barkema, and Vermeulen (1998) argue that cognitive complexity has a significant influence on the capability to process information which is crucial for shaping the strategic managerial decisions. Cognitive structures encourage export managers to process and model the information about foreign target markets. Earlier, Souchon, and Diamantopoulos (1997) argued that gathering export intelligence solely is ineffectual process, unless the export manager gives a meaning to export intelligence in order to shape rightful international strategic decisions. In such manner, global mindset inevitably acts as a mediator in a relationship between information based activities and international performance. Earlier research efforts suggest that global mindset directly influences SME internatiolization success (Nummela et al, 2004; Hsu, Chou, Hsu, 2008). Cognitive perspective of global mindset activates other forms of latent capabilities, such as information based resources, operationalized through export market orientation concept (comprised of generation, dissemination and responsiveness to export intelligence) which already have shown direct and positive link to international performance outcomes in various research settings (Cadogan, Diamantopoulos, and Siguaw 2002; Akyol, and Akehurst, 2003; Murray et al. 2007). This is in line with the Bird, and Osland's (2004) argument that global mindset must activate effective managerial action (in this case export market orientation activities). On the whole, the global mindset is inevitable stimulus that valorizes the export intelligence and provides the cognitive platform to understand new international contexts as suggested by Armario, Ruiz, and Armario (2008). Therefore, the following hypothesis is proposed:

H1: There is direct, positive, and significant relationship between global mindset and export market orientation.

3. METHODOLOGY

For the purpose of this research a survey was conducted along with the support of Croatian Chamber of Commerce (who provided us with Exporters Database). A self administered questionnaire was developed and questionnaire items were translated to Croatian and then again backtranslated to English. The sample was identified in Central database of Croatian exporters and was comprised of SMEs who have identified their export markets. Such criterion was used because the SMEs who have determined their export markets, mostly rely on their export sales proportion as a main source of revenue. The second reason is that such SMEs pay close attention to export marketing activities in order to manage the international marketing efforts across various export markets. On the whole, 560 questionnaires were mailed, and 121 of them were returned yielding a respectable response rate of 21%. The demographics of the responding sample firms can be found in table 1.

Table 1.

Demographic profile of responding firms

Industry	*Frequency*	*%*	*Cumulative %*
Recycling	1	0,8	0,8
Paper products	5	4,1	5,0
ICT products	8	6,6	11,6
Industrial products	46	37,7	49,6
Management consulting	2	1,6	51,2
Electronics	9	7,4	58,7
Food production	7	5,7	64,5
Construction and engineering	8	6,6	71,1
Furniture	4	3,3	74,4
Hotel	1	0,8	75,2
Wholesale	13	10,7	86,0
Clothing and footwear	8	6,6	92,6
Shipbuilding	5	4,1	96,7
Pharmaceuticals and hygeneicals	2	1,6	98,3
Publishing	2	1,6	100,0
Total	121		

Source: Authors

4. MEASUREMENT OPERATIONALIZATION

For the purposes of this study we adapted measurement scales from existing literature. Global mindset can be operationalized in many ways regarding the unit of analysis (Levy et al., 2007). However, having in mind the nature of this research, the authors felt it would be appropriate to apply the measure of global mindset on individual unit of analysis (as the key informants in exporting SMEs have been identified). Authors used the measure of global mindset developed and empirically tested by Nummela, Saarenketo, and Puumalainen (2001). Export market orientation was measured using a three-dimensional scale adapted from Murray et al. (2007). The reported scale is comprised of generating, disseminating and responsiveness to export intelligence. This scale was cross-culturally verified as it fit well the data both in developed and developing national context. Measures and their responding descriptive statistics can be found in Table 2 and 3.

Table 2.

Descriptive statistics of the global mindset construct

	SCALE ITEM	Mean	SD
1.	It is important for our company to internationalize rapidly (Global1)	4.17	1,068
2.	Internationalization is the only way to achieve our growth objectives (Global2)	3.87	1.107
3.	We will have to internationalize in order to succeed in the future (Global3)	4.09	1.063
4.	The growth we are aiming at can be achieved mainly through internationalization (Global4)	3.90	1.142
5.	The founder / owner / manager of the company is willing to take the company to the international markets (Global5)	4.31	1.003
6.	The company's management uses a lot of time in planning international operations (Global6)	3.89	1.094
7.	The company's management sees the whole world as one big marketplace (Global7)	3.92	1.311

Source**:** Nummela, N., Saarenketo, S., Puumalainen, K. (2004) A Global Mindset – A Prerequisite fo Successful Internationalization, *Canadian Journal of Administrative Sciences*, 21 (1): 51-64.

Table 3.

Descriptive statistics for the EMO construct

	SCALE ITEM	Mean	SD
1.	We periodically review the likely effect of changes in our export environment (e.g., technology and regulation).	3,71	1,068
2.	In this company, we generate a lot of information concerning trends (e.g., regulation, technological developments, politics, and economy) in our export markets.	3,76	1,126
3.	We generate a lot of information in order to understand the forces which influence our overseas customers' need and preferences.	3,75	1,113
4.	We constantly monitor our level of commitment and orientation to serving export customer needs.	3,87	1,140
5.	Information about our export competitors' activities often reaches relevant personnel too late to be of any use. (R)	3,40	1,180
6.	Important information concerning export market trends (regulatory, technology) is often discarded before it reaches decision makers. (R)	3,79	1,142
7.	Too much information concerning our export competitors is discarded before it reaches decision makers. (R)	3,84	1,162
8.	Information which can influence the way we serve our export customers takes forever to reach export personnel. (R)	3,85	1,030
9.	If a major competitor were to launch an intensive campaign targeted at our foreign customers, we would implement a response immediately.	3,83	1,130
10.	We are quick to respond to significant changes in our competitors' price structures in foreign markets.	3,84	1,183
11.	We rapidly respond to competitive actions that threaten us in our export markets.	3,90	1,076

Source: Murray, J.Y., Gao, G.Y., Kotabe, M. and Zhou, N. (2007) 'Assessing measurement invariance of export market orientation: A study of Chinese and Non-Chinese firms in China', *Journal of International Marketing*, Vol.15, No.4, pp. 58-59.

5. ANALYTICAL PROCEDURE

Due to the small sample size and sufficiently developed theoretical background, PLS method was employed to measure outer and inner model loadings (Chin and Fry, 2000). The outer model specifies the relationship among latent and manifest variables whereas inner model specifies the relationship among the latent variables. PLS is a general technique for estimating path models involving latent constructs indirectly observed by multiple indicators. It was developed by Wold (1981) to avoid the necessity of large sample sizes and suites well for the „non-normal" data distribution unlike the other covariance based approaches (such as SEM).

6. MEASUREMENT MODEL

First, the dimensionality, reliability and validity of measures were assessed. It seems that all indicators have loadings higher than 0,60 (all significant at $p<0,001$) expect item „Global5" which had loading of 0,58 and was a candidate for deletion. Therefore, the additional test of dimensionality through exploratory factor analysis (EFA) was conducted and it showed that item „Global5" has had a higher factor loading on second factor unlike the rest of the global mindset items. In order to secure valid and reliable scale of global mindset, the „Global5" item was deleted and significant increase in Composite reliability (CR) and Average variance extracted (AVE) were identified. Eventually, another EFA was conducted which showed that global mindset is one factor construct which is theoretically and empirically grounded. Composite reliabilities for all constructs exceeded critical value of 0,70 (See Table 4). To test for the convergent validity the AVE was analyzed for every construct and it seems that all constructs have AVE above critical cut-off value of 0,50 as suggested by Fornell and Larcker (1981) and their responding composite reliabilities are greater than 0,70 as suggested by Bagozzi and Yi (1988). This confirms convergent validity in this research case, in which all indicators measure the latent construct they are supposed to measure. To test for the discriminant validity of measures the test suggested by Fornell and Larcker (1981) was performed. Discriminant validity is present if the squared correlation between two constructs does not exceed their respective AVE (highest squared correlation of 0,527 was between export intelligence dissemination and responsiveness and did not exceed their respective AVE). Otherwise, Gaski and Nevin (1985) suggest test where discriminant validity exists if the correlation among the constructs does not exceed their estimated reliability (reliabilities were above 0,90). In both cases, discriminant validity exists. In Table 5 the intercorrelation matrix between constructs is provided as their estimated AVE (on the diagonal of the matrix). So herewith, the operationalized constructs show the both forms of dimensionality, reliability and validity.

Table 4.

Measurement properties of the constructs

MEASUREMENT SCALES	Loadings	Composite reliability	AVE
Global mindset		0,91	0,60
Global1	*0,88*		
Global2	*0,85*		
Global3	*0,89*		
Global4	*0,84*		
Global5 (deleted)	*0,58*		
Global6	*0,68*		
Global7	*0,62*		
Export intelligence generation		0,93	0,76
Orient1	*0,85*		
Orient2	*0,89*		
Orient3	*0,91*		
Orient4	*0,84*		
Export intelligence dissemination		0,90	0,70
Orient5	*0,63*		
Orient6	*0,90*		
Orient7	*0,92*		
Orient8	*0,85*		
Export intelligence dissemination		0,92	0,79
Orient9	*0,84*		
Orient10	*0,90*		
Orient11	*0,91*		

Source: Authors

Table 5.

Construct intercorrelation matrix

	Mean	S.D.	1	2	3	4
GSR	3,99	0,88	**0,60***			
ExpIntGen	3,77	0,96	0,286	**0,76***		
ExpIntDiss	3,71	0,93	0,490	0,328	**0,70***	
ExpIntResp	3,85	1,00	0,518	0,527	0,343	**0,79***

Source: Authors

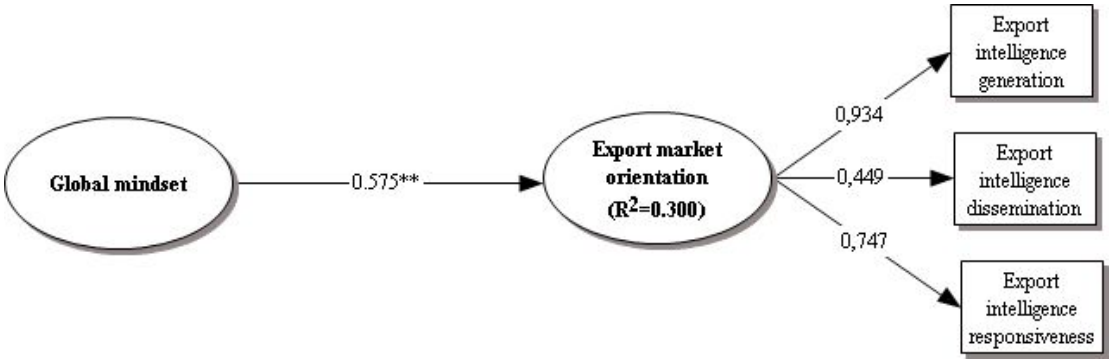
7. STRUCTURAL MODEL

All PLS structural models are concerned with two basic questions:

1) what is the amount of variance explained in endogenous variable from predictor variables, and
2) to what extent do the predictor variables contribute to the explained variance of endogenous variable.

In order to reveal these inquiries, in PLS two basic indicators must be assessed: ß and R^2. R^2 is the measure of predictive power just as in the regression analysis and to be satisfactory, its estimated value must be 0.1 or greater. These indicator estimates are somehow substitute for the fit indices offered by other covariance based methods (LISREL and AMOS).

To estimate the structural path relationships, the bootstrapping technique was employed (500 resamples) to generate standard errors and t-statistics. After measurement model estimation, EMO dimensions were averaged into a single item. This procedure facilitates the estimation of model parameters when dealing with small sample data (Mackenzie, Podaskoff and Ahearne, 1998). The summated scales are widely used in social sciences as they are able to generate good reliability and validity (Spector, 1992).



** indicates significance at the p<0,001 level

Results (See Figure 1) indicate that the critical bootstrap t-ratios for the averaged indicators loadings on EMO construct were all greater than 1,96. The critical bootstrap ratio (t-value) in global mindset - EMO link (ß = 0,575) was above 11,0 (p<0,001) and the explained variance in endogenous variable is 0,300. (See Figure 1). These results reveal the full support for acceptance of the hypothesis that global mindset directly influences the export performance in the Croatian SME exporters' context and can be attributed as a driver of SME internationalization.

8. DISCUSSION

The results of this study have exhibited the global mindset's direct and significant influence on EMO (*ß*=0,593, bootstrap *t*=6,42*)*. Knowledge about foreign market leverages the advantage in terms of better knowing foreign customer needs, competition and general business environment and is under a great influence from global mindset that export manager possesses. Pragmatically, this result demonstrates that the strategic aspect of global mindset, based on cognitive approach, can act as a standalone construct regardless of its cultural dimension. Cognitive approach boosts internationalization efforts as it determines which markets are strategically important for the exporting SME in terms of higher export performance indicators. Moreover, these results encourage the idea of viewing global mindset as a crucial capability in the exporting SMEs.

However, the study results explicitly demonstrate the importance of cognitive based capabilities in the SME internationalization. Besides tangible resources (financial and human), which are nevertheless scarce in the SME context, latent resources such as cognitive complexity (manifested through global mindset) and information (manifested through EMO activities) are important drivers of SME internationalization process. Current internationalization theories require revision in order to develop a framework that could thoroughly explain the nature of the SME internationalization. Research results are suggesting that cognitive and information based capabilities are obvious prerequisite for the successful SME internationalization. Nevertheless, results have confirmed that SMEs are dependent both on the cognitive and information based capabilities. Moreover in this stance the interrelation between cognitive based (global mindset) and information based capabilities (EMO) validates the multi-theoretical influences in the SME internationalization. Secondly, the results of this study strengthen the previous research efforts which found the positive relationship between EMO and global mindset to export performance.

The role of the global mindset, and its cognitive complexity, is to give a meaning to gathered information through EMO activities as Souchon, and Diamantopouolos (1997) have stressed and was confirmed with results from this study. As mentioned before, SMEs often lack resources for more complex entry strategies (Bonacorssi, 1992), and SMEs can enrole themselves in EMO activities in order to gain a sustainable competitive advantage in the foreign markets. Nevertheless, theoretical implications are far more implicite, as the managerial cognition (global mindset) has been related to the effective managerial behavior (EMO). In this way the theory of planned behavior has been confirmed, suggesting that managerial action in foreign environment is preceeded by the complex cognitive processes (Ajzen, 1991).

9. MANAGERIAL IMPLICATIONS

Managerial implications outline that global mindset, as a tendency towards global orientation, significantly improves international competitiveness of the SME. On the other hand, global mindset as a cognitive capability enables SMEs to search for the market opportunities on the global basis and represents a vital driver of SME internationalization. Cognitive dimension of the global mindset helps export managers to identify, to learn about and to seize international market opportunities. There is an evident theoretical link with export market orientation activities which are concerned with acquisition, dissemination and response to export intelligence. The global mindset is developed mostly through professional life of an export manager (during education and first work experience) and in such way could be interesting facet for the scholars in the area of human resources management. Bocquet (2005) warned of the possible negative effect of overemphasized global mindset which could result in the resource spillover and decrease the possibility in the rightful targeting of profitable foreign ventures. Attitudes that result from the managerial mindset shape export manager's stance toward international market opportunities. The effectiveness of global mindset is achieved when the export processes are established with those markets which represent profitable venture for the SME and are result of opportunity discovery rather than systematic international market planning.

10. LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The limitations of the study are twofold: conceptual and methodological nature. Conceptual limitations are evident because of the model parsimony. However, in further research, this limitation can be overcome by introducing performance and outcome variables in order to reveal in what extent do cognitive based capabilities (global mindset) and information based capabilities (EMO acitvities) influence internationalization success (measured through export performance). Methodological drawbacks include that study relied solely on single informants, and probably additional qualitative methods would have clearly given the plasubility of the conceptualized link between EMO and EP. Morover, such approach would yield a conceptual enrichment in a way that other possible intangible capabilities influencing the internationalization process could be identified.

As it was stressed in contribution of earlier research, future research should concentrate on the theoretical development of more robust models. Therefore, the future research should aim to discover how the resource based and institutional factors, relate to the performance outcomes. In order to reveal detailed structural relationships among the global mindset, export performance and other intervening variables, the application of qualitative research design would explain the in-depth nature of the hypothesized relationship. As the result of the response rate to survey participation, many SMEs warned about insufficient role of the governmental and export promotion programs (EPP). Previous research efforts suggest that SMEs awareness and satisfaction on EPP was very low (Albaum, 1983; Walters, 1983; Denis and Depelteau, 1985) and institutional factors such as EPP could play important role in the SME internationalization.

Eventually, as the results of this study have confirmed, the future development of the SME internationalization framework must consider latent capabilities as the prerequisite drivers of the internationalization.

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NOVA STVARNOST INTERNACIONALIZACIJE MALOG I SREDNJEG PODUZETNIŠTVA: GLEDIŠTE SPOSOBNOSTI

Sažetak

Ovaj rad se bavi analizom procesa internacionalizacije malih i srednjih poduzeća u Hrvatskoj. Tradicionalna teorija internacionalizacije je isticala kako poduzeće postepeno razvija svoju međunarodnu uključenost. "Globalno rođeni" pristup internacionalizaciji je istaknuo kako se poduzeća mogu internacionalizirati instantno bez da prolaze faze tradicionalnog procesa internacionalizacije. Međutim, pristup internacionalizacije globalno rođenih poduzeća je također potvrdio da, uz klasične resurse poduzeća (mahom opipljive), treba razmatrati i neopipljive sposobnosti kao pokretače procesa internacionalizacije. Globalni sustav razmišljanja predstavlja održivu latentnu sposobnost izvoznih, naročito malih i srednjih poduzeća. Rezultati istraživanja ukazuju na izravnu i značajnu vezu između globalnog sustava razmišljanja i izvozne marketinške orijentacije što sugerira da menadžerska spoznaja potiče učinkovite izvozne marketinške aktivnosti.

Ključne riječi: Globalni sustav razmišljanja, Izvozna marketinška orijentacija, Internacionalizacija malih i srednjih poduzeća

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DETERMINANTS OF INSURANCE MARKET ATTRACTIVENESS FOR FOREING INVESTMENTS: THE CASE OF EX-YUGOSLAVIA

ABSTRACT

The aim of this paper is to investigate factors that influence the attractiveness of insurance market for foreign insurers in case of ex-Yugoslavia region. We use country-specific fixed effects models for panel data that covers five countries during the period 2004-2008, allowing each cross-sectional unit to have a different intercept term serving as an unobserved random variable that is potentially correlated with the observed regressors. The research results indicate that the main forces affecting market attractiveness are insurance demand and human capital. These findings provide significant implications for local governments and for both, foreign and domestic insurers.

***Key words**: globalisation, non-life insurance, market attractiveness, ex-Yugoslavia*

1. INTRODUCTION

Insurance was one of the first industries that become international. For example, even in 1720 British stock insurance companies, The Royal Exchange and The London, had the monopoly status for insurance business in Great Britain and its colonies (Cummins and Venard, 2007). However, globalisation differs from internationalisation. Instead of cooperation between countries that aims to promote national interests, globalisation aims to achieve vision of united, cosmopolitan and integrated world economy. It understands increased connectedness in economic, social, technological, cultural, political and ecological spheres in the world where time and place factors are losing their decisive role, as was anticipated by Hudson Institute some thirty years ago (Servan-Schreiber, 1968). Although the literature shows that the globalisation processes have been ongoing ever since *Homo sapiens* (e.g. Gills and Thompson, 2006), we argue that the roots of modern globalisation processes are found in economic liberalism principles, according to which economy is driven by "invisible hand" (Smith, 1952), while the term "globalisation" has first appeared in the economic literature in 1983 (Levitt, 1983).

During the last twenty years, globalisation became one of the most important issues for insurance industries across the globe. Deregulation, privatisation and liberalisation have facilitated globalisation of risks and insurance services (see Swiss Re, 2000; Cummins and Venard, 2007). These processes have spread over regional insurance markets too. Since the breakup of former Yugoslavia, regional economies have been transformed. Instead of being centrally planned, they become market-oriented. Although some barriers remain, such as mandatory cessions to local reinsurance companies in Serbia[1], regional insurance markets have been generally opened to foreign investments. Combined with the privatisation of state

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monopolies and deregulation, liberalisation have facilitated foreign insurers' entry and generated more competitive local insurance markets.

Althought local insurance markets are still modestly developed in terms of insurance density[2] in relation to their western counterparts, insurance premium growth in countries of ex-Yugoslavia have outpaced premium growth in developed economies (see Swiss Re, 2009; Marovic, Njegomir and Maksimovic, 2010). The pace of growth and subsequent possibility for profit generation, the need for servicing their multinational customers and geographical risk spreading have attracted foreign insurers to regional non-life insurance markets. On the other side, local economies have tend to attract foreign companies in order to generate foreing investments inflows, improve competitiveness of local insurance markets and achieve the greater availability and more afordable insurance coverage. Although the study of the importance of market characteristics that influence foreign insurers' participation[3] is important for local economies as well as for foreign and domestic insurers, to our knowledge, the study on the issue for the ex-Yugoslavia region's countries is non existent.

While factors that affects insurance demand and supply for non-life insurance have been studied extensively (e.g. Outreville, 1990; Browne, Chung and Frees, 2000; Hussels, Ward and Zurbruegg, 2005), studies on the issue of market characteristics that relate to the participation of foreign insurers are generally scarce. Even when they are available (e.g. Ma and Pope, 2003; Outreville, 2008) they are not focused on insurance markets of ex-Yugoslavia region. Thus, the aim of this paper is to investigate factors that influence foreign insurers' participation, or in other words factors that influence the attractiveness of insurance markets in the case of non-life insurance market in the ex-Yugoslavia region. We hypothesise that profitability, liberalisation, insurance demand and human capital positively affect foreign companies entry while market concentration could have either positive or negative affect. Additionally, we assume the existence of synergetic effect created between market concentration and liberalisation.

The findings of this study will be of particular importance to regional policymakers that seek to better understand how they can influence participation of foreing insurers on local non-life insurance markets. The results will be particularly important for governments' decision making regarding policies as weak policies, institutional, infrastructure and trade barriers could restrain the regional economies' ability to take advantages of globalisation. Additionally, the findings will be of interest for foreign insurers that wish to enter or increase their participation on local non-life insurance markets but also for domestic insurers that seek to understand factors that could influence market competitiveness in order to develop their operations in a way that will provide successful competition with new entrants and to start or increase their cross-border presence on regional non-life insurance market.

We apply linear country speciffic fixed effects model for panel data. Panel data encompass 5 countries of the ex-Yugoslavia region for the period 2004-2008. We have chosen fixed effects due to small number of control variables in each of two models for capturing the effects of unobserved variables that are potentially correlated with the observed regressors.

The reminder of this article is organised as follows. The second section reviews the prior literature. The third section presents theoretical framework of the research, and the fourth section presents the data and methodology employed in the analysis. The fifth section encompass presentation of the empirical results, and the sixth section concludes.

2. LITERATURE REVIEW

In the last twenty years, globalisation of economic activities has received great attention in the economic literature. According to the approach of examinations of the issue, all previous studies that examine companies' participation in foreign markets can be generally divided into two categories: those that focus on firm-specific issues of companies entering foreign markets and those that focus on market-specific characteristics that facilitate or hinder foreign companies' presence. For example, the first group of research studies encompass the analyses of international diversification (e.g. Capar and Kotabe, 2003) and firm-specific competences (e.g. Dunning, 1977; Bartlett and Ghoshal, 1989; Rugman and Verbeke, 2004) as motivators for the establishment of foreign market presence. Other studies emphasize the market specific characteristics as key motivators for foreign companies' presence. Variables such as market size, economic growth, geographical and cultural closeness, trade barriers, human capital, government and institutional effectiveness and market competitiveness are used to depict attractiveness of host countries for foreign companies entry (e.g. Wilhelms, 1998; Katrishen and Scordis, 1998; De Melo, 1999). Some studies (e.g. Agarwal and Ramaswami, 1992; Rugman and Verbeke, 2004) indicate that both firm-specific and market-specific factors jointly influence companies' participation in a specific national market.

Most of the studies on the issue of factors that influence companies' participation in foreign markets related to financial services are found in the banking literature. Perhaps Clarke et al. (2003) give one of the most comprehensive reviews of existing studies related to the banking industry. They reviewed a substantial body of literature for both, approaches that had examined location-specific factors and approaches that had examined bank-specific factors that influence banks' entry into foreign markets. Regarding location-specific factors, they indicate that the degree of economic integration between a foreign bank's home country and the host country, the host country's market opportunities and entry restrictions and other regulations have are found to affect the pattern and timing of banks' entry into foreign markets. In addition to these factors, Soussa (2004) indicates that research studies found that profit opportunity, information costs (proxied by geographic distance and cultural similarities), deregulation and, specific for the U.S., relaxation of restrictions on interstate banking, have influenced banks' entry into foreign markets.

In the insurance literature, qualitative studies that have examined factors affecting insurers' international operations appeared first. Surveying the U.S. property and liability companies, Schroath and Korth (1989) found that knowledge of foreign markets represents a major managerial barrier to foreign market entry. Based on in-depth interviews with insurance executives, Zimmerman (1999) found that although barriers, especially non-tariff, are one of the factors that influence managerial decision on entering foreign markets but become critical factor if they create prohibitive costs or difficulties.

Empirical, quantitative studies on factors that affect companies' presence in foreign markets in the insurance related literature are relatively new. Moshrian (1999) examined cross-border trade and foreign direct investment in insurance services by using a model for British and German foreign direct investments in insurance. The results of this study suggest that in addition to insurance premiums, national income of the host country, bilateral trade, labor and capital costs and economic growth, the expansion of international insurance services complement those in banking. Examining the internationalisation of the U.S. reinsurance industry, Elango (2003) found support for previous studies done for the insurance industry. This study found that U.S. reinsurers export their services to countries with large markets,

higher income per capita and insurance prices, where exists bilateral trade and firms operate internationally, while cultural distance was found to be insignificant. While examining foreign direct investments in insurance services in the U.S., Moshrain (2004) found that national income, source countries' insurance market size and host countries' financial development facilitates, while the relatively higher wages and higher costs of capital in the host countries restrain foreign direct investments in insurance services. Berry-Stölzle, Hoyt and Wende (2010) examined successful business strategies for insurance companies entering foreign markets for the period 2004-2007 and found that although these strategies vary across countries they generally involve a high growth rate, increased size and more emphasis on life insurance. Additionally, they found that better risk-adjusted performance is associated with lower financial leverage and mutual organisational form. Ma and Pope (2003) empirically examined the importance of foreign market characteristics that have decisive role for the participation of international insurers in the non-life business of industrialised countries for the period 1995-1998. Their research results indicate that market structure is important factor in determining whether international insurers will participate in a given foreign market but when markets are not competitive, removing of trade barriers significantly improve the attractiveness of host countries. Additionally, their results suggest that the state of development of economy in general, measured by the level of gross domestic product, is positively correlated with the involvement of foreign insurers. Outreville (2008) examined the factors that influence the participation of the world's largest insurance companies in some transition and developing countries using data for the year 2003 only. The study results indicate that location-specific factors, namely the size of a market, human capital, and good governance, provide an explication of the internationalization of insurance groups. The study also suggests that cultural distance, regulatory barriers and market competitiveness significantly influence the host country choice by transnational insurance companies.

Although, Berry-Stölzle, Hoyt and Wende (2010) included insurance markets of Croatia and Bosnia and Herzegovina in their examination of company-specific factors that affects foreign insurers participation, neither of the previous studies does not examine location-specific factors for foreign insurers participation in the region of ex-Yugoslavia. Although our research contains results that extend and complement those in existing literature, the main contribution of the research presented in this paper is original. We depart from Ma and Pope (2003) as we use data for countries in transition; in which sense we are close to Outreville (2008), but depart from his study as our examination exploit time series data instead of single year observation.

3. THEORETICAL BACKGROUND

We focus our analysis here on factors that determine the attractiveness of a non-life insurance market for foreign insurers' participation. Following similar approach used by Ma and Pope (2003), we use foreign companies' premiums (*FP*) in gross written non-life premium per capita, calculated for each national market of ex-Yugoslavia region, as a proxy for market attractiveness. Factors that we use as control variables, which may explain the attractiveness of a market for foreign insurers, include the following: market competitiveness, barriers to entry, human capital, insurance demand, foreign direct investments and market profitability.

The number of insurance companies that compete in the market determines market competitiveness (*MC*). Many of the previous studies have found that in less competitive markets insurers have ability to benefit from higher prices and higher profits (e.g. Bain, 1951,

Montgomery, 1985; Chidambaran, Pugel, and Saunders, 1997; Bajtelsmint and Bouzouita, 1998; Ma and Pope, 2003; Pope and Ma, 2008). Although this might suggest that the higher market concentration would attract foreign insurers, we assume that in markets that are more concentrated dominant market players may inhibit open competition. Following previous literature that indicates that Herfindahl-Hirschman Index (Hall and Tideman, 1967) is more comprehensive measure of market concentration than concentration ratio, the measure of market competitiveness we derive from calculation of this index, first used and named after economists Orris C. Herfindahl and Albert O. Hirschman. We calculate the index by summing the squares of the relative market shares held by each company for each national non-life insurance market from ex-Yugoslavia region, according to following formula:

$HHI = \sum_{i=1}^{n} \left(\frac{p_i}{P} \right)^2$, where p_i is company-specific and P is gross market non-life premium.

Barriers to entry (*EB*) variable relates to the degree of easiness for foreign competitors to enter the market. Most cited barriers to entry related to insurance markets are usually visible through market access difficulties, reciprocity, non-discrimination and transparency issues and national treatment inconsistencies (Skipper and Kwon, 2007). By reviewing literature related to banking Outreville (2008) points out that in addition to trade barriers, factors such as regulatory environment, measured by government effectiveness, and corruption have affected banks' choice of their foreign market participations. To control for the influence of barriers to entry we use Index of Economic Freedom as a most comprehensive measure for numerous factors that might affect insurers to entry foreign markets. Provided by The Heritage Foundation, this index is generated as average of 10 specific indices that are generated from the analysis of 10 components of economic freedom, including business, trade, fiscal, monetary, investment, financial, labor and freedom from corruption, government size and property rights. The variable assesses each national market on a scale of 0-100, where higher values indicate a more liberalised environment. Following previous studies presented in the literature review section of this paper, we assume that liberalisation positively affects insurers' decision to participate in a foreign market. Thus, we hypothesise positive relation between the barriers to entry variable and market attractiveness. As in more concentrated market dominant insurers may restrain foreign competitors' entry, following Ma and Pope (2003) we include a variable interacting market competitiveness and barriers to entry (*MCEB*)[5] to control for their interactive relationship and its impact on market attractiveness.

The level of available expertise and skills or human capital in a given market is considered to be one of the most important determinants for companies' entry to foreign markets in both insurance (e.g. Outreville, 2008) and non insurance related literature (e.g. Noorbakhsh, Paloni and Youssef, 2001; Focarelli and Pozzolo, 2005; Contractor and Mudambi, 2008). We measure human capital at a given national market by human capital index following methodology used by United Nations Conference on Trade and Development (UNCTAD, 2005:113). This methodology uses following three variables with different weights: literacy rate as percent of population has a weight of 1, secondary school enrolment as percent of age group has a weight of 2 and tertiary school enrolment as percent of age group has a weight of 3. As the main requirements to start and run the insurance business are adequate capital and suitable expertise (Atkins and Bates, 2008), we hypothesise positive relationship between human capital index (*HCI*) at a given national market and market attractiveness.

According to the long established economic thought that founded the law of supply and demand, it is generally accepted that with the increase of demand the supply would increase too. Therefore, we can assume that insurers' entry into a given foreign market might depend on the level of demand for insurance products at that market. The level of income and wealth are considered to be one of the most important factors that influence insurance market demand (e.g. Harrington and Niehaus, 2004; Skipper and Kwon, 2007). Previous studies (e.g. Outreville, 1990; Browne, Chung and Frees, 2000; Hussels, Ward and Zurbruegg, 2005) imply that the larger the GDP the larger demand for non-life insurance would be. Based on these studies we could assume that demand for insurance varies with the level of income in a similar manner in all countries that follow similar development patterns. As a proxy for the insurance demand (*ID*) we use natural logarithm of GDP per capita. We hypothesise positive relationship between insurance demand and market attractiveness.

Foreign direct investments are found to be one of the most important impetuses for the internationalisation of companies as they seek to maintain relationships with their domicile clients that expanded their business activities to foreign countries (Andersen, 1993). Similar arguments for service firms' expansion to foreign countries are found in both banking (e.g. Sabi, 1988; Brealey and Kaplanis, 1996; Yamori, 1998) and insurance literature (e.g.Moshrain, 1998; Ma and Pope, 2003; Elango, 2003). To control for this effect we use foreign direct investments per capita data (*FDI*), as these data indicate the presence of foreign companies in a given market. Following previously mentioned studies, we hypothesise positive interaction between the level of foreign direct investments and market attractiveness for foreign insurers.

Based on the fact that the most important motivator for insurers' establishment and operation is achievement of profitable result, we assume that key trigger that affects their decisions to enter foreign markets is opportunity to derive profit streams. Therefore, markets with higher profit margin may be considered as more attractive. Insurer profit is summary result of their underwriting and investment results, where underwriting result depends on the premium income and expenditures for claims and expenses. Based on definition given by Carol (1993), we calculate insurers' profit margin using following equation:

$$\Pi/R = Profit/Revenue = (Premiums - Losses - Expenses + Investments)/Premiums = 1 - LR - ER + ROI,$$

where *LR* is loss ratio, *ER* is expense ratio and *ROI* is return on investment. Premiums observed are gross written premiums. Our measure of underwriting profitability (*UPR*) is proxied by *1– LR – ER*. Due to the lack of information on investment activities, instead of real investment results, as a control variable we observe the difference between long-term interest rate and inflation rate (*ROI*) for each year and national market of the region of ex-Yugoslavia. We hypothesise positive interaction for both underwriting profitability (*UPR*) and return on investment (*ROI*) on market attractiveness.

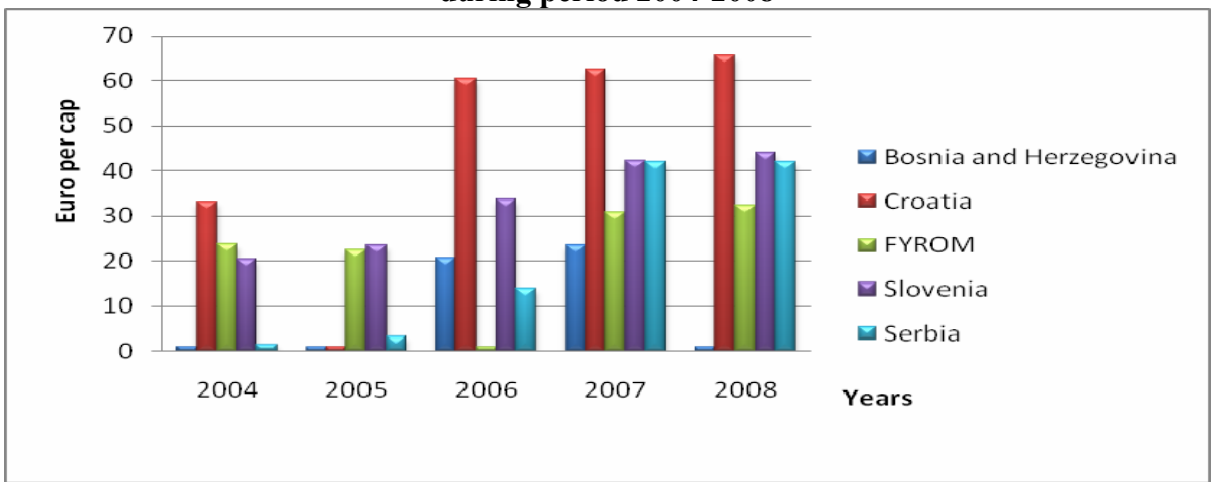
4. DATA AND METHODOLOGY

Following the breakup of former socialist country and introduction of market economies in the region, foreign companies showed increased interest for participation on local markets. Fifteen years after there are evident significant differences regarding foreign companies presence at local markets among countries of the region.

Majority number of companies headquartered in Croatia, Serbia and FYR of Macedonia are with foreign majority ownership. However, in Croatia the situation is complex as the greater share of non-life insurance premium has been collected by companies with predominant domestic capital. As far as Serbia is concerned, the majority of companies were predominantly in domestic ownership untill 2007 when the structure changed abruptly. FYR of Macedonia exhibited relativly steady growth of foreign investors' share. Contrary to the situation explained for the aforementioned countries, majority of companies established in Slovenia and Bosnia and Herzegovina predominantly have domestic ownership of capital.

Analysing trends of foreign investors' participation in non-life insurance companies in regional countries, we assume that increased foreign capital interest in local insurance market will continue with unchecked and most probably with accelerated pace. Trends of increased foreign companies' interest in local non-life insurnace market can be observed from historical changes of foreign companies' premiums presented in Figure 1.

Figure 1.
Historical changes of foreign companies' premiums per capita in ex-Yugoslvia region during period 2004-2008



Source: authors' calculations
Note: All monetary values have been denominated to end of 2008 euro value

As it can be seen from the Figure 1, foreign companies' premiums per capita have marked upward tendencies during the period 2004-2008. It is evident that the largest foreign companies premium has Croatian insurance market. Also, it is evident that there is present potential saturation of foreign capital participation as almost marginal changes are present in 2007 and 2008. The changes of foreign companies' premium in Serbia has shown rapid growth in 2007 because of the privatisation of second leading insurance company DDOR Novi Sad. Steady growth of foreign companies' premium has been marked in Slovenia and FYR of Macedonia. Finally, as the availability of data for Bosnia and Herzegovina is limited to 2006 and 2007 the time series was too short to predict either upward or downward trend with high accuracy. However, we assume that the foreign insurance premium in Bosnia and Herzegovina would follow the same patern as in the rest of the region, i.e. exibit more or less steady growth.

Our empirical research covers data for 5 countries, which formerly were constituent republics of Socialist Federal Republic of Yugoslavia, over the time period 2004-2008.[6] Number of observations for each country varies between 3 and 5, depending on data

availability. Descriptive statistics of cross-sectional and time-series data for each variable depicting market attractivness as well as expected sign of relationship are shown in Table 1.

Table 1.

Descriptive Statistics and Expected Signs of Relationship

Variable	Sign	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis
FP		40.42062	32.249	65.6625	1.6262	24.19763	1.605846	4.548969
UPR	+	0.13053	0.1325	0.372392	-0.03913	0.116901	0.588856	3.076657
ROI	+	0.02441	0.019	0.0691	-0.011	0.022738	0.562948	2.848132
EB	+	57.04	56.45	61.9	53.4	3.151084	0.250367	1.52509
ID	+	8745.823	6916	18551.46	2461.044	6611.28	0.436255	1.52037
MC	±	0.2021	0.2246	0.260823	0.008723	0.074146	-1.95305	5.831317
FDI	+	383.8691	303.08	874.2494	42.85001	250.1678	0.676063	2.623625
MCEB	±	11.57783	12.471	15.40749	0.474512	4.303502	-1.83789	5.624576
HCI	+	0.60763	0.6632	0.738333	0.421602	0.131689	-0.41624	1.441702

Source: authors' calculations

Data used in empirical analysis are obtained from various sources. Gross written premium, loss, expense, written premium for each company and foreign companies' market share data for each market and every year are obtained from individual countries' regulatory bodies and national insurance associations. Inflation rate and GDP data are obtained from European Bank for Research and Development (EBRD) economic statistics and forecasts published for each year in *Transition Report*. Population data are obtained from individual countries' statistical offices, except for Bosnia and Herzegovina, the only country that hadn't census since 1991, which is outdated, thus we use EBRD's estimates of total population excluding refugees abroad. Adult literacy rate data are obtained from United Nations Development Programme (UNDP) Human Development Reports for various years while gross enrolment ratio data are obtained from United Nations Educational, Scientific and Cultural Organization's (UNESCO) Institute for Statistics. Long term interest rate data are obtained from United Nations Economic Commission for Europe (UNECE) Statistical Division Database. Index of economic freedom data, that depicts barriers to entry, is obtained from The Heritage Foundation. Finaly, exchange rate of national currencies against the euro and foreign direct investment data are obtained from individual countries' central banks. Foreign direct investment data for Slovenia are obtained from UNCTAD's *Country Fact Sheets*. All monetary values have been denominated to 2008 euro value and adjusted for inflation by authors.

Given the cross-sectional and time-series data, we use country specific fixed effects panel data regression model with common coefficients across all cross-section members of the pool. The general equation to be estimated is:

$$y_{it} = \alpha_i + \boldsymbol{x_{it}}\beta + u_{it},$$

where y_{it} is a scalar dependent variable, i.e. profitability, $\boldsymbol{x_{it}}$ is a $K \times 1$ vector of independent variables, u_{it} is a scalar disturbance term, I indexes country in a cross section, and t indexes time measured in years. Since the error terms u_{it} are potentially serially correlated and heteroskedastic, we propose an autoregressive process of first order: $u_{it} = \rho u_{it-1} + e_{it}$, where e_{it} is white noise. Our simplified models incorporate White's consistent covariance matrix (White, 1980), for dealing with heteroskedasticity.

Model 1 incorporates the impact of macroeconomic environment, in which we observe market profitability, on market attractiveness. Namely, we estimate the equation:

$$ln(FP)_{it} = \alpha_i + \beta_1(UPR)_{it} + \beta_2 ln(ID)_{it} + \beta_3 ln(FDI)_{it} + \beta_4(ROI)_{it} + u_{it}$$

Model 2 explains market attractiveness through the prism of market competitiveness, entry barriers and their interaction. In addition, we observe the impact of human capital. The equation is given in the sequel:

$$(FP)_{it} = \alpha_i + \beta_1(MC)_{it} + \beta_2(EB)_{it} + \beta_3(MCEB)_{it} + \beta_4(HCI)_{it} + u_{it}$$

5. EMPIRICAL RESULTS

The models used in this study have been introduced at the end of previous chapter. In this section, we present original results and interpretations concerning both of the observed models.

Model 1 focuses on market attractiveness when influenced by macroeconomic environment and market profitability. The results of the empirical analysis for *Model 1* are presented in Table 2.

Table 2.

Parameter estimates from *Model 1*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
UPR	-4.644796	1.727029	-2.689471	0.0227
ROI	1.725433	4.449617	0.387771	0.7063
FDI	-0.125736	0.060524	-2.077455	0.0645
ID	4.992295	0.955275	5.226031	0.0004
R-squared	0.940848	Mean dependent var		3.252329
Adjusted R-squared	0.893526	S.D. dependent var		0.972985
S.E. of regression	0.317489	Sum squared resid		1.00799
F-statistic	53.01842	Durbin-Watson stat		2.197997
Prob(F-statistic)	0.000002			

Note: Dependent Variable: FP.
Source: authors' calculations

The results suggest that three explanatory variables have significant influence on observed market attractiveness. Our examination finds that return on investment (*ROI*) has statistically insignificant influence on market attractiveness.

Underwriting profitability (*UPR*) fluctuates depending on movements in non-life insurance premium and monetary value of losses and expenses. The region is heterogenious regarding general trends of underwriting profitability movements during the period 2004-2008. While FYR of Macedonia, Slovenia and Bosnia and Herzegovina exhibit moderate growth, Serbia and Croatia exhibit decline. It is rather difficult to make suggestion on the future trends as underwriting profitability depends mainly on claims and expense ratios, which are both hardly predictable.

Underwriting profitability is found to have negative impact on market attractiveness and is significant at 5% level. This is consistent with previous studies (e.g. Ma and Pope, 2003) although they focused on market attractiveness for OECD countries. This rather

unexpected sign might be explained by high level of expenses in the structure of underwriting profitability calculation.

Foreign direct investments (*FDI*) have marked increase in all countries of the region during the period 2004-2007. The region as a whole attracted foreign investors as a market of high potential growth during the times when foreign investors could obtain capital cheaply from their financial institutions. The situation changed during 2008 in all countries of the region except Slovenia, where FDI resumed growing. Moderate decline was witnessed in all other countries except in Bosnia and Herzegovina, which suffered sharp decline of more than 50% in relation to 2007. Therefore, it is obvious that financial crisis has hit the investments in the region hard. We assume that when economic crisis ends the volume of FDI will resume growth.

The impact of foreign direct investments is found to be negative and significant at 10% level. This means that with 1% increase of FDI premium written by foreign insurers would decrease by 0.12%. The negative sign is unexpected and in contrast to previous studies. Elango (2003) and Moshrain (1999) found positive relationship while Ma and Pope (2003) found insignificant impact. Our result suggests that foreign insurers that enter non-life insurance markets of ex-Yugoslavia region do not necessarily follow their clients. For example, we witnessed FDI decline in Serbia in 2007 yet at the same time Fondiaria Sai (Italian insurer focusing mainly on motor insurance) acquired second largest insurer, hence skyrocketing foreign insurers share from 22% to 59%.

Insurance demand (*ID*) as proxied by GDP per capita have marked constant growth in all countries during the observed period. However, the pace of GDP growth has decelerated in 2008 due to financial crisis. As with foreign direct investments, we assume that GDP will resume growth when crisis ends.

Insurance demand is found to have positive and significant influence at 1%. This means that with 1% increase in insurance demand, premium written by foreign insurers would increase roughly by 5%. This result is consistent with previous studies that suggest that with the increase of insurance demand increase the market becomes more attractive for foreign insurers' participation.

Model 2 focuses on market attractiveness when influenced by market competitiveness, entry barriers and their interaction and human capital. The results of the empirical analysis for *Model 2* are presented in Table 3.

Table 3.

Parameter estimates from *Model 2*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EB	34.92526	20.01428	1.745017	0.2231
MC	10039.93	5629.85	1.783338	0.2165
MCEB	-170.9916	96.08352	-1.779614	0.2171
HCI	297.8919	106.4042	2.799626	0.1074
R-squared	0.90661	Mean dependent var		38.60707
Adjusted R-squared	0.533048	S.D. dependent var		23.7308
S.E. of regression	16.21618	Sum squared resid		525.929
F-statistic	6.471827	Durbin-Watson stat		3.600398
Prob(F-statistic)	0.136762			

Note: Dependent Variable: FP.
Source: authors' calculations

To control for the influence of barriers to entry (EB) we use Index of Economic Freedom that we observe for the period 2004-2008. In the period of interest we noticed that all countries have showed mild upward tendency. However, being calculated as an average of ten variables it is difficult to predict future values, even though we can assume that index values will not have extreme fluctuations and will move toward improvement as financial crisis have not created institutions crisis, for example. Regarding market concentation, measured by Herfindahl-Hirschman Index, we notice that all regional markets are highly concentrated, with the exception of non-life insurance market of Bosnia and Herzegovina. However, we observe gradual changes towards increased market competitiveness.

First three variables are found to be significant at 10% level. Entry barriers (*EB*) and market concentration (*MC*) have positive impact on market attractiveness, although MC has stronger impact. Additionally, interaction term *MCEB* is found to be negative. Treating the *EB* as an exogenous variable, we find that the increase in *EB* decreases *MC*. This means that with the increase of liberalisation the market attractiveness decreases. This result is unusual and inconsistent with previous studies that have not focused on countries of ex-Yugoslavia region. However, we found support for our assumption stated in theoretical background that in markets that are more concentrated dominant market players may inhibit open competition.

Human capital index (*HCI*) measured by the weighted average of adult literacy rate, secondary and tertiary school enrolement shows mild yet steady growth throughout the region during the observed period. As the data for Serbia and Bosnia and Herzegovina are limited we cannot determine the changes of HCI in these countries. We assume that this index will show growth in the future for the region as whole despite the possible negative effects of the financial crisis.

Human capital is found to have positive impact on market attractiveness and is significant at 5% level. When comparing significance levels of explanatory variables in *Model 2* we see that human capital is the major determinant of market attractiveness to foreign insurers. The sign of HCI is in line with previous studies (e.g. Outreville, 2008).

6. CONCLUSION

This research study examines factors affecting attractiveness of non-life insurance market of ex-Yugoslavia region for foreign insurers for the period 2004-2008. The region encompasses non-life insurance industries in five countries: Bosnia and Herzegovina, Croatia,

FYR Macedonia, Serbia and Slovenia. We use two empirical models. Model 1 captures the impact of market profitability, insurance demand and foreign direct investments on market attractiveness. Model 2 focuses on market competitiveness, barriers to entry and human capital when explaining market attractiveness. The research results indicate that the main forces affecting market attractiveness are insurance demand and human capital, both having positive impact.

These results are important for local governments that wish to increase domestic non-life insurance market competitiveness and capacity, achieve foreign investments inflows and more affordable and available insurance for all. Foreign insurers bring not only additional insurance coverage capacity but also expertise in underwriting, claims handling, loss adjusting, marketing and investments, which could facilitate not only coverage of large risks but also increase in the amount of insurance premium per capita and the volume of invested assets in capital markets. Generally, local governments may use competitive and libaralising policies that could promote or restrain foreign insurers entry. These findings could improve the knowledge of the policymakers of how government policies should be targeted in order to increase or decrease foreign companies' participation.

Having considered the empirical result of our study that growth of GDP and the level of education have positive effect on market attractiveness, governemtns should focus primarily on these two factors. The measures that local governments can use to increase GDP could encompass lowering government expenditures, subsidising activities that lead to improvement in the level of gross capital formation and human capital and lowering administration burden for foreign but also domestic companies in all spheres of the economy. Human capital depends on literacy rate, secondary and tertiary school enrolement. As literacy rate is already at the high level and covered by primary education, which is obligatory in all countries of the region and freely available as well as secondary education, governments should focus on tertiary school enrolement. Measures that governments could use in promoting tertiary level of education may include subsidies to universities and scholarships offering in cooperation with private sector.

Additionally, research results could provide foreign insurance companies an invaluable insight in the characteristics of non-life insurance markets across ex-Yugoslavia region and facilitate their decisions whether to participate or not. The results are useful for both foreign and national insurers to anticipate consequences of possible changes in government policies that will aim to decrease or further increase foreign insurers' presence.

Possible limitation of the research results could be the absence of integral model due to small number of observations. Furthermore, information costs, usually measured by geographic and cultural distance between host and home country, have been omitted due to the lack of relevant data. Further research should focus on the overcoming of the above-mentioned limitations.

NOTES

1. Mandatory cessions will be abolished when Serbia becomes member of the World Trade Organisation. Serbia is in negotiation for WTO membership from 2005.
2. Insurance density is the ratio of annual gross written premium and total population within a country.

3. Insurers can participate in foreign markets either through cross-border or establishment trade (Skipper and Kwon, 2007). Cross-border trade exists when insured domiciled in one country purchases insurance coverage from insurer that is domiciled in another country. Establishment trade exists when insured and insurer are domiciled in the same country. We limit our discussion here on establishment insurance trade.
4. We apply 0 to insurance markets where HHI is less than 1800 and 1 otherwise.
5. *MCEB* is obtained by multiplying *MC* and *EB*.
6. Countries included in our analysis are Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Slovenia and Serbia. Montenegro was omitted due to lack of relevant available data.

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ODREDNICE PRIVLAČNOSTI OSIGURAVATELJSKOG TRŽIŠTA ZA STRANA ULAGANJA: SLUČAJ BIVŠE JUGOSLAVIJE

SAŽETAK

Cilj ovog rada je ispitati utjecaj faktora na atraktivnost tržišta neživotnog osiguranja za strane osiguravače u slučaju regiona bivše Jugoslavije. Podaci obuhvataju pet zemalja regiona u periodu 2004-2008. godine. Koristimo metod grupisanih najmanjih kvadrata za panel podatke sa fiksnim efektima i time kontrolišemo potencijalni utjecaj skrivenih promenljivih sa posmatranim nezavisnim promenljivama u regresiji. Rezultati istraživanja ukazuju da ključni faktori koji utiču na atraktivnost tržišta uključuju tražnju za osiguranjem, tržišnu konkurentnost i ljudski kapital. Ovi rezultati pružaju korisne informacije lokalnim vladama kao i osiguravačima, kako domaćim tako i stranim.

Ključne reči: *globalizacija, neživotno osiguranje, atraktivnost tržišta, ex-Jugoslavija*